

Free Ensemble Improvisation

Free Ensemble Improvisation

Harald Stenström

Academy of Music and Drama
Faculty of Fine, Applied and Performing Arts
University of Gothenburg

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Dedicated to Anne-Catherine, my parents and my children

Abstract

Title: Free Ensemble Improvisation

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Keywords: aleatorics, artistic research, attractor state, central tone, chaotic systems, collective understanding, comprovisation, conceptual model, directed motion, ensemble size, feedback and feedforward, free ensemble improvisation, gesture, importance of rhythm, indeterminacy, interactional skill, listening skill, musical evaluation, musical interaction, musical maturity, musical chemistry, musical interpretation, musical composition, non-idiomatic improvisation, rhythmic flow, sound properties, stylistic influences

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The aim of this doctoral project has been to study so-called non-idiomatic improvisation in ensembles consisting of two or three musicians who play together without any restrictions regarding style or genre and without having predetermined what is to be played or how they should play.

The background to this thesis has been the author's own free improvising, which he has pursued since 1974, and the questions that have arisen whilst music-making. The thesis takes three of these questions as its point of departure:

- what is free ensemble improvisation, what characterizes free ensemble improvisation and how can it be defined
- how does free ensemble improvisation relate to:
 - – instrumental technique
 - – idiomatic improvisation and stylistic influences
 - – composition
 - – interpretation
 - – aleatorics and indeterminacy
 - – different types of systems (e.g. biological, social, dynamic/chaotic systems)
- what might a conceptual model as a theoretical base for free ensemble improvisation look like?

The artistic/performative part of this research project has primarily consisted of public concerts, as a result of longer/shorter periods of cooperation with four permanent and a number of temporary (ad hoc) ensembles.

The results provide a better understanding of what free ensemble improvisation is, in what respects it differs from other forms of music-making and how it can be defined. Free ensemble improvisation's relations to the points mentioned above were found to be more multifaceted than expected. However, it was possible to attain a basic two-layered conceptual model as a theoretical base for free ensemble improvisation and, in its extension, as a basis for the analysis of free ensemble improvisation.

The study includes numerous concert projects, of which several are recorded and included in this book on two CDs with MP3 files.

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Foreword

This thesis has been written within the discipline: Musical Performance and Interpretation at the Academy of Music and Drama, at the Faculty of Fine, Applied and Performing Arts, the University of Gothenburg. Its target audience is primarily myself, since my original (and ever-ongoing) underlying driving force has been to better understand and structure what I have been doing musically for more than 30 years. Apart from this, it is, of course, my hope that others, and among these chiefly other free improvisers, may find out something constructive from this thesis, as a contribution to their own activity.

I would like to thank my supervisors Magnus Eldenius and Johannes Landgren who, very tactfully, have allowed me to find my way, and when it has been called for, have contributed suggestions that have made the work better. Your comments have always been made constructively.

I would also like to thank my friends and acquaintances, all of whom have contributed comments and advice, even these constructive. The value of constructive criticism within the realm of artistic research cannot be underestimated, since artistic research really means that one, through one's own artistic work and reflections on it, opens oneself to inspection and criticism. And, in the final analysis, it is I who am my own object of research.

My thanks also go to all the musicians I have met over the years. Nobody has taught me more about free improvisation than you. There are a great number of you, and if I were to begin counting names, I would certainly forget at least one person, which is why I choose to refrain.

My sincere thanks go to George Kentros and Lynn Preston for their invaluable help with the translation of this thesis.

As is customary in these contexts, one should also thank one's life companion for their patience. This applies at least as much in this case, and also includes a markedly reduced financial situation during the years this project came to fruition. Thank you Anne-Catherine – without you, there would be no thesis!

Intro

1 The path

I came to Gothenburg at the end of the 1960s to study. Within a few weeks I was also, due to circumstances that are still unclear to me, engaged as a bass player in some smaller ensembles, as well as being a conductor and arranger for a wind orchestra. This latter job was one of the reasons for me becoming interested in free ensemble improvisation.

Back then, before the advent of computer note-writing programs, arranging for a large orchestra entailed first writing out a score, and then writing everything once again as individual parts. This was quite a time-consuming procedure since everything was written by hand. When the arrangements were transformed into music, one or both of two things almost always occurred: not all the necessary musicians were present (it was an amateur wind orchestra), and/or those musicians who were present couldn't play the arrangement the way I had wanted. Both phenomena provoked the questions of whether one might be able to make music in an ensemble without written notes, and without being dependent on a certain combination of instruments or the technical level of the musicians.

Another reason was my job as a teacher of music theory at what was then called SÄMUS (the first higher education programme in music in Sweden where not only art music and classical music from the western world was sung and played, but where jazz, folk music, pop music and rock music, among other genres, were also important expressions of music). There, I met people who had been exposed to the free improvisation wave that was established in the US and Europe at that time (early 1970s). The phenomenon was interesting enough in itself, and pointed, at the same time, to a possible answer to the questions posed in the above paragraph.

Therefore, in 1974, some like-minded musicians and I formed a free improvisational big band. None of us had that much experience of free improvisation, but that didn't worry us particularly. My experience from this group was that it was possible to make music in a meaningful way in an ensemble, and even in a large ensemble, without sheet music, without being dependent on all musicians being there every time, and together with musicians of varying technical levels. The ensemble existed for a few years but gradually broke up, since the musicians chose other paths or different ensembles, as well as due to a lack of any specific projects.

This initial experience whetted my appetite and was followed by several ephemeral smaller/small free improvisation ensembles and even more temporary jams.

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During the 80s, I also became interested in free ensemble improvisation in vocal form. The voice, our most central instrument, is, however, so close to us that free vocal ensemble music-making turned out to be personally stressful. In these free vocal improvisations, it was sometimes painfully clear that it was one's own little unprotected self, that one put out on show. Sheet music and/or instruments can, in instances like these, work as a shield, putting something between oneself and others (e.g. between oneself and one's co-musicians / one's audience). It demands great courage to 'push the limits', but it is also, paradoxically enough, much more difficult to do something halfhearted vocally than it is to do it instrumentally.

These experiences made me reflect on who one really is as a musician and human being, reflections that contributed to both musical and personal development. Seen from this perspective, perhaps all musicians should, at some point in their lives, go through a period of free vocal ensemble improvisation (the context allows all voice qualities to be good enough). However, these processes of human and musical self-examination exist, and existed, even when freely improvising on an instrument, an observation that, as has been corroborated through conversations, holds true not only for me but for most improvisational musicians with whom I have spoken. (see 6.1.2 Ensemble)

In the 1990s, I gradually returned to instrumental free ensemble improvisation, and participated in small temporary ensembles and jams. At the end of the 90s, a free improvisation big band was once again formed, with some of the same musicians as during the 70s. The maturing process that took place during the more than 20-year interval manifested itself clearly (more on this below). However, even this band was eventually dissolved, and for basically the same reasons as the one from the 70s.

In 2001, I began this research project, which overlapped with the free improvisation big band for three years. Since then, my music-making has only taken place in smaller ensembles, sometimes relating to, and sometimes wholly separate from, my work on this project.

My music-making has, with very few exceptions, taken place in Gothenburg. That I have not searched around the world, or even outside of Gothenburg, for contacts and gigs has, of course, lowered me a few rungs on the name-dropping ladder. As compensation, the excellent improvisation musicians I have met at home make that loss miniscule. Nor do I believe that freely improvised music sounds so different or gives one that much more if one plays in New York or London than if one plays in Gothenburg. Finally, I think it's nice to avoid travelling around, since travelling steals time from work. This latter state of affairs has been possible because since 1974 I have had my job as a teacher in music theory as an economic base. This base has also given me the option of more or less freely choosing when, with whom, and, to a certain extent, where I want to play, a possibility that I have come to appreciate more and more through the years.

Achieving honour, fame and economic rewards through free ensemble improvisation are rather utopian ambitions for music-making of this kind. I have actually never met a mature free improviser who has had these ambitions, either. What free ensemble improvisation gives me, instead, consists of an artistic, a pedagogical and a therapeutic component.

The artistic component of free ensemble improvisation has to do, in some way, or rather in the way of the participating musicians, with creating as good music as possible.

The pedagogical component has to do with free ensemble music-making being a music school in itself: instrumentally, form- and material-wise (gestures, processing of gestures, etc.), and not least the listening aspect, since what one hears is the only musical information that is available. This latter aspect also contributes to the development of musical attention and memory. What the therapeutic component is about has already been touched upon in the form of human and musical self-examination. Fortunately enough, this component has, moreover, proved to be a tonic for my soul. I have sometimes been rather tired and unenthusiastic when I have arrived at improvisation sessions, but gone from them with a lighter step and with more energy.

Finally, free ensemble improvisation comprises, or rather is, musical interaction in real-time through the meeting with other musicians, an opinion that is the most prominent strand of thought throughout this entire thesis. The three components outlined above are a part of this interaction. (see 6.3 Definitions)

2 Questions, method and disposition

Questions

From the beginning, this research project has had three fundamental questions: 1) what characterizes free ensemble improvisation; 2) how does free ensemble improvisation relate to other phenomena such as e.g. composition, aleatorics, indeterminacy etc.; and 3) what might a conceptual model as a theoretical basis for free ensemble improvisation look like?

I call these three questions fundamental questions. To each fundamental question, belong several related questions. Some of them were there from the beginning, and some of them grew out of my work on this project. The questions are shown here and treated within parts I–III. The answers are summarized in the Outro.

What characterizes free ensemble improvisation? (part I)

What are the differences between solo and ensemble improvisation apart from the obvious numerical difference? (section 6.1.1 Solo – ensemble)

Can one find any central/general viewpoints on free ensemble improvisation and the effects it can have on its practitioners? (section 6.1.2 Ensemble)

What characterizes short-term and long-term collaboration, respectively?
(section 6.1.3 Short-term – long-term collaboration)

Is there an ideal size for a free improvisation ensemble?
(section 6.1.4 Ensemble size – large ensembles – directing)

What characterizes large free improvisation ensembles?
(section 6.1.4 Ensemble size – large ensembles – directing)

Which principal methods of directing exist for free ensemble improvisation, and what effects does directing have on the latter? (section 6.1.4 Ensemble size – large ensembles – directing)

What importance does listening have in general in free ensemble improvisation?
(section 6.2.1 Listening)

How does my listening work in free ensemble improvisation? (section 6.2.1 Listening)

Which sound properties do I relate to, and how do they function within my listening?
(section 6.2.1 Listening)

Which relations do I account for in my listening?
(section 6.2.1 Listening)

What are gestures and sections? (section 6.2.1 Listening)

How does the individual improvisational process take place in free ensemble improvisation?
(section 6.2.2 Process)

What do the terms interaction, communication and conversation mean in free ensemble improvisation? (section 6.2.3 Interaction – communication – conversation)

Which ways of interaction occur in free ensemble improvisation, and which connections are there between ways of interaction and relations?
(section 6.2.4 Ways of interaction – relations – complexity)

What affects complexity in free ensemble improvisation?
(section 6.2.4 Ways of interaction – relations – complexity)

How can free ensemble improvisation be defined? (section 6.3 Definitions)

What is intuitive music? (section 7 Intuitive music)

What does the word 'free' mean in free ensemble improvisation?
(section 8 A word about freedom)

How can free ensemble improvisation be evaluated? (section 9 Evaluation)

How does free ensemble improvisation relate to . . . ? (part II)

How does free ensemble improvisation relate to instruments?
(section 12 Free improvisation – instrument, technique and virtuosity)

How does free ensemble improvisation relate to technique?
(section 12 Free improvisation – instrument, technique and virtuosity)

How does free ensemble improvisation relate to virtuosity?
(section 12 Free improvisation – instrument, technique and virtuosity)

What skills are important in free ensemble improvisation?
(section 12 Free improvisation – instrument, technique and virtuosity)

How does free ensemble improvisation relate to idiomatic improvisation?
(section 13.1 Free improvisation – idiomatic improvisation)

How does free ensemble improvisation relate to stylistic influences?
(section 13.2 Free improvisation – stylistic influences)

How does free ensemble improvisation relate to composition?
(section 14.1 Differences, 14.2 Similarities)

How does free ensemble improvisation relate to mixed forms of improvisation and composition? (section 14.3 Mixed forms)

How does free ensemble improvisation relate to interpretation?
(section 15 Free improvisation – interpretation)

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How does free ensemble improvisation relate to aleatorics – indeterminacy?
(section 16 Free improvisation – aleatorics – indeterminacy)

How does free ensemble improvisation relate to system analogies?
(section 17 Free improvisation – system analogies)

What might a conceptual model as a theoretical basis for free ensemble improvisation look like? (part III, section 18, 19)

Method

If there is to be any point in the term artistic research, it must contain something other than that which is only called art. (Grahn-Hinnfors 2000)

[Ska det vara någon vits med begreppet konstnärlig forskning måste det innehålla något annat än det som enbart kallas konst. (Grahn-Hinnfors 2000)]

For me, artistic research is when a practicing artist researches his own practice, his own *performance*. This assumes that the researcher/interpreter, besides performing, also *reflects* on his artistic work.

These reflections must also be put into a context consisting of the reflections of other practitioners and/or non-practitioners concerning their own and/or others' performance(s), and/or reflections concerning related phenomena that, for various reasons, can be seen as relevant to one's own performance and/or reflections on it. One's own reflections must be *related* to the reflections of others.

Finally, performance, reflection and relating, where the latter may well give birth to more reflections, must be *represented* in some form. The choice of the form(s) of representation must, of course, be adapted to the characteristics of each respective art form but also to what the respective researcher/artist himself feels is a fitting form of representation.

My performance consists of participation in free ensemble improvisations. Some of these are recorded. The recordings are live recordings, that is, recordings of concerts that have had an audience. They are, with certain exceptions, made with quite simple equipment: a DAT tape recorder (Sony TCD-D8) and a stereo microphone (Sony ECM-MS957). The sound quality and the dynamic balance between the instruments are, of course, affected by this; however, this is a price I was willing to pay in order to capture the direct live situation as much as possible without being disturbed by obtrusive studio equipment. The musicians have sometimes not even been aware of the fact that the concerts were being recorded. Other recordings besides my own recordings are the recordings from 25th October 2001, 13th May 2004, 26th November 2004 and 24th March 2005, which were recorded by the Academy, using two better microphones. The recordings are supplied in the MP3 format. (see appendix A1 Overview of concerts, recordings and presentations)

My reflections are not limited to the project period (2001-2005); rather, they stretch from 1974 to the present day, and will hopefully continue into the future. The reflective

process has, however, become more intense during the project period. Generally speaking, the reflections in this written part of the research project can be seen as an accumulated report on the present, since I do not have so many reflections represented in writing from earlier times. The time span of the reflections does, however, result in my not being able (nor do I find it especially interesting) to corroborate statements or ideas about free ensemble improvisation with direct references to specific places on a specific recording; the perspective of these reflections is much longer than this.

The reflections of others, to which I have related my own, have been taken from the literature. This can be roughly divided into doctoral theses, books and articles. The number of theses with free ensemble improvisation as their subject is not great. As far as I can tell, most of these are found in my list of references. In other words, free ensemble improvisation is a young/small area of research. The river of books and articles on the subject is not so enormous, either, and may rather be likened to a still creek. I have limited myself to seeking the reflections of others in written form because I have judged these to be generally more well thought-out than answers to interview questions. The exceptions are certain articles that consist of interviews with improvising musicians. The choice of literature has sprung from my research questions, and, within the framework of these questions, from my own subjective interests and values. During the course of this project, I have, however, sometimes happened upon literature that has contained reflections that did not have anything directly to do with my research questions but which I have found to be of interest as complementary information, and to which I therefore have also related reflections towards. These reflections can be seen as bonus material by those who, like me, find them interesting, and as unnecessary material by everyone else. This pertains to sections:

- 3 Reasons for improvising freely
- 4 Personal prerequisites
- 5 Background of free improvisation
- 10 Spiritual aspects of free improvisation
- 11 Three poems on improvisation (no personal reflections on this section, however)
- 19.1.2 More about objects
- 19.2.2 More about properties
- 19.3.2 More about relations.

Starting with my own performance, the work method can be described as follows:

my reflections on my performance	are being related to	the reflections of others on their and/or others' performance(s) and/or on related phenomena.
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My own reflections and the reflections of others are represented in written form below.

INTRO

There is no logical way to discover the elementary laws – there is only the way of intuition – based on feeling and living the experience.¹ (Gyllensten 2004: 82)

[Det finns ingen logisk väg för att upptäcka de elementära lagarna – det finns bara intuitionens väg – grundad på inlevelse i erfarenheten. (Gyllensten 2004: 82)]

My statements and/or musings on free ensemble improvisation spring from precisely this: “intuition – based on feeling and living the experience”. My reflections are pervasively based on practice, they are the reflections of a practitioner.

From this point on, the terms *improvisation* or *free improvisation* are used synonymously with *free ensemble improvisation* unless otherwise specified.

Disposition

Here, the term disposition means the way the written part of the thesis is organised. Between the Intro and Outro are parts I–III. Each section within these three parts is itself in three parts and begins with references to the reflections of different authors that I felt were relevant to the section. These references comprise my own interpretation of the respective author. In references that consist of one paragraph, the author, year and page number are supplied at the end of the paragraph. If the references consist of more than one paragraph, the author and year are supplied at the beginning of the first paragraph, and page numbers at the end of each paragraph. For the sake of clarity, the references are shadowed.

After the references come summaries combined with my own reflections, where the summaries consist of excerpts from the references that I have taken an interest in. The summaries are presented in point form, with one indentation and with smaller font size. If more than one summary category occurs within one section, the categories are marked with capital letters. My reflections on the summaries come directly after each respective summary(-ies) with normal font size and without indentations. The exception to this division into three parts within parts I–III is section 11 (Three poems on improvisation), which stands alone.

Sometimes, my reflections contain references/quotes from other authors. When this is the case, it is because I have felt that these texts did not have a natural place among the references under the title of each section but had a function within my reflections. These references/quotes are indented paragraphs, shadowed and are marked with an asterisk (*). The quotes that are included, both in the references and in my reflections, are marked with quotation marks as usual, or take the form of free paragraphs with three indentations and smaller font size.

The organization of the sections within parts I–III can be likened to a free ensemble improvisation, where the references are my ‘co-musicians’. I discovered this afterwards,

¹ From Gerald Holton: “Mach, Einstein and the Search for Reality”, *Thematic Origins of Scientific Thought*, Harvard University Press, 1973. First published in *Daedalus*, Spring 1968.

and came to appreciate this as an extra quality in this thesis, which is why I kept it. The different parts can be seen as sections, with the sections under each respective part as sub-sections. Or, conversely, the sections can be seen as sections and the parts as meta-sections. This form does not, however, hold for the part of the thesis that precedes part I, nor for the part of the thesis that follows part III.

The three-part division of each section can be seen as something similar to the improvisational process as it is described in section 6.2.2 (Process). The references correspond to what I hear from my co-musicians (step **i**); the summaries are how that which is heard is processed (step **ii**); and my reflections are what I, myself, do (step **iii**). Seen from this perspective, both the references and my reflections can be seen as gestures within each respective section, and the summaries as that which I relate to from the 'reference-gestures'.

If one wants, one can, in this text, also find the material relation 'repetition' in the form called 'recurrence' (see 19.3.2 More about relations), which applies, for example, to the 'motive/gesture' musical interaction. If one wants, one can also read a musical analogy in the division into fundamental questions and partial questions; in the same way that partial tones colour fundamental tones, the partial questions colour the fundamental questions.

Once during this thesis project, I was asked what this way of writing contributes. There are at least three answers to this question. The first is that it does not contribute anything at all, but simply makes the text more difficult to understand. The second is that it is just an alternative way of writing that I prefer among other alternative ways of writing. The third is that through this manner of writing, both form and content shed light on the subject, each in their own way, and that therefore they complement one another. I prefer the third answer, even though the consequence of this way of writing may make comprehension of the text more difficult, since it is, for example, more difficult to begin reading randomly in the text without having read this section first. But why should a text about something that, in itself, can be rather complex, be easy to understand, especially if even the form of the textual organization attempts to shed light on the complexity of the subject? Apart from the third answer, I found certain indirect support for keeping this writing style after having read *Mot metodtvånget*² and *Artistic Research*³. In the former book, this is thanks to its undogmatic approach to research in general, and in the latter, thanks to the undogmatic attitude that is adopted towards artistic research in particular.

As a consequence of this method, the reflections, both of others (references) and of mine, are allowed to stand independently. This may also increase the chance of the reader drawing different conclusions and of his reflections differing from mine. This would be a positive development since my goal has not been to state what free ensemble improvisation is per se, but rather to attempt to explain what it looks like to me at least.

² Paul Feyerabend. Arkiv, Lund. Original title: *Against Method*. Transl. Thomas Brante and Cecilia Hansson, 2000. ISBN 91 7924 117 4.

³ Mika Hannula – Juha Suoranta – Tere Vadén. Academy of Fine Arts, Helsinki and University of Gothenburg / ArtMonitor, 2005. ISBN 951-53-2743-1.

INTRO

This text should therefore be seen as a contribution to a dialogue-based striving towards understanding and explication, with a parallel striving towards a dialogue-based evaluation, which is named in section 9 (Evaluation). It would be unfortunate if this striving ever reached its goal, but I do not think there is any great risk of this happening.

The independence of the references also highlights the independence of their content. Even though the references are my own interpretations of my 'co-musicians', my goal has, of course, been to understand and reproduce each 'co-musician's' opinion(s), not to put my own words in their mouths. I have, therefore, as far as possible, used the respective author's own words. My inclusion of these references does not, however, mean that I automatically agree with nor disagree with their content – it only means that I have found them relevant to their respective sections. I listen, so to speak, to my co-musicians and let them speak for themselves. For this reason, I have, in my reflections, shown various degrees of sympathy for the opinions in the references I have 'processed'. I choose to say this because reactions from readers during the course of this work have shown that this has not always been understood.

The critical view of notation and notes that sometimes comes across in the references and in my reflections has also sometimes led to two misunderstandings. The first, based partly on the misunderstandings mentioned in the previous paragraph, depends on the belief that I want to erase notes and notation from music. The second, which is also dependent on the first, depends on the suspicion that I might think so because I myself have a difficult relation to notes.

This critical view towards notes/notation is not, however, meant to eliminate them – which, by the way, would be both meaningless and also destructive, besides the obvious fact that a free improviser obviously cannot fight against plurality – but rather strives for a more balanced view of the value of notation and the value and weight of its sounding result in relation to improvised music. Not least, this critical view is meant to create a more reasonable balance between mostly self-appointed evaluators for the evaluation of the respective methods of making music directly or indirectly, and the results of these methods. It goes without saying that one cannot judge one method with the evaluative conditions of another.

The second misunderstanding is parried by the fact that, be it ever so uneven, I have a note-based education in song, piano-, viola-, double bass-, trombone- and tuba-playing, arranging and conducting; that I have worked as a musician, arranger and conductor in note-based contexts, and that I have, since 1974, made my living as a teacher, mostly of music theory (harmony, counterpoint, arranging, etc.). (see 1 The path)

I Free improvisation

3 Reasons for improvising freely

REFERENCES

Steve Lacy, interviewed by Bailey, improvises because there exists in it

a freshness, a certain quality, which can only be obtained by improvisation, something you cannot possibly get from writing. It is something to do with the 'edge'. Always being on the brink of the unknown and being prepared for the leap. /.../ If through that leap you find something then it has a value which I don't think can be found in any other way. I place a higher value on that than on what you can prepare.
(Bailey 1993: 57–58)

For Briggs (1986), “the values of improvisation are to be found in the experience of its creation”. (p. xii)

Improvisation “develops concentration, memory and musical skills that have broad applications in both compositional and performance practice”. (p. x)

Interviewed by Carlsson, Johannes Bergmark sums up his reasons for improvising. For him [free] improvisation is:

- the most exciting way of making music, where he can come close to the sources of music, reach a physical direct contact with the sounds, be present in the meeting, in the situation
- a meeting place, where it is possible for the freedom, the moment, and the beauty to become identical
- an adventure in real-time where people meet as equal, creative individuals
- a room where one can expand freedom, and research freedom's possibilities.

(Carlsson 1999: 20–21)

Tony Oxley has, according to Dean (1989), “no reservations about the value of improvisation”. For him it has been “the single most liberating factor of my life; socially, politically, and musically”. Derek Bailey, according to the same author, feels that improvisation “has no need of argument and justification. It exists because it meets the creative appetite ... and because it involves [the musician] completely, as nothing else can, in the act of music-making”. (p. xvi)

I FREE IMROVISATION

Dean has himself two reasons for improvising: “first, for personal fulfillment, self-development, and the creation of originality in music. Second, and not necessarily opposed to the first, in order to communicate something with others (the other musicians, and the audience)”. (p. 112)

In Exploratorium (2005), eight reasons are given for improvising:

- *One can learn to improvise at any level; as a beginner, without previous instrumental education or knowledge of notes, and as a professional musician
 - *For laymen, improvisation is a possibility to discover and develop further hitherto hidden talents
 - *For trained musicians, improvisation can provide wholly new and stimulating experiences
 - *Improvisation is especially suitable for people who are disabled, and feel limited because of their disability, and whose development will improve when they formulate their own thoughts
 - *Improvisation offers access to an individual musical expression
 - *Group improvisation enables the joint discovery of new possibilities and musical exchange together with others
 - *One can improvise within any thinkable or unthinkable combination of instruments
 - *Improvised music is especially captivating due to its liveliness and authenticity. It is also exciting as a concert form.
- [*Man kann auf allen musikalische Niveaus improvisieren lernen: als „blutiger“ Anfänger, ohne instrumentale Vorbildung und Notenkenntnisse ebenso wie als Profi und versierter Instrumentalist
- *Gerade für musikalische Laien ist das Improvisieren erfahrungsgemäß eine Möglichkeit, eigene (häufig bisher verborgene) musikalische Fähigkeiten zu entdecken und weiter zu entwickeln
 - *Für geübte Musiker kann Improvisation ganz neue und reizvolle musikalische Erfahrungen vermitteln
 - *Besonders geeignet ist Improvisation für Menschen, die sich durch enge Vorgaben eingeeignet fühlen und sich beim Formulieren eigener Gedanken besser entfalten können
 - *Improvisieren bietet Zugang zum eigenen musikalischen Ausdruck
 - *Das Improvisieren in der Gruppe ermöglicht gemeinsames Entdecken neuer Möglichkeiten und musikalischen Austausch im Spiel
 - *Improvisiert werden kann in jeder denkbaren und undenkbaren Besetzung
 - *Improvisierte Musik besticht insbesondere durch ihre Lebendigkeit und Authentizität. Das macht sie auch als Konzertform spannend.]

Yet another reason for improvising, given in Exploratorium, is that the classical musical culture is almost exclusively based on notated music – which conceals the fact that the original form of music, which is still the most important musical praxis in many countries, is improvisation.

Globokar, quoted by Griffiths, has 13 reasons for engaging in free improvisation:

a need for liberation, a search for a new musical aesthetic, a provocation, a wish to work collectively, to develop his instrument, to amuse himself, a political or social engagement, the wish to belong to an élite capable of improvising, a way of evaluating himself, a way of expressing himself not only through sounds but through his physical comportment, a need to create a contact (and that the most direct possible) with the audience, a need to give free rein to his imagination (without being obliged to spend hours of a reflection at a worktable), and many other things.⁴ (Griffiths 1986: 242)

Haapala sees improvisation as a chance to get a glimpse of true happiness. To dare to enter into something, the outcome of which is not clear from the outset, and feel the vertigo of infinite possibilities. To improvise is for him to open the lid of one's innermost immediacy and let its power guide the direction of the tones. (Haapala 2002: 64)

“What was important to me was finding my own musical voice, which I believe is essential to becoming an improviser.” (Oliver 1993: 23)

Sato feels that the most powerful reasons for improvising are:

- “communication”, where communication means that “between improviser and audience, between improvisers themselves (in group improvisation), and between improviser-instrument”
- “unpredictability” (“Even the most experienced improviser cannot tell *exactly* what will happen in his/her improvisation”)
- “self-identifying” (“Through improvisation, one can learn one's own tendency, limit, taste and so on, in action, since the entire creation comes from within oneself. It is also a way to discover other parts of oneself.”)
- “freedom, release” (“Improvisation can be an opportunity for a performer to depart from the restrictions of a score. Some may regard improvisation as a catharsis for musicians whose desire is more than a reproduction of prearranged music. That there are no specific rules set in improvisation can be an appealing factor not only to improvisers but also to audiences.”). (Sato 1996: 5–6)

For Tuominen, the arguments for improvisation are that it contributes to the communication between the musicians, that it includes a striving away from authoritarian symbols in the communication that are culturally conditioned, and that it is a democratic music form since anyone can use the method. (Tuominen 1998: 27)

⁴ 'Ils improvisent . . . improvisent . . . improvisons', *Musique en jeu*, 1972, 6: 13-19, 123-4

SUMMARIES AND REFLECTIONS

In section 1 (The path), I presented reasons explaining why I became interested in free ensemble improvisation. The reasons can be summarized as follows:

- a- curiosity
- b- the desire to be able to make music in an ensemble without being bound by notes
- c- the desire to be able to make meaningful music together with musicians who have varying levels of technical skill
- d- the desire not to be bound to a particular combination of instruments but to be able to make meaningful music in different kinds of combinations of instruments.

Free ensemble improvisation was summarized as:

- e- musical real-time interaction with
- f- – an artistic
- g- – a pedagogical and
- h- – a therapeutic component.

The point of the summary of points e-h is that they have gone from being insights into becoming reasons for free ensemble improvisation. Taken together, then, my reasons for improvising freely in ensemble are points a-h.

A. Reasons relating to points a-h:

- 1- freedom, release (departing from the restrictions of a score, a catharsis for musicians whose desire is more than a reproduction of prearranged music, no specific rules) (Sato 1996)
- 2- a striving away from authoritarian symbols in the communication that are culturally conditioned (Tuominen 1998)

Points 1 and 2 correspond to point b (freedom from notes).

- 3- a democratic music form (anyone can use the method) (Tuominen 1998)
- 4- one can learn to improvise at any level; as a beginner without previous instrumental education or knowledge of notes, and as a professional musician (Exploratorium 2005)

Points 3 and 4 correspond to point c (varying levels of technical skill).

- 5- one can improvise in any thinkable or unthinkable combination of instruments (Exploratorium 2005)

Point 5 corresponds to point d (different kinds of combinations of instruments).

- 6- concentration, memory and musical skills develop (Briggs 1986)
- 7- to develop one's instrument (Globokar/Griffiths 1986)

Points 6 and 7 correspond to point g (pedagogical component).

- 8– self-identifying (one’s own tendency, limit, taste, discover other parts of oneself) (Sato 1996)
- 9– a way of evaluating oneself (Globokar/Griffiths 1986)

Points 8 and 9 correspond to point h (therapeutic component).

- 10– presence in the meeting (Bergmark/Carlsson 1999)
- 11– an adventure in real-time where people meet as equal, creative individuals (Bergmark/Carlsson 1999)
- 12– group improvisation enables the joint discovery and musical exchange together with others (Exploratorium 2005)
- 13– a wish to work collectively (Globokar/Griffiths 1986)
- 14– contributes to the communication between the musicians (Tuominen 1998)

Points 10–14 correspond to and enrich point e (musical real-time interaction). Here, I see musical interaction as synonymous with musical communication (see 6.2.3 Interaction – communication – conversation). Seen from this perspective, point 14 means that the activity of musical real-time interaction furthers itself, which is reasonable for and analogous to the idea of playing furthering playing, for example.

- 15– to communicate something with others (musicians, audience) (Dean 1989)
- 16– communication (improviser–audience, improvisers themselves, improviser–instrument) (Sato 1996)
- 17– a need to create a contact (and that the most direct possible) with the audience (Globokar/Griffiths 1986).

Points 15 and 16 correspond to point e (musical real-time interaction) in regard to co-musicians, instruments and audience. Here, however, I reserve the term musical communication/interaction only for co-musicians. Consequently, communication/interaction between an improviser and his or her instrument (point 16) then fall outside of the framework of point e. Rather, one uses instruments in order to communicate/interact. Using the same limit for this term, the audience also falls outside of the musical communication/interaction (points 15–17). The exclusion of instrument and audience is also due to the mutuality of the musical information transmission that is part of the definition of musical interaction/communication (see 6.2.3 Interaction – communication – conversation). Instruments do not act on their own, and the members of the audience are only recipients of musical information, although listeners can communicate their experiences to the musicians in other ways and react to what is happening musically.

B. Further reasons, more or less related to points a–h:

- 1– come close to the sources of music, reach a physical direct contact with the sounds (Bergmark/Carlsson 1999)

Free ensemble improvisation can be applied to the first part of point 1 since there is nothing more to relate to than the sounding music itself. Physical direct contact with the sounds does, however, apply to all forms of music-making.

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- 2- a liberating factor (socially, politically, and musically) (Oxley/Dean 1989)
- 3- a political or social engagement (Globokar/Griffiths 1986)

Free ensemble improvisation is a liberating factor musically, but I am more sceptical about the extent to which it can be a liberating factor socially and/or politically (point 2). I am also hesitant to claim that political and/or social commitments are good reasons for devoting oneself to free ensemble improvisation (point 3). Free ensemble improvisation may, however, be an expression of political/social liberation/commitment.

- 4- a need for liberation (Globokar/Griffiths 1986)
- 5- a room where one can expand freedom, and research its possibilities (Bergmark/Carlsson 1999)

Points 4 and 5 do not specify what kind of freedom is meant. If freedom here means freedom from notes, a certain level of technical skill, or given combinations of instruments, the opinions correspond to point b, c, and d, respectively. If freedom means something other than this, it might correspond wholly or partially to section 8 (A word about freedom).

- 6- a search for a new musical aesthetic (Globokar/Griffiths 1986)

Exactly what new aesthetics one is searching for is not specified. I make a distinction between outer aesthetics and inner aesthetics (see 6.1.1 Solo – ensemble). Outer aesthetics have to do with how the music sounds, and inner aesthetics with how the interaction works. If the searching for a new aesthetics leads to the music being allowed to turn out the way it turns out, and that one should strive for as good an interaction as possible, then this search has, according to my perspective, been successful. If the search for a new aesthetics has any other direction, it would be interesting to know of this.

- 7- a way of expressing oneself not only through sounds but through one's physical comportment (Globokar/Griffiths 1986)

From my perspective, it is not the physical behaviour/performance that is of interest in connection with free ensemble improvisation. It may have an influence on the music, but I prefer to separate the two modes of expression and see free ensemble improvisation as an expression through sounds.

- 8- to find one's own musical voice (Oliver 1993)
- 9- access to an individual musical expression (Exploratorium 2005)

It would be preferable to find or gain access to ways of interacting, which, however, demands some kind of voice and some kind of musical expression as a prerequisite. (points 8, 9)

- 10- the wish to belong to an élite capable of improvising (Globokar/Griffiths 1986)

I would not wish to belong to an elite but rather to like-minded improvisers. Accomplished improvisers do however, comprise an elite, in the same way that accomplished orchestral/solo musicians are an elite within the realm of 'classical' music.

- 11- a provocation (Globokar/Griffiths 1986)

A provocation against what? This is not stated. I can, however, imagine that free ensemble improvisation may be a provocation against, for example, the self-imposed status and values prerogative of the representatives of written/composed music with regard to what is 'good' or 'real' music, and perhaps even against the similar opinions of the representatives of idiomatic improvisation. If this is the case, I feel a certain sense of sympathy for this provocation.

- 12- to be on the 'edge' (being on the brink of the unknown and being prepared for the leap), finding something through that leap (with a value which cannot be found in any other way) (Lacy/Bailey 1993)
- 13- personal fulfilment, self-development, and the creation of originality in music (Dean 1989)
- 14- to amuse oneself (Globokar/Griffiths 1986)
- 15- a need to give free rein to one's imagination (without being obliged to spend hours of a reflection at a worktable) (Globokar/Griffiths 1986)
- 16- a chance to get a glimpse of true happiness, to enter into something the outcome of which is not clear at the outset and feel the vertigo of infinite possibilities (Haapala 2002)
- 17- open the lid to one's innermost immediacy and let its power guide the direction of the tones (Haapala 2002)
- 18- a freshness, a certain quality, which can only be obtained by improvising (and not by writing) (Lacy/Bailey 1993)
- 19- the experience of its creation (Briggs 1986)
- 20- the most exciting way of making music (Bergmark/Carlsson 1999)
- 21- a meeting place where it is possible for the freedom, the moment, and the beauty to become identical (Bergmark/Carlsson 1999)
- 22- meeting one's creative appetite (Bailey/Dean)
- 23- involving [the musician] completely, as nothing else can, in the act of music-making (Bailey/Dean 1989)
- 24- improvised music is especially captivating due to its liveliness and authenticity. It is also exciting as a concert form (Exploratorium 2005)
- 25- unpredictability (Sato 1996)
- 26- for laymen, improvisation is a possibility to discover and develop further hitherto hidden talents (Exploratorium 2005)
- 27- for trained musicians, improvisation can provide wholly new and stimulating experiences (Exploratorium 2005)
- 28- improvisation is especially suitable for people who are disabled and feel limited because of their disability, and whose development will improve when they formulate their own thoughts (Exploratorium 2005)

Here I have no objections, only the opinion that I see "self-development" (point 13) as a product of self-examination (point h – therapeutic component).

- 29- the original form of music (still the most important musical praxis in many countries) is improvisation (Exploratorium)

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This is not really a reason for improvising, but rather one explanation of why improvisation might be the most natural way of making music.

30- and many other things (Griffiths 1986).

Compilations such as these (points A and B) can probably, and hopefully, never be all-encompassing and applicable to all people, which is why point 30 is a fitting finale for these lists.

4 Personal prerequisites

REFERENCES

An improviser must have “a prodigious technique to be fluent, and he must possess a fertile creative imagination to be interesting”. (Ellis 1965: 1)

“The ability to detect patterns in sequences and expand on them is certainly very important to the improvising musician. Sequence extrapolation of a detected pattern is required to produce an ‘appropriate’ response to a given stimulus”. (Pelz-Sherman 1998: 69–70)

Sato (1996) asks which characteristics are required for music improvisation, and answers with six elements that contribute to a desirable music improvisation: “Curiosity, Listening Skill, Flexibility, Memory, Technical Proficiency and Concentration”. (pp. 7–9)

Curiosity

In art, what leads one to creation is curiosity. It is a desire to explore unknown worlds just as children do. It is not easy to maintain curiosity as one becomes more experienced because one begins to realize the dangers that curiosity might lead to. Yet, curiosity should be encouraged, for in music improvisation, the sense of danger can be the factor that allows one to create something interesting. (p. 7)

Listening Skill

Improvisation requires a different way of listening from that of a performance of a written piece, as is reflected in the words of classical hornist Philip Eastop who participated in the Company Week, improviser’s collective concert organized by Derek Bailey: “The difficulty is knowing how to approach improvising. And I had to evolve, very quickly, a new way of listening.” In the performance of a composition, a player is familiar with the sound he makes. In other words it is the expected sound that he recognizes from practice, whereas during improvisation, there may be many unpredictable sounds to deal with, especially in group playing, and the player has to develop extremely attentive listening. (p. 7)

Flexibility

When a player finds that something is not working effectively while improvising, he may need to quickly make a decision to change direction. The player must then adjust himself to a new situation while continuing to play. It is important to have this ability since the music cannot stop every time the player comes across unexpected situations. (p. 7-8)

Memory

According to trombonist, Yves Robert, “You also have to be able to remember what has happened the second before and the minute before and so keep in mind the shape of what’s happening, how the piece is being constructed.” One characteristic of improvisation is that a complete overview of a piece is not available before the performance. This requires that the performers pay special attention to the relation of the sound he makes at each moment to the rest of the piece. (p. 8)

Technical Proficiency

The more the improviser knows about his or her instrument and how to handle it, the greater number of choices. To have a certain level of facility makes it easier to approach

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many different types of improvisation. Being able to achieve any sound also gives more freedom in constructing a piece, for one will not be restricted from going in any direction. (p. 8)

Concentration

The amount of work an improviser deals with at a given time is much more than simply that of a notated performance, since improvising involves simultaneous creation and play. Therefore it is essential for an improviser to be able to focus on one's own sound and not easily get distracted. (p. 8-9)

SUMMARIES AND REFLECTIONS

An improviser must have:

- 1- a prodigious technique and a fertile creative imagination (Ellis 1965)
- 2- curiosity, listening skill, flexibility, memory, technical proficiency, and concentration (Sato 1996)
- 3- the ability to detect patterns and expand on them (Pelz-Sherman 1998).

The prerequisites under points 1–3 are related to one another. Listening skill is the base, the foundation, for free ensemble improvisation (point 2). Listening skill involves at least concentration, memory and the ability to identify patterns (points 2, 3), where the two first components are also prerequisites for the last, and for being able to develop identified patterns (point 3). Here, I consider patterns as gestures, together with their properties and relations. The development of patterns is one way of approaching free ensemble improvisation, but one can also choose to generate other/new patterns or, at least for a limited period of time, not generate any at all – that is, to pause. Even the latter two approaches should, however, be based on listening, and therefore on listening skill. (see 6.2.1 Listening, 6.2.2 Process, 12 Free improvisation – instrument, technique and virtuosity)

The development/generation of patterns demands, besides listening skill, also technique and flexibility (points 1, 2), or, at least, both a certain amount of technique in order to be able to develop/generate patterns at all and some flexibility in order to do so in relation to the patterns developed/generated by others, which is the essence of free ensemble improvisation, and which *is* free ensemble improvisation (see 6.2 How free improvisation comes about, 6.3 Definitions).

The way in which patterns are developed/generated is dependent on how productive and creative one's imagination is (point 1). One can improvise freely with a poor imagination, but most likely, one's improvising will be more varied and interesting the greater one's imagination is. Furthermore, one's improvising probably has a better chance of developing over time if one has a richer and more productive and creative imagination than if one has a poorer one.

One would probably not even be interested in trying free ensemble improvisation if one wasn't curious about it (point 2). When one is actually doing it, there is a good chance that one's curiosity will continue to live on, since one never knows in advance how any given improvisation will develop.

5 Background of free improvisation

REFERENCES

Improvisation groups consisting of musicians with a classical background, with a jazz background, or with both backgrounds became more frequent from around the 1970s in Europe. The meetings for these groups were made easier through the establishment of organisations that found spaces for rehearsals and concerts. These organizations made further meetings for musicians possible, and contributed to a foundation being formed for a consolidation of the phenomenon [freely] improvised music.

(Bergström-Nielsen 1998: 28–29)

According to Borgo (1999), during the late 1960s and early 1970s

musicians sympathetic to these moves toward freer forms of musical improvisation began to organize themselves into artistic collectives, most notably the Association for the Advancement of Creative Musicians (AACM) in Chicago (which has continued to the present date), The Jazz composers' Guild in New York City (organized by Bill Dixon shortly after his famed October Revolution in Jazz in 1964), The Black Artists' Group (BAG) in St. Louis (the birthplace of the World Saxophone Quartet), and the Underground Musicians' Association (UGMA) in Los Angeles (formed by Horace Tapscott). These collectives provided artistic, communal, and financial support for a new generation of developing improvisers and ensembles. (p. 35)

Examples of European collectives are:

Spontaneous Music Ensemble (SME), the Music Improvisation Company (MIC), the Association of Meta-Musicians (AMM), the London Jazz Composers Orchestra (LJCO), the South African-influenced Brotherhood of Breath, The Jazz Center Society, The Musician's Co-operative, the Musicians Action Group, and the London Musicians Collective, all in England, as well as the Instant Composers Pool in Holland /.../, and the Globe Unity Orchestra and the Berlin Contemporary Jazz Orchestra in Germany. (p. 37)

So-called free improvisation developed in Europe from the meeting of jazz with contemporary European music, circus music, marches, folk songs and other European musical styles. There are therefore free improvisers who do not have a jazz background.

(Carlsson 1999: 20)

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Cope (1972) sees jazz and contemporary art music (1950s to 1970s) as two possible explanations for the developing interest in [free] improvisation. In the case of jazz, “a number of composers associated with improvisation are or were actively involved in jazz”. In the case of art music he thinks that “contemporary improvising sprang from the performers’ inability to realize accurately the complexities of recent music”, which resulted in the composer, “perhaps out of frustration, perhaps because the result was the same (or better)”, choosing “to allow a certain freedom in the performance of his work”. (pp. 71–72)

Furthermore, the realization of the inadequacy of standard notation for performers sometimes led “not only to new notation, but to the lack of notation entirely, the complete destruction of the composer/performer relationship, a hierarchy wholly created by the audience of idolatry”. (p. 73)

Ford finds two sources of free improvisation.

Free improvisation has twin sources in the free jazz of the early 1960s (Albert Ayler, Cecil Taylor, Ornette Coleman, John Coltrane et al.), and in the experimental stream of avant garde classical music that is best dated from 1953, the year of John Cage’s iconoclastic silent piece 4’33”. /.../ Both streams, jazz and classical, developed in reaction against increasingly formulaic approaches to new music, be they the intricate ‘standard’ chord sequences of bebop, or the mathematics of integral serialism. Furthermore, the scores of the latter camp became so densely determined as to prohibit accurate realisation, which inevitably triggered loose, if not actually improvisatory, performance practices. (Ford 2003:103)

During the 1960s and 1970s, a form of improvisation that was neither jazz nor art music sprouted up as some musicians from both camps freed themselves from their respective points of departure. (Goldstein & Korgaard 1994: 26)

Lutz (1999) sees two reasons for the growth of a new sort of [freely] improvised music: partly the change in notation from conventional notes to graphic scores, texts, etc., by, among others Stockhausen, Cage, Busotti, and Logothetis; and partly the change in the understanding of the relationship between the responsibilities of composer and interpreter for the final sounding result of a work, where the former gave more and more responsibility to the latter. (pp. 21–22)

Lutz places the movements and tendencies that led to today’s freely improvised music from about the 1950s up to and including the 1970s. (p. 17)

He says that the development from around 1950 in both the art music and jazz camps was, to a high degree, a revolt against increasing predeterminism and structuring. (pp. 32–33)

Free improvisation “evolved out of the many and varied practices of jazz and classical new music. At the same time, it represents a fundamental departure from the historically recent mindset that has separated composer from performer by unifying these roles”. (Nunn 1998: 34)

According to Smith and Dean (1997), there were

clear differences in attitude and approach between the US and European free improvisors at this innovative period in the 60s and early 70s, such as a greater openness in the latter. The European improvised music of this period hence became known often as “free music” rather than “free jazz”, which term was restricted to that music which retained more recognisable connections with the conventions of jazz. (p. 63)

They also think that “perhaps what was most shared by the Black free jazz and the European free music improvisors was the emphasis on group collaboration”. (p. 63)

Tuominen thinks that the free improvisation has come about from two sources: Afro-American music and art music. (Tuominen 1998: 2)

SUMMARIES AND REFLECTIONS

A. Background:

- 1- free improvisation in Europe developed from the meeting of jazz with contemporary European music, circus music, marches, folk songs, and other European music styles. In Europe there were free improvisers who did not have a jazz background. (Carlsson 1999)
- 2- the developing interest in [free] improvisation comes from jazz and contemporary art music (1950s to 1970s) (Cope 1972)
- 3- free improvisation evolved out of the many and varied practices of jazz and classical new music (Nunn 1998)
- 4- free improvisation has come about from Afro-American music and art music (Tuominen 1998)
- 5- free jazz during the 1960s and the experimental stream of avant-garde classical music were the sources of free improvisation (in reaction against increasingly formulaic-approaches to new music) (Ford 2003)
- 6- free improvisation was, to a high degree, a revolt against increasing predeterminism and structuring in both the art music and jazz camps (Lutz 1999)
- 7- during the 1960s and 1970s, a form of improvisation that was neither jazz nor art music sprouted up as musicians from both camps freed themselves from their respective points of departure (Goldstein & Korgaard 1994)

Free improvisation came into existence between the 1950s and the 1970s out of the meeting between jazz and contemporary European music, contemporary art music, classical new music, art music and avant-garde classical music (points 1–5). More simply put: free improvisation came about in the meeting between contemporary jazz and contemporary art music; however, the influence of art music was probably greater in Europe than in the US, since, in Europe, there were improvisers who did not have a jazz background (point 1). Even meetings with other styles have probably contributed to this development, too. (point 1).

It was, however, not only the meeting in itself that contributed to free improvisation but also, and perhaps above all, “increasing formulaic approaches to new music” (point 5) along with increasing predeterminism and structuring in both camps (point 6) that

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stimulated musicians to revolt. A revolt that led to musicians from both camps freeing themselves from their respective points of departure (point 7). In other words, one may perhaps say that musicians in the US began to find bebop too narrow; in Europe, musicians found determinism/serialism almost unbearable, and found the mix of jazz and art music, and probably also other influences, to be a stimulating start of something new and free that was neither jazz nor art music (point 7).

- 8- the development of notation contributed in itself to increased room for improvisation in contemporary art music (Cope 1972)
- 9- the development of notation, and the resulting related increase in improvisation in contemporary art music, contributed to a destruction of the composer/performer relationship (Cope 1972)
- 10- the change in notation (from conventional to graphic, texts, etc.), along with the change in the understanding of the relationship between the responsibilities of composer and interpreter for the final sounding result of a work (the former giving more and more responsibility to the latter), were contributing factors to the growth of freely improvised music (1950s to 1970s) (Lutz 1999)
- 11- free improvisation represents a fundamental departure from the historically recent mindset that has separated composer from performer by unifying these roles (Nunn 1998).

As notation took on aspects of a less exact nature, such as graphics, texts, etc., it was unavoidable that the possibilities for musicians to improvise, in different ways, increased to the same extent (points 8–10). The development of notation within art music can therefore be seen as a factor that contributed to the growth of free improvisation. It followed that the relationship between composer–interpreter changed as well, since, as a result of the changes in notation, the former had less influence upon the latter concerning the way the music should be performed (points 9–11). Even though notation, since then, (from the 1950s to the 1970s), has shown tendencies towards ‘going back to normal’, I can still sense that there is, at least among some composers, a relatively open attitude towards improvisation, and even tendencies towards greater openness. (see 14 Free improvisation – composition, 15 Free improvisation – interpretation)

B. Of importance for what followed is that:

- 1- improvisation groups consisting of musicians with a classical background, with a jazz background, or with both backgrounds became more frequent from around the 1970s in Europe. Organizations were established that made group meetings easier, further meetings for musicians were made possible, which contributed to a foundation being formed for a consolidation of the phenomenon [freely] improvised music. (Bergström-Nielsen 1998)
- 2- during the late 1960s and early 1970s, free improvisers began to organize themselves into artistic collectives that provided artistic, communal and financial support for a new generation of developing improvisers and ensembles (Borgo 1999).

The collectives that were established during the 1960s and 1970s were most likely of great importance for free improvisation. Here, there were not only opportunities to play together with like-minded musicians, in large groups and in smaller and varied con-

stellations within the collective, but there was also a discussion forum that contributed on an ideological level to form another view of improvisation: free improvisation. On an organizational level, the collectives provided places for meetings, rehearsals and concerts. Certain collectives, such as AACM in Chicago, also gave their members financial and educational support. Out of some of these collectives, autonomous smaller constellations, with shorter or longer life spans, crystallized, such as the Art Ensemble of Chicago from AACM. (points 1, 2)

I have myself been a member of two free improvisation collectives, one in the middle of the 1970s and one at the end of the 1990s. In both cases, the collective worked as described above, except for the question of financial and educational support, which we never had the possibility to develop. The most important effects for me were two-fold: I got to know other musicians, of which some are still around, and the collectives greatly contributed towards forming a view of free ensemble improvisation that I, for the most part, still have today.

C. Difference: one difference in attitude and approach between the US and European free improvisors was that the latter was more open. Hence, European free improvisation often became known as “free music” rather than “free jazz” (a term “restricted to that music which retained more recognizable connections with the conventions of jazz”). However, they both shared the emphasis on group collaboration. (Smith & Dean 1997)

From now on, I will not differentiate between free improvisation (from art music or from the meeting between jazz and art music) and free jazz. I consider both as members of the same family, where it is the family that is of interest rather than its individual members. As the following will show, I do, however, place great emphasis on “group collaboration” in the form of musical interaction between the musicians in the ensemble, the common denominator that constitutes the family.

This succinct description (and this is to put it mildly) of the background of free improvisation is due to two factors: I am interested in the phenomenon free improvisation in itself, not its history; and, as a consequence of this interest, I have limited this thesis to the phenomenon itself, not its history. Still, it would not be out of place to at least mention its origin – since nothing probably comes from nothing.

*Pressing (2002b), sees, among other things, the following precedents to free improvisation.

Another path was driven by frustration borne of the exhaustion of traditional materials. This can be documented in the West by written improvisational textbooks, which date back many centuries; while most such texts taught embellishment techniques, freer sources can also be found. For example, Karl Czerny, best known in today’s educational traditions as a deviser of exercises, also wrote a book on free improvisation (*Systematic introduction to fantasy playing on the piano*, 1826), emphasizing the role of spontaneous intuition. This heightened emphasis on intuition was an inevitable outcome of the broader historical emphasis on the powers of the individual relative to received authority, seen in the Renaissance, the advent of empirical science, the Reformation, the Industrial and Information Revolutions. (pp. 4–5)

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Pressing puts free improvisation in a larger perspective than just the meeting of jazz and art music during the middle and the latter part of the 20th century.

I also regard exhaustion of traditional material as (at least) one of the likely causes of the evolution of musical styles in general. If one lifts the perspective of the exhaustion of traditional material to a higher level, one can see free improvisation as a result of being tired of styles on the whole, and in particular of being tired of the restrictions and limitations that the respective styles carry with them.

Pressing's two remaining points, the increased weight given to intuition, and the focus on the individual, fit in well within the context of this perspective. Intuition is an important ingredient in free improvisation; it is one of its prerequisites. Focus on the individual means that the individual receives or takes the right to express himself as he wants in relation to authorities on style, which is another prerequisite for free improvisation.

*Finally, I cannot deny that I find Couldry's perspective on the history of free improvisation attractive.

But each of these 'advantages' ["freedom", "discovery", "dialogue" as characteristics for free improvisation] put forward for improvisation is a process /.../. Improvisation is not concerned with the production of stable objects: its objects are not transferable, or retransmittable without loss. As a result, and as noted at the beginning of this essay, it can have no true historian, any more than there can be a historian of laughter. Its worth cannot be measured along dimension of historical progress or failure (an obvious disadvantage when it comes to grant applications). (Couldry 1995: 31)

As I have said, I have no ambitions of trying to be a free improvisation historian. I prefer to see it as just as much a general human phenomenon as laughter, where its musical expression is but one of many. One can also, with Couldry's perspective, speculate on whether it was only the term free improvisation that appeared around the middle of the 20th century. Maybe free improvisation is as old as humanity itself, or at least from the time when man first began using sounds without utilitarian purposes. (cf. also 13.1 Free improvisation – idiomatic improvisation, 13.2 Free improvisation – stylistic influences)

6 Free improvisation

6.1 GENERAL

6.1.1 Solo – ensemble

REFERENCES

According to Bailey (1993), “greater cohesiveness and easier control for the soloist - are not, in improvisation, necessarily advantages and an even greater loss, of course, is the unpredictable element usually provided by other players”. (p. 106)

He also claims that

the greatest rewards in free improvisation are to be gained in playing with other people. Whatever the advantages to solo playing there is a whole side to improvisation; the more exciting, the more magical side, which can only be discovered by people playing together. The essence of improvisation, its intuitive, telepathic foundation, is best explored in a group situation. And the possible musical dimensions of group playing far outstrip those of solo playing. (p. 112)

But he has found (“paradoxically, perhaps”)

that the best base from which to approach group playing is that of being a solo improviser. Having no group loyalties to offend and having solo playing as an ultimate resource, it is possible to play with other musicians, of whatever persuasion, as often as one wishes without having to enter into a permanent commitment to any stylistic or aesthetic position. (p. 112)

One advantage of ensemble improvisation compared to solo improvisation is that

artists working together play out yet another aspect of the power of limits. There is another personality and style to pull with and push against. Each collaborator brings to the work a different set of strengths and resistances. We provide both irritation and inspiration for each other – the grist for each other’s pearl making.
(Nachmanovitch 1990: 95)

SUMMARIES AND REFLECTIONS

A. In solo improvisation one has:

- 1- greater cohesiveness and easier control (Bailey 1993)

Obviously, a solo improvisation is more coherent for the practitioner/improviser than an ensemble improvisation; the improvisation can continue as long as the improviser wishes, and there is no one to ‘disturb’ the soloist in the form of musical interjections/comments / other ideas. Cohesiveness is, in fact, the prerequisite for solo improvisation to work at all. Just as obviously, solo improvisation is easier to control, since there is no one other than

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the improviser who influences the flow (with the possible exception of sounds from the surrounding environment).

- 2- the best base from which to approach group playing, an ultimate resource, a freedom from group loyalties, and a freedom from a permanent commitment to any stylistic or aesthetic position (Bailey 1993).

I doubt that solo improvisation is the best base for ensemble improvisation. Since ensemble improvisation stands and falls with the musical interaction and interplay between the participants, a better foundation for ensemble improvisation is probably to practice one's ability to interact, that is, to practice ensemble improvisation. Practicing on one's instrument is, in this perspective, a necessary complement to practicing ensemble improvisation. My own instrumental practicing is thus not directed towards solo playing but towards a better and broader technique, which provides a base and a preparedness to be able to interact with other musicians in a more unfettered way.

Solo improvisation as an "ultimate resource" sounds rather melancholic, as if one were reduced to solo improvisation because one didn't have other musicians to play with (so I can at least improvise myself).

If, with group loyalty, Bailey means to not leave the group, this should mean the same thing as a permanent or at least a long-term commitment. If he means loyalty to the values and musical opinions of the group, I interpret this to mean about the same thing as loyalty to the stylistic/aesthetic position(s) of the group. With this interpretation, permanent commitment and loyalty towards stylistic/aesthetic positions, respectively, are cases of group loyalty to make up one's mind about.

When it comes to permanent/long-term commitment, one can play with other musicians without such a commitment. I have done this often, without any conflicts of loyalty whatsoever, and this is rather normal within free ensemble improvisation (see 6.1.3 Short-term – long-term collaboration). It is, of course, a different matter if a musician promises a group that the commitment will be long-term, but then changes his or her mind. This is seen as lack of loyalty if no good reasons for the breaking of the commitment can be given.

I divide aesthetic positions into outer and inner aesthetic positions. Outer aesthetic positions have to do with the way the music should sound. If such positions mean acceptance of the music as it turns out sounding, then I have no problems with this loyalty. Such an aesthetic position should be acceptable to both free solo and ensemble improvisers, to the extent that the former are interested in ensemble improvisation at all, since the position gives equal respect to everyone's contributions. The times I have ended up in groups with more or less articulated outer aesthetic positions, my improvisation has been curbed and become problematic because I have found it difficult to weigh my reactions to what I have heard in relation to the aesthetic positions of the ensemble – which is an unsatisfying pendulum compromise.

Inner aesthetic positions have to do with the way the musical interaction should work. If such positions entail striving after as good an interaction as possible, I have no problems with this form of loyalty, either (see 9 Evaluation). Such an aesthetic position should also be acceptable to both free solo and ensemble improvisers, to the extent that the former are interested in ensemble improvisation at all, since the alternative would be an interaction

that was less good, or no interaction at all, i.e. no communication according to section 6.2.3 (Interaction – communication – conversation). Good interaction also opens for the possibility of the growth of ephemeral and for the moment to moment shifting of outer aesthetic positions during the course of the improvisation.

On occasions, I have myself fallen into the trap of having an idea of how the music should sound or the way the interaction should work beforehand. The result has always been disappointing. I have struggled to reach a preconceived musical vision that has not been attuned to the music/interaction that actually developed during the improvisation. This has resulted in a musical ensemble conflict rather than in an ensemble improvisation.

B. In ensemble improvisation one has:

- 1– other personalities to pull with and push against, to be irritated and inspired by (Nachmanovitch 1990)
- 2– the more exciting, the more magical side, the unpredictable elements provided by other players, the essence of improvisation (its intuitive, telepathic foundation), the greatest reward (Bailey 1993)
- 3– the possible musical dimensions (far outstripping those of solo playing) (Bailey 1993).

I think that it is primarily one's personal disposition that decides if one prefers solo or ensemble improvisation, or likes both just as much. I understand that musicians may want to express themselves in the form of solo improvisation without having to take consideration to other co-musicians, but I personally prefer ensemble improvisation. I have always found my own solo improvisation to be unstimulating and even boring, perhaps partly due to my choice of instrument (electric bass guitar), or partly because I feel that I do not have a talent for solo improvisation. I have always found ensemble improvisation exciting due to the “more exciting, the more magical side”, which Bailey speaks of (point 2); and not least thanks to the co-musicians that I have had to “pull with and push against,” to be irritated with and inspired by (and both phenomena have happened) and, last but not least, by the unpredictable elements they have contributed (point 1).

These varying contributions from the members of the ensemble of course open up musical dimensions within the ensemble as a whole, something which is not attainable through solo improvisation. This is particularly obvious when the contributions come more or less simultaneously, which is quite normal in free ensemble improvisation. (point 3)

If anywhere, it is in the musical interaction in free ensemble improvisation I find the essence of improvisation, with its intuitive telepathic foundation, which can only be discovered by people who play together. Experiencing this, is, for me, the greatest reward in free ensemble improvisation. (point 2)

6.1.2 Ensemble

REFERENCES

According to Becker (2000), collective improvisation “requires that everyone pay close attention to the other players” and that they are “prepared to alter what they are doing in response to tiny cues that suggest a new direction that might be interesting to take”. When the musicians listen closely to one another “some of those suggestions begin to converge and others, less congruent with the developing direction, fall by the wayside. The players thus develop a collective direction”. (p. 172)

In free ensemble improvisation, the participants should “ignore the past, ignore reputations, ignore everything but the contribution people make to the collective effort”, which presupposes that everyone has a “real shared interest in getting the job done, an interest powerful enough to overcome divisive selfish interests”. A mark of the interaction in free ensemble improvisation is also that “great changes are possible”.

Not only do people respect and follow the lead of whoever comes up with something good, they may also collectively change their notion of what is good as the work progresses, adopting a new criterion, ending with a result that could not have been foretold from anything they knew and were used to doing before they started. (p. 175)

Collective improvisation

does not belong to the written tradition of Western art music, but it does not belong either to an oral or aural tradition as these terms are understood in ethnomusicology. Each group creates its own tradition, which may even be different for each improvisation. There is no attempt to create a common practice or a means of transmission that would allow another group to improvise in the same manner. (Benitez 1986: 455)

According to Corbett (1994), Evan Parker thinks that his own ideas are so mixed up with the ideas of others in group improvisation that idea identity and cause-effect relationships dissolve (“the music is based on such fast interplay, such fast reactions that it’s arbitrary to say, “Did you do that because I did that? Or did I do that because you did that?””). (p. 203)

According to Corbett, playing with new musicians is for Derek Bailey “one of the sources of replenishment”. He sometimes feels so bereft of ideas of his own that he needs to feed off other people. In this music, “that’s almost part of your material, what other people play”. (p. 231)

Feigin thinks that “there is nothing like improvising with another human being”. By doing that “we can get out of our deep and cold isolations” and all the “layers protecting and hiding our real self”. Free improvisation demands “extraordinary attention to the other. One single moment of somebody’s senselessness can ruin it all. Improvising we have to listen to each other very deeply”. (Feigin 1996: 4)

In ensemble improvisation, “each player can only impact the end result in direct relation to the percentage of the group which he/she constitutes. The most one can be liable for is 50%”. (Fugate 1988: 46)

Participation in collective improvisation opens the opportunity to better understand oneself, and it helps one to develop one’s nature (“*but* the concept of development is very existential. You can *develop* into a mass murderer. You can *develop* into a rock!”). (Lock 1988: 237)

Nachmanovitch (1990) says that the beauty of playing together is meeting “in the One”. He describes this meeting poetically:

I play with my partner; we listen to each other; we mirror each other; we connect with what we hear. He doesn’t know where I’m going, I don’t know where he’s going, yet we anticipate, sense, lead, and follow each other. There is no agree-on structure or measure, but once we have played for five seconds there is a structure, because we’ve started something. We open each other’s minds like an infinite series of Chinese boxes. A mysterious kind of information flows back and forth, quicker than any signal we might give by sight or sound. The work comes from neither one artist nor the other, even though our own idiosyncrasies and styles, the symptoms of our original natures, still exert their natural pull. Nor does the work come from a compromise of halfway point (averages are always boring!), but from a third place that isn’t necessarily like what either one of us would do individually. What comes is a revelation to both of us. There is a third, totally new style that pulls on us. It is as though we have become a group organism that has its own nature and its own way of being, from a unique and unpredictable place which is the group personality or group brain. (pp. 94–95)

He also compares free ensemble improvisation to “the law of requisite variety” in that, by crossing one identity with another, we “multiply the variety of the total system”. At the same time, “each identity serves as both a check on the other and a spur to the development of the total system”. Free ensemble improvisation can thus be likened to nature’s way of achieving evolution through cross-breeding. (p. 95)

Many free improvisers feel that the ensemble situation is essential for freely improvised music and that it is a prerequisite for its continuance. Stackenäs feels that it is the musical meeting with other musicians that is its nourishment and that which furthers the development of the music. (Stackenäs 2003: 23)

SUMMARIES AND REFLECTIONS

Viewpoints

A. Viewpoints on the attitudes between the members of the ensembles are that the musicians should:

- 1– pay close attention to the other players, be prepared to alter what they are doing, and ignore everything but the contribution people make to the collective effort (Becker 2000)

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- 2- be extraordinarily attentive to the other, listen to each other very deeply (one single moment of somebody's senselessness can ruin it all) (Feigin 1996).

I find this to be true and crucial in free ensemble improvisation (point 1, 2). There is, however, one aspect missing here, i.e. that the participants must also be as attentive to what they do themselves and to what they do in relation to the others.

B. Viewpoints on ensemble improvising from a wider perspective are about musicians being able to:

- 1- develop a collective direction while others fall by the wayside (Becker 2000)

It happens, and this is a phenomenon that is quite common, that a collective direction is developed within free ensemble improvisation and that this is a direction that feels greater than and prevails over individual directions.

In this context, I would like to introduce the term collective understanding, since I feel that it is a prerequisite for the development of a collective direction. The other development alternatives for the ensemble can be divided into three principal cases: 1) individual directions do not meld into or become subordinate to a collective direction but rather continue to exist independently; 2) some of the participants in the ensemble agree on one direction, whereas others agree on another, and both live parallel lives; (if the ensemble is big enough, more than two parallel but different group directions can develop and coexist); 3) one musician develops/maintains one direction, while the others develop/maintain another direction that is collective and common for them. Alternatives 1-3 can, as opposed to what happens in a collective directional development, take place within or outside of collective understanding. Alternatives 2 and 3 can also be seen as examples of partial collective understanding within the ensemble. Collective understanding can thus be total, partial or absent. (cf. 6.2.3 Interaction – communication – conversation, 6.2.4 Ways of interaction – relations – complexity)

- 2- share an interest powerful enough to overcome divisive selfish interests (Becker 2000)

“Divisive selfish interests” are in opposition to collective understanding. Selfish interests are, by definition, not collective, and their realization takes place at the cost of the collective. “Getting the job done” within the framework of a collective understanding then demands that divisive selfish interests be overcome by the members of the ensemble. Alternative 1 can, if it does not take place within a collective understanding, be an example of selfish divisive interests not having been overcome, and alternatives 2 and 3 can, in the same contexts, be examples of partially overcome selfish interests. Moreover, partial collective understanding can mean that he, she or they who is/are not part of the understanding are, or are not, conscious of the others’ understanding.

- 3- during an improvisation collectively change their notion of what is good and adopt a new criterion (ending with a result that could not have been foretold from anything they knew and were used to doing before they started) (Becker 2000)

To collectively change the criteria for what is good, in relation to something that up to then had been seen as good, means, in practice, that the group collectively changes the

musical direction, which, in turn, means that the term collective understanding applies here as well. (see also point A1)

- 4- impact the end result in direct relation to the percentage of the group [to the number of participants], which can at most be 50% (Fugate 1988).

I cannot see any point in the participants having an influence on the end result of a free ensemble improvisation, but rather that they influence the ongoing process. A musician's opportunity to influence this process is, however, not only dependent on the number of participants. This is too much a quantitative and mechanical view. The possibility to influence the process depends more on what a musician does, how he does it, how what is done is perceived and understood by the other musicians, and which reactions that which is perceived and understood arouses in the co-musicians, than on the number of participants. To sum up, this means that a musician, in a given moment, and no matter how many musicians are participating, can influence the ongoing process of improvisation somewhere between 0–100 per cent. More interesting than who influenced the process and to what extent is, however, rather: what influenced the process and what was/were the result(s), i.e. interactive influence as cause and effect.

I have stated above that it is in the musical interaction of free ensemble improvisation that I find its essence – its intuitive telepathic foundation, its more exciting, more magical side – and that this can only be discovered by people who play together; and that the greatest reward for me lies in this experience. I would also like to add here that collective understanding to various extents can and should normally be a part of this musical interaction.

C. Viewpoints on free ensemble improvisation as a musical phenomenon are that:

- 1- free ensemble improvisation does not belong to the written tradition of Western art music, nor does it belong to an oral or aural tradition as these terms are understood in ethnomusicology. Each group creates its own tradition, which may even be different for each improvisation. (Benitez 1986)

That free ensemble improvisation does not belong to the Western notation-based art music tradition is trivially true, even if more or less free elements of improvisation have appeared and still appear in this tradition. (see 14 Free improvisation – composition, 16 Free improvisation – aleatorics – indeterminacy)

That it does not belong to an oral or aural tradition in music-ethnological terms is just as true. Which tradition is it then part of? However, elements of art music, jazz, different ethnic traditions or any tradition at all can appear to various extents in free ensemble improvisation (see 13 Free improvisation – idiomatic improvisation – stylistic influences).

That each group creates its own tradition is not, in my opinion, a fact but a possible risk, a risk that can, however, be counteracted by systematic work, musical and human meetings with other musicians, and by the musical interaction in itself (see 6.1.3 Short-term – long-term collaboration, 14.2 Similarities). More in line with what I see as the spirit and idea of free ensemble improvisation is the view that the “tradition” can differ from improvisation to improvisation depending on the musical conditions that hold for the moment.

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- 2- there is no attempt to create a common practice or a means of transmission that would allow another group to improvise in the same manner (Benitez 1986).

As a continuation of the viewpoints on tradition(s) comes the question of praxis. The idea that a group would create or transmit a praxis of their own, or take over some other group's praxis, has not been relevant to any of the groups I have been in contact with. No group has, as far as I know, any ambition to improvise in the same way as any other group, or to get another group to improvise the way it does. What would be the point of that? This holds especially with regard to the comments to point 1, that free improvisation ensembles neither have nor want to take over nor transmit any musical tradition. Considering how complex the music can be, and often is, in free ensemble improvisation, one can also ask if this would even be possible, and if this was the case, then it would only be possible in very general terms.

Effects

D. Effects of free ensemble improvisation on the participants' ideas are that:

- 1- one's own ideas are so mixed up with the ideas of others that idea identity and cause-effect relationships dissolve (Parker/Corbett 1994)
- 2- what other people play is almost part of one's own material (Bailey/Corbett 1994)

That one's own ideas are mixed up with those of others so that idea identity and cause-effect relationships can dissolve (point 1) and that what others play almost becomes part of one's own material (point 2) are things I recognize. It is not that I have ever wondered if it was I or someone else who was playing what I was playing, but that, often enough, I was not sure why I was playing the things I was playing, and afterwards seemed to understand that the influences had come more or less from other(s) than myself. In this sense, the material of my co-musicians has become part of my material.

I can see six factors that can at least partially explain this. The first is the time overlap of the gestures. If I begin a gesture and another musician starts reacting to it before it is finished (which is very common, by the way), it can feel as though the gestures are bound together, and it can become difficult to decide who influences whom and to what extent (see appendix A3 Number of cases of overlapping for ranges, 6.2.2 Process, 6.2.4 Ways of interaction – relations – complexity). The same holds for the reverse turn of events.

The second factor is sound colour. The more alike the sound colours are, the more difficult it is for both listener(s) and co-musician(s) to define who is doing what.

As a continuation of the sound colour factor, come factors three and four: the number of musicians and their positioning. The more musicians that improvise simultaneously, the more difficult it can be to define who does what. The positioning of the musicians in the room can also contribute to how the different musicians meld together; the closer the musicians are to one another, the easier it is for them to hear who is playing what.

A more subtle factor is the fifth factor, which I call musical personal chemistry. Probably due to several reasons (see 6.2.2 Process), certain musicians seem to find one another musically more easily than others do. To the same extent that they find one another, they have an easier time blending their respective idea flows to something unified, to mix up ideas, which can result in the dissolving of cause-effect relationships.

I call the sixth factor collaboration time. The longer musicians improvise together, the better they probably get to know one another musically, and the easier it probably is for them to latch onto and weave together each other's musical ideas.

- 3- one's own ideas are replenished through playing with new musicians (Bailey/Corbett 1994).

To the extent that one is at all interested in and listens to one's co-musicians and takes in their ideas, one's own ideas will probably be renewed and complemented as a result of this. (see 6.1.3 Short-term – long-term collaboration)

E. Effects of free ensemble improvisation for the ensemble as a whole are:

- 1- that one meets “in the One” (Nachmanovitch 1990)

Nachmanovitch's poetic description of free ensemble improvisation's meeting “in the One” is a beautiful description of an optimal collective understanding. As is shown above, this understanding is, however, not always as easy and beautiful as Nachmanovitch describes. Within free ensemble improvisation, one also finds partial understanding or even lack of understanding (total, partial, absent collective understanding, see point B1). It happens that one can meet, not “in the One”, but ‘in the two’, or more, or not at all. But if one reads Nachmanovitch's description as a declaration of an ambition, a goal to strive for, then I absolutely agree and believe that the possibility of reaching this goal exists. It is, according to my experience, even possible for this goal to be reached for a longer or shorter period of time.

- 2- a musical cross-breeding (by crossing one identity with another) that multiplies the variety of the total system, something that can be likened to nature's way of achieving evolution through cross-breeding (Nachmanovitch 1990).

The likening to a cross-breeding that increases variations within the total system is easier to accept without reservation. This effect relates to and can be seen as a complementary view to the reasoning under point D. (cf. 17 Free improvisation – system analogies)

The difference is that point D focuses on ideas/material, whereas Nachmanovitch reflects on the effects free ensemble improvisation has on the ensemble as a group of people rather than as a multiple flow of ideas. Otherwise, this view could just as well have belonged to point D.

F. Effects for the members of the ensemble are that free ensemble improvisation:

- 1- helps us to get out of our our deep and cold isolations and all the layers protecting and hiding our real self (Feigin 1996)

If point E is about a free improvisation ensemble as a group of people, point F is about people as individuals in an ensemble.

Whether or not one gets out of “deep and cold isolations” by taking part in free ensemble improvisation is more of an open question than a fact. I have certainly experienced warm, human and musical fellowship with other musicians in the ensemble, which I am, of course, grateful for, but I have also observed and, in some cases, experienced examples of the opposite, or of indifference. I do, however, think it is, in the long run, impossible to

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keep up a protective façade behind which one can hide, since this façade is gradually seen through, on both a personal and musical level, by the co-musicians. In this context, I therefore do not believe in the famous piece of advice: “if you can’t make it, fake it”.

2- opens the opportunity to better understand oneself (Lock 1988)

I have, through my own free improvising, been forced to go through both musical and personal self-examination. The processes and the insights made, have, in both cases, been useful, even though they have been painful at times. I believe that through these self-examination processes I have learned to better understand myself, both in a personal and musical way. From those experiences, I do not believe, at least not within the context of free ensemble improvisation, that one can wholly separate the personal from the musical. What I am as a person is mirrored in my playing, and the other way around. It is only I who has the responsibility for my actions (the playing), there is no one else who tells me what to do or how to do it, and there are no notes or other instructions to lean against. (see 1 The path)

3- helps one to develop one’s nature (Lock 1988).

If “to develop one’s nature” means to strengthen the nature one already has, I can only partially agree that free ensemble improvisation has that effect. The processes of self-examination processes that I have gone through have shown me sides of my musical and personal nature that I, and probably also my co-musicians, have not liked. Development in these cases has had more to do with restraining and changing my nature rather than strengthening it. Luckily, I have, however, even found sides that have been possible to strengthen to good musical and personal effect. The processes of self-examination, together with the musical and personal work they lead to, is, hopefully, ‘a never-ending story’.

And finally that

G. The musical meeting with other musicians [in freely improvised music] is its nourishment and that which furthers the development of the music (Stackenäs 2003).

This is an excellent view and summary of free ensemble improvisation – with the addendum that even the musician himself can develop through these meetings, and that one’s own reflections also contribute to the development of the music.

6.1.3 Short-term – long-term collaboration

REFERENCES

Bailey (1993) thinks that the longer one plays in a group, the more the music tends to become “very personalised, very closely identified with the player or group of players”. According to Bailey, this can be counteracted “by playing with as many different sorts of improvisers as possible”. But, it is also possible that one, through long-term collaboration, can achieve something one “could not have achieved individually or, in fact, could not have expected to achieve collectively”. (p. 115)

Evan Parker, interviewed by Bailey, sees advantages with long-term collaboration with[in] the same ensemble, and states that “things that are established and known between yourselves probably form as useful a context for the evolution of something new as anything”. It can, however, also according to Parker, sometimes be good for one “to be dropped into a slightly shocking situation that you've never been in before”. That can “produce a different kind of response, a different kind of reaction”. However, Parker also says that the people he has played with for the longest period of time offer him “the freest situation to work in”. (p. 128)

A good improviser “takes advantage of the spontaneous input of the moment”, but he can also use systematic work for “breaking out of common patterns and habits, to make each performance new and fresh”. In ensemble improvisation, “the mutual interaction may fulfil this need, since it is unlikely that each musician has heard the whole repertoire of ideas of every fellow musician”. (Dahlstedt 2004: 16)

Within free improvisation one finds the term ‘ad hoc’, which refers to temporary meetings between musicians that have maybe never played together before. There are both risks and rewards in ad hoc situations. One risk can be that any real communication never has the time to develop between the musicians, but one reward might be that it might turn into fantastic music which none of the participants could have imagined beforehand. Ad hoc playing, despite its risks, is still important for the survival and development of the music form. (Stackenäs 2003: 25)

There are pros and cons of both long-term and short-term working groups. One of the risks of short-term meetings is that elitism and defence of one’s positions become greater when people do not know one another. One might be afraid to play totally honestly, and therefore the final result is worse. In long-term working groups there is a risk that a common language grows for that particular group, which might limit the development and the freedom of the improvisation. An advantage of short-term groups is that one can never predict what the final result will be. (Tuominen 1998: 26)

SUMMARIES AND REFLECTIONS

A. Advantages of short-term collaboration are that:

- 1– a slightly shocking situation can produce a different kind of response/reaction (than that of long-term collaboration) (Parker/Bailey 1993)
- 2– it turns into fantastic music which none of the participants could have imagined beforehand (Stackenäs 2003)
- 3– one can never predict what the final result will be (Tuominen 1998).

That short-term collaboration can result in another sort of response, another sort of reaction than long-term collaboration (point 1), in fantastic music that none of the participants could have imagined beforehand (point 2), and in a music where the final result is unpredictable (point 3), are points that should also reasonably apply to long-term collaboration. One can hardly assume that the goals of long-term collaboration would be to reach the same responses and reactions as had always been reached before, to achieve less fantastic music, which the participants could imagine beforehand, and that the final result should be predictable. And this is definitely not the case with my experiences of longer collaborations.

B. Disadvantages of short-term collaboration are that elitism and defence of one's positions can become greater when people do not know one another, and that one might be afraid to play totally honestly, which makes the final result worse (Tuominen 1998).

I have not experienced that elitism and defence of positions have increased when people who do not know one another improvise together, nor have I noticed any fear of playing honestly from anyone in such a situation. I have, on the whole, never experienced elitism and defence of positions in connection with free ensemble improvisation. Rather, these situations have been marked by mutual respect, a will to make the best of the situation, and awareness that everyone is equally exposed and just as vulnerable – and are all in the same boat.

C. Disadvantages of long-term collaboration are that:

- 1– the music tends to become very personalised and closely identified with the player or group of players (Bailey 1993)
- 2– a common language can grow which might limit the development and the freedom of the improvisation (Tuominen 1998).

The phenomena under points 1 and 2 can be risks associated with long-term collaboration.

D. Methods of counteracting possible negative effects of long-term collaboration are:

- 1– to play with as many different sorts of improvisers as possible (Bailey 1993)

The antidote, i.e. to play with as many different improvisers as possible, works to the same extent as one is or makes oneself receptive to such temporary influences. On the condition that one is receptive, short-term collaboration can be a refreshing complement to long-term collaboration.

- 2– the mutual interaction may fulfil this need, since it is unlikely that each musician has heard the whole repertoire of ideas of every fellow musician (Dahlstedt 2004)

I also see mutual musical interaction as a central force against stagnation, patterns and habits, among other reasons because it is improbable that each musician has heard “the whole repertoire of ideas of every fellow musician”. Furthermore, each musician’s “repertoire of ideas” changes continually through his or her own practice (see point 3 below), through short-term collaborations with others and through the interactive influences that also exist in long-term collaboration. A musician’s idea repertoire is not a static phenomenon but a highly dynamic and varying one. Musicians can surprise and do surprise each other with different contributions and reactions even in long-term collaboration. (cf. 13.1 Free improvisation – idiomatic improvisation)

- 3– to use systematic work for breaking out of common patterns and habits (Dahlstedt 2004).

I believe more and more in systematic work as a method, not only in order to break free from patterns and habits (both individual and collective ones), but also to consciously and actively develop free ensemble improvisation, which, in turn, possibly demands long-term collaboration. By systematic work, I mean exercises that do not prompt any special way of improvising but that open possibilities to think along new paths, and exercises that widen and differentiate one’s perspective on free ensemble improvisation and the musical possibilities it offers, both materially and interactively. For the purpose of free ensemble improvisation, such exercises can essentially be reduced to relational exercises. Examples of such exercises and/or other exercises are in, for example, Bergström-Nielsen (1998), Dean (1989), Nunn (1998), and Pelz-Sherman (1998). (see 6.1.2 Ensemble, 14.2 Similarities)

*Nunn describes a three-stage developmental process for the work he does with a new instrument (this is about instruments he has built himself).

It has been my experience that when I’ve made a new instrument, it is pretty easy to improvise interestingly on it. The freshness of the new sounds (or new arrangements of sound devices) offers many new ideas and promises unlimited potential. However, as I become more familiar with the instrument, that freshness wears off. The improvisations can become less interesting, more technically oriented (as I develop new techniques) and self-indulgent (i.e., more interesting to the player than the audience); less *beginner’s mind*. As this continues, a challenge (I characterize it “the wall”) presents itself: the challenge to go beyond what can already be done and to discover deeper, musical implications. You could say that the challenge is always there; true. However, it’s more apparent at some stages than others. The “wall” has to be broken through. When that happens, a new plateau of technical facility, of freshness of ideas and of new potentialities is reached, and the process begins again, cyclically, toward the next plateau, a process that never ends. (Nunn 1992: 13–14)

Nunn’s reasoning about the developmental process for his work with a new instrument can perhaps, in general terms, be transferrable to the collaboration between freely improvising musicians. Short-term collaboration only reaches the first stage of one of Nunn’s cyclical development processes, ad hoc ensembles perhaps only the beginning of the first stage, while long-term collaboration opens possibilities to also reach stages two and three.

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In contrast to short-term collaboration, long-term collaboration can also make it possible for musicians to go through the cycle of the developmental process more than once. The number of cyclical development processes that are possible for an ensemble to go through is, however, an open question. How does one know when no further development is possible, that there is no longer any wall to break through, or when the ensemble's ability to make a breakthrough has reached its limit? The number of cyclical development processes gone through is naturally also dependent on the length of the long-term collaboration.

E. Advantages of long-term collaboration are that:

- 1- one can achieve something that one could not have achieved individually or, could not have expected to achieve collectively (Bailey 1993)
- 2- things that are established and known between the musicians probably form as useful a context for the evolution of something new as anything, and that the people one has played with for the longest period of time offer the freest situation to work in (Parker/Bailey 1993)

I do not believe that long-term collaboration in itself is a prerequisite for attaining something one could not have attained individually or collectively (point 1). One can attain unpredictable things individually and/or collectively even in short-term collaboration. I do, however, believe that long-term collaboration, in the form of cyclical development processes, helps both the individually- and collectively-attained to reach a greater depth, as well as it being more pervading and transforming for both the individual and the ensemble, than that attained in short-term collaboration, and I regard these effects as positive.

In this perspective, the musicians one has played with for a long time are prerequisites for such cyclical development work, and things that are established and known between musicians become the common base that grows during these processes –not, however, as something strict and unmoving but as something that is in constant change. (point 2)

- 3- in contrast to short-term collaboration, there is time for real communication to develop between the musicians (Stackenäs 2003).

In long-term cyclical collaborations and developmental processes, it is increasingly probable that “real communication” will have more time to develop between the musicians, together with the probability that this communication may also become deeper, and of a more transforming nature. To the same extent, this probability decreases in short-term collaborations; not that there is no communication in short-term collaborations, or even in ad hoc ensembles, but the communication that takes place between the co-musicians is probably more superficial than is the case in long-term collaborations and does not reach the same depths and is not as pervading.

F. Ad hoc playing is important for the survival and development of free improvisation (Stackenäs 2003).

It is, after all, meaningless to propagate for an either/or when it comes to short- and long-term collaboration respectively; it is, however, meaningful to propagate for both. The short- and long-term collaborative forms complement one another in about the same way as conversations with close friends during a long period of time can be complemented by

conversations during temporary meetings with people one does not know, or at least does not know so well. One's thought processes are stimulated by both of these forms of conversation. Repeated conversations allow the participants to burrow deeper into the questions that are being discussed, and that they can get to know one another on a more profound level, while temporary conversations at temporary meetings can add new conversational subjects as well as new views on old subjects.

Short-term and long-term collaboration guarantee more breadth, depth and development within free ensemble improvisation. Both are necessary for the survival of the music form. That "ad hoc playing is important for the survival and development of free improvisation" I therefore perceive as half the truth but nevertheless as an important half.

If I were forced to choose one of these alternatives, however, I would choose long-term collaboration. This is because I am most interested in and fascinated by the interactive/communicative potential of free ensemble improvisation, which I feel is best attainable through long-term collaboration and through the cyclical development processes Nunn speaks of, and which I, to a great extent, would like to trace back to systematic work being a prerequisite. However, this choice is a personal one, and others can, for their own equally personal and good reasons, prefer short-term collaboration.

6.1.4 Ensemble size – large ensembles – directing

REFERENCES

The ideal size of an intuitive music group is between 4–12 musicians. A group that size is big enough for the individual to be able to get varied impulses and small enough that everyone can make themselves heard as an important part of the group. (Bergström-Nielsen 1998: 7)

Couldry (1995) sees two risks with predetermined structures for improvisation in large groups. One is "the tendency of the listener to interpret music as if it were a composition", a habit that is "deeply ingrained". For him "there is a risk that too explicit an emphasis on the composed structure will result in a confusion of message, and will detract from the openness that is the essence of improvisation". (p. 22)

The second is the mistake "to think that composed structures are necessary to successful group improvisation". As an example of such a belief being a mistake he mentions the group *King Übü*.

King Übü, /.../ (nine players more or less), do not rely on composed structures; their playing concentrates with remarkable success on the achieving of collective gestures and through them the suggesting of wider structures, in each case through group interaction of exceptional flexibility and immediacy of response. This is the result of a refining of instinct through playing together for a considerable period. Their music illustrates a potential of large group playing to achieve complex sonorities and gestures of great amplitude which has hardly been explored. (pp. 22–23)

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“The more people that are improvising simultaneously, the more important it becomes for each to have the ability to change his direction on the spur of the moment, according to the ever changing context.” (Ellis 1965: 1)

Improvisation in large groups has, according to Fell (1998), “always been a scarce commodity”, and the basic characteristic of “working with large ensembles is that all the difficulties and uncertainties of improvised music making are multiplied proportionately”. (p. 1)

Fell exemplifies some of these difficulties.

Small-scale groupings make it possible to assemble a set of almost like-minded musicians who will have similar objectives and aesthetic aspirations, and as a result will offer sustained enthusiasm and practical support; but the statistics of a large group will almost invariably throw up several members who are not really sure whether they want to be there; since free music runs almost entirely on enthusiasm and goodwill, this can act as a considerable damper on a project’s future prospects. (p. 2)

There are also straightforward but often overlooked difficulties in large-scale performance; actually hearing what other players are doing can be difficult if they are physically separated from you by a large number of musicians. This can limit the potential for subtle interaction to only those musicians who are relatively near, or encourage musicians to play more loudly or forcibly than they would otherwise consider. (p. 2)

The lack of external infrastructure for this music means it is perhaps to be expected that most instigators of large-scale projects start from a personal concept which they wish to explore. Not only does this provide an objective which side-steps the question of mutually-agreed aesthetic criteria, but it also obviates the necessity of the musicians to accept public responsibility of the whole of the resulting music, which can be problematic for improvisors with their own artistic identities. But as soon as one artistic vision has dominance, the role of the large group as an improvising ensemble tends to become blurred. (p. 2)

So, according to Fell, it

might be wise to bear in mind that if some of the most experienced and skilled improvisors in the music’s history have reservations about large-group free improvising, it may just be because experience has taught them that it’s a high-risk strategy, possibly with musically modest benefits. (p. 2)

He sees three method categories for structuring large free improvisation ensembles: “*non-invasive* and *invasive*”, along with “soloist(s) and the rest”. (p. 3)

My definition of *non-invasive* would be those methods which seek to define very general principles, such as who might play when, a very general description of the type of material to be explored (either verbal or notated) or an indication of the mood/atmosphere which the piece might seek to generate (without specific musical instructions). The essential point of non-invasive structures is that the musicians should feel sufficiently unencumbered that they can improvise sensitively, creatively and effectively, using their musical sensitivities alone to guide them. /.../ I am increasingly of the conviction that improvisors cannot improvise to the best of their ability if they are aware that their improvisation may be interrupted at any time, requiring them to suddenly change to a different activity; any group which simply feels

it is waiting for the next cue will fail to make the best use of the musical space made available to it. (p. 3)

One of the most traditional ways of circumventing this problem is to have two types of performer, the soloist(s) and the rest, and for the musicians to be allocated one of those two roles at any given time. Soloists are allowed freedom to develop material, hopefully in their own time, whilst the 'rest' follow cues, realise notation, etc. This is, of course, the organising principle of most large-scale modern/contemporary/free jazz. Its main disadvantage for the improvising ensemble is that it tends to encourage an either/or mentality, with musicians either free to contribute spontaneously or not. Since one of the skills which proves essential to large-group improv is the ability to judge the appropriateness of playing at any given time, and where within the wide-ranging spectrum from silence to total dominance to place this contribution, this compartmentalisation must be a backward step. It seems to encourage musicians to resign their responsibility for the music, which is the last thing improvisation should seek to inherit from classical forms. (pp. 3–4)

It seems to me that a more valuable option is to accept that an improvising orchestra is not going to be able to (or more properly neither needs to nor should want to) emulate the structural effects and cohesive strategies employed by composed music, and in refusing to try and force the musicians through these hoops, one can allow the tender flower of improvisation to flourish more readily. (p. 4)

By *invasive* methods, Fell means

a scheme or structure which requires the musicians to divide their attention between improvising and some other activity (watching the conductor, reading music, throwing sponges around(!), etc). These *invasive* techniques seem to be the ones which prove most problematic for improvisors, and much care is required if they are to be used with any degree of success. (p. 4)

Tim Hodgkinson feels that “pure free improvisation tends to work beautifully with small groups of people but when you get above a certain number it’s very difficult to make it work without there being limits of some type or another”.

(Hodgkinson, Fell, Hayward & England 2003: 2)

According to Jost, “a larger group requires a larger measure of musical organization and pre-planning than a small group, in which spontaneous interactions between the musicians work out more smoothly”. “Organized discipline leaves little room for spontaneous processes of evolution”. The biggest problem for free improvisation big bands lies

first and foremost in employing the sound potential of a large apparatus structurally, without having to revert to the normative organization of the “classical” big band, that is, without having to reduce the individual creativity of a majority of the players to merely reading notes. (Jost 1994: 182)

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The ideal number of musicians in intuitive music is 4–5 since this number is relatively easy to grasp. (Lutz 1999: 24)

Derek Bailey thinks that small group improvisation is just better most of the time. However, “when large group improvisation is good, it is quite amazing, something incomparable”. According to him, large group improvisations is “a high risk activity and it’s not just difficult, it’s kind of impossible. But it still does happen that now and then, it’s really successful. And then it’s extraordinary”. Many people do, however, “like to try and turn large group improvisation into something else a bit more tidy; they usually do it by imposing structures of one kind or another”. This makes large ensemble improvisation “kind of easier”, but it also “sort of misses the point”. Bailey prefers “the failures of the other thing”. (Martin 1996: 4)

According to Pignon (1992), there is a critical size for a group of (human) minds that together try to reach a self-organizing FFE (Far From Equilibrium) instability: it is three, perhaps in exceptional cases four. Larger groups do not seem to produce anything satisfactory in the way of improvisational form, but only rather stable, highly entropic, static states. (p. 7)

In free improvisation big bands, the members do not attempt to reach FFE instability, but rather set up a tutor/managerial division that tries to ensure that the player contributes in the ‘right’ way to the whole. What every musician plays in detail becomes secondary, as long as it is the ‘right sort of musical component’. (pp. 7–8)

Power prefers group improvisation, but says that four musicians “would be the maximum number of people for an improvisation”. The reason for his opinion is that “when you are improvising in music, the key component is focusing on what the other person is playing, not what you are playing”, which becomes difficult with more than four participants. (Power 1996: 1)

Large ensembles, as well as good ensemble improvisation, may need some kind of a referent.

As a general rule, the larger the performing ensemble, the more restricted the scope for successful improvisation, and the more necessary a detailed referent to achieve overall coherence. /.../ An ensemble without an agreed-upon common referent (e.g., free music ensemble) frequently results in a presentation of co-existing rather than inter-relating streams. (Pressing 1984: 351)

Solomon (1986) thinks that “the number of players in an improvisation ensemble has a profound effect on its outcome”. The need for control is proportional to the number of musicians. As the number of musicians increases, Solomon has observed that “there is a greater trend towards unifying elements, such as pedal points, tonality, rhythmic and melodic motives, etc.”, “there is less variation in individual parts”, and that “there is greater individual restraint”. (p. 232)

The ideal size for an improvisation ensemble is, according to Solomon’s experience, two to five members. (p. 232)

SUMMARIES AND REFLECTIONS

Ensemble size

A. Recommended group sizes for free ensemble improvisation:

- 1- 4–12 musicians (Bergström-Nielsen 1998)
- 2- 4–5 musicians (Lutz 1999)
- 3- 3–4 musicians (Pignon 1992)
- 4- max 4 musicians (Power 1996)
- 5- 2–5 musicians (Solomon 1986).

If one compares the alternatives, one finds an ideal size of four musicians, followed by the alternatives three or five musicians, that is, the median for the alternatives is 3–5 musicians. (points 1–5)

The determining word behind each respective alternative seems to be *enough*; big enough for the individual to get varied impulses, and small enough so that each member will be able to make himself heard as an important part of the group; small enough to be grasped, big/small enough to achieve self-organising FFE instability, and small enough for everyone to be able to focus on what everyone else is playing.

For smaller improvisation ensembles, even I tend towards the median alternative, i.e. 3–5 musicians, as best suited for the ‘enough’ opinions above. Also, a group of, at the most, five musicians is easier to handle logistically than a larger group, which is an insight that has been acquired in a way that has not always been unproblematic. In addition to, and apart from the size of the ensemble, the combination of instruments is also of interest (see below).

Large ensembles

B. Large ensemble improvisation is:

- 1- a scarce commodity (Fell 1998)
- 2- a high-risk strategy, possibly with musically modest benefits (Fell 1998)
- 3- a high-risk activity that is difficult and kind of impossible (Bailey/Martin 1996).

I have had the privilege of working in both small and large free improvisation ensembles, even though the latter has been “a scarce commodity” for me as well (point 1). My experiences from large improvisation ensembles have not given me any reason to categorically speak of a “high-risk strategy” or a “high-risk activity” (points 2, 3), but rather of an exciting journey with greater possibilities for musical variation/combinations than in small improvisation ensembles. I reject decidedly the notion that large ensemble improvisation would be impossible, but admit that it is more difficult to manage than improvisation in small ensembles, since there are more musical contributions to take into account and relate to in large ensembles than in small ones. The possible musical reward has about the same musical odds as improvisation in small groups, and can include everything from catastrophe to success.

The most evident difference is that each musician gets less musical space in a large improvisation ensemble than in a small one, and, to a corresponding extent, less responsibility for if and how the improvisational process develops. Another difference is, as

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mentioned above, is of a logistical nature; it is more difficult to manage and coordinate all the practical things in connection with concerts and trips, etc., in a large improvisation ensemble than in a small one.

C. Larger groups do not seem to produce anything satisfactory in the way of improvisational form, but only rather stable, highly entropic, static states (Pignon 1992).

I think I understand what Pignon refers to when he talks about only stable, highly entropic, static states, since I have experienced this in large ensemble improvisation. As I interpret the expression, such states occur when everyone plays simultaneously and the musical event density, and often also the strength, is high and even, and therefore the possibilities for interactive detailed playing between a few musicians fewer. I have experienced this, but the critical word in this context is “only”. During the 1970s, when we tested, among other things, playing in a large free improvisation ensemble, these highly entropic states occurred rather often, and they were often stable and static. Over the past ten years, playing with some of the same musicians, my experiences have, however, been different. The stable, highly entropic, static states have not occurred as often or for as long a period of time, and the improvisations have far from “only” consisted of these states. On the contrary, most of the time has been used by smaller constellations, even soloists, within the large ensemble, while the rest of the ensemble has been silent or acted as a discreet background. Occasionally, these constellations/solo sections have been replaced by collective manifestations, which I have not, however, in the context, experienced as stable, highly entropic, static states, but rather as refreshing contrasts to, and often musical consequences of, the constellation/solo sections.

Yet another view can be that stable, highly entropic, static states are not necessarily, and not by definition, something bad; they can also be seen as something musically good and satisfying by their creators. This happens occasionally. (cf. “sound mass” in 6.2.3 Interaction – communication – conversation, 6.2.4 Ways of interaction – relations – complexity)

D. When large ensemble improvisation is good, it is quite amazing and something incomparable; when it is successful, it is extraordinary (Bailey/Martin 1996).

My experiences during the past few years cause me to believe that free large ensemble improvisation is possible at an acceptable musical level, that it can be and sometimes is fantastic, something incomparable and extraordinary, but also, as mentioned above, that it is a somewhat clumsy apparatus that does not allow as much freedom for the individual musician or demand as much responsibility as free small group improvisation. (see point B)

E. The more people that are improvising simultaneously, the more important it becomes for each to have the ability to change his direction on the spur of the moment, according to the ever changing context (Ellis 1965).

This is certainly the case, albeit with certain reservations. There is a certain delay before a new direction has taken root in the entire ensemble, and the delay probably increases the more musicians there are in the ensemble (see 6.2.4 Ways of interaction – relations – complexity). No matter the size of the ensemble, less delay of course means greater

demands on the musicians to be able to quickly and without preparation change direction – and the other way around. Another alternative is to see an intrinsic value in the delay and its effect(s), and to remain there interestedly as long as possible. Then the demand to be able to quickly change direction no longer exists. Quick changes in direction might even be something negative.

The delay is, however, not only dependent on the size of the ensemble but also at least as much on the quality of the musicians. The more skilled the improvisers, the less time a change in direction can take, whether the ensemble is large or small, as long as all the musicians are interested in the change. If not everyone is, the result will either be different parallel directions or that the last-born direction lives a short life. A free improvisation ensemble, whether it is large or small, can, but does not have to work, and does not always work, just like a flock of birds or a school of fish that apparently without preparation change direction immediately and simultaneously.

One can therefore only claim that skilled improvisational musicians should be able to change direction quickly and without preparation according to the ever-changing context, but not that they have to do so. If they choose not to do so, this does not necessarily mean that they are worse improvisers or that the improvisation is less successful.

F. It is more difficult to assemble a set of almost like-minded musicians into a large group than into a small one (Fell 1998).

In my case, large ensembles have come about as a result of a common initiative by a group of musicians. After having made this decision, the group has gone on to invite musicians that the group has believed in and felt to be suitable for the context. The group that took the initiative has, of course, asked musicians that the group felt were like-minded. Certain musicians later showed themselves no longer to be like-minded and could, without any discord, say no to the invitation. Others have thought that they were like-minded, but have realized after a while that free large ensemble improvisation was not their ‘thing’ and have also, without any discord, left the group. There have, however, always been enough musicians who were like-minded and continued to be so. I have therefore not experienced much greater difficulty in collecting musicians to take part in a large free improvisation ensemble than in a small one. I think this may partly be due to the fact that large free improvisation ensembles are relatively uncommon and can therefore seem interesting for improvising musicians, and partly due to the fact that musicians naturally see the unique musical potential of such an ensemble and want to experience its manifestation.

It has, however, shown itself to be true that it is more difficult to keep a large ensemble together for a longer period of time than it is to keep a small one together. In a large ensemble, the individual musician is more anonymous than in a small one, gets less space, and therefore probably feels less responsibility for the ensemble as a whole, which makes specific projects/concerts more important as a motor for a large ensemble’s existence and survival than is the case with regard to a small ensemble. (see 1 The path)

G. Large ensembles are characterized by the fact that:

1– it is more difficult to place everyone so that everyone hears each other (Fell 1998)

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It is obvious that musicians cannot interact sensitively without hearing one another. It is also obvious that there is a limit to the number of musicians that can meet in a space so that everyone hears everyone else, due, among other things, to the room one is in, its size, form and acoustics. If this limit is exceeded, it becomes more difficult to carry out a free ensemble improvisation in a meaningful way without any form of directing – especially if everyone plays simultaneously and perhaps louder than they otherwise would have done.

Besides the positioning of the musicians, the combination of instruments and the sound colour are decisive for the musicians being able to hear one another. Quiet instruments risk disappearing in the sound picture if and when they are combined with louder instruments. Many instruments of the same kind make it more difficult for the musicians to discern who does what. In large ensemble improvisation, instrumental combinations and sound colour are therefore just as important to take into account as the positioning of the musicians.

- 2- it is difficult to employ the sound potential structurally, without some sort of normative organization (for a majority of the players to merely reading notes) (Jost 1994)

*In Karush, structure is defined as a system of connections between elements in a set. (Karush 1970:311)

*In The Swedish National Encyclopedia [Nationalencyklopedin (NE)], structure is defined as the inner relations and connections that prevail between the parts of a whole. (The Swedish National Encyclopedia: Structure [Struktur])

In relation to Karush and NE, I define improvisations as “sets” or “wholes”, gestures and sections as “elements” or “parts”, and material and functional relations as “connections” or “relations” (material and functional relations, see 6.2.1 Listening). Structure then becomes the material and functional relations that come about between gestures and sections in improvisations. With this definition of structure, all improvisations (even the freest) unavoidably attain a structure. In light of this view, I interpret the difficulties of using the sound potential in a structured way, without any normative organization, for example, in the form of sheet music, such that structure stands for some special (and predetermined?) kind of structure that is desirable and that is seen as a prerequisite for discussing structure at all. However, according to my understanding of free ensemble improvisation and my definition of structure, I feel that free ensemble improvisation, no matter the size of the group, is not consistent with having to attain or adhere to any special kind of structure, nor do I feel that any manifestation of structure can be a non-structure, nor even considered as having a better or worse structure – improvisations quite simply get the structures they get.

- 3- all the difficulties and uncertainties of improvised music making are multiplied proportionately [to the number of participants] (Fell 1998)
- 4- the need for control is proportional to the number of musicians (Solomon 1986).

It is certainly true that some difficulties and uncertainties increase proportionally to the number of participants in free ensemble improvisation (point 3). The examples mentioned above of difficulties that musicians have hearing one another (positioning of musicians,

instrument combinations, and sound colour) are proportional to the number of musicians in the ensemble. Yet another difficulty that is proportional to the number of participants is the increased complexity that can occur in large ensemble improvisation – especially if and when all the musicians play simultaneously (see 6.2.4 Ways of interaction – relations – complexity).

The opinion that large ensemble improvisation results in a sounding chaos rather than in a meaningful ensemble improvisation is sometimes voiced. This opinion is touched upon above (point C) and I would like to make further comments on “stable, highly entropic, static states” by summing up with the words musical maturity. It is clear in the comments to point C that the large ensemble improvisation that I have experienced became somewhat different during the 1990s compared to the 1970s. Musical maturity is the reason for this. We had learned to better vary large ensemble improvisation with regard to tutti, smaller constellations and soli, and even vary the dynamics and the density of events during the tutti sections. This demands musical maturity in the form of discipline and judgement regarding when, what and how one should play (or pause) so that the whole can be experienced as satisfactory.

It is thus not so simple as saying that the need for control in free large ensemble improvisation is only proportional to the number of participants (point 4). More decisive for the success/failure of a free large ensemble improvisation is quite simply the musical maturity of the participants.

To the extent that it exists, and as a consequence of musical maturity, not everyone plays all the time in free large ensemble improvisation, just as everyone does not always play in a symphony orchestra. This leads to shifts between tutti, smaller constellations and soli, the latter with or without background. As a consequence of musical maturity, the dynamics also vary (besides the demands placed by the relations between loud–quiet instruments), and the density of events in both tutti and constellation sections, which, together with shifts between tutti, smaller constellations and soli, make it easier for the participants to hear one another and thus be able to perceive and grasp the ever-changing complexity.

There are two possibilities for the tutti sections occurring: either everyone does not hear everyone else, depending on the conditions described above, or they do hear one another, because the ensemble has adapted to the conditions described above. If the state does not last too long but takes on a more ephemeral character, even the first alternative can be accepted; however, generally, the second alternative is naturally preferable (cf. views under point C).

Yet another consequence of musical maturity is that the combining of instruments in smaller constellations becomes more self-regulating so that the ensemble as a whole strives for varied/contrasting instrumental combinations and for the optimal functioning of the instrument combinations. This is attained either through the combinations in themselves (similar–dissimilar and quiet–loud instruments respectively) or through the musicians in the smaller combinations that do occur, quite simply adapting to the potential of the instruments that the combinations are made up of.

Regarding the positioning of the musicians, my experience has shown that common sense, previous experience of large groups, and, if necessary, collective decisions about

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where the musicians should be positioned go a long way. Even this is a consequence of musical maturity.

I therefore see the need for control in free large ensemble improvisation as conversely proportional to the musical maturity of the participating musicians rather than proportional to the number of musicians.

H. Effects in large ensembles are that:

- 1- there is a greater trend towards unifying elements, such as pedal points, tonality, rhythmic and melodic motives, etc., less variation in individual parts, and that there is greater individual restraint (Solomon 1986)

That there is a greater trend towards unifying elements, such as “pedal points, tonality, rhythmic and melodic motives, etc.”, in large free improvisation groups than in small ones is not something I have noticed. To the extent that such elements occur, and they do, they occur, as far as I can tell, independently of the size of the group. The same holds true for “less variation in individual parts”. A musician does not generate less imagination and creativity because the ensemble is large. However, as noted earlier, there is less musical space (“greater individual restraint”), which has to do with the size of the ensemble.

- 2- a tutor/managerial division is set up that tries to ensure that the player contributes in the ‘right’ way to the whole (Pignon 1992).

I do not recognize that the idea of a tutor/managerial division, which tries to ensure that the player contributes in the ‘right’ way to the whole, is automatically set up in large improvisation ensembles. I have, however, often experienced self-critical conversations after improvisations, conversations that have taken place whether the group has been large or small, that have included all the group’s participants and that have, for the most part, been fruitful and meaningful. These conversations have, in turn, influenced future improvisations with the group and have in this sense been indirectly tutorial, but not supervisory or managerial. Such conversations are just as important in all free improvisation ensembles, large as well as small.

I have difficulty seeing how a tutor/managerial division could work in real-time other than possibly by it dominating the ensemble with musical examples (I am not including, sheet music, conductors, etc. here). If this were to happen, however, it would probably be ill-received by the other musicians and would maybe result in some musicians consciously playing in another manner or not at all, and in the worst case cause the ensemble to break up.

Methods of directing – directing

I. Directing can be placed into three principal method categories:

- 1- non-invasive, which allow the musicians to feel sufficiently unencumbered to improvise sensitively, creatively and effectively, using their musical sensitivities alone to guide them (Fell 1998)

If I were to grade the directing method categories according to how much they disturb the musicians in free ensemble improvisation, invasive methods would come first, as most

disturbing, “soloist(s) and the rest” second, and non-invasive methods third, as the least disturbing.

Of the methods for directing I have had the opportunity to try, it is the non-invasive methods that have worked best since they force the musicians to a lesser extent to divide their attention between what is actually happening in the improvisation and some other activity, such as, for example, reading and following instructions (texts, graphics, etc.) or following the directions of a leader. To a correspondingly greater extent, they allow the musicians to improvise in relation to each other’s contributions and thereby let themselves be led by what they actually hear and by their musical intuition.

Of the non-invasive methods, those that only comprise a who-plays-with-whom approach have worked best since even general descriptions of the material to be explored, or indications of moods/atmospheres that the music may seek to generate do not either take into account what is happening in the improvisation, i.e. how it is actually developing.

The difference between the non-invasive who-plays-with-whom methods I have tried and Zorn’s “game pieces” (see 14.3 Mixed forms) is that the different musician constellations in the latter are put onto a timeline, with its resultant time limits. In the former, however, they are only put in a temporal order without any time limits. This difference is important because even a predetermined time limit fails to take into account the way the improvisation within the respective constellation actually develops.

Non-invasive methods at least show one possibility of using the sound potential of a larger group in a predetermined, ‘structured’ way without going back to the organization of the classical big band.

- 2- invasive, which prove most problematic for improvisers, and much care is required if they are to be used with any degree of success (Fell 1998)

I have experienced invasive methods as distracting, and sometimes as overtly disturbing, since they take into account what is actually happening in an improvisation to a lesser extent than non-invasive methods. They also demand to a greater extent that the musicians divide their attention between the improvisation and some other activity. This certainly makes such methods “problematic for improvisers”, and certainly “much care is required if they are to be used with any degree of success”. The question is if they are at all consistent with and useful in free ensemble improvisation. I do not think so.

- 3- “soloist(s) and the rest”, which tends to encourage an either/or mentality, with musicians either free to contribute spontaneously or not. This compartmentalisation is a backward step. It seems to encourage musicians to resign their responsibility for the music, which is the last thing improvisation should seek to inherit from classical forms. (Fell 1998).

Directing in the form of “soloist(s) and the rest” can be formed in different ways. If the soloist on the one hand is free while the rest are to follow cues, notations, etc., this form of directing becomes a mix of free improvisation (the soloist) and invasive methods (the rest). A consequence of invasive methods taking less account of what is actually happening in an improvisation is that they take away the possibility to be able to decide from “the rest” of the musicians, the suitability of playing at a given moment and how the contribu-

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tions should be formed “within the wide-ranging spectrum from silence to total dominance”, which makes this method of structuring a backward step, if seen from the point of view of free ensemble improvisation.

If, on the other hand, the division between the soloist and “the rest” takes place according to a non-invasive who-plays-with-whom method, the soloist is still just as free, and the other musicians are free to decide when, what and how they should play in relation to the soloist.

The first method can hardly stimulate the musicians to take more or even just as much responsibility for the music as the second, and also means that the musicians leave the responsibility for the music to another person, that is, the one who stands for the cues, notations, etc. This attitude is certainly not something free improvisers should “inherit from classical forms”.

Moreover, one can, within this form of directing, accept playing in turns, without any limits for the soloists and leave the rest to “the rest” to shape their contributions as they wish, according to their own judgement and in relation to what the respective soloist plays.

Self-chosen limitations may be another aspect of directing. (see 8 A word about freedom)

J. Predetermined structures can cause improvisations to be interpreted as if they were compositions (a habit that is deeply ingrained), or lead to the belief that composed structures are necessary to successful group improvisation (Couldry 1995).

Free improvisers do not, of course, want their free improvisations to be interpreted as compositions. What would the point of free improvisations then be? Predetermined structures are, in themselves, compositions. To improvise according to predetermined structures is, then, to interpret such compositions. Free ensemble improvisations are, however, not compositions or interpretations of compositions, and predetermined structures are consequentially not necessary for free improvisations, not even for, or perhaps especially not for, successful ones. I even find it probable that a predetermined structure in the form of, for example, a detailed referent hinders rather than contributes to the coming into being of “inter-relating streams” (see point N), since it is through such a referent that certain “streams” are rejected, and only those that are consistent with the referent are accepted. A referent also causes the musicians to divide their attention between what is actually happening and the referent. (see 6.3 Definitions, 14.3 Mixed forms, 15 Free improvisation – interpretation)

K. If large improvisation ensembles are the result of one person’s idea, this can:

- 1- obviate the necessity of the musicians to accept public responsibility of the whole of the resulting music (Fell 1998)
- 2- cause the role [identity] of the large group as an improvisation ensemble to become blurred (Fell 1998)

A free improvisation ensemble can be the result of one person’s idea in one or both of two ways. It can be created through one person’s initiative but afterwards be left free to collectively develop musically; or it can, after its creation (by one or more creators), also be more or less directed musically by one person’s idea. As noted, I have not experienced either of these variants, but see the first as acceptable and consistent with free ensemble

improvisation (cf. point F). The other way, however, is not acceptable. That one person's idea should direct a free improvisation group musically is just a way of giving referent structures a voice and two legs instead of them being on paper or in another form. In the latter case, the musicians do not take responsibility for the music themselves but have given it to another person (who, if the person is a conductor, does not even take part in the ensemble playing) (point 1). In such a situation, one can naturally ask oneself if the group's identity really is a free improvisation ensemble (point 2). I do not think so.

3- cause the idea of mutually-agreed aesthetic criteria to be side-stepped (Fell 1998).

This can only take place as a consequence of the second way, according to the comments to points 1 and 2, and is thus not consistent with free ensemble improvisation.

Aesthetic criteria that have been mutually agreed upon can, of course, be of different kinds in a free improvisation ensemble. The only aesthetic criteria that can be mutually agreed upon and that are consistent with free ensemble improvisation are, in my view, that the musicians accept the musical result no matter how it turns out and that the musicians strive for as good an interaction as possible. (Outer and inner aesthetics, respectively, see 6.1.1 Solo – ensemble, 9 Evaluation).

What is considered good interaction can, however, not be stipulated in advance, and especially not by one person. All the participating musicians can, however, speak of this afterwards, which is not unusual (see point H). During such conversations, both the views that the participants mutually agree upon, as well as the views that they do not mutually agree upon, can come up. A certain disagreement about these views can work as a positive force in the development of an ensemble, on the condition that the different viewpoints are tolerated and experienced as dynamic and negotiable by the participants, and on the condition that the conversations are not allowed to be dominated by the views of one person. (see 9 Evaluation)

Acceptance of the music as it turns out does not, however, preclude the musicians, during conversations afterwards, from wanting to ventilate their views on the musical result, too. This is not unusual, either (see point H). Nor should such conversations be allowed to be dominated by one person's viewpoints. (see 9 Evaluation)

L. As a result of directing:

- 1- the room for spontaneous processes of evolution is reduced, as is the individual creativity of a majority of the players (in the worst case, to merely reading notes, if one does revert to the normative organization of the "classical" big band) (Jost 1994)
- 2- details in the the playing become secondary (as long as it is the 'right sort of musical component') (Pignon 1992).

These viewpoints are really self-explanatory. If a process is directed, the space for spontaneous developmental processes must necessarily be limited to the scope of the directing framework. If a process is directed, then the participating musicians must necessarily limit and adapt their creativity to the directing conditions and cannot be fully creative, not even within the framework of their own limitations. This is especially evident in such a relatively strictly directed process as playing written notes. (point 1)

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If a process is directed, the details of the playing must, necessarily, comprise “the right sort of musical component”, where “right” is included within the directing conditions and the rest is not. (point 2)

M. Imposed structures make large ensemble improvisation kind of easier, but it also sort of misses the point [of free improvisation] (Bailey/Martin 1996).

An improvisation orchestra neither needs to nor should want to emulate the structural effects and cohesive strategies employed by composed music (which allows the tender flower of improvisation to flourish more readily) (Fell 1998).

I do not believe, from the reasoning above, that imposed structures necessarily make large ensemble improvisation simpler, but I do share Bailey’s opinion that they miss the point of free ensemble improvisation.

It is better, like Fell, to accept that the music in a large free improvisation ensemble “neither needs to nor should want to” be like composed music (and why should it?), i.e. be bound by any form of directing, and instead let it flourish as easily and as readily as it can on its own terms. The same reasoning applies to small free improvisation ensembles as well.

Directing of any kind, and in all its forms, makes free ensemble improvisation, to various degrees, into something other than free ensemble improvisation. The only form of directing that I really think is acceptable is to have a selective choice of co-musicians, with good musical maturity, and not in the form of what they should play. (cf. 7 Intuitive music, 14.3 Mixed forms)

N. Large ensembles need:

- 1- some type of limits (Hodginson, Fell, Hayward & England 2003)
- 2- a larger measure of musical organization and preplanning than smaller groups (Jost 1994)
- 3- more than smaller groups, a detailed referent to achieve overall coherence, and to avoid co-existing rather than inter-relating streams (Pressing 1984).

The only form of directive limitation (points 1–3) that is consistent with free ensemble improvisation is, as noted above, to have a selective choice of participating musicians with good musical maturity; not notes, referents, conductors and normative organizations, etc. Such a form of directing contributes to reaching an all-encompassing concord and to avoid mere “co-existing”, in favour of “inter-relating streams”. Apart from logistical questions, such organizing and preplanning are the preferable forms of directing limitations and are what give the best result from the point of view of free ensemble improvisation. Finally, the ultimate referents, and the only ones that are needed, are the musical gestures in themselves, that is, one’s own and those of the other co-musicians.

6.2 HOW FREE IMPROVISATION COMES ABOUT

6.2.1 Listening

REFERENCES

Barry Truax has, according to Borgo (1999), “described three general modes of engaging with the acoustic soundscape: *listening-in-search*, *listening-in-readiness*, and *background listening*”.⁵ (pp. 79–80)

Background listening “occurs continuously when we are not listening for a particular sound . . . where the listener is actively engaged in some other activity”. (p. 80)

Listening-in-readiness implies for Truax a “state of attention to receive “significant” audio information and familiar sounds-associations built up over time that may be readily identified”. (p. 80)

Listening-in-search means that “one scans the acoustic soundscape for particular sounds, attempting to extract or create meaning from their production or the environment’s response to the sounds produced”. Listening-in-search “is the active and openly receptive stance advocated by most practicing free improvisers and committed fans of the music”. (p. 80)

Ensemble improvisation succeeds, according to Bradlyn (1991), as music “only to the extent that listening achieves equal status with playing”. (p. 23)

And further that “the better listeners we are, the better our playing will be, regardless of our technical expertise or instrumental virtuosity”. (p. 26)

In *Sonic Meditations*, Pauline Oliveros distinguishes between two kinds of attention: “focal (linear, sequential, directed) and global (diffuse, non-linear)”, and regards them as “complementary processes which are incorporated in activities for both musicians and non-musicians”.⁶ (Briggs 1986: 5)

The improvisational process demands, according to Nunn (1998), “intense concentration on the music as it happens (as well as some level of technical proficiency)”, and an intense listening to the whole. One must not be so focused on what one is “responsible for” individually that there is “little or no attention to the potential music, itself”. Even if this might seem elementary, “it is perhaps the greatest hurdle, initially, in learning to free improvise”. (pp. 70–71)

For him “it is an easy fact to verify that most free improvisers consider listening as a major, if not the most important, skill an improviser can have”. This skill “goes beyond instrumental technique; it goes beyond compositional acumen”. (p. 87)

⁵ Barry Truax. *The Listener. Musicworks*, 1986, 35:13-16.

⁶ Urbana, Illinois: Smith Publications, 1974.

We do not listen just as much to every sound in the music. Our listening is focused so that the listening is tuned to a special detail in the total musical field. The listening can also shift focus so that it is directed from one sound to another, even if both sounds occur simultaneously. The rest of the music forms a background to the figure one is listening to. (The Radio Conservatory [Radiokonservatoriet] 1968b: 26)

SUMMARIES AND REFLECTIONS

Before I comment on the types of listening mentioned above, I would like to give my opinion about my own listening.

I differentiate between musical and non-musical sounds. The non-musical sounds consist of audience noise, traffic noise, the clink of porcelain, to name but a few examples. By musical sounds, I mean those sounds that come from the playing of the ensemble members, and that I understand as intended to be part of the ensemble playing.

*Stockfelt (1997) speaks of hearing away as a way to refrain from hearing sounds that disturb the listening one is focused on. (p. 45)

Specialists in music do this the same way. They also choose a listening mode and listening object in order to hear what they intend to hear. They even choose, on account of their intentions and knowledge, to class sounds as “right”, “irrelevant” or “disturbing”. They learn to ‘hear away’ the irrelevant sounds, and they learn to tolerate the disturbing sounds, as long as they do not become too powerful in relation to the sounds they want to find in the music. (p. 81)

[Specialisterna på musik gör på samma vis. Också de väljer lyssnarmodus och lyssnarobjekt för att få höra det som de avser att höra. Också de väljer, på grund av sina avsikter och kunskaper, att klassa ljud som ”riktiga”, ”ovidkommande” eller ”störande”. De ovidkommande lär de sig att borthöra från och de störande lär de sig att tolerera om de bara inte blir alltför kraftiga i förhållande till de ljud som de vill finna i musiken. (s. 81)]

I almost always “hear away” the non-musical sounds, if they are not already drowned by the musical sounds, and they usually do not affect the music but only maybe disturb my concentration. This is not to say that these sounds could not be internalized in the ensemble playing. (The only example of internalization that I can remember, though, is a concert where the sound of a listener’s oxygen tank consciously became part of a quiet and rhythmically-broken end to an improvisation.)

What I hear when I listen to the musical sounds are, based on the sounds/pauses, gestures and relations between gestures. Indirectly, and in a longer temporal perspective, I also hear sections, including transitions between these sections, and, to a certain extent, even relations between sections.

Sounds/pauses have properties. By properties, I mean values within the parameters length±, strength and height. (‘Height’ is used synonymously with the more narrow ‘pitch’, since it is my experience that even different instruments without a fixed pitch, such as, for example, cymbals and drums, have different ‘heights’. Pauses only have the

property of length, and the length of the sound/pause is written as length± here. ‘Length’ is used synonymously with duration, and ‘strength’ is used synonymously with loudness/volume.) I use these parameters because they are the basis of my own improvising.

In this perspective, gestures can be seen as (different) value series within these parameters. A value series is determined by the included values’ size, number and order. Value series can be successive over time or entirely/partly simultaneous. I can discern the parameter values for length±, strength and height more or less exactly or approximately.

Sound also has sound colour (or here, just colour). By colour properties, I mean instrument (names), individual instruments or combinations of instruments, and (descriptions of) timbre / timbre shifts within the framework of the respective instrument’s possibilities. Colour does not, however, influence my improvising to any greater extent (the instruments serve primarily as a medium to identify who plays what, and timbre primarily as only a ‘sound spice’), which is why I have not included colour among the parameters above (see however 6.1.2 Ensemble, and 6.1.4 Ensemble size – large ensembles – directing, about negative colour effects). Yet another reason for this is that colour is apparently instrument-specific, while the above parameters apply to all instruments, which, from my perspective, makes colour less interesting than length±, strength and height, even from an analytical point of view.

Gestures can also be seen as value difference series within the named parameters, that is, as curves within the respective parameter. A value difference series (curve) is determined by the size of the included value differences, their direction (up = positive value difference, down = negative value difference, straight = no value difference), number and order. Even value difference series can be successive over time or entirely/partly simultaneous.

*What the listener hears “is not dependent upon the pitches or exact rhythm, but rather upon other factors, such as the shape /.../ of the phrase”.

(Westendorf 1994: 94)

*The concept of musical contour has great importance.

For instance there are interesting studies showing that contours of melodies can often be more readily recalled and for longer periods, than their precise intervallic structure. /.../ Any musical material has a contour which can be recognised, whether it’s a rising phrase in a melody, or a rapid pulse. (Dean 1989:5)

If gestures are not played slowly enough and/or repeated enough times, I can seldom in real-time have the time to discern gestures more than as curves, or as “shapes”, or as “contours” within different parameters. (see 6.2.2 Process)

I can also discern sounds in themselves as value difference series, as curves, within the parameters strength and height over the length of the sound. (see 19.2.1 Complementary material under the term heading: Properties, appendix A2 Gesture processing alternatives)

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I divide relations into material and functional relations. I define material relations as similarity–dissimilarity with regard to values / value differences or value series / value difference series, possibly in terms of repetition, variation or contrast. I define functional relations as musical functions in terms of foreground–middleground–background or just foreground–background. Relations can be established intentionally or unintentionally; whether one wants to or not, a gesture gets relations to other gestures.

*Westendorf defines a gesture as “a musical thought or entity complete unto itself” that can “vary in length, style (or type), articulation, tone, dynamic quality, rhythm, pitch, etc.” (Westendorf 1994: 91)

*Reinholdsson feels that “a musical gesture may include any tone or combination of tones which are marked off as a unitary event (with beginning and end)”. (Reinholdsson 1998: 130)

I share these views and by “gesture” quite simply mean what I hear and perceive as being a gesture, and where I, as mentioned above, often hear the gesture’s form (curvature) within different parameters more than its exact parameter values. I define a gesture as an intuitive selection of sounds/pauses. Thus, gesture and sound can coincide so that a gesture can consist of only one sound. Gestures can be individual or collective, with successive or entirely/partly simultaneous sounds/pauses. In the same way that there can be pauses between the sounds in a gesture, there can also be pauses between gestures. The term gesture here includes/replaces the perhaps more common term motive.

A section is a larger part of an improvisation that is, in at least one aspect, discernible in relation to the preceding and following sections. Analogous to the definition of the term gesture, I define a section as an intuitive selection of gestures. A section and a gesture can thus, analogous to the relation between a gesture and a sound, coincide so that a section can consist of only one gesture. Gestures in a section can be successive or entirely/partly simultaneous.

One difference between gestures and sections is that the former, as opposed to the latter, can overlap over time, since more than one musician is generally active at the same time in ensemble improvisation (see appendix A3 Number of cases of overlapping for ranges). This naturally complicates the listening to gestures and the relations between gestures (see 6.2.4 Ways of interaction – relations – complexity). Since the transition from one section to the next, however, takes some time, one can perhaps see a certain overlapping even between two adjacent sections during the course of the transition. This is because the later section may be started on, through the activities of certain musicians, before the earlier one is finished by the the remaining musicians (see 6.2.4 Ways of interaction – relations – complexity, 17 Free improvisation – system analogies).

*Nunn sees “gestural continuity/integrity” as “the overall articulative, generative character of CONTENT in free improvisation” and “segmental form” as “the overall formal characteristic of CONTENT, as a reflection of the structural character of Gestural Continuity/Integrity.” A section can be thought of as a “formal gesture”, which articulates a particular musical character. Together, these “formal gestures”

tend to create “Segmental Form” consisting of “numerous sections with specific musical character adjacent to one another via Transitions”. (Nunn 1998: 53–54)

Gestures represent for me not only “the overall articulative, generative character of CONTENT in free improvisation”, but I also see them as formal units in themselves, and, together with sections, as the most important and really the only formal units in free ensemble improvisation. Thus, for me, gestures and sections together constitute “the overall formal characteristic of CONTENT” in free ensemble improvisation, where gestures form sections and sections form “segmental form”. Both of these formal units can, if necessary, be divided into sub-gestures and sub-sections respectively, or be put together to form meta-gestures and meta-sections, respectively.

I see the interplay between gestures and sections as more complicated than the latter only reflecting “the structural character of Gestural Continuity/Integrity” since a section can include gestures that have a number of divergent structural and musical characters compared to the section as a whole. This means that a section does not necessarily have to have only one structural/musical character; it can have several.

A. Three types of listening, including sub-divisions, are mentioned in the references:

- 1- focal and global (Oliveros/Briggs 1986)
- 2- listening-in-search, listening-in-readiness and background listening (Truax/Borgo 1999)
- 3- figure listening and background listening, respectively (The Radio Conservatory 1968b).

With regard to musical sounds, I do, in fact, focus on the gesture(s)/section(s)/relation(s) I am interested in at the moment as a base for my own improvising. I call this focus primary listening. Other gestures/sections/relations belong to secondary listening.

Primary listening corresponds to “focal”-listening, “listening-in-search”, or “figure listening”. Secondary listening corresponds to “global”-listening, “listening-in-readiness”, or “background listening”. (points 1–3)

Primary and secondary listening, respectively, are independent of what, in analytical terms, can be called foreground, background, solo, accompaniment, etc. Primary listening can be directed just as easily towards the foreground as towards the background, towards accompaniment as towards solo, and can shift direction/object quickly.

There are two special cases within primary/secondary listening. The first case occurs when one/several instruments in the prevailing acoustic situation is/are drowned by the other instruments. Then the instrument(s) is/are not heard at all – neither in the primary nor in the secondary listening. The second case occurs in those situations where I experience all the instruments melding together into a whole. Then, both primary and secondary listening blend together into one listening.

I do not see the alternative “background listening” (point 2) as applicable to free ensemble improvisation, since one is not actively engaged in any other activity while improvising, and because one listens for special sounds, namely the musical sounds.

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B. Listening is important because:

- 1- the improvisational process demands an intense concentration on the music as it happens and an intense listening to the whole (Nunn 1998)
- 2- ensemble improvisation succeeds as music only to the extent that listening achieves equal status with playing, and the better listener we are, the better our playing will be (Bradlyn 1991)
- 3- listening is the major, if not the most important, skill that an improviser can have (it goes beyond instrumental technique and compositional acumen) (Nunn 1998).

It is rather obvious that free ensemble improvisation demands “an intense concentration on the music” and “an intense listening to the whole” (point 1), since there is nothing else to adopt as a base for the interaction between the musicians, that is to say, the ensemble improvisation, than their listening to one another. Notes, conductors and stylistic models are no longer present, and the only thing left to musically relate to is what is actually sounding and how it is sounding.

Listening reaches beyond instrumental technique when it makes us better at interacting quickly, sensitively and musically (point 3). In this sense, our playing becomes better, the better our listening is (point 2). The instrument and our instrumental skills are only tools for this. However, in order for interactively-directed listening to reach satisfactory results as reactions to what is heard, instrumental skill is necessary – the instrument must not be in the way. I therefore see both listening skill and instrumental skill as important, but they have different functions (points 2, 3).

Ideal listening should finally result in a good, yet shifting balance between one’s own playing and that of others, as well as between the music in the moment and the music as a whole. This is, however, an ideal that is not always so easy to attain in practice.

*Nunn gets the last word on the importance of listening for free improvisation. “It was stated that free improvisation is not made, it is allowed to make itself, and this comes from active listening”. (Nunn 1998: 87)

6.2.2 Process

REFERENCES

What differentiates collective free improvisation from other forms of ensemble improvisation is, according to Borgo (1999),

an intent to *self-organize*. Rather than the parts existing *for* each other, in the sense of supporting each other within a functional whole (e.g., the melodic and rhythmic framework of *rag* and *tal* in Indian music), free improvisation aims to have the parts exist entirely *by means of* each other, in a systemic, network fashion. (pp. 68–69)

The communication in ensemble improvisation takes place “as a cycle of listening, interpretation, and (re)action, both on the level of micro events and on the macro level of overall performance form”. (p. 75)

The central aesthetics of improvisation “consist precisely in a transformation of the performer into an explorer of sound, *simultaneously listening and performing*”.
(Couldry 1995: 29)

The unleashing factor in free improvisation is, according to Nunn (1998), the impulse; “Free improvisation is the imagination unleashed through impulse”. (p. 1)

Free improvisation “is not made, it is allowed to make itself”. The free improviser “allows INFLUENCES to work, allows the music to form itself through her/his body and mind, and just as importantly, the group mind”. (p. 70)

The content “must come from the moment of performance and must come from the performer(s)”. (p. 71)

Nunn feels that

the INFLUENCE of CONTENT upon itself is one of the principal characteristics which set free improvisation apart from other forms of music, /.../ and this INFLUENCE occurs as a real time “feedback loop” between Perception and Action. The improviser’s attention is primarily focused on CONTENT. /.../ As the music progresses, a consciousness of its form naturally develops, expressing the improviser’s psychological sensitivity to timing on a larger scale. (p. 72)

The content comes about through the participating musicians creating linear functions consisting of four partial processes:

Linear functions – The intent to create CONTENT as a single “voice”. Four Processes comprise Linear Functions:

Identificational Processes – Creating Identities (establishment).

Continuity Processes – Maintaining Identities (extension/development).

Relational Processes – Relating Identities to group (establishing Relational Functions)

Transitional/Cadential Processes – Leaving Identities (linear cadencing) (p. 46)

where “identities” are “anything about the CONTENT that identifies or draws perceptual attention to itself in some way and maintains identity within the music for some time”. (p. 47)

[Here I equate Nunn’s “identities” with “gestures”. For the alternatives under “relational processes”, see 6.2.4 Ways of interaction – relations – complexity. For the alternatives under “transitional/cadential processes”, see 17 Free improvisation – system analogies.]

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By “contextualization”, Nunn (1998) means “creation of a musical context to imply meaning in retrospect (after the fact)”. An improviser can, for example,

respond to an unaccompanied solo line or motive by supporting it in some way by creating, say, a rhythmic or harmonic Support or Ground. Or, the improviser may imitate the other’s melody or motive, possibly creating a Dialogue. In both instances, the response is to create a musical context for what is heard. If a player makes what sounds like a “mistake”, that “mistake” might be contextualized by repeating it, changing the listener’s initial impression from that of a “mistake” to that of new material or a new idea. (p. 58)

With “projection” he means “action upon the inherent potentialities of CONTENT to imply future direction”, which “is tantamount to quick glimpses of the immediate future”. (p. 59)

Nunn speaks of “the Intelligent Body” and “the Intellect” as collaborating in the shaping of the music.

The Intelligent Body, responsible for the underlying gestural nature of the music, makes lightening-fast decisions on a more or less ongoing basis. Even the most cerebral improviser will rely greatly in the Intelligent Body, simply because the conscious mind cannot perceive and digest that much information or make decisions that quickly and continuously. But the Intellect is also an important INFLUENCE. Traditional compositional strategies are possible products of the Intellect. An improviser could make a conscious effort to “work” a melodic idea through such basic PROCESSES as augmentation, diminution, retrograde, inversion, interpolation, or any number of indeterminate PROCESSES such as randomizing the order of a limited group of pitches, “blurring” a rhythmic groove with arrhythmic counterpoint; or imitate another’s “motive” as accurately and as quickly as possible. The Intellect also remembers, and can, at times, recall Identities and restate them, lending more formal definition to the music. Some particular feature or aspect of the Flow may also be recalled, such as a particular rhythmic figure, and used later in an improvisation. (pp. 76-77)

Pressing (1984) sees improvisation as a form of “skilled performance”, involving “a chain of mechanisms leading from sensory input to motor output”, a chain that improvisers seek to operate “as efficiently and as concurrently as possible”.

That is, improvisation may be viewed as a special kind of aesthetically constrained motor performance that maintains a commitment to high levels of real-time decision making. Sophisticated perceptual, intellectual, and motoric skills are required for success. In common with other kinds of skilled performance, improvisation then involves a chain of mechanisms leading from sensory input to motor output: first, perceptual coding of incoming sensory data; second, evaluation of possible responses and choice of response; and, third, execution and timing of chosen actions (Wellford, 1976)⁷. The dedicated unpredictability of improvisation and the consequent high levels of continuous decision-making mean that the improviser will seek to operate all three stages as efficiently and as concurrently as possible. (p. 353)

⁷ A. T. Wellford. *Skilled performance*. Glenview, Illinois, 1976. Scott, Foreman and Co.

Pressing is of the opinion that stage 3 can occur simultaneously as stages 1 and/or 2: “the automaticity of certain motor sequences shows that stage 3 can occur simultaneously with other processing”, meaning that “the results of one decision can be performed while a new set of sensory data are being processed”. However, he feels uncertain “whether or not Stages 1 and 2 can run concurrently”. That that is possible is “supported by the fact that fluent musical improvisers can produce unbroken complex and coherent melodic strings of notes of nearly arbitrary length at speeds of up to ca. 10 notes/sec”. Another explanation could be that “incoming sensory data of their [the notes] perceptual representations (stage 1) could be stored in short-term buffers to avoid intrinsic interference with evaluation processing (stage 2)”. (pp. 353–354)

He regards feedback, concerning small and larger errors, to be crucial in the handling of skilled improvisation.

In the case of instrumental music, while aural feedback is clearly most important, proprioception, touch and vision are also significant. /.../ In a fixed task, such feedback is oriented towards the detection (and subsequent correction) of errors. In improvisation, only certain kinds of small errors can really be ‘corrected’ – as, for example, in music when a violinist grasps for a high note, misses the correct spot slightly and quickly adjusts the intonation according to a cognitive representation of the correct pitch. This sort of process goes on continually (and in fixed tasks as well), wherever there is a continuous variable which can be fine-tuned for error correction, such as pitch, distance along a fingerboard, or embouchure. Commonly, however, larger improvisational errors occur, such as striking an unintended key on the piano, plucking the wrong string on a guitar, or executing an inappropriately chosen (incorrectly pre-heard) motor sequence on an instrument; errors that are so noticeable and discrete that correction is impossible. Rather, such actions must be accepted as part of the irrevocable chain of acoustical events, and contextually justified after the fact by reinforcement or development. The ability to handle such errors is a crucial component in the array of cognitive skills the improviser brings to the performance. Without such a skill no long-scale musical development would be possible, and the sense of relaxation required for efficient and effective improvisational performance would be difficult to achieve. (p. 354)

Pressing also refers to a model suggested by Glencross, in which Glencross “proposes that the first two stages of Welford’s (1976) three-stage model constitute an executive control system that is feedback dependent, while the final motor output stage, once initiated, normally runs its full course without further sensory or central intervention”.⁸ (p. 355)

One must, according to Pressing, also “note the notions of feedforward”, meaning “the ability to ‘pre-hear’ internally a chosen motor action without relying on either memory or subsequent auditory feedback”, which is “widely recognized as a critical component of musicianship”. (p. 356)

There are, however, practical limits “to the possible complexity of improvised behavior” in “real-time processing”. Attention and memory are usually considered to be two critical variables. Pressing thinks that older models for attention “are clearly

⁸ D. J. Glencross. Control of skilled movements. *Psychological Bulletin*, 1977, 84: 14-29.

inadequate as models here, because they do not allow for the attentional flexibility characteristic of successful improvisation". Instead, he prefers "the notion of attention as the allocation, from a limited pool, of cognitive processing capacity", a "so-called resource allocation model" (developed by Kahneman, and Norman and Bobrow)⁹. Following that idea, he proposes that attention is divided into conscious and unconscious attention, that "conscious attention is the allocation of central cognitive processing (stage 2 decision-making) and that unconscious or automatic attention is the allocation of peripheral cognitive subroutines: perceptual analysis (stage 1) and pre-coded motor sequences (stage 3)". (p. 356)

The resource allocation model of attention

predicts that one can perform two tasks concurrently without interference if the cognitive load of the two tasks does not exceed available resources. Likewise two tasks can interfere if their total processing demands exceed existing capacity. The result of task rehearsal is thus to convert processing routines requiring conscious attention into automatic routines requiring only unconscious attention. (p. 357)

Long-term memory ranges over "musical theory and composition concepts, 'auditory images', specific pieces and motives, and memorized muscular sequences (action units), corresponding roughly to the traditional music labels of theory, musicianship, repertoire and technique", and shapes "the kind of sound ideas the performer will produce, and the way in which they will be developed". Long-term memory is also critical in "establishing long-term musical relations in an extended improvisation". (p. 360)

Short-term memory

shapes improvisation primarily by the limitation of the magic number 7 ± 2 – the number of 'chunks' that may be retained in short-term memory. /.../ This well-known limit implies that few, if any, performers can take all of a sequence of, say, 15 newly-presented notes not arranged in any standard sequence and improvise successfully with them. There are just too many independent variables. Of course, if these notes can be conceptionally 'chunked' into larger groupings, this statement is no longer true. /.../ Without knowledge about theory, musicianship, repertoire and technique, the limits of short-term memory would make sophisticated musical development and impressive technical displays impossible. (p. 360)

The information process in improvisation can, according to Pressing (1988), be divided into three stages: "input (sense organs), processing and decision-making (central nervous system, abbreviated CNS), and motor output (muscle systems and glands)". (p. 130)

The starting point for the description of the improvisational process is once more Welford's information model, "based on sensory input, cognitive processing, and motor output" [see Pressing 1984 above]. To this model is added the "notion of feedback (auditory, visual, tactile, or proprioceptive)". In traditional "open-loop" theories no feedback is included and "hence no mechanism for error correction". "Closed-loop" theories

⁹ D. Kahneman. *Attention and Effort*. Englewood Cliffs, New Jersey, 1973, Prentice-Hall.

D. A. Norman and D. G. Bobrow. On data-limited and resource-limited processes. *Cognitive Psychology*, 1975, 7: 44–64.

do, however, include feedback, and “hence allow for the intuitively natural possibilities of error detection and correction”. Negative feedback within “closed-loop” theories (“CLNF”) is one of the oldest ideas. In that model, “the feedback (primarily auditory in the case of musical improvisation) is sent back to an earlier stage in the control system which compares actual output with intended output, producing a correction based on the difference between the two”. (p. 132)

Both “open- and closed-loop control must occur in skilled performance”, which means that “movements are both centrally stored as motor programmes, and susceptible to tuning (adjustment) on the basis of feedback”. (p. 133)

Feedback can operate over different time scales, which means that “short-term feedback guides ongoing movements, while longer term feedback is used in decision-making and response selection”. Still longer term feedback exists in the form of knowledge of results. In ensemble improvisation, “feedback loops would also operate between performers”. (p. 135)

Pressing (2002a) explains feedback as “a signal received by the organism from observation of self or the environment that is used to correct or adapt its behavior towards a desired state”. When playing music, it is “not only sound reaching the ears from self and others, but the tactile feedback from the instrument, which vitally facilitates nuances in control”. (p. 3)

Feedforward “is advance information about the environment or the organism’s own body, used to prepare for action”.

More generally, feedforward with respect to the environment (other performers, for example) implies some predictive model of action in the world. This is an essential part of improvisational skill, for it turns out that the time scale for feedback is very often too slow to allow adaptive responsive action. Rather, we often respond (at least in part) to what our internal model of our co-performers predicts they are likely to do. This is then a technical description that underlies observed phenomena such as the natural compatibility between certain players (they share compatible performance models) and the maturing of ensembles that occurs in regular performance together (they build increasingly viable predictive models of their fellow musicians’ propensities). Nevertheless it should not be imagined that feedforward models fully substitute for accurate authenticity and intuitive responsiveness to the events of the “now”; rather, they facilitate this process. (p. 3)

The results of collective improvisation are “ultimately dependent on the ability of the musicians to make spontaneous musical decisions within the given context”. (Reynolds 1993: 219)

According to Sawyer, “there is a constant tension between fully conscious and fully nonconscious performance, and each musician must continuously resolve this tension to achieve a balance appropriate to the moment”. One tradition in creativity research holds that “creativity occurs in (at least) two stages”. Sawyer refers to these stages as “ideation” and “selection”, where the former term “is often described as a subconscious process during which ideas are generated”, and the latter means “a process during which the ideas are fil-

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tered and only those which satisfy some criteria enter consciousness". In improvisation, it seems to him "that ideation and selection can occur at both conscious and nonconscious levels, and in some cases simultaneously". (Sawyer 1992: 257)

Improvisation takes place in three stages: "the *impulse* being the driving force in the development of music, then *action* and *reaction*". (Smith 2003a: 4)

Due to the improvising process, improvisers often concentrate on small elements since they cannot see "the overall whole".

This means that a multiplicity of elements is likely to build up, especially where a number of different improvisors are interacting with each others' small units. The total effect is likely to be very different from that which develops when a creator starts out with a whole in mind. The improvising process therefore often tends to be synecdochal (by which we refer to concentrating on parts) rather than totalising (concentrating upon the whole). (Smith & Dean 1997: 33)

SUMMARIES AND REFLECTIONS

General

A. The free improvisation process:

- 1- is allowed to create itself by letting influences to work through body, mind, and the group mind. The content comes from the moment of performance, must come from the performers, and influences itself. (Nunn 1998)
- 2- is self-organizing, and its parts exist "entirely *by means of each other*" (Borgo 1999)

The thought that free ensemble improvisation is self-organizing, that it is allowed to create itself, is appealing and a good description in principle (points 1, 2). Free ensemble improvisation follows from what has come before, as a consequence of that, based on what the musicians have perceived of it, how they have perceived it, and the results of their reactions to what they have perceived, where the musicians' perceptions and reactions depend, among other things, on the musical background, experience and musical maturity of the musicians. This thought also points to the ambivalent state that I, and, I believe, most improvising musicians have experienced, that is, to sometimes engage actively in, and sometimes rather be a tool for the music. (cf. 6.2.1 Listening)

- 3- is ultimately dependent on the ability of the musicians to make spontaneous musical decisions within the given context (Reynolds 1993).

To continually make musical decisions within the prevailing context of the moment is part of the musical interaction and is a prerequisite for free ensemble improvisation, but this presupposes that the context is perceived, that is, that the musicians listen to one another and to themselves. Without this listening, there is otherwise very little, musically, to make decisions about. The ability to make decisions is not dependent on experience and musical maturity, which, however, competence in decision-making is.

Process model 1

B. Pressing has two variants of the same suggestion for a process model:

- 1- perceptual coding of incoming sensory data (Welford/Pressing 1984)
- 2- evaluation of possible responses and choice of response (Welford/Pressing 1984)
- 3- execution and timing of chosen actions (Welford/Pressing 1984)

and

- 4- input (sense organs) (Pressing 1988)
- 5- processing and decision-making (central nervous system) (Pressing 1988)
- 6- motor output (muscle systems and glands) (Pressing 1988)

which can be put together into one three-stage process model:

- 7- **i** perceptual coding of incoming sensory data (Welford/Pressing 1984), or input (sense organs) (Pressing 1988)
- 8- **ii** evaluation of possible responses and choice of response (Welford/Pressing 1984), or processing and decision-making (central nervous system) (Pressing 1988)
- 9- **iii** execution and timing of chosen actions (Welford/Pressing 1984), or motor output (muscle systems and glands) (Pressing 1988).

I find this model reasonable, at least in this context, and choose to take it as my starting point in this thesis, since it fits in well with my experience and understanding of how I, myself, act in free ensemble improvisation, which, put simply, is: I hear something (**i**), I do something (**iii**), and, in between, something happens inside me that causes the specific action I take (**ii**). I can also do something without having heard something (**ii** and **iii**). (points 1–9)

For the model to be fully usable within free ensemble improvisation, stage **i** must, however, refer to both what I do and what my co-musicians do. Stage **ii** must also include the alternative of deciding not to play (“the option of not playing (best conceived of in terms of active or engaged silence”, Borgo 1999:76). If this is so, for all the musicians in the ensemble, free ensemble improvisation consists of continually ongoing **i–ii–iii** cycles.

C. Stage **iii** can occur simultaneously as stages **i** or **ii**, but it is not certain if stages **i** and **ii** can run concurrently (Pressing 1984).

An improviser is an explorer of sound, *simultaneously listening and performing* (Couldry 1995).

That listening and playing occur simultaneously, according to Couldry, is consistent with Pressing’s opinion that stages **iii** and **i** can occur simultaneously.

Pressing says that the fact that “fluent musical improvisers can produce unbroken, complex and coherent melodic strings of notes of nearly arbitrary length at speeds of up to ca. 10 notes/second”, alternatively that “incoming sensory data of their perceptual representations” can “be stored in short-term buffers to avoid intrinsic interference with evaluation processing”, speaks for stages **i** and **ii** being able to occur simultaneously. From my experience, I find these arguments reasonable, with the reservation that stages **i** and **ii** cannot be completely simultaneous but at least overlapping in time, since I cannot process anything before there is anything to process, that is, before I have heard something (see however Feedforward below). However, the overlapping allows that I do not have to have

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heard this ‘something’ to the end before stage **ii** can start. Stages **ii** and **iii**, however, probably cannot overlap, since a decision, in its shortest form an impulse, cannot be executed before it exists. One cannot execute a decision that is on its way to being made or that is almost made. To the extent that a decision that has been made can be executed through automatic “motor sequences”, there is, however, space left for a new stage **i** or **ii** or perhaps even a new stage **i-ii** sequence (or maybe several sequences?). In this sense, stage **i** or **ii** or the stage sequence **i-ii** can occur simultaneously with stage **iii**. However, the question of simultaneity is also paired with conscious and unconscious attention, which can be divided into different proportions between the stages (see Attention and memory, “the intelligent body” and “the intellect” below), which makes it possible for stage **iii** not to have to be wholly automatized (left to unconscious attention), a view that fits better with the way I understand my own playing than stage **iii** always being wholly automatic.

Yet another aspect of **i-ii-iii** cycles is their speed. I have often experienced that I have changed my playing, sometimes more than once, during the course of one and the same gesture, which suggests that the **i-ii-iii** cycle has taken place more than once during the same gesture. The length of the gesture of course limits the possible number of cycles during one and the same gesture. Other factors probably also do this, such as, for example, individual characteristics/talent, familiarity with and experience of free improvisation, the complexity of the gesture, etc. One can also ask oneself if one change one’s playing during one and the same gesture, or if one, through this change, play a new gesture instead, the boundaries are not obvious (see 19.1.2 More about objects). In practice, however, I see the speed of the **i-ii-iii** cycles as more essential and decisive for the improvisational playing and the musical flow than the degree of possible simultaneity / time overlap between the stages of the cycle.

Finally, as an aside, I do not see a free ensemble improviser as “an explorer of sound” but rather as a researcher of musical interactions and interaction possibilities, with sounds as tools and prerequisites for this research. (see 6.2.3 Interaction – communication – conversation, 6.2.4 Ways of interaction – relations – complexity, 6.3 Definitions, 19.3.2 More about relations)

Below, I compare Pressing’s/Welford’s/Pressing’s three-stage model with other viewpoints in this section (6.2.2).

- D. Nunn (1998) sees the content as springing from the participants’ creation of “linear functions” with the partial processes (elements):
- 1- identificational processes (creating identities (establishment))
 - 2- continuity processes (maintaining identities (extension/development))
 - 3- relational processes (relating identities to group (establishing relational functions))
 - 4- transitional/cadential processes (leaving identities (linear cadencing)).

Nunn’s element 1 must take place at the same time as element 3, since one cannot first play a gesture (“identity”) and relate it afterwards to another gesture. The relation(s) occur while the gesture is played. Element 4 belongs to and is the end of elements 1+3. Element 2 does not mean that one and the same gesture is re-formed, in the way a lump of clay can be re-formed and still remain the same lump of clay, but that new gestures are played that

get, or at least may get, “extension/development” relations to the preceding gestures that I, in this context, interpret as one’s own preceding gestures. Nunn’s process model can then be written: gestures are created (and finished) that get relations to one’s own preceding gestures (“extension/development”) (elements 1–4).

Elements 1–4 come under stage **iii**. I assume, however, that stages **i** and **ii** are understood, which element 2, in particular, points to. The alternative would otherwise be to simply do, without listening and in any way processing what is heard, which is, of course, unreasonable, especially in ensemble improvisation, unless it is a temporary occurrence.

For the sake of completeness, “extension/development” relations can also occur in relation to other musicians’ gestures, not only to one’s own.

E. Sawyer refers to the terms ideation and selection, where the former term is often described as a process during which ideas are generated, and the latter means a process during which the ideas are filtered. Ideation and selection can occur at both conscious and nonconscious levels, and in some cases simultaneously. (Sawyer 1992).

As far as I can understand, both “ideation” and “selection” belong to stage **ii**, though they are probably stimulated by stages **i** and **iii**. If this is so, then this supports the idea that conscious/unconscious attention can vacillate between stages **i**, **ii**, and **iii**. (see Attention and memory, “the intelligent body” and “the intellect” below, cf. 19.4 Rhythm, and the complemented concept model)

F. Smith’s three-stage model for the improvisation process consists of the impulse (being the driving force), action, and reaction (Smith 2003a).

Impulse is the unleashing factor for Nunn (Nunn 1998).

If the impulse is the driving force or unleashing factor, it should occur before stage **iii**, that is, in stage **ii**. Smith’s “action” and “reaction” both come under stage **iii** in a **ii–iii**–cycle where stage **i** is supposedly understood.

Feedback 1

G. Views on feedback:

- 1– influences (influence of content upon itself) occurs as a real time “feedback loop” between perception and action (Nunn 1998)

Influences such as feedback loops between “perception and action” come under stages **i** and **iii** in the three-stage model, with stage **ii** understood.

- 2– the two first stages in Welford’s three-stage model (**i** and **ii**) constitute an executive control system that is feedback dependent, while the final motor output stage (**iii**) normally runs its full course without further sensory or central intervention (Glencross/Pressing 1984)
- 3– improvisation is a sort of skilled performance in which both open- and closed-loop (with negative feedback) control must occur, which means that movements are both centrally stored as motor programmes, and susceptible to adjustment on the basis of feedback (Pressing 1988)

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- 4- feedback consists of signals received by the organism from observation (of self and others') that are used to correct or adapt its behavior towards a desired state (Pressing 2002a)

According to point 2, stages **i** and **ii**, but not **iii**, are feedback-dependent control systems. Point 3 can, however, be interpreted in such a way that even stage **iii** is part of a feedback system, since those activities stored as motor programmes are adjusted on the basis of feedback. It seems reasonable that stage **iii** is part of the feedback loop, since there is nothing to work with during stages **i** and **ii**, if stage **iii** does not take place. Point 4 reinforces this thought when Pressing speaks of a signal that the organism receives in order to adapt its behaviour towards a desired state. According to this view, stages **i**, **ii**, and **iii**, that is, the entire process model, become its own feedback loop.

- 5- feedback loops operate between performers in ensemble improvisation (Pressing 1988)

That feedback loops operate between musicians means that I adapt my behaviour (playing) not only to my own sounds but also to those of my co-musicians, which is a good description of and a necessary prerequisite for free ensemble improvisation. Certainly, feedback loops operate between musicians in ensemble improvisation, which also jibes with my view that stage **i** must refer to both what I myself do and to what my co-musicians do.

- 6- feedback can refer to auditory, visual, tactile, or proprioceptive signals (primarily auditory in the case of musical improvisation) (Pressing 1988)

Of the listed forms of signals to which feedback can refer, Pressing sees the auditive as primary "in the case of musical improvisation". They are primary for me as well, due to the obvious fact that music improvisation is an auditive phenomenon. Also, the objective of most of my practicing is to make me independent of how it feels to play my instrument ("tactile, or proprioceptive signals") in order to be able to focus the more on auditive signals. Visual signals, in the form of eye contact and body language, for example, can play a certain role in free ensemble improvisation, though to varying degrees for different people and on different occasions. Personally, I try, however, to avoid such signals by mostly playing with my eyes closed, since I find that even visual signals distract me from listening.

- 7- feedback can operate over different time scales in the form of short-term feedback (guiding ongoing movements) and longer term feedback (Pressing 1988).

Short-term feedback is the most obviously present form of feedback in free ensemble improvisation, since free improvisations are built up by the musicians acting in the present, or at least as close as possible to the present. I will return to long-term feedback below, under Feedback 2.

Contextualization 1

H. Contextualization is:

- 1- handling larger errors through contextually justifying them after the fact by reinforcement or development (Pressing 1984)

Contextualization occurs in free ensemble improvisation, and the reason for this is that something happens that at least one of the musicians experiences as unsuitable/wrong/disturbing/inappropriate.

The possible reactions of the musicians who did not cause the ‘unsuitable’ error are basically three: they can become silent, they can ignore it and continue as if nothing unsuitable had happened, or they can adapt to or affirm the ‘unsuitable’. The latter alternative is usually seen as contextualization.

Contextualization can, according to Pressing, take place through reinforcement or development. Pressing does not exemplify any of the methods, but reinforcement can, according to my understanding, take place through e.g. repetition, which more musicians join, or, more vaguely expressed, through one or more musicians joining the spirit/idea of the ‘unsuitable’ new event and thereby sanctioning it. Development can, also according to my understanding, take place through the processing/varying of the new event by more musicians than the one that caused the need for contextualization (see appendix A2 Gesture processing alternatives).

- 2- creation of a musical context to imply meaning in retrospect (after the fact) by for example supporting an unaccompanied solo/motive (rhythmic or harmonic Support/Ground), imitating the other’s melody/motive (possibly a Dialogue), or repeating a “mistake” (Nunn 1998).

Putting a rhythmic/harmonic background to an unaccompanied solo, or creating a dialogue by imitating/repeating someone else’s melody/motive/“mistake”, are named by Nunn as examples of contextualization. I would call the first example support, that is, in some way support the new event without directly affecting it. The other example comes under the alternative reinforcement. Thus, the alternatives for contextualization become: reinforcement, development or support.

I can also, according to the above, imagine that contextualization can come about through becoming silent or by ignoring the event and continuing as if nothing ‘unsuitable’ had happened. Silence does not have to be interpreted as distancing oneself, but can also be interpreted as acceptance with the subtext “this is your pigeon, which I accept, but am not going to interfere with”, whereby the contextualization consists of something new being allowed to undisturbedly replace something that was there up till then. To ignore it and continue what one was doing can also be seen as acceptance, with the subtext “a newly added course of events is allowed to co-exist with the old one, which, in a positive sense, becomes an addition to the collected whole.” Contextualization then consists in that two or more courses of events are recognized and allowed to exist simultaneously.

Contextualization can then be divided into these three main alternatives (with sub-alternatives):

- 1- silence with acceptance
- 2- acceptance of two/more simultaneous courses of events
- 3- adaptation/affirmation, with the sub-alternatives
 - a- – reinforcement
 - b- – development
 - c- – support.

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I can imagine yet another possible form of contextualization: to bring about a contrast to the 'unsuitable' event that has happened. To bring about a contrast can be interpreted as a protest, but can also be interpreted as the first event being an inspiration for adding yet another event that contrasts with the first 'unsuitable' event, a variant of main alternative number 2.

I believe, however, that main alternative number 3 is the normal way of interpreting the term contextualization, and that main alternatives numbers 1 and 2 (with its variant) push the limits of the term.

Feedforward 1

I. Feedforward is:

- 1- a projection as the action upon the inherent potentialities of CONTENT to imply future direction, which is tantamount to quick glimpses of the immediate future (Nunn 1998)
- 2- the ability to 'prehear' internally a chosen motor action without relying on either memory or subsequent auditory feedback (Pressing 1984)
- 3- advance information about the environment (other performers, for example) or the organism's own body, used to prepare for action; some sort of prediction about coming action(s) (Pressing 2002a)
- 4- also seen as the natural compatibility between players, or as the the maturing of ensembles that occurs in regular performances together (Pressing 2002a)

I believe that all free improvisers have sometimes felt that they have known what was about to happen before it happened (points 1–3) (cf. 6.1.2 Ensemble). The phenomenon exists, but I do not know what this depends on / results from. Most likely, it is related to the extent to which the musicians know one another musically, that is, to what extent they have played with / listened to each other before ("the maturing of ensembles that occurs in regular performances together") (point 4). Feedforward is also probably related to what has happened (immediately) before in an improvisation, that is, to the ability of the musicians to generate new gestures from those already played or, expressed in another way, feedforward is related to the potential of musical gestures to generate their own continuation.

I call Pressing's "the natural compatibility between players" musical personal chemistry (point 4). I believe that this exists (more or less) as combinations of inborn musicality, acquired musical knowledge, (common) musical background/experience, probably together with other factors of a more personal nature. I also see it as a factor that, to the extent that this musical personal chemistry exists, contributes to feedforward.

Nunn does not seem to differentiate between feedforward for one's own actions and feedforward for the actions of others (point 1). Pressing makes this distinction, however (points 2, 3). In my opinion, feedforward for the actions of others is more interesting than feedforward for my own actions in the context of free ensemble improvisation.

- 5- an essential part of improvisational skill, because the time scale for feedback is very often too slow to allow adaptive responsive actions, rather, we often respond (at least in part) to what our internal model of our co-performers predicts they are likely to do (Pressing 2002a).

An internal model of the coming actions of the co-player(s) is, as far as I can understand, directly connected with the above mentioned factors: the extent to which the musicians know one another musically, what has happened (immediately) before and musical personal chemistry. There are probably also other factors that can contribute to explaining the phenomenon feedforward.

Feedforward is, of course, faster than feedback since the former works before something has happened, while the latter presupposes that something has already happened.

In the process model / feedback loop, I place feedforward as an ‘irrational’ component under stage **ii** since it happens before stage **iii** but is probably dependent on what has happened in stage **i**.

Process model 2

J. Ensemble improvisation takes place as cycles of listening, interpretation, and (re)action, both on the level of micro events and on the macro level of overall performance form (Borgo 1999).

It is also my belief that the improvisational process takes place on two basic levels. During an improvisation, the processes are built up at different rates of speed, or on different temporal levels, so to speak. On level 1 (N1), gestures are formed by sounds/pauses; on level 2 (N2), sections are formed by gestures. I call the processes on level 1 gesture-forming (N1 processes) and the processes on level 2 section-forming (N2 processes).

On level 1, sound/pauses are grouped together (**i**), and processed (**ii**), which results in sound/pauses being produced in a gestural perspective (**iii**) (or results in the alternative of not playing). On level 2, gestures are grouped together (**i**), and processed (**ii**), which results in gestures being produced in a sectional perspective (**iii**).

The components of the cycles “listening, interpretation, and (re)action” correspond to stages **i**, **ii**, and **iii**, respectively, in the three-stage model.

K. Parts – whole:

- 1– improvisers often concentrate on small elements since they cannot see the overall whole, a synecdochal process (concentrating on parts) rather than totalizing (concentrating upon the whole) (Smith & Dean 1997)
- 2– as the music progresses, a consciousness of its form naturally develops, expressing the improviser’s psychological sensitivity to timing on a larger scale (Nunn 1998).

It is difficult to know where Smith and Dean draw the line between “parts” and “the whole” (point 1). It is obvious that an improviser must be totally present in the moment, in the immediate course of events. However, Nunn claims that improvisers can also focus on a larger perspective (point 2).

I would argue that the more accomplished and experienced the improviser, the more he can focus on both the part and the whole, that is, focus on both level 1 and 2. How much per level and to what extent this can occur simultaneously is, however, another question, the answer to which I do not have. If I were to start with myself, this varies from occasion to occasion. This probably also varies from person to person. (cf. Attention and memory, “the intelligent body” and “the intellect” below)

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Feedback 2

L. Longer-term feedback is used in decision-making and response selection within a time perspective larger than the ongoing movements (Pressing 1988).

This view fits well with the idea of N2 processes and makes it reasonable to see these as feedback loops as well, and analogous to the N1 processes (see Feedback 1, Process model 2). The result is that improvisations can be seen as simultaneously ongoing processes / feedback loops (on levels 1 and 2) that are dependent on each other.

Both the long- and short-term perspectives on process/feedback are important and correspond to the part and whole perspectives under Process model 2 above. If only a short-term perspective is considered, one risks missing the fact that particularly experienced improvisation musicians have a feeling for longer musical development and form on a greater scale, while only a long-term perspective risks missing the phenomenon of presence in and focus on the moment. Both perspectives should be present in free ensemble improvisation.

Contextualization 2

Contextualization sometimes works as a response to a single N1 process. For reasons of time, it is, however, more common to have, and it also normally requires, more than one gestural process in order for the musician to have enough time to understand and react. Normally, contextualization also requires more than one N1 process for it to be realized. Contextualization is, however, not so slow that it requires entire sections, but ends up in an intermediate position between N1 and N2 processes / feedback loops. There is, however, the possibility that contextualization in itself brings with it a change of section, in which case it ends up on the section level and becomes part of an N2 process. The frequency of and need for contextualization changes from improvisation to improvisation, depending on the participants' interpretations of what is happening during each improvisation, respectively. Contextualization can be seen as a special case of feedback since it is about adapting behaviours according to what has been heard.

Feedforward 2

M. It should not be imagined that feedforward models fully substitute for accurate authenticity and intuitive responsiveness to the events of the "now"; rather, they facilitate this process (Pressing 2002a).

As mentioned under Feedforward 1, I see feedforward as related partly to the extent to which the musicians know one another musically, partly to what has happened before, and partly to the musicians' musical personal chemistry. The probability of feedforward increases the more the musicians know one another musically, the more they have observed and internalized what has happened previously during the improvisation, and the better their musical personal chemistry is. However, there is never any guarantee that feedforward will occur at all, nor that it will be correct; even a strong feeling for what will come next can turn out to be wrong (something else happened). I see feedforward as a probability, a probability that, to a greater or lesser extent, occurs on both levels 1 and 2.

Just as feedforward in N1 can offer a foreshadowing of coming gestures, it can, in N2, foreshadow at least the next section. Beyond the three above-mentioned ingredients that I suppose to be related to feedforward, and whether feedforward appears or not, and whether it turns out to be right or wrong, I also think that there will always be room in improvisation for “accurate authenticity and intuitive responsiveness”, which are neither feedforward nor feedback, but which, hopefully, can facilitate the former, and, maybe, even the latter.

Process model 3

One may possibly also speak of a level 3 (N3) and N3 processes where sections are grouped together (i), are processed (ii), which will result in sections being produced within a perspective of the whole (iii).

Yet two more levels are conceivable. At level 4 (N4), I can imagine a ‘piece’ level where those improvisations that have been completed during one and the same performance (i), are processed (ii), which will affect coming improvisations during the same performance (iii). A simple, but, I think for most improvisers, well-known indication that this can be so is the feeling of wanting to do another kind of improvisation than that/those one has just done during one and the same performance. At level 5 (N5), I can see earlier performances as accumulated (i), and as, in some way, processed experiences (ii), which will affect coming performances (iii). In this thesis, however, I will limit myself to levels 1–2.

Attention and memory, “the intelligent body” and “the intellect”

N. Attention:

- 1– conscious attention is placed in stage ii and unconscious, or automatic attention, in stages i and iii in the process model (Pressing 1984)

To place conscious attention in stage ii and unconscious attention in stages i and iii in the three-stage model means that I am unconsciously attentive to what I hear and what I do, but consciously attentive to my internal processing of what I hear and my decisions about what I will do.

This does not fit with my experiences. I know that there have been occasions when I have been consciously attentive to what I have heard, so attentive that, in some cases, I would have been able to transcribe it. As far as I understand, I have, at the same time, been unconsciously attentive to, or not attentive at all to what I have done and/or what decision(s) have caused my actions. I also know that there have been occasions when I have been so consciously attentive to my playing, as a result of, for example, having difficulty in playing what I wanted, that I have, as far as I understand, been unconsciously attentive to, or not attentive at all neither to what I have heard nor to any other decision than that of taking me through the technical difficulties I was experiencing right then. These examples infer both that conscious/unconscious attention vacillates between stages i, ii, and iii, and that all “motor sequences” in stage iii are not “pre-coded”. I also know that my conscious attention has sometimes been directed not towards ongoing N1

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processes but towards previous gestures and sometimes even a previous section or previous sections.

- 2- attention is one of the limits for the possible complexity of improvised behaviour in real-time processing (Pressing 1984)
- 3- attention can according to a resource allocation model be divided into conscious and unconscious attention (Pressing 1984)
- 4- according to the resource allocation model, the total cognitive load may not exceed the available resources so as to avoid interference (Pressing 1984)
- 5- the result of task rehearsal is thus to convert processing routines requiring conscious attention into automatic routines requiring only unconscious attention (Pressing 1984).

It seems reasonable to believe that one's attentive capacity is limited (point 2). The division into conscious and unconscious attention also appears to be feasible (point 3), which, in turn, makes the consequences of the resource allocation model appear reasonable as well (points 4). This is justifiable not least because the opposite – to be able to be consciously attentive to an unlimited amount of things while simultaneously being unconsciously attentive to an unlimited amount of other things – seems unreasonable. Point 5 also indicates that one's available resources can be distributed in different proportions between conscious and unconscious attention, and that the more routines that take place automatically (“requiring only unconscious attention”), the more resources are left for processing routines (“requiring conscious attention”), and vice versa.

Based on my own experiences, I believe that conscious attention is not static but vacillates between level 1 and 2, as well as between stages **i**, **ii** and **iii** on the respective level, with properties and relations included on both levels (see 6.2.1 Listening).

Everything else I see as either unconscious attention (as a consequence of conscious attention vacillating, unconscious attention also vacillates), where the sum of conscious and unconscious attention must fit into the available cognitive resources (points 4, 5), or as things that I miss entirely, that I do not pay attention to at all, neither consciously nor unconsciously. I imagine that the amount of available cognitive resources a person has, and also a person's capacity for conscious/unconscious attention, can vary from individual to individual and perhaps also vary for the same individual from occasion to occasion. In regard to listening, I see conscious and unconscious attention as synonymous with what I call primary and secondary listening, respectively (see 6.2.1 Listening).

O. The intelligent body:

- 1- the intelligent body is responsible for the underlying gestural nature of the music, and makes lightening-fast decisions on a more or less ongoing basis (Nunn 1998)
- 2- even the most cerebral improviser will rely greatly in the intelligent body because the conscious mind cannot perceive and digest that much information or make decisions that quickly and continuously (Nunn 1998).

I see Nunn's “the intelligent body” as another name for unconscious attention on level 1 in N1 processes. (points 1, 2)

P. Memory, intellect:

- 1- memory can be divided into long-term and short-term memory, where the short-term memory operates within the limitation of the magic number 7 ± 2 – the number of ‘chunks’ that may be retained in short-term memory. This is however no longer true if a conceptually ‘chunking’ into larger groupings is possible. (Pressing 1984)

Short-term memory operates within the framework of 7 ± 2 units. However, Pressing says that the number of units can be increased if conceptual “chunks” form “larger groupings”, which, according to my experience, seems reasonable.

One way of exceeding the limits of short-term memory may involve curvature. As mentioned above, it is not so often that I have the time to exactly discern what tones are played in a gesture, if it is not played slowly enough and/or is repeated enough times (see 6.2.1 Listening). What I generally do discern better, though, is the curvature of the gesture within the parameters length \pm , strength and height. Curves are composed of value differences that have, among other things, the two properties size and direction (see 6.2.1 Listening). The alternatives for direction are only three (increase in value = up, decrease in value = down, or constant value = straight/repetition), which makes it easier to keep track of them. Within one and the same direction, and at least within the parameter of height, I can discern more values than the 7 ± 2 as instances along the way, even if the estimations of the number of values and of the space between them (the size of the value differences) are approximate, and even if my discernment of exactly where the instances are (what instances they are) can be even more approximate. In addition, it is not so common for a gesture to contain many changes in direction, which, apart from the number of possible directions only being three, also makes it easier to discern its curvature, at least within one parameter. Focusing on the curvature of gestures may, therefore, be seen as a way of attaining conceptually ‘chunked’ “larger groupings”.

Perhaps one can also see Pressing’s “conceptually ‘chunking’ into larger groupings” on a gestural level, and perhaps one can, from this perspective, imagine an analogous “chunking” for gestures on level 2, though probably to a lesser extent than for a whole section. This seems reasonable from my experience, and can also be seen as a consequence of Process model 2. If so, I would like to place an N2 memory between short-term (N1) and long-term memory, that is, a memory that within its limitations stores gestures within sections.

- 2- memory is another limit to the possible complexity of improvised behaviour in real-time processing (Pressing 1984)

N1 and N2 memories fade more quickly than long-term memory, which is noticeable during one and the same improvisation. I imagine that their permanency depends on personal prerequisites, the particular performance, the way an improvisation develops, the number and selection of musicians, performance milieu, experience, etc.

- 3- long-term memory ranges over musical theory and composition concepts, ‘auditory images’, specific pieces and motives, and memorized muscular sequences (action units), corresponding roughly to the traditional music labels of theory, musicianship, repertoire, and technique. It shapes the kind of sound ideas the performer will produce,

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and the way in which they will be developed. It is also critical in establishing long-term musical relations in an extended improvisation. (Pressing 1984)

- 4- without knowledge about theory, musicianship, repertoire and technique, the limits of short-term memory would make sophisticated musical development and impressive technical displays impossible (Pressing 1984)
- 5- the intellect contributes with traditional compositional strategies (e.g. augmentation, diminution, retrograde, inversion, interpolation, randomizing the order of a limited group of pitches, “blurring” a rhythmic groove with arrhythmic counterpoint, imitating another’s “motive”), remembers, and can (at times) recall identities and particular features of the flow (e.g. a particular rhythmic figure) for restatement / later use (Nunn 1998).

Long-term memory is, as opposed to N1 and N2 memory, independent of an ongoing improvisation, but is an ever-present resource that influences both the N1 and N2 processes, and is a foundation and prerequisite for both (and also for processes on levels 3–5). A well-filled long-term memory probably offers more improvisation/interaction alternatives (including sound ideas and their development) than one that is less well-filled. Conversely, long-term memory receives nourishment and renewal through ongoing and completed improvisations. Long-term memory is also a prerequisite for making both the individual and collective development of an improvisation ensemble possible, since if I cannot remember what I or the ensemble have done in the (reasonable) past, then how can development take place? (points 3, 4)

However, long-term memory also seems “critical in establishing long-term musical relations in an extended improvisation” and it “remembers, and can (at times) recall, identities and particular features of the flow (e.g. a particular rhythmic figure) for restatement / later use”. This may indicate that there are two levels, or kinds, of long-term memory: one longer, connected to “theory, musicianship, repertoire, and technique” / “traditional compositional strategies”, and one less long, connected to ongoing improvisations according to the above. If this is the case, I would place the latter between N2 memory and long-term memory, and call it extended memory. (point 3, 5)

I see Nunn’s description of the intellect (point 5) as a sub-set of Pressing’s description of long-term memory (and extended memory). (point 3)

Suggestion for a process model / feedback loop (where contextualization is part of feedback)

i

Perceptual coding of incoming sensory data. Input. Listening.

- N1 – My sounds/pauses and those of others are grouped together. Properties and intentional/unintentional relations are noted consciously, unconsciously or not at all.
- N2 – My gestures and those of others are grouped together. Properties and intentional/unintentional relations are noted consciously, unconsciously or not at all.

ii

Evaluation of possible responses and choice of response. Processing and decision-making. Ideation and selection. Possible feedforward/projection. Impulse. Interpretation.

- N1 – Interpretation(s) is/are made, consciously or unconsciously, of that which is consciously or unconsciously noted. Decisions are made, consciously or unconsciously, about reaction(s) to that which is consciously or unconsciously noted.
- N2 – Interpretation(s) is/are made, consciously or unconsciously, of that which is consciously or unconsciously noted. Decisions are made, consciously or unconsciously, about reaction(s) to that which is consciously or unconsciously noted.

iii

Execution and timing of chosen actions. Motor output. The alternative of not playing. Action–reaction. (Re)action.

- N1 – Sounds/pauses are produced consciously, unconsciously, or not at all in a gestural perspective. Properties and intentional/unintentional relations are created if sounds/(pauses) are produced.
- N2 – Gestures are produced consciously, unconsciously, or not at all in a sectional perspective. Properties and intentional/unintentional relations are created if gestures are produced.

6.2.3 Interaction – communication – conversation

REFERENCES

In NE, interaction is defined as co-operation, interplay; a process where groups or individuals through their actions have a mutual influence on each other. This influence can take place via language, gestures, symbols, etc.

(The Swedish National Encyclopedia: Interaction [Interaktion])

In NE, ‘communicate’ means to transmit a message (to someone) through a particular means of messaging, and ‘communication’ is defined as transmission of information between people, animals, plants or machines.

(The Swedish National Encyclopedia: Communicate, Communication [Kommunicera, Kommunikation])

In Paranormal, communication is defined as transmission of information. It can take place both consciously and unconsciously.

(Paranormal 2004: Communication [Kommunikation])

In Paranormal, interaction is defined as co-operation and communication between people. (Paranormal 2004: Interactionism [Interaktionism])

Collective improvisation “manifests itself primarily on the basis of immediate aural communication”. “Groups of musicians use music to try to establish relationships which have a similarity to those attained by verbal language”. (Benitez 1986: 455)

In ensemble improvisation, “band members endeavor to interact flexibly throughout a performance in order to accommodate one another; at times modifying their own ideas, occasionally even abandoning them for other ideas complementary to the group”. Improvisation is, “to use one of the metaphors favored by musicians /.../ a musical conversation that the improviser enters on many different levels simultaneously”.

(Berliner 1994: 497)

Collective improvisation presupposes that channels of communication are opened as wide as possible for the participants. (Bloom 1987: 12)

According to Borgo (1999), in free improvisation, the emphasis shifts “from an overriding musical structure (e.g., a modal or song-based improvisation) and from the individual players or individual musical expressions, to the dynamic relationship of the participants and the synergetic outcome of the ensemble interaction”. (p. 69)

Similarities between free improvisation and verbal communication are that “responses that do not provide additional insight on a subject or do not lead the discussion in new directions can bring a quick halt to subsequent development and continuing interest”, and that “‘speaking’ at or against each other is often as effective in musical free improvisation as speaking with each other”. One difference is that musical ‘conversations’, in contrast to verbal ones, “can playfully layer multiple textures and ideas to confound a strict interpretation of linear meaning or causality”. (p. 75)

According to Briggs (1986), improvisation is about communication. It is “a co-operative, not competitive, activity”, and “the simplicity or complexity of the music is irrelevant”. (p. xii)

The beginnings of improvisations are crucial; “within these moments, it is possible to find out how a musical partner listens, responds to and initiates musical gestures, setting the tone for the entire session”. The question becomes: “how can we communicate?” (p. 8)

The demands of free ensemble improvisation are that it is “based solely on the interaction of the performers”, and that the responsibility for it “lies with an ensemble, not a single personality”. (Cope 1972: 74)

Free improvisations can, according to Couldry (1995), be likened to playful conversations that are marked by “openness and spontaneity”, which “are precisely the mark of conviviality” (as “one virtue of improvisation”). (p. 23)

Communication freed from “the constraints of any irrelevant notions of authority or obligation” is essential to free improvisation. (p. 34)

Free improvisation “is less centered on any actual arrangements of sounds than on forms of human relationship and interaction, on kinds of decision-making and collective problem-solving”. (Durant 1984: 8)

Free ensemble improvisation

is not a chaos of individual wills, but a product of concentrated listening. The refusal to follow styles in the search for maximum collective freedom does not rule out communication. Pitch, interval, duration and timing (if not rhythm in the customary sense), dynamic and mode of attack, along with texture and structure are still viable paradigms for spontaneous musical dialogue. (Ford 2003: 106)

Free ensemble improvisation stimulates and develops the musical communication between the musicians, an aspect that has been eclipsed by the difference between creator and practitioner imposed by composed music. (Lutz 1999: 128)

Improvisation can be likened to conversation, a conversation where one listens behind all the “fragments, loops, gaps, fade-outs, echoes, mid-air collisions, mmhms, yknows, and Isees”. Listening to this “something else”, is like the situation of listening in improvisation: “a mode of behavior of which conversation is probably the most universally participated example”. (Meyer 1986: 190)

We improvise daily in our speaking with others, which is a sort of ensemble improvisation. We create a language together with the person with whom we speak; “there is a commerce of feelings and information back and forth” and, in conversation as in improvisation, “it is a matter of developing something new to both of us”. (Nachmanovitch 1990: 17, 95)

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For Nunn (1998),

intention [in free improvisation, particularly group improvisation] is one thing and result is another; though they may be the same, they are certainly not always. /.../ When a relationship intended by one improviser is misinterpreted by another, this could be considered a miscommunication, or a “mistake”. (pp. 47–48)

Later he adds that

just as something someone says can be misinterpreted to mean something quite different, the intentions of improvisers in the efforts to communicate, are not always realized. An improviser may intend the music go in one direction and play something that (to her or him) implies that direction, but there is never a guarantee that others in the group will recognize or support that intended direction. An improviser responding to another may sense the music taking a different direction, or a different musical character /.../ emerging which affirms and augments the apparent direction of the flow. Or she/he might misinterpret the musical intention, and a “mistake” happens, though, again, there is always the possibility of contextualizing a mistaken response and effectively erase the sense of “mistake” in retrospect. (p.109)

He sees free improvisation as a

collective creative PROCESS that must be considered in terms of communication as improvisers in a group are necessarily responding immediately and intuitively to one another’s playing. /.../ Furthermore, group free improvisation occurs among two or more individuals expected to respond freely, whether affirming or negating implied Flow potential /.../ and it all occurs in real time (not unlike the interactive dynamics of conversations or group discussions). These aspects of free group improvisation strongly imply a process of communication. After all, how can there be interaction without communication of some kind? (pp. 107–108)

Nunn also gives two examples where communication does not appear to exist: “Interpolation and Sound Mass” [see 6.2.4 Ways of interaction – relations – complexity]. Interpolation means “the insertion or overlaying of utterly foreign material upon existing material wherein two (or more) independent musical characters coexist without affecting one another”, and Sound Mass is “a collective complex sound made up of a number of “voices” that are roughly equal in contribution”. These alternatives can “appear non-communicative, wherein the improvisers seem not to be listening to one another”. However, this is acceptable – and communicative – “when the intention is clear, even though the results are ambiguous – i.e., the improvisers seem to remain in control of the situation”, and the aspect of control “is manifest in the balance among the disparate parts and how the compound/complex sonic image is established and left”. The efficacy of such seemingly non-communicative improvisation “lies in the ability of the group to clearly articulate the intended ambiguity, one of a number of paradoxes found in free improvisation”. (pp. 50, 115–116)

According to Pelz-Sherman (1998), conversation “remains to date the most widely used metaphor for the interactive behavior of improvising musicians, no doubt in part because it is an instantly accessible analogy which almost anyone can grasp easily”. (p. 45)

Conversation and musical interaction have a great deal in common at the paradigmatic level, while “the unfolding of musical interaction is usually quite different from that of a typical conversation” at the syntactical level. Music that “bear literal surface resemblance to conversation are uncommon and usually seen as humorous”. Likewise, “one hardly ever hears conversations that could really be described as “musical” on the surface”. If this was the case, “people’s everyday conversation might sound something like operatic recitative”. (p. 51)

Yet another difference between conversation and free improvisation is that, in the latter, “players often improvise simultaneously, without taking on clearly defined roles as soloists or accompanists”. (pp. 52–53)

There is a difference between “open skills” and “closed skills”. Open skills “require extensive interaction with external stimuli”, while closed skills “may be run off without reference to the environment”. Solo improvisation “is basically a closed skill, as it relies only on self-produced stimuli, whereas ensemble improvisation is more open”. (Pressing 1988: 134)

Improvisation can be seen as a group of organisms “interacting on the basis of a shared global purpose, and the details of what they are to do are worked out interactively in real time”. If we mean musical improvisation, “the central purpose is interactive expression through the medium of sound”. (Pressing 2002a: 1)

Free improvisation [“avant-garde improvisation”] “means the artistic interaction with the world of sound”. Free improvisation “can be considered also as an attempt of a dynamic interactional system, to create a meaningful musical world”. (Raes 2000: 5)

Mats Gustafsson feels that communication is the be-all and end-all in freely improvised music, that the music produced is bad when communication does not work. If communication does not work, one cannot move on, and the music just jogs on the spot. (Rösnes 1996: 12–13)

In improvisation,

interactional influences include the other band members, who reflect and amplify each other’s musical ideas, /.../. The more important of these is the dialogic nature of the interaction among the coperformers. Musicians often compare group performance to a conversation; sometimes the parallels are explicitly drawn. (Sawyer 1992: 255)

Sawyer (2000) states that “a musician’s contributions only make sense in terms of the way they are heard, absorbed, and elaborated on by the other musicians”. The music “emerges from the interaction of the group”. (p. 182)

He also clarifies the relation between an emergent system and group behaviour.

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In an emergent system, interaction among constituent components leads to overall system behavior that could not be predicted from a full and complete analysis of the individual components of the system. Group behavior must be thought of as emergent in those cases where there is not a structured plan guiding the group and where there is no leader who directs the group. (p. 183) [see also 17 Free improvisation – system analogies]

Meaningful musical work within free improvisation

is only possible as an interaction of equal and original musical personalities, who all act on the base of a musical attitude, that can't be constituted only as an act of good will, but must be alive for long time already in the musicians work. (Schipper 1984: 38)

According to Tuominen (1998), free ensemble improvisation is ultimately about communication, to unite several different musicians' visions of a sounding result, visions that appear in the moment. (p. 2)

Communication seems to be the fundamental principle in free improvisation. One must leave oneself totally to the music and the communication with the other musicians. (p. 26)

SUMMARIES AND REFLECTIONS

Relations between interaction and communication

A. Interaction is:

- 1- co-operation, communication between people (Paranormal 2004)
- 2- co-operation, interplay, a process where groups or individuals through their actions have a mutual influence on each other, and where this influence can take place via language, gestures, symbols, etc. (NE)

and communication is:

- 3- transmission of information between people, animals, plants, or machines (NE)
- 4- transmission of information, which can take place both consciously and unconsciously (Paranormal 2004).

I interpret the definitions in such a way that interaction is communication or mutual influence that is transmitted via language, gestures, symbols, etc., and that communication is transmission of information (that thus can be transmitted via language, gestures, symbols, etc.) that can take place consciously or unconsciously. In short: interaction is communication that is mutual transmission of information. (points 1–4)

Interaction

B. Free ensemble improvisation in an interaction perspective:

- 1- is solely based on the interaction of the performers (Cope 1972)
- 2- is centered on interactions, on kinds of decision-making and collective problem-solving (Durant 1984)
- 3- belongs to open skills and demands extensive interaction with external stimuli (Pressing 1988)

- 4- is the artistic interaction with the world of sound, and a dynamic interactional system's attempt to create a meaningful musical world (Raes 2000)
- 5- emerges from the interaction in the group that leads to an overall system behavior (Sawyer 2000)

The key words used above for the interaction perspective on free ensemble improvisation are: “based on”, “centered on”, “belongs to”, “demands”, “is”, and “emerges from”. (points 1–5)

I prefer point 4. Free ensemble improvisation is not based on, centered on, belongs to, demands, or emerges from musical interaction – it *is* basically musical interaction, and in real-time. (see 6.3 Definitions, cf. 17 Free improvisation – system analogies)

Different kinds of decision-making and collective problem-solving are part of the interaction and are not separated from it. (point 2)

- 6- is, as meaningful work, only possible as an interaction of equal musical personalities, who act on the base of a musical attitude, that can't be constituted only as an act of good will, but must be alive for long time already in the musicians' work (Schipper 1984)

Equal musical personalities, a musical attitude constituted as an act of good will and something more that must have been alive for a long time are required for a meaningful work to take place.

If, with the term “equal musical personalities”, Schipper means musicians with equivalent instrumental skills and/or experiences of free ensemble improvisation, this is not the only possibility for meaningful work. Interaction within free ensemble improvisation can, in other ways, also work between musicians that are not equal. This mostly means that more skilled and experienced musicians adapt to those that are not as skilled, which, however, is not the same thing as meaninglessness, and the degree of meaningfulness maybe then (at least) partly depends on the extent of the more skilled musicians' good will to overcome such obstacles.

If Schipper means equal in terms of musical personal chemistry, such equality will, in all probability, make interaction easier, and, hereby, also increase the meaningfulness of this activity. Meaningful ensemble improvisation can, however, exist even when the musical personal chemistry does not work so well and the degree of meaningfulness may then, even in this case, partly depend on a good will to overcome such obstacles.

The good will to create a meaningful work, that is, to create improvisations that are experienced as meaningful, should not only have been “alive for a long time” but should always be present. Why should musicians, regardless of skill, experience and chemistry, otherwise meet at all to improvise together?

What other ingredients a long-lived musical attitude should comprise is only something that I can guess (a musical attitude could not “be constituted only as an act of good will”). For me, musical attitude even comprises seriousness and respect, that is, to be serious about free improvisation and respect it as being as valuable as any other kind of music making – a standpoint I think Schipper would easily agree with.

- 7- focuses on the dynamic relationship of the participants and the synergetic outcome of the ensemble interaction (Borgo 1999)

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If Borgo, by dynamic relations, means something other than material/functional relations, and if he, by the outcome of ensemble interaction, means a product, then we think differently. I personally focus on material/functional relations, which are hopefully dynamic, and see them as a constantly shifting flow that springs from the process of ensemble interaction. For me, it is this process flow that is the synergetic outcome.

- 8- can be seen as a group of organisms interacting on the basis of a shared global purpose, and the details of what they are to do are worked out interactively in real time (through the medium of sound) (Pressing 2002a).

The thought of seeing the musicians in a free improvisation ensemble as a group of organisms feels a trifle repugnant. I prefer to see the organisms as a group of people or a group of musicians. For me, the global purpose is to accomplish a good improvisation, which means a well-functioning musical interaction. The details are worked out interactively in real-time but they are also part of a larger perspective than the immediate present, which affects the detail work in real-time.

Communication

C. Free ensemble improvisation in a communication perspective:

- 1- presupposes that channels of communication are opened as wide as possible for the participants (Bloom 1987)
- 2- is about communication (how can we communicate?) (Briggs 1986)
- 3- rests essentially on communication (“freed from the constraints of any irrelevant notions of authority or obligation”) (Couldry 1995)
- 4- stimulates and develops the musical communication between the musicians (Lutz 1999)
- 5- has communication as its be-all and end-all. The music becomes bad when the communication does not work, and if the communication does not work, one cannot move on. (Rösnes 1996)
- 6- is ultimately about communication, which seems to be its fundamental principle (Tuominen 1998)

The key words for the communication perspective on free ensemble improvisation are: “presupposes”, “is about”, “rests essentially on”, “stimulates and develops”, “be-all and end-all”, and “fundamental principle”. (points 1–6)

In point A, interaction is equated with communication. In point B, free ensemble improvisation is equated with musical interaction. The consequence here is that free ensemble improvisation does not presuppose, rest essentially on, stimulate and develop musical communication, neither is musical communication its fundamental principle (points 1, 3, 4, 6). Free ensemble improvisation *is* fundamentally musical communication, and in real-time, which fits in with the above viewpoints that free ensemble improvisation is about communication and has communication as its be-all and end-all (points 2, 5, 6).

- 7- can also include miscommunications (when a relationship intended by one improviser is misinterpreted by another, this could be considered a miscommunication, or a “mistake”), but there is always the possibility of contextualizing a mistaken response (Nunn 1998)

Miscommunications do happen, but I have seldom experienced them in a negative way. They have rather added something excitingly new and unforeseen (so, no feedforward) that has often led the music in a new direction (though maybe not in the direction the sender intended). The contextualization of miscommunications, or “mistakes”, has, more often than not, turned into something positive (see 6.2.2 Process), but now and again, I have actually experienced miscommunications as catastrophic, irreparable, and impossible to contextualize. (cf. 6.2.4 Ways of interaction – relations – complexity)

8– can contain seeming non-communication (Interpolation and Sound Mass) (Nunn 1998).

When it comes to Nunn’s two examples of seeming non-communication: interpolation and sound mass, respectively, I can claim that I have experienced both and that their level of communication depends on what Nunn says: the balance between included parts, the way the situation is established and left, and by the musical ambiguity being clearly articulated. I should, however, add that I have also experienced interpolation and sound mass, respectively, that have been non-communicative because Nunn’s conditions for communication have not been met, or not been sufficiently met. This has mostly occurred in more inexperienced groups where the musicians have not learned or been able to listen to one another in a way that has made even these rather aurally chaotic situations communicative. However, even non-communicative states may have some musical value, at least for limited spaces of time.

Conversation

D. Free ensemble improvisation in a conversation perspective:

- 1– strives to establish relationships which have a similarity to those attained by verbal language (manifested primarily on the basis of immediate aural communication) (Benitez 1986)
- 2– is like a musical conversation (band members endeavor to interact flexibly throughout a performance in order to accommodate one another) (Berliner 1994)
- 3– is like a verbal communication, but differs in that one can in free ensemble improvisation layer multiple textures and ideas (to confound a strict interpretation of linear meaning or causality) (Borgo 1999)
- 4– can be likened to playful conversations that are marked by openness and spontaneity (Couldry 1995)
- 5– can be likened to a conversation where one also listens behind that which actually occurs (Meyer 1986)
- 6– is like our daily speaking with others (Nachmanovitch 1990)
- 7– can be metaphorically likened to conversation. One difference is that music that bears literal surface resemblance to conversation is uncommon and usually seen as humorous. Likewise, conversations that could really be described as musical on the surface might sound something like operatic recitatives. Another difference is that in improvisation players often improvise simultaneously (without taking on clearly defined roles as soloists or accompanists). (Pelz-Sherman 1998)
- 8– is like conversation in that the musicians reflect and amplify each other’s musical ideas in a manner reminiscent of a dialogue (Sawyer 1992)

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- 9- is a product of concentrated listening where pitch, interval, duration and rhythm, dynamic and mode of attack, along with texture and structure are viable paradigms for spontaneous musical dialogue (Ford 2003).

There is really only one key word for the conversation perspective of free ensemble improvisation, and this is: to be “like” or to be “likened” (points 1–8). Conversation can, therefore, only be seen as a more or less useful metaphor for the musical interaction/-communication that takes place in free ensemble improvisation.

The differences are that in ensemble improvisation, one can layer multiple textures and ideas (point 3), that is, play simultaneously (point 7), which is less effective in verbal communication; and that musical communication is based on pitch, interval, duration, rhythm, dynamics, mode of attack, texture and structure (point 9), that is, on the properties and relations of gestures, whereas verbal communication is based on words. Yet another difference is that words have semantic content, which the components of musical communication do not have. Finally, even I do not believe that the conversational metaphor holds true for too literal an interpretation, in the form of music being literally like a conversation, or in the form of opera recitative-like verbal conversations (point 7).

Interaction, communication, and conversation

- E. Free ensemble improvisation in a communication-interaction-conversation perspective:
- 1- must be considered in terms of communication as improvisers in a group are necessarily responding immediately and intuitively to one another’s playing (Nunn 1998)
 - 2- means that two or more individuals are expected to respond to each other’s playing in real time, not unlike the interactive dynamics of conversations or group discussions (Nunn 1998)
 - 3- means that there can be no interaction without some kind of communication (Nunn 1998).

Nunn also puts the concepts free improvisation, interaction and communication together into one whole, and also uses the key word ‘like’ (i.e. “not unlike”) for the conversational aspect. (points 1–3)

*“Gestural structure is the most immediate and yet notationally the most elusive aspect of musical communication”. (Wishart 1985:13)

Free ensemble improvisation is musical real-time interaction that is musical real-time communication that is a mutual exchange of information where the information is gestures with their properties and intentional/unintentional relations, including understandings and misunderstandings. (cf. 6.3 Definitions)

The metaphor of conversation can be used to help to explain how free ensemble improvisation works, but only within the framework of its limitations.

Here I treat ‘interaction’ and ‘communication’ as synonymous terms.

6.2.4 Ways of interaction – relations – complexity

REFERENCES

The alternatives for ways of interaction consist of “support”, “ignore”, “initiating new ideas”, “provide contrasting ideas” or “become silent”.

The way in which an improviser responds to an ongoing sound, or the initiation of a new sound, establishes aspects of the musical dialogue from the very beginning. Does one acknowledge a change and support it, or ignore it? Perhaps one initiates a new idea, or provides a contrasting one, or becomes silent. (Briggs 1986:58)

Gaudinsky has noticed the following with regard to how freely improvised music comes about:

One or more performers introduce material, perceive the results and add on to them attempting to take into account the material contributed by all participants;
or
One of more performers introduce material at the same time as other events (simultaneously) without, however, consciously attending to other events. (Gaudinsky 1982: 37)

Lutz (1999) takes “The communication of the musicians” [Musikernes kommunikation] as a sub-heading to “Aspects on the collaboration of the musicians and the freedom of the improvisation” [Aspekter, der omhandler musikernes sammenspil og improvisationens frihed]. He feels that free ensemble improvisation is very dependent upon the collaboration of the musicians involved. The essence of free ensemble improvisation is the musical communication between the musicians that is expressed, among other ways, through musical dialogues and through the ability of the musicians to grasp and possibly build upon or work against the ideas of their co-musicians. (pp. 35–37)

Lutz divides communication between musicians into three categories:

- I Communication between two or more individuals, expressed with the help of concrete musical dialogue.
 - II Communication between the individual and the entire ensemble, expressed through the group’s musical reaction to an individual idea.
 - III Understood communication that is expressed neither through concrete dialogue nor concrete reactions, but rather, for example, in the form of a mutual unity about musical aspects, such as, for example, expression, dynamics or roles. (p. 45, 58, 69, 81, 92)
-
- [I Kommunikation mellem to eller flere individer, udtrykt ved hjælp af konkret musikalsk dialog.
 - II Kommunikation mellem individ og hele ensemblet, udtrykt ved en fælles musikalsk reaktion på en individuel idé.
 - III Underforstået kommunikation, som ikke udtrykkes i konkret dialog eller konkrete reaktioner, men eksempelvis i form af gensidig enighed om musikalske aspekter, som for eksempel udtryk, dynamik, rollefordeling. (s 45, 58, 69, 81, 92)]

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Nunn (1998) coins the term “relational function” by which he means “the intent to create CONTENT through specific role relationships among “voices””. He sees seven types of relational functions:

<u>Solo</u> –	A single or dominant “voice”.
/.../	
<u>Support</u> –	The active underlayment to support other higher profile “voice(s)”.
/.../	
<u>Ground</u> –	The static underlayment to support other higher profile “voice(s)”.
/.../	
<u>Dialogue</u> –	Back-and-forth, immediate interaction between/among players (not always just two).
/.../	
<u>Catalyst</u> –	An action to stimulate change in the musical character.
/.../	
<u>Sound Mass</u> –	A collective complex sound made up of a number of “voices” that are roughly equal in contribution.
/.../	
<u>Interpolation</u> –	The insertion or overlaying of utterly foreign material upon existing material wherein two (or more) independent musical characters coexist without affecting one another. (pp. 47–50)

One and the same relational function can cause different reactions from different musicians. (p. 79)

The same musical material can be interpreted as different relational functions by different musicians. (p. 81–82)

The sender’s intended relational function does not necessarily coincide with the recipient’s “perception or interpretation” of it. (pp. 47–48, 109) [see Nunn in 6.2.3 Interaction – communication – conversation]

According to Pelz-Sherman (1998), each interaction presupposes “two or more *competent agents* which are capable of generating and interpreting musical information”. (p. 124)

As agents within improvised music, Pelz-Sherman counts “typically specially-skilled performers who have achieved competency as improvisors”. Traditional conservatory training is “neither a pre-requisite nor /.../ a guarantee of interactive competency. In fact, few musicians schooled in the traditional conservatory curriculum ever learn to function as competent interactive agents”. (p. 126)

Interactive agents “must possess a certain degree of competency” regarding the production of their own and the “interpretation of the musical signals produced by the other agents with whom they are interacting”, as well as taking a “personal responsibility” for their actions. That “all actions made by every performer, as well as all reactions to sounds made by others, are assumed to be completely voluntary”, means that “while an agent may try to effect a state change in others by sending various signals”, it is up to each individual agent to decide when, “how or even whether to respond to these signals”. There is thus “no guarantee that a given signal will automatically trigger a given response”. Pelz-

Sherman assumes that interacting agents “are behaving according to their own internal standards of beauty, rather than those imposed by someone else”, and presumes that they are “acting with integrity”. (pp. 126–127)

Agents “can and do form “systems” by aligning their behavior along one or more musical parameters. A classic example is the way jazz drummers and bass players strive to play as a unit, primarily by achieving rhythmic unison”. Agent systems “function essentially as a single agent in nearly all aspects of their interactions”, and “the grouping of performers into “agency units” becomes especially important when examining the behavior of ensembles larger than two”. (p. 130)

I-events (“interaction events”) occur “when musical information is successfully transmitted from one agent to another”. I-events “can *only* happen when two performers are interacting”, and “the density of i-events per unit of time provides /.../ a quantitative measurement of how “interactive” a particular improvisation is”. Learning to handle (“initiate and respond to”) i-events “is perhaps the most important skill an improviser must develop”. (p. 137)

Free improvisation music is based on musical relations between improvisers. These relations can be grouped “into a limited number of *modes*, which are based on or analogous to patterns of everyday human social interaction”. Pelz-Sherman sees these ways of interaction as so important that he has coined the phrase “the mode is the code”. He has identified eight such modes:

STATIC: Sharing, Not sharing, Soloing/accompanying

DYNAMIC:

- **2-phase (linear):** Emerging/withdrawing, Merging/accepting, Interrupting/disappearing
- **3-phase (cyclic):** Interjecting/supporting, Initiating/responding. (p. 149–150)

4.2.1. The Static Modes

As stated above, when interacting in each of the static modes, the communication states (sending vs. receiving) of both systems are fixed throughout the entire time span. The static modes are, in a sense, the “parent” modes of all the others, since each of the dynamic modes is composed of a sequence of two or more static modes. (p. 152)

4.2.1.a. Sharing (affinity)

Improvising musicians can express, through their playing, either affinity of antipathy with the rest of the group. When musicians express affinity with one another during a performance, we can say that these musicians are “sharing” a common musical “space”, or sharing (sending and receiving) information at an equal rate. /.../ All agent systems are sending the same amount of information to one another and receiving the same amount of information from one another, often at the same time (full duplex).

Important features of *sharing* include:

- 1) sharing of musical materials: the performers strive for balance in the “major” parameters: note density, loudness, rhythmic and harmonic “language”, etc.
- 2) shared phrase structure: the performers start and end phrases together
- 3) high i-event density (pp. 152–153)

4.2.1.b. Not Sharing (independence)

In this mode, all agents are senders, and not receivers. No perceptible affinity exists between the performers. This mode is often characterized by extremely high energy levels

with many voices sounding simultaneously and independently, but it may also take the form of extremely sparse sections of music in which each musical statement seems completely unrelated to what came before. It is, in its most extreme form, the absence of interaction. However, there is a spectrum between “pure” *sharing* and *not sharing*. Where a group lands on this spectrum is determined by the quality and density of the i-events occurring.

Important features of not sharing include:

- 1) independence of musical materials
- 2) independent phrase structure
- 3) low i-event density (pp. 153–154)

4.2.1.c. Soloing/Accompanying

In this mode, the agents assume the respective roles of soloist and accompanist. The soloist is in the “spotlight” /.../, and is sending information to the accompanist, who is receiving that information and responding appropriately to indicate its successful transmission. In this mode, the job of the accompanist is every bit as challenging as that of the soloist, for the accompanist must exercise restraint, listening carefully to and following the soloist at all times, while simultaneously inventing interesting counterpoint to the soloist’s unfolding performance.

/.../

The sounds of the accompanist are generally quieter, more predictable, and less diverse than those of the soloist. They support and acknowledge the soloist, “punctuating” the music and filling out the spaces between the soloist’s phrases. *Soloing/Accompanying* can be very similar to *sharing* – i-event density is typically very high in this mode, and musical materials may be shared – but phrase structure is totally under the control of the soloist, and there is usually a very conscious effort made on the part of the *accompanying* agent to stay out of the spotlight and leave the soloist(s) plenty of space within which to express themselves. (pp. 155–156)

4.2.2. The Dynamic Modes

Dynamic modes are composed of multiple phases during which different static modes dominate. The dynamic modes presented here can have either 2 or 3 phases. The 2-phase modes are transitional and *linear*; they unfold gradually over time as a progression from one static mode to another. /.../ The 3-phase modes are “cyclic” patterns; they are essentially oscillations between two static modes. A cyclic pattern may repeat several times during a given section of music without changing the fundamental mode of interaction. (p. 156)

4.2.2.a. Emerging/Withdrawing

This linear mode is characterized by the emergence of one agent from a shared communication state to a sending, soloing state, or by agents starting in *sharing* mode and moving gradually to *not sharing* /.../ If the process is actualized by an agent actively taking on a sending role, it will sound more positive. If the process occurs by way of an agent withdrawing into an accompanimental role, it may sound more negative, like surrender or abandonment. (p. 156)

4.2.2.b. Merging/Accepting

Simply the retrograde of *emerging/withdrawing* (moving from a *non-sharing* state to a *sharing* state), this mode can symbolize “reunion”, “consummation of love”, or “reaching an accord”. It is especially effective if the density and overall intensity of the music increases over the course of this mode’s actualization. (pp. 156–157)

4.2.2.c. Interrupting/Disappearing

This linear mode occurs either when a soloist is suddenly interrupted by another agent who “steals” the spotlight away from the soloist, or when the soloist abruptly “disappears” from the spotlight, effectively handing over the spotlight to their accompanist. /.../ It’s important to distinguish repeated occurrences of *interrupting/disappearing* from *initiating/responding*. The difference is that in *interrupting/disappearing*, one agent ends either before the next one begins (*disappearing*), which triggers the state transition, or the first agent is literally cut off by the second (*interrupting*). In *initiating/responding*, the state change happens more gradually, and neither agent interrupts the other or in fact even withdraws completely from the engagement. (p. 157)

4.2.2.d. Initiating/Responding

This cyclic mode is perhaps the most common of all interaction modes. It generally takes the form of “call and response”, or “question and answer”, or “turntaking”. It consists of the following three phases /.../:

- 1 – soloist agent A makes an initial statement
- 2 – agent A cues agent B (during this phase the agents enter a state of either *sharing* or *not sharing*)
- 3 – agent B responds to the statement, becoming the new soloist

This characteristic “statement-cue-response” pattern can be heard in virtually every WICAM [Western Improvised Contemporary Art Music] performance at some point or another. /.../, when performers exchange sending & receiving states very rapidly, it tends to be perceived as “initiating/responding” (*i/r*). The important thing that distinguishes *i/r* from *s/a* is the evenness of the exchanges; no single agent predominates the texture. (p. 157)

4.2.2.e. Interjecting/Supporting

The characterizing factor of this cyclic mode is that one *supporting* agent remains in a constant state, providing a kind of “cantus firmus”, drone, or “vamping” type of activity, while the other agent constantly changes state, *interjecting* new statements sporadically and perhaps whimsically. /.../ Note that it is possible for the *supporting* agent to either remain in a *sharing* state with the *interjecting* agent, or not; the *supporting* agent’s response to the interjection determines whether the mode during the interjection will be *sharing* or *not sharing*. (p. 158)

The alternatives in emerging/withdrawing are:

- a) sharing – soloing/accompanying
- b) sharing – not sharing. (p. 150)

The alternatives in merging/accepting are:

- a) soloing/accompanying – sharing
- b) not sharing – sharing. (p. 150)

The alternatives in interrupting/disappearing are:

soloing/accompanying – soloing/accompanying, but with reversed roles. (p. 150)

The alternatives in initiating/responding are:

- a) soloing/accompanying – sharing – soloing/accompanying, with reversed roles
- b) soloing/accompanying – not sharing – soloing/accompanying, with reversed roles. (p. 150)

The alternatives in interjecting/supporting are:

- a) soloing/accompanying – sharing – soloing/accompanying, with the same roles

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b) sharing – soloing/accompanying – sharing

c) sharing – not sharing – sharing. (p. 150)

The modes “can be applied to groups of arbitrary numbers of performers by the formation of agent systems, and through the aggregation of modes”. They

represent relationships between a given agent or agent system and some other agent or agent system. In each of the static modes (*sharing*, *not sharing* and *soloing/accompanying*), the states of both parties are fixed throughout the entire time span, whereas in the dynamic modes, the state of one or more party changes. *Sharing* and *not sharing*, in which there is neither a change nor a difference in the sending/receiving behavior of either party, are called *homogeneous* modes. In both of the homogeneous modes, the roles of both parties remain constant and identical throughout the entire time span, which is why these modes alone have a single-word description. The heterogeneous modes all have two-part names, “*interrupting/disappearing*”, for example, in order to represent the perspective of each agent system.

The modes focus on the relationships between system pairs in order to break down the complex interaction into their simplest components. However, interaction modes may be combined in many ways. For example, a single pair may operate in multiple modes simultaneously, to varying degrees. This is possible because interaction modes are hierarchically “nestable”, in the sense that one can apply them at several levels of analysis, from a single phrase to an entire piece. The same kinds of relationships that underlie the large-scale formal divisions of an improvisation may be seen to operate at the more local levels as well. For instance, we may categorize an entire improvised solo in the context of an ensemble performance as an example of soloing/accompanying (s/a), but the solo may also be seen to consist of many sub-sections, some of which may involve modes other than s/a. Although the performers may be interacting in *sharing* or *not sharing* mode for brief periods, the overall mode of s/a may still predominate. (pp. 151–152)

With regard to the mode sharing, it is important

to draw a distinction between agents engaged in *sharing* versus agents acting as an *agent system*. In the former case, there is still give-and-take between the two agents, but that give-and-take is so evenly balanced as to yield a state of perfect interactive harmony. In the latter case, the agents are not sending and receiving information to and from each other, but are literally acting as a single entity which sends and receives information as a unit. (p. 153)

The mode not sharing does not, however, necessarily mean “not listening”. In WICAM

not sharing does not necessarily carry the negative connotation of “not listening”. In mainstream jazz, musicians are generally expected to *always* be interacting. In WICAM, it is quite common for performers to *willfully and selectively* ignore other members of the ensemble in order to “problematize” a given texture. /.../ Most likely, though, the listening activity of each member of each agent system is much more focused on the other members of the system than on those outside the system. (p. 154)

And even though sharing and not sharing are polar opposites,

the homogeneous modes of *not sharing* and *sharing* are easily confused. Audiences unable to perceive the interconnections of all the “shared” events may perceive the mode as *not sharing*, or may perceive shared connections between events that were not intended by the

performers. /.../ The fine line between these two fundamental modes is what can make interactive music so exciting; whereas monoriginal [composed] music must go to extreme measures to produce this state, heteroriginal [freely improvised] music is constantly teetering on the boundary between *sharing* and *not sharing*. Indeed, it is to a great extent the dynamic between these two states, not unlike that between tonic and dominant tonal areas in Classical harmonic theory, which gives improvised music its sense of tension and directional structure. (p. 155)

Under the heading “Effective Interaction Strategies”, Pelz-Sherman (1998) takes up two terms, representing “some general principles which did not seem to fit into the framework proper, but which nonetheless seem to be important strategies for successful group improvisation”: “lag time” and “the Gap-fill principle”. (p. 174–178)

By lag time, Pelz-Sherman means the time it takes before an initiated change has had an impact on and has been adopted by the entire ensemble. People, “like most natural physical/dynamic systems, tend to react to sudden changes in input with at least *some* degree of lag”. Improvisers “must constantly balance the impulse to respond immediately to change with the current direction of their own output”. Pelz-Sherman feels that “it does no good if one or both players are constantly tripping over each other trying to match the move of the other”. (p. 176)

By the Gap-fill principle, Pelz-Sherman means the filling of musical “gaps” that have been left open by the other musicians.

A prolonged avoidance of activity in a previously-hinted-at area of the parameter space will tend to create a desire for this activity. Like a vacuum, the avoided activity seems to pull the music inexorably toward itself by virtue of its non-existence. The resulting tension increases in direct proportion to both the length of the avoidance of the goal and the degree of “intensity” in the sound. (p. 178)

However, it is up to each member of the ensemble “to help the group attain a mutually-agreed-upon optimum level of tension”, which requires them to develop “a common notion of intensity calibration, and a general agreement on the desired relationship of time and materials”. (p. 178)

Pelz-Sherman also introduces the “spotlight” phenomenon.

In any WICAM performance, at any given time, there will be certain performers whose playing seems to be more foregrounded than that of the others. These performers seem to be sending more information than the others, thereby attracting more attention to themselves. We can imagine the attention of the audience and of the performers as a kind of “spotlight” which is attracted to high levels of information and therefore tends to “illuminate” those performers putting out the most information. However, it takes more than a mere increase in information output to gain a place in the “spotlight”; the other performers must confer agency upon those in the spotlight by opening up the musical space and shifting into a receptive, accompanimental role. One can either purposefully step into the spotlight, or one can be “thrust” into it by the rest of the group. Being in the spotlight means becoming a “soloist” of sorts, although it is of course possible (though relatively rare) for a WICAM performance to have more than two or three simultaneous soloists. /.../ Being in the spotlight means having been granted the opportunity to express oneself completely freely, with a certain degree of confidence that the rest of the group will support and not interfere destructively with this expression. (pp. 136–137)

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It may, according to Smith and Dean (1997), “be useful to distinguish two extreme psychological stances the improvisor might seek: the sensory and the non-sensory”. These poles are, however, “continuous and not disjunctive”.

In taking a sensory stance, the improvisor would attempt to internalise and interpret all the materials provided in the improvisation, whether by him- or herself or by others, and to generate further materials related to those provided. In taking a non-sensory stance, the individual would not only make no response to external material, but would attempt to avoid even perceiving it. Nevertheless, (s)he would of necessity generate continuing material.

/.../

The sensory improvisor may create material which is either primarily introverted or extroverted. In other words, the generated material may be intended primarily to affect the semiotic field of the individual generating it (the introvert attitude), or to affect the fields of the other participants (the extrovert attitude). (p. 32)

Wallace White (1999) dedicates his work to the analysis of four improvisations by the ensemble Oregon. For him, “the texture of a free improvisation reflects the way in which players [in Oregon] interrelate as the piece develops”. (p. 75)

Concerning the textural relationships, he says that

textural relationships negotiated across strata most often reflect the figure-to-ground hierarchy found in traditional Western chamber music. Similar to a more traditional melody-with-accompaniment texture (but without any implied stylistic constraints), the ground activity in this type of texture is subordinate to the figure activity. Ground activity tends to be more stable or unchanging for significant lengths of time, perhaps incorporating repeated motives or ostinati. By contrast, figure activity is more active and variable, and assumes features traditionally characterized as melodic (for example, variegated contour and rhythmic patterning). /.../

More complicated interaction among players produces stratification into at least three textural layers: foreground, middleground, and background. Hierarchical differentiation between layers corresponds to relative degrees of melodic importance or accompanimental significance. Foreground-versus-background activity corresponds to the figure-versus-ground relationship discussed above. Activity on the middleground level is hierarchically more significant than accompanimental ground activity (background) but still subordinate to primary figure activity (foreground). As an improvisation evolves, players may move from one level to another (for example, from the melodic foreground to the accompanimental background), processively negotiating a series of structural relationships as the improvisation develops. The specific nature of inter-layer relationships is unique in each improvisation. (p. 79–80)

The relationships “formed on the same textural stratum are either dialogical or discrete in nature”.

Both of these types are polyphonic in the traditional sense in that they consist of equally weighted lines of activity, and they are distinct from the texture commonly described as heterophonic. These relationships occur predominantly on the fore- and middleground. /.../ Like verbal conversation, a dialogical relationship involves musical discourse on the same “topic” or set of “topics”. The players involved are engaged directly with one another, producing a collective fabric characterized by congruent patterning (connected elements and rhythmic alignment). The specific nature of a dialogical relationship lies on a continuum

between interaction that is either imitative or complementary. The majority of dialogical relationships are more complementary than imitative.

Imitative interaction is characterized by restatement in relatively close succession, yet is hardly ever purely imitative or canonic. /.../ Complementary interaction involves a non-imitative give-and-take of the focal “spotlight”. Often, events in such interaction exhibit a high degree of rhythmic coordination. /.../

A discrete relationship is activity that is simultaneous yet separate, that is, not conversationally interactive. Although the temporal alignment of events may be congruent in general (depending upon contextual metric features), the collective fabric produced is characterized by distinct or unconnected elements and little or no direct rhythmic correspondence. (p. 80–82)

SUMMARIES AND REFLECTIONS

Ways of interaction

A. Ways of interaction:

Briggs (1986)

- interaction
- 1– – support
- 2– – ignore
- 3– – initiating new ideas
- 4– – provide contrasting ideas
- 5– – become silent.

Gaudisky (1982)

- 6– musicians introduce material, perceive the results and add to them attempting to take into account the material contributed by all participants
- 7– musicians introduce material at the same time as other events without consciously attending to other events

Lutz (1999)

- 8– concrete dialogue between two/more musicians
- 9– communication between the individual and the entire ensemble, expressed through the group’s musical reaction to an individual idea
- 10– understood communication, expressed in the form of a mutual unity about musical aspects, such as expression, dynamics or roles

Nunn (1998)

- relational functions
- 11– – solo
- 12– – support
- 13– – ground
- 14– – dialogue
- 15– – catalyst
- 16– – sound mass
- 17– – interpolation

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Pelz-Sherman (1998)

- static interaction modes
- 18-- sharing
- 19-- not sharing
- 20-- soloing/accompanying
- dynamic interaction modes
- 2-phase (transitional and linear)
- 21--- emerging/withdrawing
- 22--- merging/accepting
- 23--- interrupting/disappearing
- 3-phase (cyclic)
- 24--- interjecting/supporting
- 25--- initiating/responding
- 26- lag time
- 27- gap-fill
- 28- spotlight phenomenon.

Smith and Dean (1997)

- stances
- 29-- introvert sensory
- 30-- extrovert sensory
- 31-- non-sensory.

Wallace White (1999)

- relationships between two or more players: same stratum
- 32-- dialogical
- 33-- discrete.

Of the writers mentioned above, Nunn is the one who has the greater number of ways to interact (see Pelz-Sherman's alternatives below). It may, therefore, be of interest to compare the other writers' ways of interaction with Nunn's.

Briggs (points 1-5) – Nunn (points 11-17)

Point 1 (support) corresponds with point 12 (support).

Point 2 (ignore) does not correspond with any of Nunn's points but can also be seen as a way of interaction or possibly as a way of anti-interaction. This alternative entails that the relevant musician continues with what he is doing without letting himself be influenced by the changes going on around him. I choose to see "ignore" as a way of interaction and call it independence, as does Pelz-Sherman (see his point 4.2.1.b. above).

The differences between independence and Nunn's points 16 and 17 (sound mass, interpolation) are partly that independence can occur in connection with two or few musicians, which sound mass cannot, and partly that sound mass and interpolation can be communicative (see 6.2.3 Interaction – communication – conversation), which independence is not. Interpolation also means layering of "utterly foreign material upon existing material", which is not necessary in independence.

Point 3 (initiating new ideas) corresponds with point 15 (catalyst) or point 17 (interpolation) depending on whether the ideas influence the others (catalyst) or co-exist with pre-existing material (interpolation).

Point 4 (provide contrasting ideas) corresponds with point 15 (catalyst) or point 17 (interpolation) on the same conditions as for point 3.

Point 5 (become silent) does not correspond with any of Nunn's points but can also be seen as a way of interaction.

Gaudinsky (points 6–7) – Nunn (points 11–17)

Point 6 (musicians introduce material, perceive the results and add to them, attempting to take into account the material contributed by all participants) corresponds with all of Nunn's points except with, possibly, point 16 (sound mass) or point 17 (interpolation) to the extent that these are non-communicative (see 6.2.3 Interaction – communication – conversation). Point 6 is therefore rather a general description of normal interaction in free ensemble improvisation than a description of any particular way of interaction.

Point 7 (musicians introduce material at the same time as other events without consciously attending to other events) does not correspond with any of Nunn's points, except with possibly point 16 (sound mass) or point 17 (interpolation) to the extent that these are non-communicative (see 6.2.3 Interaction – communication – conversation). I equate point 7 with Briggs' point 2 (ignore), which places point 7 under the way of interaction independence.

Lutz (points 8–10) – Nunn (points 11–17)

Point 8 (concrete dialogue between two/more musicians) corresponds with point 14 (dialogue).

Point 9 (communication between the individual and the entire ensemble, expressed through the group's musical reaction to an individual idea) corresponds with point 15 (catalyst).

I do not see Point 10 (understood communication, expressed in the form of a mutual unity about musical aspects, such as expression, dynamics or roles) as a way of interaction but rather as a collective understanding (see 6.1.2 Ensemble) and therefore as a positive precondition for, and hopefully a part of free ensemble improvisation/interaction, instead.

Pelz-Sherman (points 18–28) – Nunn (points 11–17)

Point 18 (sharing) corresponds with point 14 (dialogue).

Point 19 (not sharing) corresponds with independence in collective form (points 2, 7) (see Pelz-Sherman's point 4.2.1.b. above) or possibly with point 16 (sound mass) or point 17 (interpolation) to the extent that these are non-communicative. (see 6.2.3 Interaction – communication – conversation)

In point 20 (soloing/accompanying), the first part corresponds with point 11 (solo), while the second part corresponds with point 12 or 13 (support and ground, respectively).

Points 21–25 (2-phase dynamic interaction modes, 3-phase dynamic interaction modes) are about changes in the ways of interaction, not about ways of interaction in themselves (which are covered in points 18–20).

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Point 26 (lag time) is not a way of interaction, but rather a name for the time a change takes. By this term, Pelz-Sherman means the time it takes before an initiated change has had an impact on and is adopted by the entire ensemble, but the term can also be seen as another name for the transition period, i.e. as a name for the time a change takes in a formal perspective. If an initiated change results in a new section, the meanings meld together. Here, I reserve lag time for the time a change takes within a section. (see 6.2.1 Listening, 17 Free improvisation– system analogies)

I see point 27 (gap-fill) as part of point 14 (dialogue) since it refers to the normal way of having a dialogue, i.e. not to speak at the same time as another individual. Point 27 can also be seen as a part of the second half of point 20 (soloing/accompanying).

Point 28 (spotlight phenomenon) corresponds with point 11 (solo).

Smith and Dean (points 29–31) – Nunn (points 11–17)

Points 29 and 30 (introvert sensory stance, extrovert sensory stance) correspond, as a whole, with all of Nunn's points in the same way as for point 6 above, which makes them also more of a general description of normal interaction in free ensemble improvisation than a description of any special way of interaction. If one were to divide these points up, one can see the introvert stance (point 29) as one half independence, while the extrovert stance (point 30) on its own becomes rather meaningless since the level of influence is not determined by the generator of material himself but by his co-musicians, by if and how the generated material is perceived, and, moreover, to the extent that it is perceived, and finally by if and how the co-musicians choose to react to the generated material. Taken together, points 29 and 30 correspond, however, to normal ensemble improvisation/-interaction, where gestures are generated, with consideration to the gestures of the others, and for both one's own and the others' use.

Point 31 (non-sensory stance) corresponds with independence (points 2, 7, 19) or possibly with point 16 (sound mass) or point 17 (interpolation) to the extent that these are non-communicative. (see 6.2.3 Interaction – communication – conversation)

Wallace White (points 32–33) – Nunn (points 11–17)

Point 32 (dialogical relationship) corresponds with point 14 (dialogue). (cf. 19.3.1 Complementary material under the term heading: Relations)

Point 33 (discrete relationship) corresponds with independence (points 2, 7, 19, 31) or possibly with point 16 (sound mass) or point 17 (interpolation) to the extent that these are non-communicative. (see 6.2.3 Interaction – communication – conversation)

If one includes point 5 (silence) and points 2, 7, 19, 31 and 33 (independence) respectively, then the resultant sum is nine ways of interaction:

- I – solo (points 11, 20, 28)
- II – support (points 1, 12, 20, 27)
- III – ground (points 13, 20, 27)
- IV – dialogue (including gap-fill) (points 8, 14, 18, 27, 32)
- V – catalyst (points 3, 4, 9, 15)
- VI – sound mass (points 16, (7, 19, 31, 33))
- VII – interpolation (points 3, 4, 17, (7, 19, 31, 33))

- VIII– independence (points 2, 7, 19, 31, 33)
 IX – silence (point 5).

Relations

Strictly speaking, the establishment of all relations involves ways of interaction, and conversely, all interaction involves relations being established. To play louder than, lower than, shorter sounds than, etc.; to repeat, vary, or contrast, are all examples not only of material ways of interaction, but also of the establishment of material relations. (see 6.2.3 Interaction – communication – conversation)

In this perspective, I see the ways of interaction I–IX above as functional ways of interaction, which involves the gestures produced within the framework of the ways of interaction I–VIII attaining the corresponding functional relations. Relations as verbs become ways of interaction, whereas ways of interaction as nouns become relations. Nunn also calls his ways of interaction (point 11–17) “relational functions”. I do not, however, see way of interaction IX (silence) as the cause of the corresponding functional relation, since I reserve the term for gestures, not for the absence of gestures.

B. Strata:

- 1– texture relations between strata most often reflect the figure-to-ground hierarchy that is similar to a more traditional melody-with-accompaniment texture (but without any implied stylistic constraints). The ground activity is subordinate to the figure activity, is more stable or unchanging, and can incorporate repeated motives or ostinati. The figure activity is more active and variable, and assumes features traditionally characterized as melodic. (Wallace White 1999)
- 2– texture relations can also be divided into foreground, middleground, and background, where foreground–background activity corresponds to the figure-versus-ground relationship, and where the middleground level is hierarchically more significant than accompanimental activity (background) but still subordinate to primary figure activity (foreground) (Wallace White 1999)
- 3– players may move from one level to another, and relationships formed on the same textural stratum are either dialogical or discrete (Wallace White 1999).

Wallace White’s description of strata corresponds to what I have earlier called functional relations (foreground–background, foreground–middleground–background) (see 6.2.1 Listening). In relation to the functional relations according to the ways of interaction I–VIII, however, I see these as a reduced division of functional relations, somewhat like solo–ground (ways of interaction I, III) (point 1), and solo–support–ground (ways of interaction I, II, III) (point 2), respectively. Furthermore, point 3 means that different strata can rather be seen as levels/places for functional relations than as such in themselves.

The division aspect and the level/place aspect causes me, from now on, to cancel foreground–(middleground)–background from functional relations and to replace them with the ways of interaction / the functional relations, I–VIII.

The understanding of functional relations and their consequences are, however, far from obvious. (see Complexity below).

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Complexity

C. Factors that affect complexity:

- 1- one and the same relational function can cause different reactions from different musicians (Nunn 1998)
- 2- there is no guarantee that a given signal will automatically trigger a given response (Pelz-Sherman 1998)

A musical material can be meant and understood as the same functional relation but still cause/trigger different responses in different musicians. (points 1, 2)

- 3- the same musical material can be interpreted as different relational functions by different musicians (Nunn 1998)
- 4- the sender's intended relational function does not necessarily coincide with the recipient's perception or interpretation of it (Nunn 1998)
- 5- different ways of interaction can be mistaken for one another (Pelz-Sherman 1998)

A musical material can be understood as having different functional relations by different musicians, which also means that an intended functional relation does not necessarily correspond to what is understood (points 3, 4). Different ways of interaction / functional relations can be mistaken for one another (point 5), which is another way of saying that a musical material can be understood to have different functional relations, that is, point 5 comes under point 3. (cf. 6.2.3 Interaction – communication – conversation)

- 6- different musicians (interacting agents) might have different internal standards of beauty, rather than those imposed by someone else, and are supposed to act with integrity (Pelz-Sherman 1998)

Musical material can cause different actions depending on different aesthetics (internal standards of beauty) of the recipient musicians. One possible explanation to points 1 and 2.

- 7- more than one way of interaction can exist simultaneously in a group (Pelz-Sherman 1998)
- 8- a pair may, in a formal hierarchic perspective and to varying degrees, operate in multiple ways of interaction simultaneously (Pelz-Sherman 1998).

Different ways of interaction / functional relations can exist simultaneously amongst the different musicians, and/or be spread over different form/time perspectives. (points 7, 8)

Furthermore, musicians can operate amongst themselves within one way of interaction / functional relation (such as dialogue), but as a sub-group have another way of interaction / functional relation to another musician or sub-group (such as support to a soloist who then has the way of interaction / functional relation solo towards the sub-group, see below).

In short: different ways of interaction / functional relations can exist simultaneously. The question of complexity in free ensemble improvisation can include even more factors. What Pelz-Sherman calls lag time (point A26) can affect the complexity. Since lag time can mean that different musicians do not react simultaneously to a change (and perhaps also in different ways), the lag time itself can mean a time of increased complexity.

*The shorter and simpler the impulses in the individual contributions are, the faster and more flexible immediate reactions to one another's playing can take place.
(Bergström-Nielsen 1976: 62)

The complexity of the gestures themselves can affect the complexity as a whole. Complicated gestures in terms of the number of sounds/pauses and variations within their other properties can contribute to the improvisation becoming more complex. Conversely, less complicated gestures can contribute to the improvisation becoming less complex.

Gestures can, in relation to one another, simultaneously have different material relations for different parameters, which can contribute to the total soundscape becoming more complex. A gesture can, for example, have greater values regarding length± and less regarding height compared to another gesture. In the same way, a gesture can be an imitation of another gesture regarding length±, but a variation on it regarding height, and a contrast regarding strength, etc. One can speak of multiple material relations. Furthermore, different musicians can, to varying degrees, focus on, understand and act from different material relations.

Gestures can overlap more or less within length±, strength and height, as well as over time, which can affect the complexity (see appendix A3 Number of cases of overlapping for ranges).

The number of musicians affects the complexity in that the number of possible interaction connections quickly increases with an increasing number of musicians in the ensemble. If by a 'unit' one means a musician or a sub-group, where a sub-group consists of two or more musicians, then for two unit interaction connections there is one possibility with two units (1-2), three possibilities with three units (1-2, 1-3, 2-3), six possibilities with four units (1-2, 1-3, 1-4, 2-3, 2-4, 3-4), ten possibilities with five units (1-2, 1-3, 1-4, 1-5, 2-3, 2-4, 2-5, 3-4, 3-5, 4-5), and so on. For three unit interaction connections there is one possibility with three units (1-2-3), four possibilities with four units (1-2-3, 1-2-4, 1-3-4, 2-3-4), ten possibilities with five units (1-2-3, 1-2-4, 1-2-5, 1-3-4, 1-3-5, 1-4-5, 2-3-4, 2-3-5, 2-4-5, 3-4-5), and so on. (Two unit interaction connections can, according to the definition of 'unit', apply to individual-individual or individual-sub-group or sub-group-sub-group, and three unit interaction connections can apply to individual-individual-individual or individual-individual-sub-group or individual-sub-group-sub-group or sub-group-sub-group-sub-group, etc. All alternatives of course depending on the number of participants in the ensemble.) Furthermore, there can be more units than two or three in an ensemble, there may be interaction connections with more than three units, different interaction connections with the same way of interaction (but probably differently realized) can exist simultaneously, different interaction connections with different ways of interaction can exist simultaneously, and a sub-group can have one way of interaction internally (internal way of interaction), but as a sub-group have another to another unit (external way of interaction). (cf. point 7, 8 above)

The speed of the interactions, in terms of the number of initiated interactive events per time unit, can affect the complexity in free ensemble improvisation. The more initiated interactive events per time unit, the more complex the improvisation probably becomes, and vice versa.

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Bridges (transitions) between different sections can simultaneously take place in different ways for different musicians. They can also be of different lengths for different musicians. (cf. lag time above, see 17 Free improvisation – system analogies)

Finally, understanding relativity about pulse, tempo, metre, central tone, along with the boundary-drawing relativity between formal units and repetition–variation–contrast, respectively, probably contribute to varying degrees of complexity. (see 19.1.2 More about objects, 19.3.2 More about relations)

I doubt, however, that this summary of factors is comprehensive when it comes to explaining the causes of complexity in free ensemble improvisations.

Or, maybe the entire question of complexity in free ensemble improvisation can be reduced, or summarized, to be about:

- the number of sound-/pause-events per time unit
- real-time perception and interpretation of sound-/pause-events
- real-time reactions to sound-/pause-events.

(Cf. 6.2.2 Process, concerning attention and memory as “limits for the possible complexity of improvised behaviour in real-time processing”.)

6.3 DEFINITIONS

REFERENCES

Free improvisation has no predetermined musical variables as its starting points. (Sohlman Dictionary of Music [Sohlmans musiklexikon (Sohlman)]: Improvisation [Improvisation])

Bailey finds it difficult to define free improvisation since it has a tendency to “slide off into some more readily identifiable area, jazz or comedy or into very obvious forms”. (Bailey 1993: 115)

It is almost impossible to classify free improvisation “based on the amount of free improvisation allowed in each group”, because “the field is too large and the modes of improvisation too wide-ranging”. (Benitez 1986: 457)

A typical definition of freely improvised music is that: “free music is what is played when players do not consciously reinforce musical idioms or existing compositions”. (Berndt 1996: 1)

According to Borgo (1999), free improvisation “emphasizes process over product creativity” and has “the dialogue nature of real-time interaction”. (p 65)

The “content and the process of collective free improvisation are inherently self-generating and self-organizing”, and “there are no external, a priori designs or constraints placed on the content of the improvisation”. (p 69)

Barry Guy, interviewed by Dervan, feels that free improvisation is “a form of communication which is pure between people”, and that you have to “play this music without composition”. What one is dealing with is human beings, and one is “actually getting right to the heart of how people communicate with each other”. (Dervan 1997: 15)

Free improvisation is “usually performed collectively between two or more players”, where “conception and realization are fused into one action or process”, and where there is “no storage of conceptual or thematic information to be drawn upon”. Free improvisation takes place “in the here and now without resorting to support systems of symbols to be translated”. (Gaudinsky 1982: 37)

Free improvisation is a collective process, and it does not connect itself to common conventions and predetermined frameworks. (Lutz 1999: 2)

Free improvisation is self-organizing patterns. (Nachmanovitch 1990: 33)

Free improvisation is, according to Nunn (1998), among other things, “multiple, spontaneous processes of creating music in real time” as a direct response to the music itself. (p 35)

Free improvisation is “essentially self-generating”. (p 37)

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For Pelz-Sherman (1998), free improvisation (“purely improvised music”) is music that “takes form during performance as the direct result of the real-time interaction of multiple performers”. (p. 1)

It is interactive because “all performers make decisions about what to do at any given moment based primarily on their own imagination and interpretation of signals from the others”. The responsibility for generating musical ideas “is shared equally among all participants”, and “there is generally no persistent distinction between “lead” and “backing” musicians; instead, these roles are fluid and constantly shifting between the performers”. (pp. 5–6)

Free improvisation is contemporary because it is by definition new, it is created “in the present-day era by living artists working outside any pre-established tradition”. (p. 6)

The term “referent” is central to improvisation.

The referent is an underlying formal scheme or guiding image specific to a given piece, used by the improviser to facilitate the generating and editing of improvised behaviour on an intermediate time scale. /.../ If no referent is present, or if it is devised in real-time, we speak of ‘free’ or ‘absolute’ improvisation. (Pressing 1984: 346)

Free collective improvisation is “the ultimate improvisational format in which two or more people improvise simultaneously, free of all written constraints”.

(Reynolds 1993: 219)

For Smith and Dean (1997), improvisation in its purest form (“pure improvisation”) “involves the simultaneous conception and performance of a work of art”, it “takes place without any prewritten score or script”, and it “does not involve revision”. (p. 26)

Pure improvisation takes place in real-time, “improvisatory time”, and is “self-generating – that is, it is a consequence of the structure of the improvisation itself”. Improvisation may be solo, “but is quite likely to involve other performers whose choices are continuously modifying and transforming each other”. (p. 27)

In free improvisation, the music is discovered and invented spontaneously, “while performing it, without preconceived formulation, scoring, or content”.

(Solomon 1986: 226)

Tuominen (1998) feels that the definition of free improvisation cannot be found in the sounding result but lies instead in the artistic method, the idea of which is that the music is created wholly in the now. (p. 9)

Everything can be used as tools for creating music in the now, and one can decide to use any sound or technique at any moment. (p. 10)

Free improvisation follows “no preconceived or agreed-upon formal structure, although techniques of developing ideas in such a free context may be similar to those found in written-out compositions”. (Wallace White 1999: 21–22)

SUMMARIES AND REFLECTIONS

A. Free ensemble improvisation has nothing predetermined:

- 1- it has no predetermined musical variables (Sohlman)
- 2- it has no external, a priori designs or constraints placed on its content (Borgo 1999)
- 3- it has no storage of conceptual or thematic information to be drawn upon (Gaudinsky 1982)
- 4- it does not connect itself to any predetermined frameworks (Lutz 1999)
- 5- it follows no preconceived or agreed-upon formal structure (Wallace White 1999).

B. Free ensemble improvisation does not emanate from anything written down:

- 1- the players do not consciously reinforce existing compositions (Bernt 1996)
- 2- it emphasizes process over product creativity (Borgo 1999)
- 3- it is played without composition (Guy/Dervan 1997)
- 4- it does not resort to support systems of symbols to be translated (Gaudinsky 1982)
- 5- it has no referent (Pressing 1984)
- 6- it is free of all written constraints (Reynolds 1993)
- 7- it has no prewritten score or script, and it does not involve revision (Smith & Dean 1997)
- 8- it has no preconceived formulation, scoring, or content (Solomon 1986).

C. Free ensemble improvisation is independent of idioms, conventions or traditions (which, however, does not mean that these cannot be used (see 13 Free improvisation– idiomatic improvisation – stylistic influences)):

- 1- the players do not consciously reinforce musical idioms (Bernt 1996)
- 2- it does not connect itself to common conventions (Lutz 1999)
- 3- it is created outside any pre-established tradition (Pelz-Sherman 1998).

D. Free ensemble improvisation is a real-time phenomenon and therefore optimally contemporary:

- 1- it fuses conception and realization into one action or process (Gaudinsky 1982)
- 2- it takes place in the here and now (Gaudinsky 1982)
- 3- it is multiple, spontaneous processes of creating music in real time (Nunn 1998)
- 4- it is contemporary because it is by definition new (Pelz-Sherman 1998)
- 5- it is the simultaneous conception and performance of a work of art (Smith & Dean 1997)
- 6- it takes place in real-time (improvisatory time) (Smith & Dean 1997)
- 7- it is discovered and invented spontaneously while it is performed (Solomon 1986)
- 8- it is created wholly in the now (Tuominen 1998).

E. Free ensemble improvisation is interactive:

- 1- it has the dialogue nature of real-time interaction (Borgo 1999)
- 2- it is a form of communication (getting right to the heart of how people communicate with each other) (Guy/Dervan 1997)
- 3- it is a collective process (Lutz 1999)
- 4- it is a direct result of the real-time interaction of multiple performers (all performers making decisions about what to do at any given moment based primarily on their own imagination and interpretation of signals from the others) (Pelz-Sherman 1998)
- 5- it is interactive (it is quite likely to involve other performers whose choices are continuously modifying and transforming each other) (Smith & Dean 1997).

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F. Free ensemble improvisation is self-generating/-organizing:

- 1- it is self-generating and self-organizing (Borgo 1999)
- 2- it is self-organizing patterns (Nachmanovitch 1990)
- 3- it develops as a direct response to the music itself, it is essentially self-generating (Nunn 1998)
- 4- it is self-generating (it is a consequence of the structure of the improvisation itself) (Smith & Dean 1997).

G. Free ensemble improvisation has no fixed roles for the musicians (the roles are fluid and constantly shifting between the performers) (Pelz-Sherman 1998).

H. In free ensemble improvisation, everything can be used as sound tools, and any sound or technique can be used at any moment (Tuominen 1998).

I. Free ensemble improvisation might have room for definitional reservations:

- 1- it has a tendency to slide off into into some more readily identifiable area, jazz or comedy or into very obvious forms (Bailey 1993)
- 2- the field is too large and the modes of improvisation too wide-ranging (Benitez 1986).

To summarize, free ensemble improvisation:

- A- has nothing predetermined
- B- does not emanate from anything written down
- C- is independent of idioms, conventions or traditions
- D- is a real-time phenomenon and therefore optimally contemporary
- E- is interactive
- F- is self-generating/-organizing
- G- has no fixed roles for the musicians
- H- can include any sound tool, sound or technique, at any moment
- I- might have room for definitional reservations.

If one, like me, is not interested in any “area” (point I), or if one, like me, is interested in what the common denominators for the large field of free improvisation can be, with its many modes of improvising (point I), one can, from the points above, define free ensemble improvisation as: self-generating/-organizing musical real-time interaction between two or more musicians (point D, E, F) where nothing is predetermined or binding with respect to conditions, results or roles of the interaction (point A, B, C, G), and where everything is allowed at any time with respect to sound tools, sounds (and sound sequences) and techniques (point H).

If one, like me, sees “self-generating/-organizing” as a product of the interaction, “conditions, results or roles of the interaction” as sub-sets of “nothing is predetermined or binding”, and “sound tools, sounds (and sound sequences) and techniques” as sub-sets of “everything”, then the definition can be shortened to: free ensemble improvisation is musical real-time interaction between two or more musicians where nothing musical is predetermined or binding and where everything musical is allowed.

7 Intuitive music

REFERENCES

In early May 1968, Karlheinz Stockhausen “shut himself up, ate nothing, meditated much”, and did so for seven days. The result was *Aus den sieben Tagen*, “a book of fifteen brief sets of instructions, couched /.../ in suggestive evocative language which has distilled what he wants performers to do to such an extent that what he offers is almost meaningless”. (Harvey 1975: 113)

For Bergström-Nielsen, intuitive music is:

- a form of music without “prior verbally- or notationally-indicated restrictions”, “an important, liberating form of music”, “a highly creative form of music” that “cannot be replaced by anything else”, and a music that “should never be confused with specific composers nor styles” (1998: 4)
- a form of music that can be described as “a zero point from where you may go in all directions” (1998: 5)
- a form of music where it is important to be present in the here-and-now (1998: 23)
- a form of music where “the contact [between the musicians] always takes place in the ever changing here-and-now” (1998: 23)
- a form of music that presupposes “sensing (here: listening) without interruption” (1998: 23–24)
- a form of music where “being part of the deciding process” causes the others’ sounds to also become one’s own, and where there is a free interaction between listening and expressing oneself (1998: 26)
- a form of music where “one’s participation can range between doing the same thing as others (from a pure forgetting your individual self to a conscious accompanying) to ‘doing your own thing’ (ranging from being subversive to making comments)” (1998: 26)
- a form of music that takes place with the freest possible associations, without being bound to any known style (1990: 34)
- a form of music where all instruments and voices can be used, and where there are no demands made on certain musical skills, but rather on motivation and concentration (1990: 34)
- a mutual give-and-take situation, an ultimate playing together (1990: 35)
- a form of music that can reach advanced levels, but which does not demand specific technical skills, and where all musical parameters are equal (1990: 39).

Bergström-Nielsen wonders “whether intuitive music existed as a conscious and consistent endeavour before Western new music in the second half of the twentieth century”. For him it is:

tempting to believe that somebody or even many people must have had the idea before. The idea of a free stream of consciousness seems to be of a similar nature, and this is described in ancient texts related to yoga meditation. But on the other hand, meditative music in many cultures is often a very fixed ritual – it is not within the medium itself that one lets go of thoughts and feelings. One relevant practice, however, is the “dream-chanting” of Charlie Morrow which he learned from studies with American Indians – a practice which could have its roots way back in time. Here, dreams which one feels are important are re-told by means

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of freely improvised songs. But other than this, there is a striking lack of historical evidence. (Bergström-Nielsen 1999: 23)

Stockhausen prefers the term intuitive music to improvisation because, according to him, the latter “invariably conjures up an image of underlying structures, formulae and peculiarities of style”. By intuitive music, Stockhausen means music that comes

virtually unhindered from the intuition ... The ‘orientation’ of the musicians, which I call ‘accord’, is not, I would emphasize, random or merely negative – in the sense of exclusive – musical thought, but joint concentration of a written text of mine which provokes the intuitive faculty in a clearly defined manner. (Griffiths 1992: 180)

Intuitive music is an ideal that stretches to the ‘utmost’ extreme of free improvisation. It is a non-idiomatic music form that should work spontaneously, and the basis for the musical process is short texts by Stockhausen that define the music to a greater or lesser extent, while they simultaneously function as a means to create a connection to the musicians’ intuition. The goal is to reach a convention-free and, at the same time, innovative music. Intuitive music demands great self-discipline from the participants, partly regarding their playing together, where there is always the risk of musicians not giving one another space, and partly in relation to the respective participants themselves, where each musician’s intuition should be allowed to manifest itself. (Lutz 1999: 23–24)

Intuitive music can be understood as a parallel to improvised music. In improvisation, there are, in one way or another, rules or structures, however, and the musicians are expected to show their professional technique or virtuosity. In intuitive music, there are no such expectations on anyone, nor are there rules. All that is needed is that one listens to the others and answers. There is no hierarchy or ego in the sounds or in the musicians. In intuitive music, all sounds are accepted. (Wakao 1998: 1)

SUMMARIES AND REFLECTIONS

A. Differences between intuitive music and improvisation are that:

- 1– improvisation, as opposed to intuitive music, invariably conjures up an image of underlying structures, formulae and peculiarities of style (Stockhausen/Griffiths 1992)
- 2– in improvisation there are in one way or another rules or structures, while in intuitive music there are no rules (Wakao 1998).

What Stockhausen/Griffiths and Wakao seem to be referring to is the kind of improvisation that emanates from and is bound by musical idioms or by precomposed structures (points 1, 2). This differs from free improvisation, which does not emanate from or have such limitations (see sections 13–16). Nor do formulae, rules or peculiarities of style belong to free improvisation (points 1, 2).

When it comes to structure, all music has structure whether one wants it or not. One should, however, differentiate between predetermined structures and those that only appear as a result of the musical course of events. I place the former outside of, and the latter within, free ensemble improvisation. (see 6.1.4 Ensemble size – large ensembles – directing)

B. If one adds the characteristics of intuitive music given by Lutz, Stockhausen/Griffiths and Wakao to Bergström-Nielsen's list, one finds that intuitive music is a form of music:

- 1- without prior verbally- or notationally-indicated restrictions, and a form of music that should never be confused with specific composers nor styles (Bergström-Nielsen 1998)
- 2- that is liberating and highly creative, and a form of music that cannot be replaced by anything else (Bergström-Nielsen 1998)
- 3- that can be described as a zero point from where you may go in all directions (Bergström-Nielsen 1998)
- 4- where it is important to be present in the here-and-now (Bergström-Nielsen 1998)
- 5- where the contact [between the musicians] always takes place in the ever-changing here-and-now (Bergström-Nielsen 1998)
- 6- that presupposes listening without interruption (Bergström-Nielsen 1998)
- 7- where being part of the deciding process causes the others' sounds to also become one's own, and where there is free interaction between listening and expressing oneself (Bergström-Nielsen 1998)
- 8- where one's participation can range between doing the same as the others ("from a pure forgetting your individual self to a conscious accompanying") to 'doing your own thing' (ranging from being subversive to making comments) (Bergström-Nielsen 1998)
- 9- that takes place with the freest possible associations, without being bound to any known style (Bergström-Nielsen 1990)
- 10- where all instruments and voices can be used, and where there are no demands made on certain musical skills, but rather on motivation and concentration (Bergström-Nielsen 1990)
- 11- that implies a mutual give-and-take situation, an ultimate playing together (Bergström-Nielsen 1990)
- 12- that can reach advanced levels, but which does not demand specific technical skills, and where all musical parameters are equal (Bergström-Nielsen 1990)
- 13- that is convention-free and, at the same time, innovative, which demands great self-discipline regarding both the playing together (so that everyone has space) and the respective participants themselves (so that their intuition can be allowed to manifest itself) (Lutz 1999)
- 14- without rules and expectations of showing professional technique or virtuosity (Wakao 1998)
- 15- where the only demands are that one listens to the others and answers, where there is no hierarchy or ego in the sounds or in the musicians, and where all sounds are accepted (Wakao 1998)

These 15 points correspond with my understanding of what free improvisation is.

- 16- that is virtually unhindered from the intuition (Stockhausen/Griffiths 1992)
- 17- that comes from joint concentration of a written text of mine [Stockhausen], which provokes the intuitive faculty in a clearly defined manner (Stockhausen/Griffiths 1992)
- 18- that is non-idiomatic, that should work spontaneously, and where the basis for the musical process is short texts by Stockhausen that define the music to a greater or lesser extent, while simultaneously functioning as a means to create a connection to the musicians' intuition (Lutz 1999).

In point 16, it is stated that intuitive music should come unhindered from the intuition. This also corresponds well with free improvisation, but with the caveats that one is also allowed to think when improvising freely, even if one does not always have the time to, and that intuition should also be in contact with the actions of the co-musicians.

According to point 17, intuitive music comes into being as a result of joint concentration on written texts by Stockhausen that provoke the musician's intuition in a clearly defined manner. Being directed by a written text, whether it is written by Stockhausen or anyone else, is not consistent with free improvisation. On the few occasions I have tried

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improvising to directing texts, among others Stockhausen's, they have distracted more than provoked my intuition. This was because I was forced to divide my attention between the text and what was actually happening during the improvisation, instead of focusing on simply doing the latter (cf. 6.1.4 Ensemble size – large ensembles – directing).

The beginning of point 18, that intuitive music is a non-idiomatic music form that should work spontaneously, corresponds with my understanding of what free improvisation is. Regarding the rest of point 18, that the basis for intuitive music is short texts by Stockhausen that to a greater or lesser extent define the music while simultaneously being a means to create a connection to the musician's intuition, the same criticism as for point 17 applies.

The result of this summary is that intuitive music is identical with free improvisation, with the exception of directing texts being present.

C. Bergström-Nielsen mentions "dream-chanting", where important dreams are re-told by means of freely improvised songs, and the yoga meditation's free stream of consciousness, as possible examples of early forms of intuitive music, or of music that can be likened to it (Bergström-Nielsen 1999).

Even I can see the phenomenon of "dream-chanting" as a reasonable original form of free solo improvisation at least (I do not, however, know to what extent this phenomenon is directed or is free from idioms within its world), but not as an original form of free ensemble improvisation (the majority of Stockhausen's texts for intuitive music are written for ensemble). To freely improvise can sometimes bring about states much like those reached in meditation, which is something that I have discovered from personal experience. According to Bergström-Nielsen, meditative music in many cultures is often a very fixed ritual. However, free improvisation is not, and cannot be any fixed ritual since free improvisation decreases as fixed ritualism increases.

There are three things that strike me as I reread the 11 (of 15) poems from *Aus den sieben Tagen* that are translated to English by Harvey (1975: 113–117).

The first is the absence of interaction between the musicians, in spite of the fact that all the poems, except for *Litanei*, are written "for ensemble". In only two poems (*Setz die Segel zur Sonne* and *Kommunion*) does Stockhausen imply that the musicians should relate to one another. In the former, the musician is requested to "listen to the tones of the others – to all of them together, not to individual ones". In the latter, the musician is requested to play/sing a vibration "in the rhythm of the limbs of one of your fellow players", "in the rhythm of the limbs of another of your fellow players", "in the rhythm of the cells of one of your fellow players", then to do the same thing with another "fellow player", "in the rhythm of the molecules of one of your fellow players", then the same thing with another "fellow player", "in the rhythm of the atoms of one of your fellow players", then the same thing with another "fellow player", and finally to play/sing a vibration "in the rhythm of the smallest particles that you can reach in one of your fellow players" and then the same thing with another "fellow player". Apart from the difficulty of playing the rhythms of the co-musicians' molecules and atoms, I can imagine more fruitful instructions to help musicians to improvise/interact intuitively.

The second thing that strikes me is the somewhat pretentious tone Stockhausen adopts. In *Litanei*, Stockhausen addresses the musician and explains that he (Stockhausen) does not make his music but is simply a translator, a recipient of the vibrations he receives. He wants to go a step further; he says that he wants to connect the musician to "the currents that flow through me, to which I am connected", so that "through me you will be

connected to the inexhaustible source that pours out through us in the form of musical vibrations”. In addition, he explains his ambition with him being “a short step ahead of you”. Consequently, each musician seems to need Stockhausen to get in touch with the inexhaustible source of musical vibrations, and no musician can possibly be “a short step ahead of” Stockhausen. Perhaps Stockhausen’s self-imposed role as a spiritual link is the explanation for why he has never, as far as I know, taken part as a musician in any intuitive music-making. May I be forgiven for using the expression “self-appointed Guru”, but this has sometimes crossed my mind while rereading Harvey.

The third thing is the question of how this idea could have had such an impact and been so acclaimed. I have no explanation, but perhaps it was because Stockhausen was at the right place at the right time with the right idea. Perhaps it depended on the fact that when Stockhausen said something, he said it with an entire cultural establishment behind him, whilst when the early free improvisation pioneers said something, even if this was earlier than Stockhausen, they did so without the support of any establishment at all.

*Prévost, who like myself has a somewhat distanced attitude towards Stockhausen’s intuitive music, will end this section.

Likewise, Stockhausen’s improvisations – what he refers to as ‘Intuitive Music’ – have qualities which either direct the musician (as in his textural pieces e.g. *Right Durations* or IT from *Aus den Sieben Tagen*) or gives them the ‘freedom’ to draw from and transform events from ‘his’ previous compositions, e.g. *Prozession*. “Do not push sounds around,” Morton Feldman has advised. Stockhausen pushes both sounds and musicians around. In addition, he advocated a diminution of ‘thinking’ ostensibly as an antidote to the overly rationalist elements in so many scores (including some he’d composed himself). In reality this ‘non-thinking’ mode merely confuses the performer into believing that there is another self to which he must aspire. This imagined sense of ‘self’ is, of course, Stockhausen’s own: his need to dominate confirmed by his habit of controlling the output of his musicians through the mixing desk. (Prévost 1995: 13)

8 A word about freedom

REFERENCES

Freedom is about being able and allowed to do things, not about what one actually does. (Bergmark 1999: 6)

With regard to the music of Don Cherry, Jost states that freedom “is not the freedom *from* something but the freedom *to do* something that determines the direction”. Freedom therefore is not about “the avoidance of tonality, consonance, metre and everything else likely to awaken associations with the past, but the unlimited possibilities of choice”. (Jost 1994: 162)

Freedom is about not needing to obey any rules (“Free musicians are not obeying the rules!”). (Litweiler 1984: 288)

An improvisation becomes truly free when the boundary of “ego-centricity is transcended”, that is, that in an improvisation there is “no egocentric presentation of “me” dominating the space”. Then the improvisation “is pliant, effortless and unbound”. (Makihara 1996: 1)

Freedom stems, according to Nachmanovitch (1990), from following impulses, rather than rules. As an example of the importance of this attitude, he takes Jesus as an example: “if Jesus had followed the rules of conventional morality and virtue, he would have died old as a loyal citizen of the Roman Empire”. Impulse is, however, just as little as improvisation, “just anything; it is not without structure, but is the expression of organic, immanent, self-creating structure”. (p 29)

Freedom comes into being through unconditional surrender and trust: “unconditional surrender leads to real emptiness, and from that place of emptiness I can be prolific and free”. “Without surrender and trust – nothing”. By surrender, Nachmanovitch means giving up one’s “identity, the instrument’s identity, and the illusion of control”. Without this surrender, one cannot become one with one’s own process, “and the blocks will remain”. “To create you have to disappear”. (p 144)

According to Stackenäs (2003), the question of freedom is: free from what? He quotes Dror Feiler, who says that instead of asking oneself what free improvisation is free from, one can point out what one as a musician is free to do. Dror Feiler feels that as a free improviser one is free to take the direction one wishes to, when one wishes to, and that a large part of the freedom is that each co-musician has the possibility to direct the music at each moment.¹⁰ (p 11)

¹⁰ From a seminar during a concert tour arranged by 'Concerts Sweden' [Rikskonsserter] sometime during the period 2nd – 10th April 2003. Venue not clear.

For Dror Feiler, freedom is partly to have all one's earlier practicing, muscle memory, and one's thoughts about music, and partly, in a live situation, to try to play as if one did not have these things – like dancing strip tease without taking off one's clothes.¹¹ (p 12)

SUMMARIES AND REFLECTIONS

All forms of human freedom take place within some kind of limitation. In discussions, I have sometimes met the opinion that since even free improvisers have limitations, free improvisation is not free. If one were, however, to demand unlimited freedom for human activities in order for them to be called free, the word freedom would no longer have any meaning. There is no reason to demand greater freedom of free ensemble improvisation than of any other 'free' human activity. It is more meaningful to ask oneself what 'free' stands for in this context, which leads me to the question of limitations.

One can, at least with regard to free improvisation, divide limitations into two categories:

1– things one is not able to do due to:

- a) physical limitations (for example, the instrument's limitations, my own technical skill, etc.), and
- b) mental limitations (for example, concentration, attention, memory, inventiveness, etc.)

and

2– things one is not allowed to do due to:

- a) self-chosen limitations (possibly chosen together with others, such as, for example, a certain tone row, a certain register, etc.), and
- b) not self-chosen limitations (style, conventions, the ideas of others, notation, etc.) (see 13 Free improvisation – idiomatic improvisation – stylistic influences).

One cannot do so much about the limitations within category 1a; one can only play what one can, and one cannot go beyond the possibilities of the instrument. However, what one can play is not static but dynamic and changing and generally expanding throughout the life of a musician. Moreover, what one can play offers surprisingly many possibilities even at a stage when one is not so skilled (see 13.1 Free improvisation – idiomatic improvisation). The same holds true, to a great extent, even for those aspects under 1b; concentration, attentiveness, memory and inventiveness are not static either but can be

¹¹ From a seminar during a concert tour arranged by 'Concerts Sweden' [Rikskonserten] 9th April 2003. Venue not clear.

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trained and developed through systematic work, through experiences through one's own improvising, and through meetings with other improvisers (see 6.1.3 Short-term – long-term collaboration, 6.2.2 Process, 13.1 Free improvisation – idiomatic improvisation, 14.2 Similarities). Freedom exists within the framework of these limitations.

Free/freedom:

- 1- is about being able and allowed to do things, not about what one actually does (Bergmark 1999)
- 2- is not about freedom from something but about the freedom to do something. Freedom therefore is not about the avoidance of tonality, consonance, metre, and every thing else likely to awaken associations with the past, but the unlimited possibilities of choice. (Jost 1994)
- 3- is about not needing to obey any rules (“Free musicians are not obeying the rules!”) (Litweiler 1984)
- 4- stems from following impulses, rather than rules (where, however, impulse, just as little as improvisation, is just anything; it is not without structure, but is the expression of organic, immanent, self-creating structure) (Nachmanovitch 1990)
- 5- is not about what one is free from but about what one is free to do (to take the direction one wishes to, when one wishes to, that each co-musician has the possibility to direct the music at each moment, to play as if one did not have all one's earlier practicing, muscle memory, and thoughts about music (like dancing strip tease without taking off one's clothes)) (Feiler/Stackenäs 2003)

To be allowed to do things, to have unlimited possibilities of choice, to not have to obey any rules, and to be free to take the direction one wants when one wants, and to have the possibility to direct the music at each moment (points 1–5) can be summarized so that category 2 is not valid, especially not 2b.

Having unlimited possibilities of choice, is, however, limited by category 1. In an ensemble situation, a free improviser can, of course, at any time take the direction he wishes (point 5), but should do this in relation to what his co-musicians do, which, for interactive reasons, can limit both the choice of direction and the choice of the moment for taking the direction. The same holds true for the possibilities of directing the music at each moment (point 5). There is, however, also the additional aspect of the interest of one's co-musicians to let themselves be directed. This interest can vary considerably. Within these limitations, one is allowed to do what one wishes freely, without obeying any 'not self-chosen limitations'.

To play “like dancing striptease without taking off one's clothes” might be a good image of a musician being free in action, but not with regard to being free from knowledge and skill. It would be an ideal state for a free improviser as long as that freedom is realized in relation to and with regard to the co-musicians' actions.

One can discuss whether category 2a should be counted as a limitation at all, since the limitations within this category are self-chosen, can be changed at any time in any way, and can be disregarded at any time. However, I will keep this category since even self-chosen limitations are limitations as long as they are in effect and to the extent that they are allowed to be in effect.

- 6- means that the boundary of ego-centricity is transcended (that in an improvisation there is no egocentric presentation of “me” dominating the space. Then the improvisation is pliant, effortless and unbound.) (Makihara 1996)
- 7- comes into being through unconditional surrender and trust (giving up one’s identity, the instrument’s identity, and the illusion of control, to create you have to disappear) (Nachmanovitch 1990).

That the boundary of ego-centricity (in the form of a “me” that wants to dominate) is transcended, giving up one’s identity, the identity of the instrument, and the illusion of control (points 6, 7) all add deeper aspects to categories 1b and 2a. To be egocentric, to want to dominate, to want to control, to not want to give up one’s identity (ego) and with full trust unconditionally surrender to the music such as it develops, I see as mental limitations (category 1b). The consequences of such mental limitations do not only affect the actions of the individual, but, unfortunately, also the actions of the entire ensemble; they limit the freedom of all the ensemble’s participants and, in turn, also the development of the music. Conversely, I see the desire to suppress such tendencies as positive self-chosen limitations (category 2a) – and in these cases, hopefully without a time limit. The identity of the instrument can also be a mental limitation to the extent that my actions are directed more by the instrument’s identity than by the musical course of events. Giving up even such a tendency should be a self-chosen limitation since it benefits the musical course of events. (cf. 10 Spiritual aspects of free improvisation, 16 Free improvisation – aleatorics – indeterminacy)

For me, the central aspects of freedom in free ensemble improvisation are to not be bound by given combinations of instruments, and that I, myself, can, during the improvisation choose:

- with which musician(s) I want to interact
 - which gesture(s) I want to react to
 - how and when I want to react to the chosen gesture(s), that is, which material/functional relation(s) I want to establish within the framework of the limitations that prevail for me (including possible self-chosen ones as per category 2a).
- All three points should be made with as great consideration as possible to what my co-musicians do, to how the music develops, and without limitations, as per category 2b.

9 Evaluation

REFERENCES

Borgo (1999) feels that even though personal tastes can vary considerably, he has found three primary criteria to judge improvisation, criteria that “many free improvisers use to evaluate a performance”:

(1) was there a felt sense of unity to the performance? Not did everyone take the same journey, but did everyone have a sense of journeying together; (2) were there moments of musical synergy or pronounced moments of ensemble togetherness and transition; and finally, (3) was a broad, interesting, or novel musical palette arrived at and explored. (s 175–176)

All three criteria do not, however, have to be present “for a performance to be judged successful”. (p 176)

Landgren (2002) does not believe that there are any objective criteria for the evaluation of improvisation and that the acknowledgement of their non-existence can have two consequences:

1. Insight about the primacy of subjective valuations creates a consciousness of dialogue where the insight about different angles of approach creates a necessary will to form, in dialogue, common criteria – “dialogue-focused evaluative criteria”.
2. Insight about the primacy of subjective valuations creates an unwillingness to meet the valuations of others since no absolute criteria exist – so I am satisfied with my own – a form of “dogmatic nihilism” or “fundamentalistic subjectivism”. (pp 100–101)

[1. Insikten om de subjektiva värderingarnas primat skapar en dialogmedvetenhet där insikten om olika infallsvinklar skapar en nödvändig vilja att i dialog forma gemensamma kriterier – ”dialogfokuserade evalueringskriterier”.

2. Insikten om de subjektiva värderingarnas primat formar en ovilja att möta andras värderingar eftersom inga absoluta kriterier finns – således nöjer jag mig med mina egna – en form av ”dogmatisk nihilism” eller ”fundamentalistisk subjektivism”. (s 100–101)]

Landgren sees alternative 2 as just as challenging and dangerous as the supposed “objective basis of evaluation”, since it can never be argued away, and prefers therefore alternative 1. (p 101)

An improvisation is good if it finds “the Edge”. The Edge is “*the real-time process of uniting opposing forces*”.

The improviser is walking a fence between control and non-control, and other opposing forces – tone/noise, harmonic/textural, dense/sparse, fast/slow, and so on. The integration of these opposing forces, in my mind, is the basis for critical evaluation of the improvisation (if not just plain good mental hygiene). (Nunn 1992: 15)

Sato (1996) asks himself what aspects can be evaluated in improvisatory performance, and answers with six criteria that “often appear solely or in combined form in successful improvisation”. The six criteria are: “coherency, economical use of material, skill of transition, ability to develop a material, originality, tone quality”. (pp. 9–10)

Coherency

It is very important to provide some kind of coherency in improvisation that can be clearly perceived to an audience. To be coherent means that the whole process contributes to suggest a specific thing, just as written-out composition does. The sense of oneness can be created in any texture, depending on how it is treated by the improviser. (p. 9)

Economical Use of Material

In unfamiliar sonic environments, focusing over a short span of time on just a few ideas can make it easier for both improviser and audience to relate to the other parts of the piece. By focusing on a few materials, the improviser can move on to another level: the expansion of materials. (pp. 9–10)

Skill of Transition

When an improviser introduces a new material, the natural flow in transition may be expected. How an improviser reaches from one area to another may be a point to be evaluated. (p. 10)

Ability to Develop a Material

Development of an idea in terms of melody, rhythm, harmony, and timbre can be a driving force in improvisation as well as in composed music. The improviser’s approach to a material, how he/she expands on a material and makes a contrast to it, can be a point to observe. (p. 10)

Originality

A presentation of a unique idea shows the improviser’s originality. Introducing an idea that captivates listeners is also an ability an improviser may have. (p. 10)

Tone Quality

To be able to maintain good tone quality throughout the performance, particularly during highly technical passages, is another factor. (p. 10)

Alperson, quoted by Wallace White, argues “that improvisation, since it is uniquely different from both composition and performance, should be critiqued by different standards”.

The relevant critical standards for musical improvisations should derive, not from what has been composed or from what has been performed, but rather from what has proven to be possible within the demands and constraints of improvisatory musical activity, the creation of a musical work as it is being performed.¹² (Wallace White 1999: 18)

¹² Philip Alperson. On musical improvisation. *Journal of aesthetics and art criticism*, 1985, 43/1: 20–24.

SUMMARIES AND REFLECTIONS

A. Relevant critical standards for musical improvisation should not be derived from what has been composed or from what has been performed, but from what has proven to be possible within the demands and constraints of improvisatory musical activity (Alperson/Wallace White 1999).

Where would relevant critical standards come from otherwise? The idea of judging something by using other conditions than its own can be taken quite far, especially if one tries more than one comparative direction and more than one evaluative priority. One could, then, for instance, classify most symphonic music as inferior because it so poorly fulfils the norms for folk music or jazz. The singing of 'Lieder' could also be a suspect phenomenon because that kind of singing is so poor at living up to / following the conventions of the phrasing and performance praxis of blues, etc. (see 14.2 Similarities)

B. Objective criteria for the evaluation of improvisation do not exist, which can lead to consciousness of dialogue and "dialogue-focused evaluative criteria", or to "dogmatic nihilism" or "fundamentalistic subjectivism" (Landgren 2002).

I do not believe either that there are any objective criteria for the evaluation of free ensemble improvisation. Free ensemble improvisation has poor preconditions for fundamentalistic subjectivism or dogmatic nihilism. If one were to persist in having these characteristics, the risk is great that one would eventually find oneself without an ensemble to play in, since such an attitude would probably be felt as too trying for one's co-musicians. After a performance, whether it is a performance with an audience or not, it is, however, common and normal for the musicians to ventilate their subjective viewpoints and discuss what one thought was good or less good. It is also common and normal for the musicians to be somewhat in disagreement on these points without anyone taking offence, and especially without anyone trying to convert someone else to his or her own viewpoint. I see this as a healthy sign, and prefer therefore, like Landgren, dialogue-focused evaluative criteria, which, moreover, can vary from ensemble to ensemble and even from performance to performance within the same ensemble. There are few things that have taught me so much as these informal evaluations in dialogue form – the criteria of which are both of an individual and changing nature.

C. Evaluative criteria:

- 1- a broad, interesting, or novel musical palette (Borgo 1999)
- 2- originality (unique ideas, ideas that captivate listeners) (Sato 1996)

Points 1 and 2 propose novelty and originality as evaluative criteria. I find it difficult to consider novelty and originality as qualitative criteria for free ensemble improvisation, and, in fact, for all music. What should be novel and why? What should be original and why? Why would the music be better if this something, whatever it might be, is novel and/or original? What is a broad, interesting or novel musical palette, and for whom: the audience, members of the ensemble, or both? How is one possibly able to judge which ideas are unique (and again, for whom), to what extent they are unique, and to what extent they captivate the listener?

To research “a broad, interesting, or novel musical palette” sounds to me more like a paraphrase of material utilization than a point that deals with novelty/originality. One can see the increased possibilities within sound colour that electroacoustics have brought about as a new and interesting “musical palette”, but even there it is still about what one does with the sounds, not about the sounds and their colours in themselves. For me, novelty and originality do not have any value in themselves, and are therefore excluded as evaluative criteria for free ensemble improvisation. Hopefully, though, free ensemble improvisation should be interesting. To be interesting does not, however, have so much to do with novelty/originality, but rather with experiencing the music as being alive and organic.

- 3- economical use of material (Sato 1996)
- 4- ability to develop a material (Sato 1996)

Points 3 and 4 refer both to material utilization (the material criterion). The ability to utilize the existing material, make do with it, and develop it, rather than constantly adding new material, I see as a qualitative criterion in all music, and therefore even in free ensemble improvisation (see appendix A2 Gesture processing alternatives).

- 5- a sense of unity, (a sense of journeying together) (Borgo 1999)
- 6- musical synergy (Borgo 1999)
- 7- ensemble togetherness (Borgo 1999)
- 8- coherency (Sato 1996)
- 9- the Edge (the real-time process of uniting opposing forces) (Nunn 1992)

In points 5–8, a sense of unity is referred to as an evaluative criterion (the unity criterion). I will also add point 9 to the unity criterion since I interpret the uniting of “opposing forces” as a striving to reach unity. I see a sense of unity (as an umbrella term, including synergy, togetherness and coherency) as a qualitative criterion for free ensemble improvisation.

The material and unity criteria are both criteria I feel I can claim and use in dialogue-focused evaluations.

- 10- ensemble transition (Borgo 1999)
- 11- skill of transition (Sato 1996)

Points 10 and 11 are about transitions, that is, about the bridges between different sections. For me, these points belong to the unity and material criteria. Transitions to new sections can take place more or less unified/disparate in time and/or with the material. The more unified in time and the more unity of material, the larger the feeling of collective unity.

- 12- tone quality (Sato 1996).

Tone quality is more a criterion for the use of the instrument than for improvisation, where focus is placed more on what one does with the tones, no matter their quality, than on the tone quality itself. This point is therefore excluded as an evaluative criterion for free ensemble improvisation.

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One of the problems concerning the criteria is their vagueness. How is one able, for example, to judge gradual differences concerning unity, or the sense of unity, within one or between different improvisations, or which forces are opposed? What would a complete list of opposing forces look like, and how is one able to judge the level of unity of these within an improvisation? How is one able to judge how good the utilization of material has been, etc.?

I have noted that the musicians of the ensembles that I have been a part of have often had differing viewpoints about how 'good' a performance has been, sometimes due to their evaluations being based more on their own playing than on the whole.

Apart from these experiences, the vagueness of the criteria is yet another argument for Landgren's viewpoint that no objective evaluative criteria exist. At best, we can ventilate our subjective criteria in dialogue form, accepting other musicians' criteria, even when they are not in agreement with our own.

Moreover, I consider, as a reasonable consequence of free improvisation being free, that evaluations of it must be subjective. If not, then it presupposes that at least one objective criterion is predetermined and that it is one that the free improvisation must more or less live up to, which, in that case, and to the same extent, would limit the freedom in free improvisation.

If I were still to try and find a criterion that was of primary importance for me, this would be musical interaction – the better the interaction, the better the improvisation. 'Good interaction' is, however, not an objective value but rather a subject for dialogue-focused evaluation (see 6.1.1 Solo – ensemble).

Finally, I see unity as another name for collective understanding and thereby as a subset of musical interaction (see 6.1.2 Ensemble). I see the utilization of material (economy and development) as a tool for, and thereby as part of, musical interaction.

10 Spiritual aspects of free improvisation

REFERENCES

At their highest level, free ensemble improvisations become

extraordinary transcendental experiences in which players feel, if only momentarily, ‘in touch with the big picture.’ Entering into another world of awareness and sensitivity, they feel a deep sense of reverence for ‘all living things’. In spiritual communion, they merge together in the shine of a universal life force – timeless, peaceful, yet energizing and euphoric. (Berliner 1994: 497–498)

According to Eriksson, at least some of the early free jazz pioneers strived not only for form but also for spirituality.

Free jazz was driven by a striving for form but even by a spiritual search. Albert Ayler and Pharoah Sanders peeled all ephemeral determinators from the music. Dissolving of the form became a means to dig deeper, to penetrate the layers of our existence in order to reach pure spirituality, or the divine. (Eriksson 2002)

[Den fria jazzen drevs av en formsträvan, men även av ett andligt sökande. Albert Ayler och Pharoah Sanders skalade av musiken alla tillfälliga bestämningar. Formupplösningen blev ett medel att borra djupare, att tränga genom tillvarons avlagringar för att nå en ren andlighet, eller det gudomliga. (Eriksson 2002)]

For Toshi Makihara, interviewed by Hammid, improvisation is

basically a here-and-now kind of thing. My whole presence becomes the music. So I’m not really playing the music but I *am* the music. The music is *there*. That kind of experience is really fascinating, kind of Zen, almost enlightening, like some kind of a high. And I value that a lot. I’m totally into doing that and my performances *are* that. (Hammid 2001: 4)

In a story about Japanese archery, Ton de Leeuw presents a metaphor about what art is about in an Eastern perspective. The Japanese archery teacher teaches his student that true art is without purpose and intention. The more one tries to steer the arrow, the less one will succeed in reaching the essence of this art. What stands in the way is too goal-oriented a will. According to Ton de Leeuw, this approach attacks the basic foundation of our individualism. One should free oneself from oneself, from one’s subjective moments, from one’s consciousness, from one’s “I”, and return to a state of primordial existence. This forgetting of the self leads to a state where man attains new spiritual freedom, a state of primordality and immediacy that is the starting point for all creative work. (de Leeuw 1967: 135)

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Barry Guy, interviewed by Lock (2003), comments on spirituality in improvisation.

I don't think you can work toward this particular feeling. For me, it's the combination of all the factors that somehow coalesces into a magnificent musical moment. That's what happens in improvisation – some moments you feel like you can go straight through the ceiling because of what's happening in the musical conversation. There is a certain point where it becomes almost unreal – you're taken far beyond the practicality of standing there playing the music. There are certain coincidences of sound and activity that take us into another realm. And whether it's Evan Parker or Monteverdi, you have a completely new experience. You can't really say what it is. (pp. 29–30)

To the question “have you explored any methods to make it happen when you're improvising, or to prolong it once it starts”, he answers that

I don't think it can be manufactured. I don't think you have any control over it when it happens. It's like being out in space and meeting a black hole. The types of energies that are flowing there are of a totally new order. You're taken into the music, into this black hole, almost unconsciously. If it happens, it's fantastic, but I don't think you can recreate it.

/.../

I think it's to do with joy, spiritual joy, uplifting you to a space that is almost indescribable. But it is joyous, that's the main thing. For me, the joy of music-making is where everything centres. (p. 30)

For Nachmanovitch (1990), improvisation is “a spiritual and a psychological story rather than a story about the technique of one art form or another”. (p 9)

The “essence of craft and the essence of doing our work as art” is according to him

to dive into the instrument, to dive into the craft of acting or playing, into the micromoment, into what it's like to move our fingers over the instrument, to forget mind, forget body, forget why we are doing it and who is there. (p. 146)

And becoming a spiritual artist is about emptying oneself and surrendering.

To the extent that we thus empty ourselves we can be spiritual artists. Unconditional surrender comes when I fully realize – not in my brain but in my bones – that what my life or art has handed me is bigger than my hands, bigger than any conscious understanding I can have of it, bigger than any capacity that is mine alone.

/.../

When one surrenders in vast emptiness one is perhaps better equipped than ever to be and act in tune with the ways of the universe. (p. 146)

Nunn speaks of “Zen mind” and “beginner's mind”. In the context of improvisation, these terms might be interpreted as

casting off the baggage, opening up to what is inside one's own mind, in the moment. This is the essence of creativity. But to get to this point, conscious distractions, which make us self-conscious, must be eliminated. Our full attention, as improvisors (so-called “beginners” or not), must be directed towards the musical moment. (Nunn 1992: 13)

For Power (1996), improvisation is the same as meditation, which to him means “a form of giving the mind a rest while simultaneously being mindful. You put your mind at rest and let your unconscious take over”. (p. 1)

When one is improvising in music

the key component is focusing on what the other person is playing, not what you are playing. /.../ By doing this, you are giving all your attention to the music that is being produced and, in doing so, taking the attention away from yourself. In essence, you cease to be self-centered for a moment, as do the other members of your group.

When you lose this sense of individuality and become one with the greater experience, you are tapping onto what Carl Jung called the “collective unconscious”. (p. 1)

Another aspect of improvisation is that

musical improvisation feels good and elates a person. You feel that you are at play. Your imagination is free to go wherever it wants and you are in a setting for spontaneous creation. The freedom that you are given makes you feel as though you are the hand of god. That god, or this force (Tao), is working through you to create something new – or re-articulate something old.

This idea of “Sacred Play” is a good concept to keep in your head. (p. 1)

Discipline is absolutely necessary in improvisation.

The art of being able to let yourself go and surrender to the music while maintaining a discipline of seriousness is hard to master. It is the same with meditation.

The discipline that it takes to be seriously attentive in meditation is the same for improvisation. Once you have mastered (and then forgotten) this attention, you are free to play. (pp. 1–2)

Solomon thinks that “a viable alternative to compulsive control is bending, rather than manipulating, an idea that has much in common with traditional Eastern religious thought: allowing one’s environment to influence and teach rather than vice versa”. (Solomon 1982: 76–77)

SUMMARIES AND REFLECTIONS

A. Signs of a state being spiritual can be that:

- 1– one feels ‘in touch with the big picture’ (Berliner 1994)
- 2– one comes into another world of awareness and sensitivity (Berliner 1994)
- 3– one feels a deep sense of reverence for ‘all living things’ (Berliner 1994)
- 4– one is united in the shine of a universal life force – timeless, peaceful, yet energizing and euphoric (Berliner 1994)
- 5– it is kind of Zen, almost enlightening, like some kind of high (Makihara/Hammid 2001)
- 6– one becomes the music (Makihara/Hammid 2001)
- 7– it becomes almost unreal, one is taken far beyond the practicality of standing there playing the music (Guy/Lock 2003)

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- 8- one becomes one with the greater experience and tapping onto what Carl Jung called the “collective unconscious” (Power 1996)
- 9- it is a sort of “Sacred Play” (Power 1996)

I cannot say that I have, through my work with free ensemble improvisation, felt “in touch with the big picture” (point 1), felt myself come into “another world of awareness and sensitivity” (point 2), felt “a deep sense of reverence for all living things” (point 3), or felt united with my fellow musicians “in the shine of a universal life force – timeless, peaceful, yet energizing and euphoric” (point 4). Nor can I say that free ensemble improvising has been a kind of Zen experience, “almost enlightening, like some kind of high” (point 5), that I have become the music (point 6), that the music has almost become unreal and that I have been taken “far beyond the practicality of standing there playing the music” (point 7), that I have become one with “the greater experience” and tapping onto “the collective unconscious” (point 8), nor that free ensemble improvisation is a sort of “sacred play”, where one feels like the hand of God and where the power works through one in order to create something new (point 9).

- 10- it is a here-and-now kind of thing (Makihara/Hammid 2001)
- 11- one gets a completely new experience, of what one can't really say (Guy/Lock 2003)
- 12- it is a spiritual joy [of music-making] that lifts one up to an almost indescribable space (Guy/Lock 2003)
- 13- one loses one's sense of individuality (Power 1996)
- 14- it makes one reach a new spiritual freedom, a state of primordiality and immediacy that is the starting point for all creative work (de Leeuw 1967)
- 15- the baggage is thrown off, that one is opening up to what is inside one's own mind, in the moment, a “Zen mind”, a “beginner's mind” (Nunn 1992)
- 16- one's imagination is free to go wherever it wants (Power 1996).

I can, however, say that I have experienced free ensemble improvisation as a “here-and-now kind of thing” (point 10), and that at least some improvisations have given me an experience that I have not been so sure what it was, whether it was fellowship with co-musicians and/or something else (point 11). I have on certain occasions felt an intense sense of joy in my improvising, although that joy has not lifted me to an indescribable space (point 12), but where this joy has been the joy of a well-functioning interaction with a clearly-felt collective understanding. I can say that there have been times when I have, at least to some extent, lost my sense of individuality (point 13), and that I have felt myself as having become part of a whole that has been greater than myself. I can also say that free ensemble improvisation for me means a sense of freedom that possibly contains spiritual dimensions, a state of primordiality and immediacy, and that I see as a prerequisite for at least this form of creative work, and probably for other forms as well (point 14). For me, this freedom means that one, as far as possible, casts away one's personal and musical baggage, that one, as far as possible, opens up for what is in one's mind in the moment, whereby one's imagination is free to go where it wants, whilst also taking consideration of what my co-musicians do (points 15, 16).

That my moments of spiritual experiences in connection with free ensemble improvisation are limited, as far as I can tell, does not mean that I deny that other musicians can

have had them to a greater extent. For example, I know a well-reputed jazz musician who claims that during one of his concerts he felt himself being in another part of the room, from where he passively both saw and heard himself play in the ensemble. If, however, this is a spiritual experience or not, I do not know.

It is likely that an interest in spiritual experiences is highly individual and in no way typical for practitioners of free ensemble improvisation, even if some of the early pioneers seem to have had such reasons for their musical and therefore also spiritual searching.

It is also probable that to the extent that spiritual experiences occur in connection with music-making, they are not limited to only free ensemble improvisation but also occur within other areas of music-making.

To the extent that spiritual experiences occur in connection with music-making, one can ask what exactly it is that separates these from psychic experiences, a question that would, however, lead us far beyond the scope and aim of this thesis.

B. Spiritual states can:

- 1- not be worked towards, but are the result of all the factors that somehow coalesce into a magnificent musical moment (Guy/Lock 2003)
- 2- not be manufactured or controlled, one is taken into the experience almost unconsciously (Guy/Lock 2003)
- 3- not be reached by a too goal-oriented will (de Leeuw 1967)

According to points 1–3, spiritual states cannot be reached through one's own effort. One receives the experience if the conditions are right, and not by a "goal-oriented will".

- 4- be reached by dissolving of the form [of the music] (Eriksson 2002)
- 5- be reached by freeing oneself from oneself, from one's subjective moments, from one's consciousness, from one's "I", and by returning to a state of primordial existence (de Leeuw 1967)
- 6- be reached by forgetting the self (de Leeuw 1967)
- 7- be reached by diving into the instrument, into the craft of playing, into the micromoment, into what it's like to move one's fingers over the instrument (Nachmanovitch 1990)
- 8- be reached by forgetting mind, body, why one is playing and who is there, and by emptying ourselves (Nachmanovitch 1990)
- 9- be reached by an unconditional surrendering into vast emptiness (Nachmanovitch 1990)
- 10- be reached by eliminating the conscious distractions, which make us self-conscious (Nunn 1992)
- 11- be reached by our full attention being directed towards the musical moment (Nunn 1992)
- 12- be reached by putting one's mind at rest and letting your unconscious take over (Power 1996)
- 13- be reached by focusing on what others are playing, not on what you yourself are playing, and by ceasing to be self-centered (Power 1996)
- 14- be reached when one lets oneself go and surrenders to the music (Power 1996)
- 15- be reached by bending, rather than manipulating (Solomon 1982)
- 16- be reached by allowing one's environment to influence and teach rather than vice versa (Solomon 1982)

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Points 4–16 claim that spiritual states can be reached through one's own efforts. Experiencing spiritual states through one's own efforts can occur when one forgets/empties oneself and lets the unconscious take over (points 5, 6, 8–10, 12–14). In order to succeed in this, one can concentrate on the instrument, the music (especially what others are playing), be subordinate to the music and let the music/co-musicians "influence and teach" (points 7, 11, 13–16). For the early free jazz pioneers, concentrating on a dissolution of the form of the music was also a means to reach spiritual states (point 4).

To forget oneself to as great an extent as possible, to concentrate on and be subordinate to the music, is not only a good thing in free ensemble improvisation but is necessary, since the music that is actually coming into being is the only thing the participating musicians have to go by. This does not, however, mean to just listen and concentrate on what others are playing. One is also a part of the music oneself and must therefore also listen to oneself, but only as a part of the whole. As an electrically-amplified musician (fretless electric bass), I sometimes practice forgetting myself, to then focus on the music as a whole, by imagining the bass amplifier as my co-musician, i.e. as something I listen to without actively influencing what this 'musician' is playing, whereby I strive to mentally place the amp sound as part of the ensemble music as a whole. This is useful, although rather difficult. Listening in this manner is, however, not the same thing as a spiritual state. I am sceptical to the idea of concentrating on the instrument itself since this draws one's concentration away from the music, for the production of which the instrument is actually only a means (point 7).

It is also difficult for me to understand that dissolution of form can, in itself, be a means to reach spiritual states (point 4). It seems more reasonable that spiritual searching with a focus on ensemble improvisation without preconditions, and with all ephemeral determinators peeled away, can result in a dissolution of form, since the question of form in that perspective would be of subordinate importance. Dissolution of form can come about as a consequence, not as a means, but only in relation to established forms, since free ensemble improvisation in itself can only attain the form it attains (cf. 6.1.4 Ensemble size – large ensembles – directing).

The only means that remain in order to reach spiritual states through one's own efforts comprise concentrating on and surrendering to the music. These measures do not, however, guarantee that a spiritual state will be reached. Maybe one cannot reach a spiritual experience through one's own actions and efforts. Perhaps one can only attain this state as a gift, if the conditions are right, otherwise not. To concentrate on and be subordinate to the music can probably create good conditions, but perhaps something more than this is needed, whatever that 'this' might be, and one should possibly have certain characteristics oneself. (cf. 8 A word about freedom, 16 Free improvisation – aleatorics – indeterminacy)

11– be reached by our full attention being directed towards the musical moment (Nunn 1992)

13– be reached by focusing on what others are playing, not on what you yourself are playing, and by ceasing to be self-centered (Power 1996)

14– be reached when one lets oneself go and surrenders to the music (Power 1996)

15– be reached by bending, rather than manipulating (Solomon 1982)

16– be reached by allowing one's environment to influence and teach rather than vice versa (Solomon 1982).

From point 11 and points 13–16, one gets the impression that concentrating on the music is a means by which one reaches self-forgetfulness, which, in turn, is a prerequisite for attaining a spiritual experience. Maybe one could also claim that self-forgetfulness, through such concentration, is the spiritual experience, i.e. that the means is the goal (cf. above).

True art has neither purpose nor intention; the more one tries to direct it, the less one succeeds in reaching its essence, is what the Japanese archery teacher teaches us, according to Ton de Leeuw. What stands in the way is a will that is too goal-oriented. This view is supported by Pignon (1992: 4, see 15 Free improvisation – interpretation) and can, according to my understanding, be applied to free ensemble improvisation, just like the term *wu-wei*, which is a general view on action within Taoism (cf. however 15 Free improvisation – interpretation). Perhaps one can see these views as spiritual attitudes to free ensemble improvisation.

*I would like to complete this section by quoting Cooper's story about *wu-wei*.

WU-WEI is yet another term that cannot be exactly translated, and which is therefore usually used without translation. *Wu-wei* is the teaching of not acting, but only a superficial observer could interpret it as *laissez-faire* in the sense of not caring, for the Taoist does care, and should be wholly engaged in life. If one were to try to translate it at all, perhaps the best translation would be “non-engagement” is the best. At its lowest level, it is a natural way of acting. To live and let live and to avoid friction, with its unavoidable consequences, fights and conflicts, whether it take place on an individual or national level, to allow the most individual freedom possible and understand the thinking of others. It is also to let go, to give up – primarily to give up the “I”, the ego, since it is this that is responsible for selfishness and disharmony. At a higher level, it is the freedom from desire and passion, which automatically leads to freedom from tensions and helps on the path towards insight. These actions are normally the result of the senses unceasingly, and usually feverishly, devote themselves to desire, to daydreams, to a unproductive hashing of problems that like one's desires have been created by oneself and revolve around oneself. The problems are solved when the tension is released and one can understand the true nature of something, for example by “sleeping on it” or in the sudden intuition that comes when reason ceases to be active and one spontaneously realizes how the land lies.

It is a teaching of immediacy, or as Chuang-tse calls it, “non-edgedness”, as spontaneous adaptation and response and as a full acceptance – an action that is so unforced and natural that it loses the usual meaning of the word “action” with its implication of thought and goals, that is in such harmony with nature that it simply *is* without anyone having to think about it. There is no secret goal. There is no goal at all really in such “acting by not acting”, since this activity “circles around the hub of rest” and “only demands such motion as is in concord with the motions of the heavens”. The only action that is needed is to be in harmony with *tao*.

All complete motion is spontaneous, and man must exist without striving in the same way as the entirety of the world must. Before he has reached spontaneity, his actions are a result of will, or of the deliberation of reason, and are therefore artificial, strained, and not in harmony with “the motions of the heavens”. Motion should be a development, not a tension. Motion should be unconscious. This is not to propagate for inertia. Though the wise man owns “knowledge beyond the sphere of things”, he “never declines to handle things”. Though his spirit is beyond the world, it is still always in it. This is the calm acceptance of life in the world the way it will be and the way it is, the way it waits for the proper time;

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without ever forcing anything, it always allows everything to develop at its own pace, according to its own nature. Nor is it a question of a spineless fatalism or noble resignation since it is about something more than just yielding. It is actually almost cheerful, and a joyfulness in all that life can offer. It is, in the words of Chuang-tse, to be like the wise men who “with joy kept up their roles”. To not act is an inner characteristic. It can be passive, but it is a creative passivity. “From non-acting comes the possibility of action”.

/.../

Man can by his own power only produce what he has within himself. From a chaotic, dissolved sense, there can come nothing but chaos. Only through contact with that which is greater than the personal “I”, by attaching oneself to it and learning from it, can one reach a power that is more than human.

/.../

To release one’s grip, wu-wei, is also to stop worshipping the false gods of security. The wise men of the world have all learned that it is foolish to seek security. Life is dynamic, flexible, and changes constantly. Death is stiff and static.

/.../

Seen metaphysically, wu-wei is to “act by not acting”, the midpoint of life’s wheel, the potential, the point where being and knowing is one.

/.../

Wu-wei is not the end of all actions, but ceasing motive-bound actions.

/.../

Non-action is something connected with the soul and spirit, the open soul with the pure spirit that can move spontaneously in any direction in a given situation. Humanity has now become so wholly commanded by his beliefs and his ideologies and by his worship of facts that spontaneity has almost become lost.

/.../

Lin Yu-tang calls this releasing one’s hold as “non-upholding”, “balance”, or even to be “relaxed in one’s relationship to life”. “It is the secret to being a master of the situation without upholding oneself against it. It is the principle of yielding to a coming power in a way that it cannot hurt one. In this way the good life-master never opposes things . . . He changes them by accepting them, by giving them his trust, never by wholly denying them . . . He accepts everything until he becomes the master of all things, by including them.” This acceptance, and the receptiveness and spontaneity that follows this, is fundamental for taoism. “One single pure acceptance is worth more than one hundred thousand willing actions”, since it is “a state of inner quiet and calm, from which the proper action at the right moment occurs without an impulse from the will”.

The will is the foundation for most Western thought – which explains its preference for action: “I will do this, I want to do that”, without caring about the possibility that it might perhaps be better to do nothing at all about the current situation, but just let it develop naturally, without arbitrary interventions.

/.../

Wu-wei demands that one dares to release one’s hold. The ordinary man prefers the logical world’s seeming security, where everything has been labelled and put into nice boxes so that nothing unforeseen can turn everything up and down, and so that no one is confronted with the unusual and must adapt. This attitude is static and dams up the spring of wisdom, the wonder of the open senses. (Cooper 1999: 84–89)

[WU-WEI är ännu en term som inte kan översättas exakt, och som därför brukar användas utan översättning. Wu-wei är läran om att inte handla, men bara en ytlig betraktare kan tolka det som *laissez-faire* i betydelsen likgiltighet, för taoisten är inte likgiltig utan bör vara helt engagerad i livet. Om man skall försöka sig på någon översättning över huvud taget, kanske ”icke-inblandning” är den bästa. På den lägsta nivån är det ett naturligt handlingssätt, att

leva och låta leva och att undvika friktion med dess oundvikliga konsekvenser tvedräkt och konflikt, vare sig det sker på individuell eller nationell nivå, att tillåta största möjliga individuella frihet och att förstå andras uppfattning. Det är också att släppa taget, att ge bort, att ge efter – i första hand att ge upp jaget, egot, då det är detta som är ansvarigt för själviskheten och disharmonin. På en högre nivå är det begärsfrihet och lidelsefrihet, som automatiskt leder till frihet från spänningar och är en hjälp på vägen mot insikt. Handlande är normalt resultatet av att sinnet oupphörligt, och vanligen febrilt, ängar sig åt begär, åt dagdrömmar, åt ett improduktivt åltande av problem som i likhet med begären har skapats av en själv och kretsar kring en själv. Problemen löses (bokstavligt talat) när spänningarna släpper och man kan förstå någots sanna natur, t ex genom att ”sova på saken” eller i den plötsliga intuition som kommer när förnuftet upphör att vara aktivt och man spontant inser hur det ligger till.

Det är en lära om omedelbarhet eller, som Chuang-tse kallar det, ”okantighet”, som spontan anpassning och respons och som ett fullkomligt accepterande – en handling som är så otvungen och naturlig att den mister den vanliga innebörden hos ordet ”handling” med sin biklang av övervägande och avsikter, som är i en sådan samklang med det naturliga att den helt enkelt *är* utan att någon behöver tänka på det. Det finns ingen hemlig avsikt. Det finns i själva verket över huvud taget ingen avsikt i ett sådant ”handlande utan att handla”, eftersom denna aktivitet ”kretsar kring vilans nav” och ”endast kräver sådan rörelse som är i överensstämmelse med himlens rörelser”. Den enda handling som behövs är att vara i samklang med tao.

All fullkomlig rörelse är spontan, och människan måste existera utan ansträngning på samma sätt som världsalltet. Innan hon har nått spontanitet är hennes handlingar ett resultat av viljan, eller av förnuftets överväganden, och därför konstlade, ansträngda och inte i harmoni med ”himplens rörelser”. Rörelse bör vara ett utvecklande, inte en anspänning. Rörelsen bör vara ofrivillig. Detta är inte att förespråka tröghet. Fast den vise äger ”kunskap utanför tingens sfär” så ”försummar han aldrig att handskas med tingen. Fast hans ande är bortom världen, så är den ändå alltid i den”. Detta är det lugna accepterandet av livet i världen sådant det kommer och sådant det är, sådant det inväntar sin rätta tid, utan att någonsin forcera något tillåter det alltid allt att utvecklas i sin egen takt, enligt sin egen natur. Inte heller är det fråga om en ryggradslös fatalism eller from resignation eftersom det gäller något mer än bara eftergivenhet. Det är i själva verket nästan muntert, och förvisso en glad förtjusning över allt som livet har att erbjuda. Det är, med Chuang-tses ord, att vara som vise som ”med glädje uppförde sina roller”. Att inte handla är en inre egenskap. Den kan vara passiv, men den är en kreativ passivitet. ”Ur icke-handlandet kommer handlingens möjlighet.”

/.../

Människan kan av egen kraft bara ta fram det hon har inom sig. Ur ett kaotiskt, upplöst sinne kan det inte komma något annat än kaos. Bara genom kontakt med det som är större än det personliga jaget, genom att fästa sig vid det och lära av det, kan man nå en kraft som är mer än mänsklig.

/.../

Att släppa taget, wu-wei, är också att sluta dyrka trygghetens falska gudar. Världens vise har alla lärt att det är dumt att söka trygghet. Livet är dynamiskt, smidigt och förändras ständigt. Döden är stel och statisk.

/.../

Metafysiskt sett är wu-wei att ”handla genom att inte handla”, mittpunkten i livets hjul, det potentiella, den punkt där vara och veta blir ett.

/.../

Wu-wei är inte slutet på allt handlande, utan ett upphörande av det motivbundna handlandet.

/.../

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Icke-aktivitet är någonting som har samband med själen och anden; den öppna själen och den rena anden som kan röra sig spontant åt vilket håll som helst i en given situation. Mänskligheten har nu blivit så totalt betingad av sina trossatser och ideologier och av sin dyrkan av faktakunskaper att spontaniteten nästan gått förlorad.

/.../

Lin Yu-tang kallar detta att släppa taget för ”icke-hävdande”, ”jämvikt” eller t o m att ”vara avspänd i förhållande till livet”. ”Det är hemligheten med att behärska omständigheterna utan att hävda sig mot dem. Det är principen att ge efter för en annalkande kraft på så sätt att den inte kan skada en. På så sätt motsätter sig den skicklige livsmästaren aldrig tingen . . . han ändrar dem genom att acceptera dem, genom att ge dem sitt förtroende, aldrig genom att blankt förneka dem . . . han accepterar allting tills han blir alla tings mästare, genom att inbegripa dem.” Detta accepterande, och den mottaglighet och spontanitet som följer med det, är grundläggande för taoismen. ”Ett enda rent accepterande är mer värt än hundratusen viljehandlingar”, ty det är ”ett tillstånd av inre tystnad och ro, från vilket den rätta handlingen i det rätta ögonblicket uppstår utan någon viljeimpuls”.

Viljan är grunden för det mesta västerländska tänkandet – därav dettas förkärlek för handlande: ”Jag tänker göra ditt, jag vill göra datt”, utan att bry sig om möjligheten att det kanske skulle vara bättre att inte göra någonting alls åt just den särskilda situationen, utan låta den utvecklas naturligt utan godtyckliga ingripanden.

/.../

Wu-wei kräver att man vågar släppa taget. Genomsnittsmänniskan föredrar den logiska världens skenbara trygghet, där allt har etiketterats och stoppats in i prydliga fack så att inget oväntat kan vända upp och ned på alltsammans och så att ingen konfronteras med det ovanliga och måste anpassa sig. Denna attityd är statisk och dämmer upp all vishets källa, det öppna sinnets förundran. (Cooper 1999: 84–89)]

11 Three poems on improvisation

Improvisation

is not ambient music
 (it's hard to ignore
 could provoke, disturb
 might reflect
 some changing perception)

is like skiing
 (like dancing
 with risks
 and split-second decisions
 all the exhilaration of flight
 in full control
 yet unpredictable)

An improviser experiences the passage of time
 as compressed or expanded, or irrelevant.

Ears hear all around,
 time encompasses the moment
 without getting lost in it
 (a moment
 and eternity
 as interchangeable).

The improviser remembers
 in order to create
 (improvisation
 is spontaneous,
 and reflective).

An improviser navigates in timeless time,
 through sometimes rough and random seas of sounds,
 with tone constellations
 or contoured melodic landscapes
 organic wave-pulse (breath, heart-beat)
 or moods as indicators,
 referents, compass nodes,
 with keen and practiced instincts
 (motions of a dolphin)
 leading in and out of humor, uncertainty, tranquillity,
 ambiguity, certitude,
 varied, altered, repeated, abandoned, transformed . .
 (Briggs 1986: 67–68)

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If we begin improvisation from a different edge
of listening, concerned
with learning more of larger possibilities
of sounding
(the European concert hall only one
of many; the full spectrum of world
music offering
a rich and ever more varied palate
of textures), we discover
the fullness of music/ourselves
expanding deeper into the sound,
expressive of what needs
to be heard.
We are the sounding
string, wind, object being
one.
(Goldstein 1988: 2)

Listen!
Follow the sound.
Do not let it escape.
Pursue *it* and not the spidery threads of allusion.
Wait.
Let the sound come.
Embrace its resonances.
Move
The bow across the strings
In time with your heart.
As if playing for the very first time.
(Prévost 1995: Prologue)

II Free improvisation in relation to . . .

12 Free improvisation – instrument, technique and virtuosity

REFERENCES

According to Bailey (1993),

there is no generalised technique for playing any musical instrument. However one learns to play an instrument, it is always for a specific task. The Indian player, after successful study with his master, is fitted to play Indian music. The flamenco player learns flamenco, the jazz player jazz, and so on. And in some respects the better he is at his chosen idiom, the more specialised his abilities become.

The standard European instrumental education thinks of itself as being an exception to this rule. It is of course a very good example of it. It equips a musician with the ability to perform the standard European repertoire and its derivatives, and perhaps more than any other discipline it limits its adherents' ability to perform in other musical areas.

Although some improvisors employ a high level of technical skill in their playing, to speak of 'mastering' the instrument in improvisation is misleading. The instrument is not just a tool but an ally. It is not only a means to an end, it is a source of material, and technique for the improvisor is often an exploitation of the natural resources of the instrument. He might develop certain aspects of the instrument that appeal to him, that seem particularly fruitful. The unorthodox technique is commonplace, its function being to serve only one man's purpose. (p. 99)

He also speaks about two main attitudes to the instrument.

There seem to be two main attitudes to the instrument among improvisors. One is that the instrument is man's best friend, both a tool and a helper; a collaborator. The other attitude is that the instrument is unnecessary, at worst a liability, intruding between the player and his music. The division between these views is not as distinct as it might seem, but the first, the pro-instrument view, is the most widely held and is found in all areas of improvisation.

(pp. 98–99)

/.../

In addition to developing a personal instrumental technique, it is common amongst pro-instrument improvisors to develop, and literally to extend, their instruments. Some of these changes can be quite minimal: a loose string added to a guitar, altered mutes and

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mouthpieces for a trombone, the usual sort of 'preparations' for a piano. More radically, extension is made by amplification and electronic treatment. (p. 100)

/.../

The anti-instrument attitude might be presented as: 'The instrument comes between the player and his music.' 'It doesn't matter what sort of instrument you play, a Stradivarius or a tin drum, it's the person behind it that counts.' Technically, the instrument has to be defeated. The aim is to do on the instrument what you could do if you could play without an instrument. (p. 101)

/.../

At one time or another, most players investigate both the pro- and the anti-instrument approaches, some oscillate continuously between them and some contrive to hold both views at once, so there is no clear division into two groups of musicians. But the attitudes are quite distinct, it seems to me, and both can be heard in almost any piece of improvised music. (p. 102)

Couldry (1995) distinguishes between individual virtuosity and interaction virtuosity.

In one way, the second sort of virtuosity is more subtle in its effect, since for its appreciation it requires the the listener to pay close attention to how the performance is being put together. It remains, nonetheless, virtuosity in the sense of highly-developed skill, which the listener is meant to appreciate. (p. 11)

Couldry does not, however, seem to have found any consensus about the value or necessity of virtuosity among the musicians he has interviewed. (p. 11)

He also points out that

even where improvisation involves virtuosity in the conventional sense (and possibly of an extraordinary kind such as that developed by Evan Parker) the implications for the player and, I suspect, the listener, are radically different from those of virtuosity in the context of classical music. Compare the virtuosity of Evan Parker and, say, a flautist playing Ferneyhough's solo flute pieces: the first is willed by the performer, being the culmination of a long personal development; the second has been imposed by the composer (for the purpose of one particular piece alone, in some cases) who acknowledges that some of the instructions are not performable if strictly interpreted. (p. 12)

Durant (1984) feels that "improvisation is the only form of music-making that fully allows instrumental virtuosity and artistic excellence to be displayed". Improvisation can offer "unique opportunities to outstanding musicians in allowing complete creative licence, by imposing no constraints at all on the roles instruments are expected to fulfill in order to conform to composition or genre". However, Durant asks himself two questions "with regard to this conception". (p. 9)

The first question concerns

the relationship between such performances and improvisation as an activity suitable for all musicians including those with little or no musical experience. It is conceivable (and indeed this dimension of argument is frequently combined with the 'virtuosity' formulation) that exemplary performances can galvanise listeners into improvising, and so have an educative, as well as entertaining function. What is then of consequence is whether such performances in fact tend to furnish models of procedure, or models of product: whether,

that is to say, it is the *practice* of improvising which is taken from the experience and developed, or whether it is one particular version of improvisation, embodied in a specific set of musical properties, which is appreciated and later imitated. In the first of these alternatives, improvised performance clearly combines values as artistic display or exploration with qualities of encouragement to others. In the second, improvised performance simply offers one more template for imitation, and paradoxically provides a form of prescription or convention for music-making quite alien to any improvisatory ideals from which the model is adapted. (p. 9)

The second question concerns “the notion of ‘technical’ excellence or expertise itself. It is easy to imagine that to develop and display technical skills on an instrument is an unequivocal task – a matter of practising, and so gradually playing better”. However,

technique can properly only be seen in changing interrelationship with means, and, more importantly, with purposes. Questions of appropriate technique appear relatively straightforward when the aim is, for example, to play the music of Haydn or Mozart: here a certain kind and level of technique are evidently necessary. But the questions become much more aggravated when considering the development of new music and musical improvisation, where the ‘technique’ or ‘techniques’ worth developing depend entirely on what effects are being sought. (p. 9)

In order to maximize a group’s collective musical freedom, the group must

make full use of its technical resources, and it does not matter if those resources are mixed in quality. However good or bad an improviser is, their contribution comes not so much from being in control of their instrument, as from their determination to make, with maximum precision, the sound that the music requires at any one time, and the more skilled they are, the more precise that contribution will be. (Ford 2003: 109)

Nachmanovitch states that “without skill there is no art” and that “the requisite variety that opens up our expressive possibilities comes from practice, play, exercise, exploration, experiment”. (Nachmanovitch 1990: 44)

For Nunn (1992), improvisation is

an infinite field of probabilities (improvisation) within a finite field of possibilities (the instrument). However, we might also think of it as one kind of exploration within another, that is, a real-time exploration of the *instrument* within a real-time exploration of the musical imagination. (p. 13)

Concerning the relation to the instrument, he states that “great familiarity with the instrument assumes a highly developed performance technique such that the player need not think about how to play the instrument; it is second nature”. (p. 13)

He further brings up an idea of his that

the instrument plays the player as much as the player plays the instrument. It is, in a sense, a dialogue wherein suggestions are presented and responded to, by both parties! The instrument strongly impacts the music, which takes on its own life through improvisation,

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making demands that may run counter to the improvisor's momentary physical impulse, in which case the improvisor must listen and follow through according to the musical dictates of the moment. Then at some point, the music demands the improvisor [to] make a suggestion (i.e., take it in a new direction). This back-and-forth interaction should be ever-present in improvisation. When it is not, it is obvious; either the music wanders from one undeveloped idea to the next or we just get a show of pyrotechnics with about as much musical meaning as any acrobatic act! (p. 14)

“In improvisation, one has the freedom to explore the qualities of one's instrument in order to discover something that fits in with one's taste and ability. With experience, one can develop one's own way of expressing certain feelings via a musical instrument.” (Sato 1996: 2-3)

According to Schipper (1984), a free improvising musician's own nature “is an impulse for his interaction with the instrument and so his instrument becomes a part of his nature”. (p. 36)

The internalization of the instrument “enables the musician to accept the musical challenge of the improvising playing situation” – a situation that demands the ability “to make decisions in any moment during playing”. (p. 37)

Smith's relation to instrument and technique is that

you can know your instrumental technique very well, and with open attitude transcend that and still be a great improviser. One can *cultivate* the quality. It is the technique of observing and listening, and simultaneously letting go of previous “education”, pre-conceptions of criticism, and let the mind re-create the wheel. Why not? (Smith 1996: 8)

SUMMARIES AND REFLECTIONS

Relations to the instrument, technique and virtuosity:

- 1- the instrument is not just a tool but an ally, not only a means to an end, but a source of material (Bailey 1993)
- 2- improvisation is an infinite field of probabilities (improvisation) within a finite field of possibilities (the instrument), where it [free improvisation] might be thought of as a real-time exploration of the instrument within a real-time exploration of the musical imagination (Nunn 1992)

Since the idea behind music is to make music, not instruments, the instrument is, of course, a means to make music. The instrument is, in this sense, a source of material, since all musical sounds must come from it. And since all instruments can produce more than one sound, then it is likely that one explores which sounds one can make on the instrument. This holds especially true for free improvisers, who are not bound by any idiomatic, performance-praxis viewpoints about acceptable sound choices. A musician can, of course, see this means/tool, this hopefully well-explored source of material, as an ally in his or her music-producing activities. (points 1, 2)

- 3- the free improvising musician's own nature is an impulse for his interaction with the instrument and so his instrument becomes a part of his nature (Schipper 1984)

I have difficulty seeing the instrument as part of one's nature. I can, however, see the handling of the instrument, that is, what comes out of it, as representing the nature of the practitioner. I can also imagine that different instruments suit our natures to a greater or lesser extent; it seems reasonable to suppose that it is not as natural for a musician to play just any instrument. Not even the voice, mankind's most natural instrument, is a part of our nature, but rather a part of our body, although the way we use our voice does represent our nature, naturally taking into account the physical limitations our voice has.

- 4- the instrument plays the player as much as the the player plays the instrument. It impacts the music, making demands that may run counter to the improvisor's momentary physical impulses, in which case the improvisor must listen and follow through according to the musical dictates of the moment. At some point, the music demands the improvisor [to] make suggestions (take it in a new direction). This back-and-forth interaction should be ever-present in improvisation. When it is not, either the music wanders from one undeveloped idea to the next or we just get a show of pyrotechnics with about as much musical meaning as any acrobatic act. (Nunn 1992)

If one sees the instrument as a tool, an aural means, it cannot reasonably be said to play the musician as much as the reverse happens. The instrument can, in fact, not play the musician at all, only the reverse. The instrument places no demands whatsoever, but all instruments are built in such a way that certain things are more or less difficult to play on them. One can speak of certain things being more or less instrument idiomatic. This is the perspective in which I understand Nunn's opinion that the instrument impacts the music and sometimes places demands that work against the improviser's own impulses, i.e. the idiom of the instrument can point in one direction, whilst the musician's musical impulses can point in another. The mutual interaction between musician and instrument should not just exist in improvisation, but is unavoidable, just as in all forms of music. It is, however, no guarantee against the music still wandering from one undeveloped idea to the next. The struggle against ideas that are not developed nor followed up on is ever-present in free improvisation. It goes on whether the relationship between instrument and musician is better or worse, and its result is more dependent on the musical judgement of the improviser than on the characteristics of the instrument. The risk of pyrotechnical shows is directly related to how much pyrotechnical ability a musician has on his instrument, in other words, how well he or she is able to play it, and to how interested a musician is in musical pyrotechnics. Musical pyrotechnics are, however, not a priori meaningless in improvised music. The level of meaninglessness/meaningfulness must be seen in its context, that is, what music the pyrotechnics that may arise emanate from and what music it leads to, and is a question for the musical judgement of the presumptive musical pyrotechnician.

- 5- internalization of the instrument enables the musician to accept the musical challenge of the improvising playing situation – a situation that demands the ability to make decisions in any moment during playing (Schipper 1984)

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To internalize an instrument does not mean to make it part of one's nature but to simply get to know its possibilities and as far as possible master them, that is, to get as good a technique as possible, albeit on one's own terms and according to the characteristics of the instrument. An improvising musician must not only be able to make decisions at any time while playing; an improviser is continually making more or less conscious decisions while playing (see 6.2 How free improvisation comes about). For decisions made, one of two alternatives holds: the musician can either follow them through or not. A third alternative is also conceivable: that decisions made can be partially realized. The alternative chosen is directly dependent on partly the characteristics of the instrument (its possibilities and limitations) and partly on the musician's technique on the instrument in question.

- 6- in addition to developing a personal instrumental technique it is common amongst pro-instrumentalists to extend their instruments with different means (Bailey 1993)
- 7- for anti-instrumentalists, the instrument comes between the player and his music, technically the instrument has to be defeated, and the aim is to do on the instrument what one could do if one could play without an instrument (Bailey 1993)
- 8- some musicians oscillate continuously between a pro-instrumental and an anti-instrumental attitude, and some contrive to hold both views at once; the attitudes are rather distinct and both can be heard in almost any piece of improvised music (Bailey 1993)

I, and I think this applies to all improvising musicians, would like to express as much as possible without being limited by the instrument. The instrument is, however, the way it is, and has the possibilities and the limitations it has. What is left for me to be able to influence is my own ability to utilize its possibilities. In terms of the struggle between me and my instrument, however, it is my technical limitations that are to be defeated, not the instrument. This viewpoint causes both attitudes to work together and strive in the same direction, and can be seen as two sides of the same coin. (points 6, 7)

The anti-attitude takes up the struggle with technique, while the pro-attitude more positively develops technique. In this perspective, I see the oscillation between a pro-instrumental and an anti-instrumental attitude as a switching between larger and smaller technical problems in different musical situations, and between different attitudes towards the problem. Moreover, this oscillation does not just happen but goes on continually for most (or maybe all) improvisers, which can probably also be heard sometimes. (point 8)

- 2- improvisation is an infinite field of probabilities (improvisation) within a finite field of possibilities (the instrument), where it [free improvisation] might be thought of as a real-time exploration of the instrument within a real-time exploration of the musical imagination (Nunn 1992)
- 9- in improvisation one has the freedom to explore the qualities of one's instrument in order to discover something that fits in with one's taste and ability, which can lead to one's own way of expressing oneself via a musical instrument (Sato 1996)

If a musician has a pro-instrumental attitude, it is natural for him or her to take an interest in the instrument's possibilities and limitations, to explore these, and to be interested in this process (points 2, 9). Free improvisation offers unlimited freedom for the musician to both explore and apply the results of his or her exploring. Nevertheless, the instrument merely remains a tool in the production of the music and must not stand in the way of it.

It is the musician who is of interest, not the instruments / sound tools. They must not become obstacles by being so complicated to use, for example, and/or offer so many choices that focus is shifted from what is happening musically to the handling of the instruments / sound tools. They must be tools for a natural and immediate musical interaction process.

- 10- there is no generalised technique for playing any musical instrument; rather one learns to play an instrument for a specific task, which even European standard education is a good example of (Bailey 1993)
- 11- individual virtuosity for an improviser is willed by the performer, while that for a “classical” musician is imposed by the composer (Couldry 1995)
- 12- technique can only be seen in changing interrelationship with purposes. Questions of appropriate technique appear relatively straightforward when the aim is, for example, to play the music of Haydn or Mozart, but become more aggravated considering the development of new music and musical improvisation, where techniques worth developing depend entirely on which effects are being sought (Durant 1984)

I do, however, believe that one, to a certain extent, can speak of a general instrumental technique (point 10). On wind instruments, for example, a musician should be able to control the flow of air and have a good embouchure, no matter what tasks these will be used for. One can probably find corresponding general technical abilities on other, maybe even on all, instruments, too. For all instruments, it also holds true that a musician should have a relationship to his instrument that is relaxed, in anatomic terms, so that work-related injuries do not occur. As soon as one goes beyond this, however, the process of adopting a general technique to serve a specialized task starts manifesting itself (points 10–12). Even the development of tone on an instrument is directed towards and comes from an ideal that is, in general, imposed by idiom and performance praxis. This is especially noticeable in European standard education, and the task there has been, and still is for the most part, to play within the “classical” music’s idiom and repertoire, even though other musical directions, such as jazz and world music, for example, are becoming more common (point 10). Of course, the question of technique becomes easier to delve into and find a direction for, if the application of the technique is known and well-defined (point 12). This is the case, to a high degree, with “classical” music, which has both repertoire and performance praxis that is relatively well-documented.

When it comes to free improvisation, however, there are no such guidelines that could point out a path for the musician’s development of technique (points 11, 12). It is, in fact, up to each musician, according to his or her own judgement, to develop the technique he or she is interested in. Idiomatic musicians learn technique according to rules and conditions that are imposed by idiom and tradition, whereas free improvisers learn technique on their own and the instrument’s terms (points 11, 12). The difference between the conditions for these categories of musicians naturally becomes more noticeable if a certain piece by a certain composer demands a certain technique to be performed (point 11).

- 13- technique for the improviser is often an exploitation of the natural resources of the instrument, which might include the development of certain aspects of the instrument, and an unorthodox technique (Bailey 1993)

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- 14- skill (the requisite variety that opens up our expressive possibilities) comes from practice, play, exercise, play, exploration, and experiment (Nachmanovitch 1990)

I find it reasonable that studies/learning with regard to technique on the instrument's terms consist, to a great extent, of the components: exploring/discovering and practiced playing, where an important part of the exploring/discovering actually happens in practiced playing in ensemble form.

However, the aspect of exploring/discovering is not just about the instrument but also about the musician himself, his or her conditions, preferences and direction, and, in a deeper sense, about exploring/discovering him or herself, his or her musical 'I', his or her musical identity. Practice and experiments are part of this exploring/discovering. Certainly, much playfulness, as well as seriousness and struggle, are all integral parts of this process. (points 13, 14)

- 15- it does not matter if the technical resources of the musicians in a group are of mixed quality, as long as they are made full use of (through which a group's collective musical freedom can be maximized) (Ford 2003)

It is true that a musician with poor technique, but with good musical judgement, can contribute meaningfully to an improvisation within the framework of his technique. This can sometimes possibly be the case when other musicians with better technical skill can make the contributions meaningful through their ways of relating to them musically (see 6.2.2 Process). Naturally, both these alternatives become acute in an ensemble where the technical resources of the musicians are of mixed quality. No matter the technical level, one must, of course, presuppose that the participants use their technical resources optimally in the sense of making as good a music together as possible. Why would one otherwise choose to improvise together at all?

- 16- great familiarity with the instrument assumes a highly developed performance technique such that the player need not think about how to play the instrument; it is a second nature (Nunn 1992)

I do not believe that a well-grounded knowledge of the instrument and good technique are two different things. One attains a well-grounded knowledge of the instrument by working with one's instrument, i.e. by attaining instrumental technical skill. Knowledge of the instrument and instrumental technical skill are two sides of the same coin.

- 17- improvisers' contribution comes not so much from being in control of their instruments, as from their determination to make, with maximum precision, the sound that the music requires at any one time, and the more skilled they are, the more precise that contribution will be (Ford 2003)

This also corresponds with my opinion that improvisers want to make the sounds, with maximal precision, that the music demands for the moment. This precision is conditioned partly by the musician's ability to realize which sounds the music demands for the moment (the musician's choosing skill), meaning both the choice of sound and the choice of the point in time to make the sound(s)), which is a skill that is dependent on musicality and improvisational experience, and partly by the the musician's skill to produce precisely these

sounds with maximal precision, that is, to have control of the instrument (instrumental skill). Good technique leads to instrumental skill, which leads to the musician being able to produce sounds with maximal precision. The contributions of the improvisers should come about as a result of both their choosing skill and their instrumental skill. (cf. 4 Personal prerequisites)

- 18– one can know one’s instrumental technique very well, and with open attitude transcend that and still be a great improviser, by observing and listening, and simultaneously letting go of previous “education”, pre-conceptions of criticism, and let the mind re-create the wheel (Smith 1996)

An interesting aspect of technique is to exceed it, to release it, as if one did not have it but still has it. I believe that this attitude towards technique is possible, and even positive to the extent that listening focused on what is actually happening in the music replaces focus on technique. This presupposes, however, that the instrumental technique is actually there, that is, that one does not need to rediscover the wheel at all but can simply let it roll, without worrying about how this comes about, or at least without worrying so much about it.

- 19– improvisation is the only form of music-making that fully allows instrumental virtuosity to be displayed, without any constraints at all on the roles instruments are expected to fulfill in order to conform to composition or genre (Durant 1984)

It is self-evident that free improvisation is the only form of musical creation that fully allows instrumental virtuosity without adapting oneself to or being limited by a composition or style/idiom, since it takes place without compositions and without regard for style/idiom. This is, of course, not to say that virtuosity that is just as advanced cannot exist within idiomatic improvisation.

- 20– virtuosity can furnish the listener with models of procedure or models of product, where a model of procedure combines values as artistic display or exploration with qualities of encouragement to others (the *practice* of improvising is taken from the experience and developed), while a model of product simply offers one more template for imitation, and provides a form of prescription or convention for music-making quite alien to improvisation (Durant 1984)

The difference between virtuosity as a procedure or process model, respectively, is important. In idiomatic improvisation, virtuosity has a certain legitimacy as a product model. To learn prescriptive clichés is a way to learn the style. Younger jazz musicians can, for example, spend a long time learning transcriptions of Parker or Coltrane soli. Even within other idioms, imitation is an accepted way of studying the idiom. The same procedure, the same thinking and the same philosophy, would, however, be devastating in free improvisation. It would only lead to an idiom (or more), which is the last thing free improvisers want to attain and forward to other musicians. The only acceptable attitude towards virtuosity in free improvisation is as a procedural model, that is, to inspire others *that* one can play virtuosically but not *how* one is to play (other than possibly in a neutral instrumental technical sense), and definitely not *what* one should play. The point of procedural models in free improvisation is that they can encourage musicians to go further

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along their own paths instead of along the paths of others, that they can take with them “the *practice* of improvising” and develop it further on their own terms and — most importantly — in relation to what other musicians are playing.

- 15– it does not matter if the technical resources of the musicians in a group are of mixed quality, as long as they are made full use of (through which a group’s collective musical freedom can be maximized) (Ford 2003)
- 18– one can know one’s instrumental technique very well, and with open attitude transcend that and still be a great improviser, by observing and listening, and simultaneously letting go of previous “education”, pre-conceptions of criticism, and let the mind re-create the wheel (Smith 1996)

Technique and transcending the technique are also related to freedom. Optimal use of technical resources contributes to maximizing a group’s collective musical freedom (point 15). Dror Feiler’s idea that freedom is partly to have all one’s earlier practicing, muscle memory and thoughts about music, and partly to play as if one did not have these things (“like dancing striptease without taking off one’s clothes”, see 8 A word about freedom) has for me the same spiritual meaning as point 18. Technique, and transcending it, are means through which musicians become freer in free improvisation.

- 21– one can distinguish between individual virtuosity and interaction virtuosity (in the sense of highly-developed skill), but any consensus about the value or necessity of virtuosity is not obvious (Couldry 1995).

From the definition of free ensemble improvisation (see 6.3 Definitions), for me, there is no doubt that interactional virtuosity is the most important skill to have in free ensemble improvisation. Technique on one’s instrument is only a prerequisite for instrumental skill, which is, in turn, a prerequisite for interactional virtuosity. One cannot interact musically via one’s instrument if one cannot handle one’s instrument. Another prerequisite is the ability to listen and understand what is happening musically, or in other words, to have virtuosity in listening (listening skill). Without listening and understanding, there is nothing from which interaction can take place. A third prerequisite is the ability to make appropriate choices (choosing skill) according to the above. Interactional virtuosity can be reached by using the three skills mentioned above in applied interaction, by analysing the results afterwards, and also by complementing this with exercises aimed at interaction.

*Even if Couldry does not seem to find any consensus about the value of virtuosity, he does write a good summary of the difference between individual virtuosity (“parallel voices”) and interactional virtuosity (“group voice”) within ensemble improvisation, where one can interpret that he, like me, values the latter more highly.

In broad terms, one can distinguish in group improvisations first a type of music, which for convenience I shall label the *Parallel Voices* approach, whose preference is for each instrumental voice to be not just a colouring but an unmistakable and more or less continuous direction of its own. Each voice is that of an instrumental virtuoso. Each line of development aims to have such energy and propulsion that the listener has the choice, at least in theory, of following that line alone as a perspective on the music. As a result, when

lines coalesce or merge, this is sensed as a triumph of individual skill, a 'special moment' rather than the basic *modus operandi* of the music.

By contrast much other group improvisation appears to start from a concern that, at the level of each 'gesture' or 'moment', all elements (texture, movement and, if present, pitch) are united as one group gesture. I label this the *Group Voice* approach. As Gestures succeed or overlap each other, the aim is to achieve a completely natural flow *without* relying on one or more players appearing to drive it forward individually. In general, this type of music avoids any individual interventions which would disrupt the subtle balance within each gesture or the flow between them. It demands extraordinarily swift and well-directed contributions from each player. /.../

When, however, it [the group's playing] succeeds, the result is not a lack of characterisation but a subtlety and complexity of characterisation, a multiplicity of voices constantly running into each other and transforming into other voices; this surely represents a *collective* virtuosity of great power. (Couldry 1995: 9–10)

In this section, four types of skills appear:

- 1– listening skill
- 2– choosing skill
- 3– instrumental skill
- 4– interactional skill.

I see the first three skills as part of, and the foundation for, the fourth and most important. The first three also add a 'skill perspective' to steps **i**, **ii**, and **iii**, respectively, in the process model according to section 6.2.2 (Process), and the first skill also adds a 'skill perspective' to section 6.2.1 (Listening).

The connections between the terms technique, skill and virtuosity are, according to my understanding:

technique – a prerequisite for instrumental skill (One can imagine that even for the skills to listen, choose and interact, there are techniques that are prerequisites; however, the term technique is most often used in music contexts with regard to instruments, and there are no techniques, as far as I know, for listening, choice and interaction in the same way as for instruments. Therefore, here, technique will only stand for instrumental technique.)

skill – the ability to do something

virtuosity – highly-developed skill.

13 Free improvisation – idiomatic improvisation – stylistic influences

13.1 FREE IMPROVISATION – IDIOMATIC IMPROVISATION

REFERENCES

In Grove music online (Grove), “style” is defined as “mode of expression; more particularly the manner in which a work of art is executed”. (Grove music online: Style)

Style can be applied from the largest to the smallest (“music itself is a style of art, and a single note may have stylistic implications”) and “style manifests itself in characteristic usages of form, texture, harmony, melody, rhythm and ethos”.
(Grove music online: Style, 1. Definition)

In NE, ‘idiom’ is defined as a characteristic mode of expression; as a language or dialect, or as a language variant. The term ‘idiomatic’ is defined as characteristic of a certain language, in accordance with the norms of a language.
(The Swedish National Encyclopedia: Idiom, Idiomatic [Idiom, Idiomatisk])

In Sohlman, style, with an understood difference between form and content, is the way in which content is expressed or, taking an empirical view, is the sum of important characteristics in a given amount of artworks. In order to belong to a style, something must have all or part of these characteristics. (Sohlman Dictionary of Music: Style [Stil])

Idiomatic improvisation is, according to Bailey (1993), “the most widely used, is mainly concerned with the expression of an idiom - such as jazz, flamenco or baroque - and takes its identity and motivation from that idiom”. Non-idiomatic improvisation “has other concerns and is most usually found in so-called ‘free’ improvisation and /.../ is not usually tied to representing an idiomatic identity”. (pp. xi–xii)

The difference between idiomatic and non-idiomatic improvisation is not so fundamental since

all improvisation takes place in relation to the known whether the known is traditional or newly acquired. The only real difference [between idiomatic and non-idiomatic improvisation] lies in the opportunities in free improvisation to renew or change the known and so provoke an open-endedness which by definition is not possible in idiomatic improvisation. (p. 142)

As opposed to free improvisation, from about the 1960s, Durant (1984) thinks that “virtually all forms of improvisation *before* developments of the last twenty years, music-making has developed in relation to kinds of pre-existent control on decision-making in the activity of improvising”. (p. 6)

“Unlike earlier forms of music-making (in which improvisation appears as a kind of interpolated permutation of material or codes), contemporary ‘free’ improvising /.../ has become established in virtual contra-distinction from such activities.” (p. 7)

One similarity between idiomatic and non-idiomatic improvisation is that practitioners within both categories have their baggage, in the form of techniques and other musical handcraft. None of these practitioners can avoid standing in relation to what has come before. For both categories of practitioners it also holds true that they can only play what they can play. (Landgren 2002: 97)

Barry Guy, interviewed by Lock, no longer plays bebop. This is because he thinks that “there’s a kind of normality” to the interpretation of standards or bebop tunes. It seems to him that “there’s is a tiredness to the format”. There are so many jazz pieces that are handled according to the idea of

a head followed by sax solo, a trumpet solo, guitar solo, back to the tune again – so many jazz pieces take on this form. It is like a horse race. All the players start off at the line and come in different orders in different tunes, but basically it’s the same race going around the same course. This is why I find free improvisation more interesting – you can go anywhere you like. (Lock 2003: 27)

Derek Bailey, interviewed by Martin, states that the main difference between free and idiomatic improvisation is that the latter, in contrast to the former, is formed by an idiom, not by improvisation. Idiomatic improvisation is formed “the same way that speech vernacular, a verbal accent, is formed”. Free improvisation does not have its grounding, its roots, in any other music and has no stylistic loyalties or ties. (Martin 1996: 3)

Munthe (1992) defines an idiom as chosen principles for sorting and systematizing the available sound possibilities at the expense of others.

The chosen principles form an idiom, which is normally seen as a collection of rules for what is allowed, possible and suitable from a musical point of view. To choose to play (and compose), for example, bebop in this way involves a commitment to the rules and limitations – the conception of (good) music – of which this idiom consist. (p. 2)

He states that “all of us were raised and fostered within some musical idiom”, and that “all of us have a history which has put its mark on us and which influences the decisions we take today”, which “also applies when we make music”. For him, it is “trivially true that all music-making is idiomatic in the sense that it requires some kind of limitations”. (p. 2)

The most basic element of “the musical method of the free improviser is to be found in the attitudes of the latter towards musical traditions, idioms, genres etc”. The free improviser “refuses to make any *binding* choices” concerning idioms.

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It is not prohibited to shape the music within the borders of some idiom, but neither is it necessary to keep to it. Particular idioms are no longer viewed as *prerequisites* for the music-making, but rather as *tools* which in every moment may be used or not used. Musical (idiomatic) rules are thus not considered to be valid in any other sense than that they, for the moment, are accepted by the improviser. However, in the next moment they may have been discarded in favour of some other point of view. /.../ in every moment he or she [the free improviser] chooses and constructs the components of the music which then is being created as well as the idiom which in the same moment is used for making this music. In the light of the resulting sounds and the improviser's continuous evaluation of these, the improvising continues as a series of choices on both these levels. (pp. 2–3)

Pignon (1992) sees idiomatic improvisation, in this case jazz improvisation, as an improvisation that is subordinate to a frame of reference that musicians can take excursions from but that they don't destroy. Idiomatic improvisation takes place analogously to a close-to-balanced behaviour in a classic thermodynamic system, and unstable FFE (Far From Equilibrium) states are repressed.

In discussions about improvised music, one comes almost always to the subject of jazz improvisation, for obvious reasons. In conventional jazz improvisation, there is always a frame of reference, a steady 'fundamental state' or an attractor, from which the musicians make excursions but that they do not destroy. This means that there are certain segments that 'know the rules', that watch over the flights of imagination that other segments plead for. The teaching is there and the hierarchy of control that it generates, and, with that, the stability the close-to-balanced behaviour of a classic thermodynamic system. Some of its 'knowledge segments' lie quite deep, at an almost purely motor level. In all, there is a team of surveillance segments that guarantee that unstable FFE states are repressed. (p. 7)

[I diskussioner om improviserad musik kommer man nästan alltid in på jazzimprovisation, av uppenbara skäl. I konventionell jazzimprovisation finns alltid en referensram, ett stadigt 'grundtillstånd' eller en attraktor, från vilken musikerna gör utflykter men som de inte förstör. Det betyder att det finns vissa avdelningar som 'känner till reglerna', som övervakar de fantasiutflykter andra avdelningar pläderar för. Lärandet finns där och den kontrollhierarki som den genererar, och därmed den stabilitet, det nära-jämvikts beteende i ett klassiskt termodynamiskt system. Några av dess 'kunskapsavdelningar' ligger mycket djupt, på en nästan rent motorisk nivå. Allt som allt finns det ett lag av översynsavdelningar som garanterar att instabila LFJ-tillstånd undertrycks. (s. 7)]

However,

by achieving an unstable self-organizing FFE state, the improviser can hopefully become creative in an essentially different way. Such FFE systems may be extraordinarily sensitive to the slightest influence, which leads them into new and fresh patterns of behaviour – in strong contrast to the stable systems with their tendency to go back to an *attractor* state when brought out of balance. (p. 6)

[Genom att kunna uppnå ett instabilt självorganiserande LFJ-tillstånd kan improvisatören förhoppningsvis bli kreativ på ett väsentligen annorlunda sätt. /.../ sådana LFJ-system [kan] vara utomordentligt känsliga för allra minsta påverkan, som styr in dem i nya, friska beteendemönster; i stark kontrast till de stabila systemen med deras tendens att dras tillbaka till ett *attraktor*-tillstånd, när de försätts ur balans. (s. 6)

Pressing differs between “referent-based (systematic)” and “free (experimental)” improvisation.

Systematic improvisation has well-established /.../ traditions of production and control, aesthetic evaluation, repertoire, sound ideals, and referents (e.g., jazz, theme and variation, Eastern melodic systems like the *raga* of *dastgah*, etc.). Emergent, free or experimental improvisation does not offer systematics, but exploratory production with available novel materials at hand, often in the ad hoc general sense of improvisation. (Pressing 2002a: 2)

Raes (2000) differentiates between “avant-garde improvisation” and “extemporisation”, where the first category

as a form of music creation in real-time is a new phenomenon: it is not merely a continuation of some aspect of the musical past. The freedom of realisation suggested by the distance between music notations – the signs – and the realisation has nothing to do with improvisation as meant here, as this distance is to be filled up in an idiomatic way. (p. 2)

The second category, extemporisation, is exemplified by Raes with jazz solos, basso continuo, cadenzas, etc. “because the ex-tempore is strongly a part of a well defined musical-idiomatic and stylistic context”. He claims that “if a realisation of an extempore goes too far beyond the rules of the style, it does not change the style, but the result will be nothing but a bad extemporisation”. Avant-garde improvisation “does not start from any a priori encoded or traditionally fixed style that could be defined in terms of properties of sound-material”. Rather it “is based on an interactional and processual approach of musical praxis wherein continuously style-elements are created in function of time and context”, and where “style, idiom and syntax are no longer constants, even not within a single piece, but become parameters of the music themselves”. (p. 2)

Sato (1996) suggests three types of improvisation.

Although there is no definite concept to categorize improvisation, it is possible to suggest three general types by the degree of freedom allowed in a performance. First, “idiomatic (embellishment-type) improvisation” permits the least freedom to the performer. It is also called “strict improvisation”, “systematic improvisation”, “improvisation with a given element”, or “improvisation within a style”. This type of improvisation may appear only in one part of a composition, and has to fit in with the general style. Some ornaments on notes are allowed within a prescribed range, and further creative attempt is not allowed. Second, “semi-idiomatic improvisation” involves greater creativity and idiomatic embellishment. This type can be related to some of the jazz styles; a player works within a clearly accepted and circumscribed idiom. The third type, “free improvisation”, may contain some elements from the two types mentioned above. The concept of “free” is so broad and elusive that free improvisation is “very often confused in its identity or in its attempt to find an identity” [last quotation from Bailey 1993:114]. (Sato 1996: 3-4)

Stackenäs doubts that one can continue to be non-idiomatic, if one, for example, has worked with free improvisation for 30 years. Is not a personal language, developed during a long period of time, however original it may be, an idiom in itself?

(Stackenäs 2003: 21)

Freely improvised music is, like all other music, idiomatic, since it must be limited and systemized due to an unlimited number of musical options. The difference is that the idiom can always be changed in free improvisation. (Tuominen 1998: 10)

SUMMARIES AND REFLECTIONS

A. Definitions of style, idiom, idiomatic:

- 1- style means mode of expression (especially in art) that can be applied from the largest to the smallest, and is manifested in characteristic usages of form, texture, harmony, melody, rhythm, and ethos (Grove)
- 2- idiom is a characteristic mode of expression (for example, language/dialect/language variants) and the term idiomatic is something characteristic of a certain language, in accordance with the norms of a language (NE)
- 3- style is the way in which a content is expressed, or the sum of important characteristics in a given amount of artworks (Sohlman)
- 4- idiom is a collection of rules for what is allowed, possible and suitable (from a musical point of view) (Munthe 1992).

As seen from the definitions (points 1–3), one can use the terms style and idiom, and stylistic and idiomatic, respectively, as synonyms. This is also the way I use the terms.

If one defines “idiom” as a collection of rules (point 4), one can be led to think that the rules are known and well-defined within the respective style. This is, however, seldom the case. There are exceptions, such as the ‘Palestrina style’, for example, where one, thanks to thorough research on a limited amount of material (Palestrina’s extant production), has been able to determine how to write in order to write in a style that is authentic. But this has been possible partly because the material has been limited and possible to have an overview of, partly because no new material by Palestrina has been produced during the course of the research, and partly because the research has been limited to the production of one person. If one, on the other hand, speaks of ‘Baroque style’, for example, the material becomes immediately more difficult to have an overview of, partly because it is not always entirely clear where the boundaries of Baroque style should be drawn, and partly because one then speaks of the productions of several people. To the same extent, it becomes more and more difficult to determine the rules for what is allowed, possible and suitable within the style. Furthermore, there are also styles within the style. If one finally takes a style that is formed in present times, new material is being added continually, which makes the formation of any collection of rules even more problematic. Still, one cannot deny that those who know a style are usually able to determine how authentic a performance is within that style. The rules might exist, but they are far from always clearly formulated, and rather often on an unconscious level.

Before point B, I would like to briefly expound on some of the terms used in the references. I interpret Pressing's term "referent-based (systematic)" and "free (experimental)", as well as Raes' term "extemporisation" and "avantgarde improvisation", as synonymous with idiomatic and non-idiomatic improvisation, respectively, and the latter as synonymous with free improvisation. I will compress Sato's two first types of improvisation (idiomatic and semi-idiomatic improvisation, respectively) into simply idiomatic improvisation, since I see the first type as a sub-set of the second, and the second as corresponding to the normal meaning of the term idiomatic improvisation.

I have no objections to Sato's synonyms for the term idiomatic improvisation ("strict improvisation", "systematic improvisation", "improvisation with a given element", or "improvisation within a style"), of which Pressing, for example, uses one ("systematic"). The terms experimental (Pressing) and avantgarde (Raes) are, however, more doubtful. None of the free improvisers I know, myself included, see or experience free improvisation as experimental or avantgarde. On the contrary, it is usually seen as the most natural and obvious way to make music.

B. Differences between idiomatic and non-idiomatic improvisation:

- 1- idiomatic improvisation is mainly concerned with the expression of an idiom, and takes its identity and motivation from that idiom (Bailey 1993:xi)

Idiomatic improvisation naturally takes its identity from its idiom, where else? Idiomatic improvisation has hardly any interests at all, whilst, on the other hand, idiomatic improvisers are probably interested both in expressing the idiom and doing it in a personal way.

- 2- idiomatic improvisation has developed in relation to kinds of pre-existent control on decision-making, and appears as a kind of interpolated permutation of material or codes (Durant 1984)
- 3- idiomatic improvisation is formed by an idiom (not by improvisation) the same way that speech vernacular, a verbal accent, is formed (Bailey/Martin 1996)
- 4- idiomatic improvisation is subordinate to a frame of reference that musicians don't destroy, and it takes place analogously to a close-to-balance behavior in a classic thermodynamic system, where all unstable FFE states are repressed (Pignon 1992)
- 5- idiomatic improvisation (extemporisation) is strongly a part of a well defined musical-idiomatic and stylistic context, and if a realisation of an extempore goes too far beyond the rules of the style, it does not change the style, but will be nothing but a bad extemporisation (Raes 2000)

Points 2-5 actualize the question of the chicken and the egg, that is, the relationship in time between idiomatic improvisation and its idiom. If one, for example, takes bebop jazz as an example of an idiom, it is not the case that this idiom existed before its pioneers created it. On the contrary, it was its pioneers that formed the idiom by beginning to improvise in another way than one had done before. The pioneers therefore had no preexisting control system, at least not regarding their new way of improvising, nor did they have an a priori coded or fixed style, nor a frame of reference that they were not to destroy, nor any well-defined idiom. It was only after the pioneers' way of improvising became known, accepted and established that their followers had an idiom to relate to.

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After this, one can speak of interpolated permutations of material and codes, a close-to-balanced behaviour where all unstable FFE states (deviations from the idiom) are repressed, and of extemporizations that have been taken too far as bad improvisations that do not change the idiom.

- 2– idiomatic improvisation has developed in relation to kinds of pre-existent control on decision-making, and appears as a kind of interpolated permutation of material or codes (Durant 1984)
- 3– idiomatic improvisation is formed by an idiom (not by improvisation) the same way that speech vernacular, a verbal accent, is formed (Bailey/Martin 1996)
- 4– idiomatic improvisation is subordinate to a frame of reference that musicians don't destroy, and it takes place analogously to a close-to-balance behavior in a classic thermodynamic system, where all unstable FFE states are repressed (Pignon 1992)
- 5– idiomatic improvisation (extemporisation) is strongly a part of a well defined musical-idiomatic and stylistic context, and if a realisation of an extempore goes too far beyond the rules of the style, it does not change the style, but will be nothing but a bad extemporisation (Raes 2000)
- 6– idiomatic improvisation cannot change its idiom (Tuominen 1998)

One can easily get the impression from points 2–6 that idioms, once given, are static and unchanging. Is it not possible that there can be a certain give-and-take between an idiom and improvisers within the idiom so that improvisational innovations and personal characteristics can affect the idiom, at least to a limited extent (possibly less, the older the idiom), without the identity of the idiom being dissolved? Point 3 implies that possibility through the analogy to language. Apart from the possibility of there being a certain give-and-take between an idiom and its improvisers, there are probably also more or less fluid and diffuse border areas between what belongs to an idiom and what is outside of it. The improvisations of all flamenco guitarists, bebop musicians and baroque musicians etc., respectively, do not, for example, sound the same, but they are not, because of this, deemed as deviating from their idiom.

- 7– “idiomatic improvisation” in its most limited sense must be content with stylistic ornamentation (embellishment), but can in a somewhat broader sense (“semi-idiomatic improvisation”) contain more extensive forms of idiomatic embellishment like, for example, in improvisations within a jazz style (as a clearly accepted and circumscribed idiom) (Sato 1996)

That idiomatic improvisation must be content with stylistic ornamentation or a somewhat extensive form of idiomatic embellishment sounds, and is, limiting, but idiomatic improvisation presupposes and means, precisely, stylistic limitation. The extent to which ornamentation can be made personal, be original, and stretch the boundaries, probably varies among different styles.

- 8– idiomatic (systematic) improvisation has well-established traditions regarding aesthetic evaluation, repertoire, sound ideals, and referents (Pressing 2002a)

Idiomatic improvisation has, as a rule, some form of referents, which, to a great extent, constitutes its repertoire, or is the foundation of its repertoire. Traditions regarding

aesthetic evaluation and sound ideals are connected partly with the referents, partly with the improvisational idiom itself, and partly with improvisations within the idiom, whether they are passed on in an aural tradition and/or in another way. The older an idiom, and the more 'house-trained' it is within the cultural establishment, the more probable it is that it has well-established traditions regarding aesthetic values, repertoire, sound ideals and referents. Non-idiomatic, free improvisation, has no well-established traditions regarding anything. Nor can I see that one would wish for such traditions regarding aesthetics and/or sound ideals (for evaluations, see 9 Evaluation). There is no repertoire, and the only referents are the gestures of the participating musicians.

- 9- non-idiomatic improvisation has other concerns than idiom, is most usually found in free improvisation, and is not tied to representing an idiomatic identity (Bailey 1993)

Non-idiomatic improvisers have apparently other interests than idioms and are not bound to any idiomatic identity. By definition, they do not have, do not need, and do not want any idiomatic identity. They are interested in improvisation in itself, in real-time interaction between freely improvising musicians. That non-idiomatic improvisation is most usually found in free improvisation implies that it could either be a sub-set of free improvisation, or that it can be found outside of free improvisation. The first alternative raises the question of what, in that case, the rest of free improvisation would consist of, if it is not non-idiomatic but still free. The second alternative implies the possibility of an improvisational territory that is non-idiomatic but not free, or that non-idiomatic improvisation exists in idiomatic improvisation, which would be a paradox. For me, non-idiomatic improvisation is synonymous with free improvisation, that is, non-idiomatic improvisation is not most usually found in free improvisation, it is free improvisation.

- 10- non-idiomatic improvisation (avant-garde improvisation) is a music creation in real-time and is a new phenomenon, not a continuation of some aspect of the musical past (Raes 2000)
- 11- non-idiomatic (free) improvisation does not have its grounding, its roots, in any other music, and has no stylistic loyalties or ties (Bailey/Martin 1996)

Non-idiomatic improvisation is music-making in real-time (point 10), but this also holds true for idiomatic improvisation and is therefore not typical only for the former. Non-idiomatic improvisation is a relatively new phenomenon, but does not come from nothing (see 5 Background of free improvisation). It has foundations and roots in other music, but it does not have any stylistic loyalties or binds to any of these foundations/roots, nor to anything else either (point 11). If one, however, enjoys speculating about the cradle of human music-making, it seems unbelievable that it would start with one or more styles. Perhaps one should, instead of asking oneself how and from what styles/idioms free improvisation came, ask oneself how and why styles could come from a more or less free music-making/-improvising (cf. comments to points 2-6).

- 12- non-idiomatic (emergent, free, experimental) improvisation does not offer systematics, but exploratory production with available materials at hand, often in the ad hoc sense of improvisation (Pressing 2002a)

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Non-idiomatic improvisation has no formalized system in the same way as, for example, improvisation with rhetorical figures has. In point of fact, it has no system at all. It is the absence of systems and the absence of the need for any system that makes unconditional and unprejudiced exploration possible in non-idiomatic improvisation. It is not evident what Pressing means by material, but if he means instruments and their possibilities, then there is a lot of truth in that they are explored, especially by the individual musician. If, by material, he means musical real-time interaction through gestures, it is indeed true that this is explored, since it is the very nucleus of the activity of non-idiomatic / free ensemble improvisation, it *is* the activity, both in ad hoc and more long-term contexts. Within this activity, the gestures themselves are also explored in terms of their properties, and material and functional relations.

- 13- freely improvised music is idiomatic since it must be limited and systematized due to an unlimited number of musical options, but the idiom can be changed (Tuominen 1998)

The statement that freely improvised music is idiomatic because it must be limited and systematized due to an unlimited number of musical options is the same as saying that non-idiomatic improvisation is idiomatic, which would be a paradox. Whether the number of musical options are limited or unlimited, I know of no free improviser, myself included, who has any need to limit the number of options; on the contrary, the more the better. Furthermore, idiomatic limitations, by definition, do not belong in non-idiomatic improvisation, while other sorts of limitations (technical, physical, etc.) appear whether one wants them or not (see 8 A word about freedom). The latter does not constitute idea-based or conceptual problems, only practical ones, and each improviser does his best to fight against these limitations (see point D). Another viewpoint on the question of limitations is that since no human can handle an unlimited number of options, even if the will were there to do so, even this limitation takes care of itself and probably varies from musician to musician, and possibly also varies for each individual musician from occasion to occasion. In this light, to speak of a need for systematization becomes rather odd. Which of all the unlimited number of musical options should be systematized and why? If the need for limitation disappears, then the possibility of systematization does, too, since one would otherwise need to systematize an unlimited number of musical options, which is impossible. Freely improvised (non-idiomatic) music is therefore not idiomatic, and its idiom cannot be changed since it has no idiom to change.

- 14- non-idiomatic improvisation has become established in virtual contra-distinction from pre-existent control on decision-making and interpolated permutation of material or codes (Durant 1984)

- 15- non-idiomatic improvisation encourages FFE states (Pignon 1992)

Non-idiomatic improvisation does indeed distance itself from idiom-based control systems and interpolation of permutations of idiom-based material and codes (point 14). It encourages also FFE states (point 15) (see 17 Free improvisation – system analogies).

- 16- non-idiomatic (avant-garde) improvisation is based on interaction and process, where style, idiom, and syntax are parameters themselves, and where style-elements are created in function of time and context (Raes 2000)

- 17– non-idiomatic (“free”) improvisation may contain some elements from idiomatic or semi-idiomatic improvisation but shirks from further attempts to be identified (Sato 1996).

It is true that non-idiomatic improvisation starts from interaction and process (point 16). It is the process of musical real-time interaction itself, through gestures, that replaces idiom-based control systems and interpolation of permutations of idiom-based material and codes, and that turns stylistic/idiomatic elements into ephemeral or absent consequences of that process. Through this, non-idiomatic improvisation may contain idiomatic elements as by-products without therefore being identified as belonging to any style/idiom (point 17).

C. Differences between non-idiomatic and idiomatic improvisation from the perspective of the improviser:

- 1– the difference between non-idiomatic improvisation and idiomatic (in this case bebop) is that the latter has received a formal normalization (theme-soli-theme), which has brought with it a tiredness of the form, whereas, in the former, one can go anywhere one likes (Guy/Lock 2003)

Guy’s experiences correspond to my own. For some years at the end of the 60s, I regularly played bebop jazz at a club in Gothenburg. My strongest memory from these gigs was that I was often forced to fight to stay awake due to the effect of the tiredness of the form, as Barry Guy describes it: theme–soli on the same chord progression again and again and again... and finally the theme again. The form and the chord progression were like sleeping pills. There is definitely an enormous difference in being able to go wherever you want, when you want, and, moreover, not knowing how the trip will end.

- 2– the difference between free improvisers and idiomatic ones lies in their attitude towards musical idioms. The free improviser refuses to make any binding choices concerning idioms (idioms are neither prohibited nor necessary). Idioms are not prerequisites for the music-making, but rather tools which in every moment may be used or not. Idiomatic rules are only valid as long as the improviser wants, and may be discarded at any moment. In every moment, the free improviser chooses and constructs musical components, as well as the idiom which in the same moment is used for making this music. The improvising continues as a series of choices on both these levels. (Munthe 1992).

Munthe states that a free improviser’s attitude consists in not making any binding idiomatic choices, which makes it possible, to the extent one uses idiom, to see them as tools that can be used or abandoned at any time. He also states that the free improviser at each moment both chooses and constructs musical components, and chooses idiom, and that the music (the improvisation) is made and continues as a series of choices on both these levels.

What do “components” stand for? I interpret components as shorter or longer gestures with their respective properties (see 6.2.1 Listening), which leads to the relationship between gesture and idiom.

For me, idioms have never had any importance in free improvisation. It is certainly true that idiomatic elements have appeared in the free improvisations I have experience of,

not as main elements, however, but rather on a subordinate level, as by-products. What I have chosen and what I have related to, as a response to what I and/or others have done, is not an idiom but the gestures in themselves. They are, as opposed to idioms, always present, and any idioms or idiomatic elements that happen to appear have occurred as consequences of the handling of the gestures, not as a result of independent idiomatic choices (cf. 13.2 Free improvisation – stylistic influences). If and when an idiom has appeared, it has, however, had a certain effect on the supply of gestures until the idiom has been abandoned or until the gestures have deformed the idiom more than its identity can tolerate and only gestures have remained – again. Idiomatic elements come and go, or do not come at all, but the gestures remain, and it is on this level my choices take place – that is, not on two levels but on one, that is, on the gestural level.

D. Similarities between non-idiomatic and idiomatic improvisation:

- 1– all improvisation takes place in relation to the known, whether it is traditional or newly acquired. The only real difference between idiomatic and non-idiomatic improvisation lies in the opportunities of the latter to renew or change the known, and so provoke an open-endedness, which by definition is not possible in the former. (Bailey 1993)

All improvisation takes place in relation to the known, whether it is traditional or newly acquired. The question is only what “the known” refers to. If it refers to knowledge of style, then there is no similarity between idiomatic and non-idiomatic improvisation, since the latter has no style to get to know. If the known refers to the musician’s acquired technical skill on the instrument, then there is a similarity. If the known is a type of referent, such as a chord progression, for example, then there is no similarity, since referents are not part of non-idiomatic improvisation. Finally, if the known refers to what happens in an improvisation, then it becomes known only when it happens. There, it is more probable that what happens in idiomatic improvisation is closer to something already known than is the case with non-idiomatic improvisation, since events within the former are within an idiom. It is also probable that knowledge of the idiom is greater if the idiom is not newly acquired. An idiom can be traditional and established or newer and less established. The older and the more traditional and established the idiom is, the less space there is for its improvisers to change or renew it. New(er) idioms can, to the same extent that they are not ‘finished’, offer greater opportunities for change for and through their practitioners. A free improviser can change and renew his own playing and his own interactive skill, and through this, also have an influence on an ensemble. However, a free improviser can also, as opposed to an idiomatic improviser, change and deconstruct possible idiomatic elements without any limitations, and through this perhaps provoke an “open-endedness” that is, by definition, impossible in idiomatic improvisation.

- 2– One similarity between idiomatic and non-idiomatic improvisation is that practitioners within both categories have their baggage, in the form of techniques and other musical handicraft, that none of these practitioners can avoid standing in relation to what has come before, and that both categories of practitioners can only play what they can play (Landgren 2002)

Landgren is correct in that both categories of improvisers have their baggage, in the form of techniques and other musical handicraft, and cannot avoid standing in relation to what

has come before. One question is, however, if “what has come before” is the collecting of baggage itself or if it is what has just happened in an improvisation, non-idiomatic or idiomatic. I imagine that for an idiomatic improviser, the collecting of baggage (techniques and musical handicraft) has an idiomatic aim and direction, whereas for a non-idiomatic improviser, the collecting is more about techniques per se (instrumental and interactive). For me it is the latter that holds true. If this reasoning is true, then there is a ‘baggage-based’ difference between an idiomatic and a non-idiomatic improviser, respectively. If however “what has come before” is what has just happened in an improvisation then there is a similarity between the two in that both an idiomatic and a non-idiomatic improviser must stand in relation to this, and in real-time as well.

Landgren’s point that one can only play what one can play is easy to accept as being the same for both idiomatic and non-idiomatic improvisers. What one can play is, however, not static but something that is ever-changing, where all musicians, no matter their aim and direction, are probably interested in constantly expanding their base of knowledge and thereby also their available options. Another aspect of playing what one can play is connected to the field of combinatorics and variations. If one imagines that what one can play is divided into units (gestures, ‘licks’, ‘chops’, phrases, rhetorical figures etc.), then the possibilities for combining these quickly become rather great. For example, let us say that I have learned six gestures. These six gestures give me 1956 combinations (6 simple, 15 double combinations, 20 triple combination, 15 quadruple combinations, 6 quintuple combinations and 1 sextuple combination, including 1, 2, 6, 24, 120 and 720 permutations, respectively). Also, the repeating of gestures, as well as just using parts of gestures (sub-gestures), are normal possibilities in music. Finally, each (sub-)gesture can be varied, to a lesser or greater extent, with regard to height, transposition/register, rhythm, rhythmic placement, dynamics, timbre, etc. That one only can play what one can play, therefore, does not need to be seen as proof of poverty or as a sign of dearth, especially when one considers that all improvisers are familiar with quite a bit more than six gestures and, in all probability, continue to learn new ones during the course of their active lives as musicians. The possibilities to construct, vary and choose combinations have no idiomatic boundaries for a non-idiomatic improviser, whereas an idiomatic improviser is referred to such constructions, variations and combinations that are acceptable to and exist within the idiom in question. On this point, the similarity of only being able to play what one can play is therefore not equally equal for an idiomatic as for a non-idiomatic improviser.

- 3- no one can free oneself from the musical idioms we were raised and fostered within, nor from our history (they have put their marks on us and influence our decisions today). All music-making is idiomatic in the sense that it requires some kind of limitations.
(Munthe 1992)

Munthe states that one cannot free oneself from one’s past in the form of the idioms we grow up with and are fostered in. This is true in that one does not forget such idioms, but this does not necessarily mean that one continues to apply the idiom’s conventions and demands. I personally carry with me musical idioms, some of them from as far back as my childhood, which I know I do not apply to my free improvising. In this sense, I have therefore freed myself from these idioms, but have, for that matter, not forgotten them. Such a process of freeing oneself is possible by focusing on the gestures in themselves,

created during real-time interaction, instead of focusing on the gestures' possible and more or less idiomatic connections (cf. comments to point C2). Munthe also states that it is trivially true that all music-making is idiomatic in the sense that it requires some kind of limitation. I differentiate between idiomatic limitations and other limitations. Idiomatic improvisation requires idiomatic limitations but also has certain others forced onto it (physical, technical, etc.). Non-idiomatic improvisation does not require and has no idiomatic limitations, but, just like idiomatic improvisation, has certain others forced onto it (physical, technical, etc.). How idiomatic and non-idiomatic improvisation are similar is about the 'other' limitations, not the idiomatic ones, and they do not appear because of demands but are usually there anyway, whether one wants them or not (cf. point 2, B14, 8 A word about freedom).

- 4- one cannot continue to be non-idiomatic if one has worked with free improvisation for 30 years; a personal language has then developed, which in itself is an idiom (Stackenäs 2003).

Stackenäs doubts that one can be non-idiomatic if one has worked with free improvisation for 30 years, for example, and takes for granted that these years have generated a personal language, an idiom. This is food for thought. The picture Stackenäs paints looks to me like a 30-year-long journey towards a more and more clean-cut and ice-bound playing style. Is it not possible to see the same journey as a number of constant changes that never reach a final result? When would the idiom be formed in this case?

*In Sohlman, style is defined as the sum of important characteristics in a given amount of artworks, where belonging to a style means that something must have all or part of these characteristics.
(Sohlman Dictionary of Music: Style [Stil], cf. Sohlman above)

During the 30-year-long journey, how many of the artworks (improvisations), and which of them, should be seen as given: all of them, some of them, the latest or an average number of – which? Which characteristics should be seen as important and according to which criteria? Which of these important characteristics are necessary/sufficient so that one can speak of an idiom? And what about an improviser starting to play another instrument that he or she has not played before?

An idiom also normally holds for more than one practitioner, while here it is a question of a personal idiom of one practitioner, which, apart from it being personal, can be changed at any time and in any way, which is not the case with normal idioms. Finally, one should differentiate between solo improvisation and ensemble improvisation, where the latter, through interaction with the co-musicians, works against style/idiom formation, not least in ad hoc ensembles. It is possible that a free improviser develops a personal language that is so clear that it is reasonable to speak of a personal idiom, but this is far from given, even after 30 years. (cf. 6.1.3 Short-term – long-term collaboration, 14.2 Similarities)

13.2 Free improvisation – stylistic influences

REFERENCES

Most free improvisers “diligently avoid any overt idiomatic references in their playing”. Furthermore, “a Tin Pan Alley melody or to paraphrase a Charlie Parker solo would be as out of place in their performance practice as an electric guitar in a baroque ensemble”. (Borgo 1999: 183)

Briggs has discovered that

a musician’s experience in the conceptual and practical bases of more than one musical style contributed to a large degree to the “success” of a session /.../. Broad experiences in music provide flexibility to meet the challenges of finding a basis for communication. (Briggs 1986: 60)

Lewis states that stylistic influences are legion nowadays, since improvised music is “inhabited by a considerable number of present-day musicians, coming from diverse cultural backgrounds and musical practices”. “Individual improvisers are now able to reference an intercultural establishment of techniques, styles, aesthetic attitudes.” (Lewis 1996: 110)

For Litweiler,

nonjazz musics such as blues, soul and rock musics, postwar classical musics, musical traditions from North and central Africa, Asia – these musics have been widely available on LPs in the West – can be just as significant in a Free player’s current art as the jazz traditions. (Litweiler 1984: 288)

Lutz (1999) sees the amount of styles that have been born during the history of music as critical for non-idiomatic improvisation. This stylistic plurality has been an essential and substantial prerequisite for the growth of free improvisation, which, according to Lutz, has consisted of a gradual breaking away from idiomatic rules and restrictions, and which has led to the multi-stylistic and convention-free state that characterizes free improvisation. (pp. 33–34)

Style pluralism is, according to Lutz, an aesthetic prerequisite and a materially broad base for a border-crossing, innovative, and non-idiomatic music form, which allows musicians to be able to improvise freely without being caught up in idiomatic conventions. (p. 102)

Nunn (1998) has tried to find a structure for stylistic influences in free improvisation. According to him, “elements of familiar styles can be heard in free improvisation, but not the whole style itself”.

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And the appearance of different stylistic traits in free improvisation is fundamentally different from “fusion music,” which intentionally focuses on particular blends of particular styles. The function of style in this music is much less a product of conscious intent /.../ and more the product of IMPULSE utilizing learned Instrumental Techniques. The components of style in this music can be identified /.../ but the many ways in which these components function is beyond definition. (pp. 54–55)

Three components of style are for him: “sound”, “style signs” and “style semblance”. Regarding sound, Nunn states that the individual sounds themselves can have stylistic associations, “sound alone as stylistic component”. By style signs, he means “isolated, brief elements of ‘external’ (non-free improvisation) styles (e.g., jazz, rock, ethnic, etc.)”.

Style signs are small elements of well known styles that appear within the Flow. They retain a certain signification even outside the CONTEXT of the original style by retaining a level of familiarity, and often are heard in many different kinds of music. (p. 55)

Style semblance stands for “longer segments of ‘external’ style, often heard as parody or collage”. It

incorporates larger elements of known styles such that there is definite recognition of a particular style and a retention of the expected syntax to a limited degree; for example, a walking bass line, a known melody, a blues progression, outright musical quotation, music ‘concrete’, sampling, etc. (p. 56)

He feels, however, that “the free improviser faces a challenge not to rely on style but to consider it primarily a byproduct”. (p. 55)

The free improviser also has “a mandate to (at least eventually) deconstruct or recontextualize known or familiar musical properties such that the attention of the listener is diverted away from issues of style recognition” and is, instead, directed towards the real-time process itself. (p. 57)

One of the dangers of using idiomatic elements (falling back on cliché licks) is that one becomes less engaged in the creative improvisation/interaction process. Pelz-Sherman thinks that it is “this very imperative to be fully engaged in the creative act that drives WICAM performers to purposefully distort, often beyond recognition, the cultural/ethnic/historical references in their music”. Even if the references are still audible, they are not “*defining* characteristics of the music; rather, they are elements in something new which has been created out of them. They are possible points of departure and arrival rather than the journey itself”. (Pelz-Sherman 1998: 8)

Free improvisation “marks no necessary association with given musical styles, or either free-association with *any* and *all* musical styles”. Free improvisation “is an act of creation from the point of no pre-conception, utilizing what instruments or tools are at hand”. (Smith 2003b: 3)

Since we have been blessed with memories of earlier [musical] experiences, it is impossible to be unaffected by different musical idioms in free improvisation. All music [even free improvisation] has frames of reference. (Tuominen 1998: 24)

SUMMARIES AND REFLECTIONS

A. Some positive viewpoints on stylistic influences:

- 1- experience in the conceptual and practical bases of more than one musical style is an advantage, and broad experiences in music provides flexibility in finding a basis for communication (Briggs 1986)
- 2- stylistic influences are nowadays legion, and improvisers are now able to reference an intercultural establishment of techniques, styles, and aesthetic attitudes (Lewis 1996)
- 3- music like blues, soul, rock, postwar classical musics, and musical traditions from North and central Africa, Asia, are available nowadays, and can be just as significant in a Free player's current art as the jazz traditions (Litweiler 1984)

Experiences from more than one style, opportunities to refer to a large intercultural establishment of techniques, styles (blues, soul, rock, postwar classical musics, different kinds of non-western music etc.) and aesthetic attitudes are positive for a free improviser. (points 1-3)

However, they are positive only as background knowledge, as increased inspiration, for varied gesturalization and interaction. In this sense, idiomatic knowledge/experience can contribute to communicative flexibility. This knowledge/experience is, however, negative if it results in a free improviser thinking in idiomatic terms and improvising by adhering to the stylistic ingredients in his idiomatic larder, instead of relating to the gestures themselves.

- 4- the amount of styles that have been born during the history of music have been critical for non-idiomatic improvisation. This stylistic plurality has been an essential and substantial prerequisite for the growth of free improvisation, which has consisted of a gradual breaking away from idiomatic rules and restrictions (which has led to free improvisation's multi-stylistic and convention-free state). Style pluralism is an aesthetic prerequisite and a material base for non-idiomatic improvisation, which allows musicians to be able to improvise freely without being caught up in idiomatic conventions. (Lutz 1999).

I have my doubts as to whether the amount of styles born during the course of musical history has been critical for non-idiomatic improvisation. I can imagine that free improvisation would have been able to grow even with a background of even fewer styles. Nor do I see a gradual break from idiomatic rules and restrictions as the only explanation for the growth of free improvisation. Another, and for me more central, explanation is the will of the individual to express himself on his own terms, and, above all, the will of the individual to co-operate with the ways that other musicians have of expressing themselves on their own individual terms, without any external force, such as, for example, an idiom having the right to interfere and influence the improvisation. So I see free improvisation as convention-free, and not as multi-stylistic, but rather as non-stylistic, i.e. as non-

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idiomatic. Hence, style pluralism is not an aesthetic prerequisite and a material base for free improvisation, but rather acts as background knowledge, as per the above. This view makes it possible to improvise freely without being restricted by idiomatic conventions.

B. Some neutral viewpoints on stylistic influences:

- 1- one can hear/identify elements/components of familiar styles in free improvisation, but not the whole style itself, but the many ways in which these components function is beyond definition. The appearance of different stylistic traits in free improvisation is fundamentally different from “fusion music”, which intentionally focuses on particular blends of particular styles. The function of style in free improvisation is less a product of conscious intent and more of impulse (using learned instrumental techniques)
(Nunn 1998)

Nunn is correct in that one can hear elements/components from known styles in free improvisation, in that one then does not, however, hear the entire style/styles, and also in that the ways these elements/components are used goes beyond definition. He is correct in that these stylistic traits are not “fusion music” due to the fact that “fusion music” focuses on special blends of special styles and goes on to use these blends consistently, which free improvisation does not. He is also correct in that stylistic traits are less a product of conscious will and more of musical impulse and available instrumental technique, that is, as by-products of the handling of the gestures in themselves.

- 2- stylistic components can be divided into “sound”, “style signs” and “style semblance”
(Nunn 1998)

Nunn divides stylistic components into “sound”, “style signs” and “style semblance”. A sound can, in itself, have stylistic associations, but probably has far too many possible styles for it to be meaningful to speak of a sound’s stylistic trait. This is naturally also dependent on the listener’s experience and knowledge of different styles. On the other hand, different instruments can have stylistic associations, but often negatively, so that one, for example, does not associate the sound of a saxophone with Baroque music, etc. It is not clear how encompassing Nunn’s second category (“style signs”) is, but it should in any case include more than one sound. Such short occurrences from “external (non-free improvisation)” styles, or wholly non-improvisational styles, are, according to my experience, responsible for most of any possible stylistic occurrences in free improvisation. The third category (“style semblance”) is rare in my free improvisational world, not least because “parody or collage” is something one wants to avoid; it easily becomes embarrassing and really has nothing to do with free improvisation.

- 3- free improvisation marks no necessary association with given musical styles, or either free-association with any and all musical styles. It is an act of creation from the point of no pre-conception, utilizing what instruments or tools are at hand. (Smith 2003b)

Free improvisation has no connections to any style at all in the sense of being dependent on the style(s) in question. It is, however, a creative act without any preconceived ideas and where all instruments/tools can be used, but where these are used primarily to handle the gestures in themselves, whereby stylistic occurrences, most often in “style sign” form,

can appear as secondary by-products. (see point 2, 13.1 Free improvisation – idiomatic improvisation)

- 4- due to our musical memories, it is impossible in free improvisation to be unaffected by different musical idioms. Even free improvisation has frames of reference. (Tuominen 1998).

Any possible effect from different musical idioms presupposes that we remember them. That we remember the idioms we have come into contact with during our lives does not, however, necessarily mean that we must use them in free improvisation, but rather that idiomatic fragments (“style signs”) can occur more or less ephemerally, in authentic or deconstructed form (see point 2 and 3, 13.1 Free improvisation – idiomatic improvisation). However, what does affect a free improviser directly, immediately and always, are the gestures themselves and the real-time handling of them. It is the gestures and the handling of these that are the frames of reference for free improvisation, not musical idioms that we remember to a greater or lesser extent.

C. Some negative viewpoints on stylistic influences:

- 1- most free improvisers diligently avoid any overt idiomatic references in their playing. Recognizable quotes are out of place in their performances. (Borgo 1999)
- 2- the free improviser faces a challenge not to rely on style but to consider it a by-product. Free improvisers also have a mandate to deconstruct or recontextualize known or familiar musical properties such that the attention of the listener is diverted away from issues of style recognition and instead is directed toward the real-time process itself (Nunn 1998)
- 3- possible stylistic references are not defining characteristics but rather elements in something new that has been created out of them. They are possible points of departure and arrival rather than the journey itself. (Pelz-Sherman 1998)
- 4- one of the dangers of using idiomatic elements is that one becomes less engaged in the creative improvisation/interaction process. The engagement imperative drives performers to purposefully distort, often beyond recognition, the cultural/ethnic/historical references in their music. (Pelz-Sherman 1998).

I also avoid clear stylistic references and recognizable quotes as a rule (point 1) and see, as noted, any possible stylistic occurrences as ephemeral by-products, not as anything one can rely on or build a free improvisation on (point 2). Deconstruction of stylistic elements/components occurs even in the contexts where I improvise (point 2). As a rule, though, I see these modes more as gesture processing than as stylistic deconstruction (see appendix A2 Gesture processing alternatives). This relation to possible stylistic references makes them possible starting points and/or ending points, but not the journey itself (point 3), and minimizes the risk that focus is shifted from the improvisation/interaction process to possible idiomatic elements/components (point 4). The engagement imperative does not, however, lead me to destroy beyond all recognition merely for the sake of destruction, but only, to the extent that it occurs, as part of gesture processing and with as much an interactive meaning as possible.

My relation to stylistic influences can be summarized as follows: suppose that a certain number of components (C) are needed to constitute a style; suppose also that I know some

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styles more or less well, i.e. that I know at least some components from the respective styles. If one puts these components together into one component group or storage, so to speak, (and across stylistic boundaries), it is in my power as a free improviser to:

- use whichever C at all, at any time
- combine whichever Cs at all successively (they do not need to belong to the same style)
- deconstruct whichever Cs at all, at any time and in any way (gesture processing)
- not use any Cs at all (at least consciously).

In a free improvisation ensemble, all the musicians also have the same possibilities, which means that the same or different alternatives through different musicians can also appear simultaneously or partially simultaneously. However, I will claim once more that it is not the possible occurrences of authentic or deconstructed Cs that is what is interesting about free ensemble improvisation, but the musical interaction via the gestures in themselves, no matter the possible stylistic associations they might bring with them.

Under all the Cs, one has the gestures in themselves and any possible idiomatic occurrences as secondary by-products. The hunt for possible stylistic elements/components in an authentic or deconstructed form is quite simply uninteresting since it is not this that is the point of free ensemble improvisation.

14 Free improvisation – composition

14.1 DIFFERENCES

REFERENCES

Musical composition presumes “a tradition in which musical works exist as repeatable entities. In this sense, composition is necessarily distinct from improvisation”.
(Encyclopaedia Britannica: Musical Composition)

The word composition has been used since the 16th century for “pieces of music that remain recognizable in different performances”. (Grove music online: Composition)

In Sohlman, the term composition means normally, individually created and — within certain limits — explicitly written works.
(Sohlman Dictionary of Music: Composition [Komposition])

According to Alperson (1984), improvisation “can refer to two correlative domains. It can refer to a kind of act, viz., the act of improvising, and it can refer to a kind of product, viz., something improvised”. (p. 17)

Alperson prefers the process alternative and states that when we listen to an improvisation, live or recorded, we focus more on “the creating of a work of art than, more narrowly, on the work created”. (p. 27)

Bailey sees the following formulation by Steve Lacey about the difference between improvisation and composition as the best he has heard:

In 1968 I ran into Steve Lacy on the street in Rome. I took out my pocket tape recorder and asked him to describe in fifteen seconds the difference between composition and improvisation. He answered: ‘In fifteen seconds the difference between composition and improvisation is that in composition you have all the time you want to decide what to say in fifteen seconds, while in improvisation you have fifteen seconds.

His answer lasted exactly fifteen seconds and is still the best formulation of the question I know. (Bailey 1993: 141)

For Benitez, “the score of the work is the normal means of transmission” in Western art music, and “it is what guarantees the work's reproducibility”. The score is prescriptive and is in itself a critical difference between improvisation and composition; “the difference between any kind of musical work – whatever its written input devices might be – and improvisation is the lack of a score in the latter case”. (Benitez 1986: 455)

Improvisation, as a thing between the practicing musicians and the music, has special creative possibilities in relation to performance according to a predetermined plan. Improvised music should be seen as a process rather than as a product.
(Bergström-Nielsen 1976: 17)

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One of the differences between improvisation and composition is about dominance and control, respectively. For the improviser, there is a “fear of being dominated and exploited by composers”, and for the composer “there is a fear of losing control” over the music. (Bergström-Nielsen n.d.: 2)

Composers can, according to Berliner (1994), “review musical scores and revise them, by considering their ideas’ possibilities for variation and development at leisure”, while improvisers, due to their real-time conditions, have limited possibilities to reflect over and revise ideas. (p. 795, fn 4)

An improviser must handle “multiple tasks simultaneously to create art in real time”. This demands “split-second decisions about suitable materials and their treatment”, decisions that are complicated by unforeseen ideas from the co-musicians. Also, “because the musical consequences of all actions are irreversible, the improviser must constantly grasp the implications of ideas at hand and work them into the flow of invention”. (p. 497)

Improvised music “is necessarily *open to the possibility* of collective participation, whereas composition is not”. (Couldry 1995: 20)

In free improvisation, “the analytical step of reading music is removed” and instead the improvisers have the “option of (but not commitment to) analysing the sounds of their environment, and perhaps responding to it: something that by definition is excluded from a composition”. (Dean 1989: xxi)

“The simultaneous participation of several co-creators” is a decisive difference between improvisation and composition, a difference that is “one of the key attractions of improvisation, and one of the features which may make it at least as valuable as composition”. Composition, on the other hand,

rarely involves more than one musician [the composer]; and the various performers who contribute to the final process act later, and thus usually do not interact directly with the composer, and virtually never change the written form of the work (Dean 1992: xiv)

According to Dobrian (1991), “Composition is written. Improvisation is not”. (p. 1)

“Improvisation takes place in real time. Composition does not.” (p. 5)

“Improvisation is often a group activity. Composition is rarely a group activity.”

A group of improvisers determines the progress of the music by committee, although not necessarily with equal power for all members. Composers traditionally work alone, and as noted earlier, are generally accorded the most power in determining as much or as little as they desire of the eventual performance of the music. (p. 8)

“Improvising relates *how* something is done, not *what* is done.”(Durant 1984: 7)

A composition:

a putting together or rather having been put together – is a noun, a statement; and, as such, a definition of the piece/the object. Though it is brought to life in the act of performance, its roots are in its past, having been defined ... whereas improvisation is from a verb whose focus is in the present moment, sounding. (Goldstein 1988: 88)

Repeatability “with a minimum of deviations from the original design” is a mark of a composition. Improvisation, “unlike composition, utilizes spontaneity and immediacy in its creation” and the repeatability is practically non-existent. (Hearon 1988: 19)

There exists a one-way dependence between improvisation and composition. In a discussion between Tim Hodgkinson and Simon Fell (Hodgkinson et al 2003), Fell states that “improvisation is the thing that will sustain, revivify or rescue composition”, and that “improvisation can survive perfectly well without composition”, but probably not the reverse (“I’m not sure that composition will survive or continue to exist in the way it has done without drawing on the incredibly powerful and rich resource of improvised and non-prescribed music”). (p. 2)

Fell returns somewhat later to the subject and states that “there’s so much energy and so much truth in improvisation that it doesn’t need composition, but composition needs improvisation to renew itself”. (p. 6)

The composer “normally places himself “outside” of music’s temporal demands during the compositional act”, which is “by definition, not the case in improvisation”. (Landgren 1997: 14)

One of the biggest differences between composition and free improvisation lies, according to Lutz (1999), in the relationship between creative and practicing craft. The term composition differentiates between these, while free improvisation is built on a fundamental connection between creator and practitioners. (p. 124)

The aspect of musical communication is also one of the big differences between free ensemble improvisation and composed music. Communication within composed music is an indirect communication between creator and practitioners, where the creator [the composer] tries to transmit his goals through notation, which the musician is then to understand and realize. In free ensemble improvisation, communication is direct and is built through the interaction that occurs between the musicians and that lasts throughout the entire creative process. (p. 125)

As opposed to composed music, free improvisation enables the musicians to constantly vary their roles, which are, furthermore, not determined in advance. If note-playing musicians were to switch roles, it could not only result in anger on the part of the composer (and on the part of the co-musicians), but also in the composition losing its meaning. (p. 125)

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Derek Bailey, interviewed by Martin, says that

whenever this comparison between composers and improvisors is made, it nearly always kind of grinds down to a comparison between a composer and a solo improvisor. And the really important part of improvisation, certainly as far as I am concerned, happens between people, between the players. It is also largely outside of individual calculation. And this is something that is beyond composition. (Martin 1996: 3)

There are, according to Nachmanovitch (1990) two kinds of time “in composed or scripted art forms”:

the moment of inspiration in which a direct intuition of beauty or truth comes to the artist; then the often laborious struggle to hold onto it long enough to get it down on paper or canvas, film or stone. (p. 17)

But there is only one time in improvisation:

This is what computer people call real time. The time of inspiration, the time of technically structuring and realizing the music, the time of playing it, and the time of communicating with the audience, as well as ordinary clock time, are all one. Memory and intention (which postulate past and future) and intuition (which indicates the eternal present) are fused. The iron is always hot. (p. 18)

According to Pelz-Sherman (1998), when the performers play composed music, they

are not perceived to “interact” with one another in the same way that people normally interact with each other, because their actions are so highly constrained by the dicta of the score or, in the case of a larger ensemble, by the conductor’s interpretation of the score. Neither the performers nor the listeners are free to truly interrogate a monoriginal piece, to challenge, question, or influence its intended “message”.

Improvised music, in contrast, tends to “wear its heart on its sleeve”, so to speak. The interactions of the performers seem much more genuine, since they are directed by the performers themselves. (p. 15)

Also, all musicians have as great an influence on the improvisation (“each of the performers has equal agency in determining the message sent”). (p. 15)

Pelz-Sherman adds crass economy as another difference between improvisation and composition. Paying for music presupposes an ownership that is difficult to apply to improvisation, especially group improvisation, and “funding structures for the arts tend to favor payment to individuals rather than groups”. (p. 21)

According to Poulsen (1998), the difference between creators and practitioners is dissolved in improvisation, and all instruments are allowed, and are equal, in improvisation music, whereas in composed music, there is still quite a bit of conservatism regarding the choice of instruments. (p. 2)

Improvisation music becomes a distillation of the sum of the languages of the participants. All participants are dependent on one another and each replacement results

therefore in another musical expression. Composed music is, on the other hand, a music of control; the composer remains a dictator, no matter how culturally radical or democratic he or she may be. The interpreter remains a replaceable servant, however freely he approaches the score. Improvisation dissolves the concept of work, and each CD or concert is simply part of a process. (p. 3)

Sarath (1996) argues that the temporal conditions are different for a composer and an improviser.

Since the composer has the capacity to stop and review what has already been created and preserved through notation, he or she is able to reflect upon the past in a way not possible in improvisation. In other words, while the improviser can recall past ideas, this must be done while creating in the present, whereas the composer can practically “freeze” time and contemplate the past at length. /.../ The composer may enter and freely traverse the past-present-future continuum of a work, assuming the vantage point of the future to review and possibly alter the past, or that of the past to view and rework the future. (pp. 4–5)

For him “improvisation involves a singularity of performance and creation”, while a composition “is often created by one individual and played by another”. (p. 31)

Our evaluation of improvisation and composition, respectively, is based on the level of hard work.

I think there’s a deep-set work-ethic prejudice against artistic improvisation in almost every form. Improvisation doesn’t demonstrate work in the same ways that composition, choreography, or other pre-planned, rehearsed systems do. One reason is that improvisation places such a high value on developing the individual’s intuition, spontaneity, and timing while depending on group interaction and responsiveness.

/.../

There’s a fear that if a system doesn’t demonstrate the values of hard work (read: long hours, nose to the grind stone, repetition of preferred techniques), then it could possibly be no more than ‘mere’ play and therefore not worthy of serious consideration. Furthermore, there’s a deeper fear that a system not based on those values might get “out of hand”, over-indulge itself, tend toward chaotic, anarchic, and time-wasting activities. Activities, one and all, that do not nor ever have served industry, the military, or the church very well.

(Shoup 1986: 26–27)

Improvisation is “concerned with processes rather than products”, and “the improviser engages with process and change rather than permanence”. (Smith & Dean 1997: 25)

Improvisation, as opposed to composition, demands highly skilled ability to handle musical problems in real-time, and to do so even in a formal perspective.

In fact, in addition to imagination and decision-making, one can even say that improvisation demands highly skilled performance in structural “problem solving” of a type much different from the composition process. The traditional composer can, at any point in the writing process, “freeze” time and contemplate the past at length” for purposes of reflecting,

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rehearing, reconfirming, or revising. While improvisers can recall past ideas, they do so in light of the demands posed by the present moment and the structural accumulation of all preceding activity. Highly skilled improvisers are sensitive to the formal implications generated by accumulating material at many levels of architecture. Structural “problems” regarding unity, variety, motion, resolution, balance, “interfering implications”, and so forth must be handled in real-time, the demands of which too few analysts address.
(Wallace White 1999: 28–29)

Paul Pignon, interviewed by Zeccola, says that in improvisation, everything happens in the moment. As an improviser, one exposes oneself; if one makes a mistake everyone can notice it, and one cannot do anything about it afterwards. As a composer, one can find another way, return and redo what one has done, etc. (Zeccola 1998: 31)

SUMMARIES AND REFLECTIONS

A. Difference regarding process–product

- 1– a composition is a noun that defines the object and its roots are in its past, whereas improvisation is from a verb whose focus is in the present moment (Goldstein 1988)

It is important to differentiate between verbs and nouns when one speaks of the difference between improvisation and composition. To improvise and to compose are both verbs and are both processes. A composition is a noun that defines the object and a product in the form of its score (or for electroacoustic music, computer programs/tapes/CDs etc.). An improvisation is a noun for either an ongoing or a completed process. The playing of a composition is, in a similar way, a process, but according to a path staked out previously by a score. Recordings of improvisations or of performances of compositions are nouns and products in the form of documentations of processes that have occurred.

- 2– the term composition means normally individually created and, within certain limits, explicitly written works (Sohlman)
- 3– the score is a critical difference between improvisation and composition (Benitez 1986)
- 4– composition is written, while improvisation is not (Dobrian 1991)
- 5– improvisation should be seen as a process, not as a product (Alperson 1984)
- 6– improvisation has special creative possibilities in relation to performance according to a predetermined plan, and should be seen as a process rather than as a product (Bergström-Nielsen 1976)
- 7– the word improvisation should refer to how something is done, not to what is done (Durant 1984)
- 8– improvisation is concerned with processes rather than products, and the improviser engages with process and change rather than permanence (Smith & Dean 1997)
- 9– improvisation dissolves the concept of work, and each CD or concert is simply part of a process (Poulsen 1998)

In the process/product perspective, one can see that compositions are, within certain limits, explicitly written works (point 2), that the score is the decisive difference between improvisation and composition (point 3), and that compositions are written, while improvisations are not (point 4).

It is, of course, true that a free improvisation is not a performance of a previously written work (it is almost never written down afterwards, either), that is, it is not a written composition that is performed and therefore does not have a score to follow. Another question, however, is what “within certain limits” stands for (point 2). For me, the boundary is drawn when something is predetermined about the music, whether it is written down or not, and holds for at least one performance. This predetermined something is a composition, a product. The predetermined has more the character of composition if it holds for more than one performance, if it is written down and can therefore be taken over by other musicians for other performances (that may be independent of the first), and if it works without complementary information from its creator. With these prerequisites, and from my introductory viewpoints, free ensemble improvisation is a process without a composition/score/product to start from or to rely upon (points 5–8) (cf. 6.3 Definitions). Through this, a free ensemble improvisation also dissolves the concept of ‘work’ (point 9) because there is simply no work to perform. A recording/CD becomes just a documentation of, or a dip into, a process, where the term process is also extended into a perspective that includes many improvisations, and that actually is a process without an end.

- 6– improvisation has special creative possibilities in relation to performance according to a predetermined plan, and should be seen as a process rather than as a product (Bergström-Nielsen 1976).

It is reasonable to suppose that free improvisation does not only have special, but also more, creative possibilities for musicians compared with a performance according to a predetermined plan. In a performance according to a predetermined plan, creativity is limited to simply realizing the plan. This should also be done according to norms that seldom come from the musicians themselves, but most often from a composer or perhaps a conductor, and also generally from more or less established aesthetic norms regarding how the plan should be realized.

B. Difference regarding repeatability and recognizability:

- 1– the term composition presumes a tradition in which musical works exist as repeatable entities (Encyclopaedia Britannica)
- 2– the score is prescriptive and the normal means of transmission in Western art music. It is what guarantees the work’s reproducibility. (Benitez 1986)
- 3– repeatability with a minimum of deviations from the original design is a mark of compositions, while repeatability in improvisations is practically nonexistent (Hearon 1988)
- 4– compositions are pieces of music that remain recognizable in different performances (Grove).

To be seen as a composition, a composition should be repeatable (points 1–3) and recognizable in different performances (point 4). In fact, performances of a composition must be repeatable and recognizable from performance to performance for a composition to be seen as a certain composition.

Both requirements (repeatability and recognizability) are, however, not as obvious. It is possible to repeatedly follow anything that is predetermined (that is, the composition/

product) in the music to be played. It is, however, not certain that the results from different performances will be recognizable as consequences of the same predeterminant(s). Modern notation, graphics, textual instructions, etc., are usually seen as compositions and are possible to follow repeatedly, whereas the results are not always recognizable from performance to performance as having originated from the same predeterminants. Usually, but not always, performances of a composition are, however, recognizable from performance to performance as being consequences of the same predeterminants (for example, a classical symphony), not least because the normal attitude towards the performance of compositions is to be as faithful as possible to the composition/noun/product (I ignore, however, the trivially obvious fact that if one lowers the level of detail enough, no performance of any composition is like the other, and instead puts the level of detail appropriate for a normal listener's level, which allows us to recognize a composition as the same composition each time it is performed).

Performances of a composition start from a composition, is the consequence of something predetermined, which makes the performance repeatable and the repetitions most often recognizable as a performance of the same composition.

Free improvisations, however, do not start from and have no composition from which to start, which makes repeated performances of an unexisting composition impossible and also results in repetitions that are not present not being recognized as performances of an unexisting composition. That is, repeatability and recognizability are relevant criteria for performances of compositions but have no relevance for free improvisations. Free improvisations are quite simply different free improvisations.

C. Difference regarding creation–practice:

- 1– the term composition differs between creators and practitioners, while free improvisation is built upon a fundamental connection between creators and practitioners (Lutz 1999)
- 2– the differences between creators and practitioners is dissolved in improvisation (Poulsen 1998)
- 3– improvisation involves a singularity of performance and creation, while a composition is often created by one individual and played by another (Sarath 1996).

The terms creator–composer and practitioners–interpreters, respectively, seem to be synonymous here. It is, however, rather strange that a composer is seen as a creator and an interpreter as only a practitioner. Does a practitioner not create? Without an interpreter no music is created at all, only symbols for music. The interpreter is actually the only person who creates the music. However, at least in our times, they are usually two different persons; one creates the symbols for the music, the other creates music from the symbols. Both create and are creators, but are called composer and interpreter, respectively.

It is, however, not strange that the difference between these two actors is dissolved in free improvisation, and actually disappears entirely, since there is no composition to interpret. Composing and interpretation do not, however, meld together into a singularity, partly because the latter presupposes the former, and also that the former is already done, which is not the case in free improvisation, and partly because one cannot meld together components that do not exist. To compose and to interpret are different forms of creating that do not exist in free improvisation, although the latter does comprise

the exception of gestural real-time interpretation (see 15 Free improvisation – interpretation). (points 1–3)

D. Difference regarding interaction/communication:

- 1– the term composition means normally, individually created and, within certain limits, explicitly written works (Sohlman)
- 2– improvised music is necessarily open to the possibility of collective participation, whereas composition is not (Couldry 1995)
- 3– simultaneous participation of several co-creators is a decisive difference between improvisation and composition. Composition rarely involves more than one musician [the composer]. The performers act later, do not usually interact directly with the composer, and virtually never change the written form of the work. (Dean 1992)
- 4– a group of improvisers determines the progress of the music by committee, while composers traditionally work alone and are generally accorded the most power in determining as much or as little as they desire of the eventual performance of the music (Dobrian 1991)
- 5– communication within composed music is an indirect communication between creator and practitioners, while in free ensemble improvisation the communication is direct and is built through an interaction between the musicians that lasts throughout the entire creative process (Lutz 1999)
- 6– in composed music, the performers' possibilities to interact are highly constrained by the dicta of the score or, in large ensembles, by the conductor's interpretation of the score. Nor can the performers challenge, question, or influence the score's intended "message". In improvised music, the interactions of the performers seem much more genuine, since they are directed by the performers themselves. Also, all musicians have as great an influence on the improvisation. (Pelz-Sherman 1998)

To compose refers to an individual creation without real-time interaction with others. The interaction that occurs is indirect and goes through a score but can, if the composer is still alive, possibly be complemented with spoken or written comments. However, these comments are seldom or never of a sounding nature. In the rather common case of the composer not being alive, interaction takes place only through the score, and is possibly complemented by other peripheral information in the form of texts, the views of other musicians, recordings, etc. The musicians are involved in the process at a late stage of the process and their interaction with the composer consists almost entirely of trying to satisfy him, of trying to understand how he wants his work played. Naturally, such a starting point makes it difficult to change anything notated. That the score's and a conductor's authority are never questioned can be understandable, for stylistic, puritanical, copyright, and/or practical reasons, but not always for musical ones. Composing is usually not open for collective participation but is normally a one-way communication, very far from real-time. One can, of course, imagine an interaction in slow motion between a composer and a musician in the form of reactions from the latter that causes changes to the score by the former. This happens quite seldom, however, and if it does, the interaction is still indirect since it is not immediate and in musical real-time. Also, such an interaction would probably take place entirely on the terms of the composer. He would probably maintain the right to decide whether such reactions should result in changes at all, which changes would then be made, and how they would be made. (points 1–6)

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- 2- improvised music is necessarily open to the possibility of collective participation, whereas composition is not (Couldry 1995)
- 4- a group of improvisers determines the progress of the music by committee, while composers traditionally work alone and are generally accorded the most power in determining as much or as little as they desire of the eventual performance of the music (Dobrian 1991)
- 5- communication within composed music is an indirect communication between creator and practitioners, while in free ensemble improvisation the communication is direct and is built through an interaction between the musicians that lasts throughout the entire creative process (Lutz 1999)
- 6- in composed music, the performers' possibilities to interact are highly constrained by the dicta of the score or, in large ensembles, by the conductor's interpretation of the score. Nor can the performers challenge, question, or influence the score's intended "message". In improvised music, the interactions of the performers seem much more genuine, since they are directed by the performers themselves. Also, all musicians have as great an influence on the improvisation. (Pelz-Sherman 1998)
- 7- the really important part of improvisation happens between people, between the players. That is largely outside of individual calculation, and something that is beyond composition. (Bailey/Martin 1996).

To freely improvise in an ensemble means a collective creation that is built on, and stands and falls with, musical direct real-time interaction with the other participants in the ensemble, where all participants have as great a right and opportunity to influence the process. This, i.e. that which happens in the musical real-time interaction, is, therefore, without a doubt, the most important thing that happens in free improvisation and is often so amazingly complex that individual calculation and composing is quite simply not enough to reach it. The implied musical understandings that arise through this real-time interaction lie even farther away from individual calculation and composing. Free improvisation is open for collective participation and is a multi-routed communication in real-time. (points 2, 4-7)

E. Difference regarding time:

- 1- in composition you have all the time you want to decide what to say, while in improvisation you have the time during which the improvisation takes place (Lacy/Bailey 1993)
- 2- composers can review musical scores and revise them, by considering their ideas' possibilities for variation and development at leisure. Improvisers, due to their real-time conditions, have limited possibilities to reflect over and revise ideas. An improviser must handle several tasks simultaneously to create art in real time, which demands split-second decisions about suitable materials and their treatment, decisions that are complicated by unforeseen ideas from the co-musicians. All decisions during an improvisation are also irreversible (why the improviser must constantly grasp the implications of ideas at hand and work them into the flow of invention). (Berliner 1994)
- 3- the composer normally places himself "outside" of music's temporal demands during the compositional act, which is, by definition, not the case in improvisation (Landgren 1997)
- 4- the composer can practically "freeze" time, review what has already been created, reflect upon the past, contemplate the past at length, and may enter and freely traverse the past-present-future continuum (assuming the vantage point of the future to review and

- possibly alter the past, or that of the past to view and rework the future). This is not possible in improvisation, where the improviser can recall past ideas, but must do that while creating in the present. (Sarath 1996)
- 5- the composers can at any point in the writing process ‘freeze’ time and contemplate the past at length for purposes of reflecting, rehearsing, reconfirming, or revising. Improvisers can recall past ideas, but do so in the light of the demands posed by the present moment and the structural accumulation of all preceding activity (highly skilled improvisers are sensitive to the formal implications generated by accumulating material at many levels of architecture). Structural “problems” (unity, variety, motion, resolution, balance, “interfering implications”, and so forth) must be handled in real-time. (Wallace White 1999)
- 6- in improvisation, everything happens in the moment and one cannot do anything about it afterwards. As a composer, one can find another way, return and redo what one has done. (Pignon/Zeccola 1998)

From my introductory comment, by time aspects on composition and improvisation I mean the verbs compose and improvise, respectively. During the composing, the composer can take the time he feels is needed for composing (apart from possible deadlines), weigh ideas for as long as he wants, take a shorter or longer break at any time, and if necessary revise what he or she has already written. An improviser cannot, however, do the same. (points 1-6)

- 7- improvisation takes place in real time, composition does not (Dobrian 1991)

In point 7, verbs are mixed with nouns; to improvise takes place in real-time, to compose does not. However, point 7 gives one the reason to differentiate between musical real-time and clock real-time. To compose of course takes place within clock real-time, with or without pauses and including possible changes. To compose does not, however, take place within musical real-time, which to improvise does.

- 8- a composition is a noun that defines the object and its roots are in its past, whereas improvisation is from a verb whose focus is in the present moment (Goldstein 1988)

Even in point 8, verbs and nouns are mixed. A composition is quite rightly a noun that defines its object, and its roots belong to the past because the verb to compose has taken place during the past (clock) real-time. An improvisation is, however, also according to my introductory comment, a noun for an ongoing or completed process, while to improvise is a verb that refers to the process. This verb does not, however, necessarily have to only have its focus on the present; it can, like the verb to compose, also focus on the phenomenon in itself.

- 9- in composed or scripted forms there are two kinds of time: the moment of inspiration (intuition of beauty or truth); the struggle to (hold on to it long enough to) get it down on paper or canvas, film or stone. In improvisation there is only one time: real time (the time of inspiration, technically structuring and realizing the music, of playing it, and the time of communication, as well as ordinary clock time, are all one). Memory and intention (postulating past and future), and intuition (indicating the eternal present) are fused, and the iron is always hot. (Nachmanovitch 1990)

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In point 9, Nachmanovitch speaks of the two times: moment(s) of inspiration and the notational work. From contacts with composers and my own experiences from previous composing, I believe that these two times are so interwoven and that they so mutually give birth to one another that it is hardly meaningful to speak of them as two separate time categories.

- 1- in composition you have all the time you want to decide what to say, while in improvisation you have the time during which the improvisation takes place (Lacy/Bailey 1993)
- 2- composers can review musical scores and revise them, by considering their ideas' possibilities for variation and development at leisure. Improvisers, due to their real-time conditions, have limited possibilities to reflect over and revise ideas. An improviser must handle several tasks simultaneously to create art in real time, which demands split-second decisions about suitable materials and their treatment, decisions that are complicated by unforeseen ideas from the co-musicians. All decisions during an improvisation are also irreversible (why the improviser must constantly grasp the implications of ideas at hand and work them into the flow of invention). (Berliner 1994)
- 3- the composer normally places himself "outside" of music's temporal demands during the compositional act, which is, by definition, not the case in improvisation (Landgren 1997)
- 5- the composers can at any point in the writing process 'freeze' time and contemplate the past at length for purposes of reflecting, rehearsing, reconfirming, or revising. Improvisers can recall past ideas, but do so in the light of the demands posed by the present moment and the structural accumulation of all preceding activity (highly skilled improvisers are sensitive to the formal implications generated by accumulating material at many levels of architecture). Structural "problems" (unity, variety, motion, resolution, balance, "interfering implications", and so forth) must be handled in real-time. (Wallace White 1999)
- 9- in composed or scripted forms there are two kinds of time: the moment of inspiration (intuition of beauty or truth); the struggle to (hold on to it long enough to) get it down on paper or canvas, film or stone. In improvisation there is only one time: real time (the time of inspiration, technically structuring and realizing the music, of playing it, and the time of communication, as well as ordinary clock time, are all one). Memory and intention (postulating past and future), and intuition (indicating the eternal present) are fused, and the iron is always hot. (Nachmanovitch 1990)

To improvise means acting only within the musical time that is happening, and not being able to put oneself outside of the temporal demands of the music. This means handling influences from the other musicians, inspiration, performance, communication and structural questions (unity, variation, motion, dissolution, balance, etc.), i.e. to handle several tasks more or less simultaneously and in real-time – musical real-time. (points 1–3, 5, 9)

- 2- composers can review musical scores and revise them, by considering their ideas' possibilities for variation and development at leisure. Improvisers, due to their real-time conditions, have limited possibilities to reflect over and revise ideas. An improviser must handle several tasks simultaneously to create art in real time, which demands split-second decisions about suitable materials and their treatment, decisions that are complicated by unforeseen ideas from the co-musicians. All decisions during an

- improvisation are also irreversible (why the improviser must constantly grasp the implications of ideas at hand and work them into the flow of invention). (Berliner 1994)
- 4- the composer can practically “freeze” time, review what has already been created, reflect upon the past, contemplate the past at length, and may enter and freely traverse the past-present-future continuum (assuming the vantage point of the future to review and possibly alter the past, or that of the past to view and rework the future). This is not possible in improvisation, where the improviser can recall past ideas, but must do that while creating in the present. (Sarath 1996)
 - 5- the composers can at any point in the writing process ‘freeze’ time and contemplate the past at length for purposes of reflecting, rehearsing, reconfirming, or revising. Improvisers can recall past ideas, but do so in the light of the demands posed by the present moment and the structural accumulation of all preceding activity (highly skilled improvisers are sensitive to the formal implications generated by accumulating material at many levels of architecture). Structural “problems” (unity, variety, motion, resolution, balance, “interfering implications”, and so forth) must be handled in real-time. (Wallace White 1999)
 - 6- in improvisation, everything happens in the moment and one cannot do anything about it afterwards. As a composer, one can find another way, return and redo what one has done. (Pignon/Zeccola 1998).

To the layered simultaneous events in musical real-time in improvisation can be added that an improviser remembers and can refer back to previous ideas, but must simultaneously create in the present, according to and within the demands of the current moment and the accumulated memory of the journey there (points 4, 5). Also, all decisions are irreversible and cannot be re-made afterwards, the dice is cast, so to speak, which is not the case when we speak of composing (points 2, 6).

F. Difference regarding dominance–control:

- 1- for the improviser there is a fear of being dominated and exploited by composers, while for the composer there is a fear of losing control over the music (Bergström-Nielsen n.d.)
- 2- composed music is a music of control; the composer remains a dictator, and the interpreter remains a replaceable servant (however freely he approaches the score). Improvisation music becomes a distillation of the sum of the languages of the participants, where the participants are dependent on one another and where each replacement therefore results in another musical expression (Poulsen 1998).

It is, of course, reasonable that a person who has spent much time and effort on writing down symbols for sounds, sound combinations and sound sequences wants these symbols to be translated into music in a way that corresponds to his vision. This makes composed music a music of control, because the composer, with his vision in mind, can speak of right or wrong ways of translating his sound symbols to music and demand that the interpreter translates these symbols ‘right’. The interpreter can, of course, have viewpoints, but the composer has the final say about translation alternatives, which makes the interpreter a servant. Since the sound symbols exist independently of the interpreter, these can be translated into music by different interpreters, the results can be compared to the advantage/detriment of the one or the other, and interpreters can be replaced. In the great number of cases where the composer is dead, and cannot be asked his opinion, the

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interpreter must seek out an understanding of the 'right' translation of sound symbols in the tradition through written source material, the views of other musicians or experts, comparisons with other translations (recordings, concerts), etc.

A free improviser is not only unwilling to be dominated/exploited by a composer but can quite simply not allow it since the free improvisation then ceases. Instead, free improvisers meet and influence one another on equal terms, are thereby dependent on one another, and must therefore be open to the fact that different initiatives and/or replacements can result in changed collective musical expressions. However, the music does not become a distillation of the sum of the languages of the participants. It becomes a distillation of each respective improvisation's possibilities for musical interaction, which makes each improvisation unique. The music becomes the musical interactions that actually take place. (points 1, 2)

G. Difference regarding dependence: improvisation will sustain, revivify or rescue composition. Improvisation can survive perfectly well without composition, but probably not the reverse. Improvisation doesn't need composition, but composition needs improvisation to renew itself. (Hodgkinson et al 2003).

It is, of course, difficult to imagine that humanity's original form of music-making consisted of interpreting compositions. Whether one looks at the music of other cultures or our own, one finds an enormous amount of examples of music that have been made in ways other than as interpretations of compositions. We also know that there is a tradition in our own musical culture where compositions have been 'improvised', i.e. that improvisations have formed the foundation for a composition, which, then, can be seen as an improvisation that has been written down (although probably often changed during the writing process). Composing has gone back to improvising for renewal and/or inspiration. People do not, however, need compositions in order to make music themselves or together, which stands as an odd contrast to our musical education, which, to a great extent, is still based on learning to play (interpret) compositions in the 'right way'. However, the opposite influence also exists. I, probably along with many free improvisers, can bear witness to compositions and compositional techniques having inspired and having expanded the frameworks for improvisation. If I were to grade this dependence, however, even I would see improvisation as more fundamental and independent in relation to composition than the converse. Even I am convinced that improvisation can survive without composition, but not convinced that it is so obvious that composition can survive without improvisation.

H. Difference regarding roles: as opposed to composed music, free improvisation has opportunities for constantly varying roles (and that are not determined in advance). If note-playing musicians were to switch roles, it could result in the anger of the composer (and the co-musicians), and in the composition losing its meaning. (Lutz 1999).

If one, by roles, means functional relations (see 6.2.4 Ways of interaction – relations – complexity), then free improvisation does not only enable the musicians to constantly shift roles, the constant shift in roles is a fact, and none of the roles are predetermined. They appear and are changed during the improvisation as consequences of the musical interaction. To shift roles in this sense in notated compositions is simply impossible, since

they are determined for each part (musician) in the score during the compositional process. Role changes on the terms of the musicians cannot be done during the performance. In the simplest case, it could mean that a subordinate part is lifted as a solo part, which could make the composition more or less absurd, and truly result in both the composer's and audience's, if not anger, then at least irritation or surprise. The composition would hereby perhaps not lose its meaning completely, but it would be markedly changed. A more advanced shift in roles could be if the musicians switched parts, which would change the composition even more noticeably, especially if the changes took place between musicians with instruments belonging to different instrument families. In a composition, each musician has the musical role that the score gives him, at every moment. In free improvisation, the musicians choose themselves, hopefully in collective understanding, which roles they will have and when they will have these roles – as consequences of the musical interaction.

I. Difference regarding the choice of instruments: in improvised music all instruments are allowed, while in composed music there is still quite a bit of conservatism regarding the choice of instruments (Poulsen 1998).

All instruments, and indeed all things one can use to produce sound, are allowed and useful in free improvisation. This possibility is also taken advantage of, which means that in one and the same free improvisation ensemble there can be conventional instruments, mechanically-prepared conventional instruments, conventional instruments that have been amplified and where the sound is maybe electronically treated, too, one's own instrument constructions, junk, electronic effect units of different sorts (for everything from ordinary effects to noise music), computers, etc. The same possibilities actually exist for composers, too. There is nothing to prevent a composer writing for whichever sound tools he wants, but the opportunity is not taken advantage of to any great extent. Instead, there is a rather strong conservatism regarding the choice of instruments in 'art music', due partly to the time it takes to acquire instrumental skill according to the conditions of 'art music', partly to the fact that institutional orchestras and established ensembles (e.g., string quartet, wind quintet, piano trio, wind orchestra, symphony orchestra, etc.) have the instrument combinations and the instrumentalists that they have, and partly to the fact that it is for ensembles/orchestras of this kind that composers as a rule get the opportunity to write for. Moreover, the choice of instruments is determined and adhered to during the compositional process, which results in no other instruments being welcome during the performance; instrument flexibility is as good as non-existent. However, exceptions, where the compositions do not specify which instruments should be used, or allow different instrumental combinations to be used, do exist.

J. Difference regarding note reading and sound milieu: in free improvisation reading music is removed. The improvisers has instead the option of analysing the sounds of their environment and perhaps responding to it, something that by definition is excluded from a composition. (Dean 1989).

The musicians in a free improvisation ensemble can, since free improvisation presupposes the absence of predeterminants (for example, in the form of any sort of notation), choose

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to react to and allow the non-musical sound milieu that prevails at one particular moment to influence the improvisation to a greater or lesser extent. I call all the sounds that can occur in a venue (hissing water pipes and toilets, clinking glasses, utensils and porcelain, talk, laughter, scraping chairs, etc. etc.) non-musical sound milieu (cf. 'non-musical sounds' in 6.2.1 Listening).

Compositions, however, consist, as noted above, of some form of predeterminants (usually in the form of some sort of notation) and performances of compositions presuppose that these predeterminants are followed, since without these there is nothing to perform. This means that during the performance of a composition, except for normal acoustic considerations that have to be made, one cannot allow the prevailing sound milieu to affect the performance at all. If this were allowed, it could result in musicians playing something other than what is given in the notation, which is naturally unacceptable for a composer if he has not given his permission to do so. Composers cannot either take the sound milieu into account when they compose, unless they are writing for a special sound milieu from the beginning, which, however, would lead to less considerations to other sound milieus where the composition might also be played.

I personally am not especially enthralled by letting myself be affected by sounds that do not come from the ensemble and that I interpret as being meant to be part of the music. I do not really know why this is the case, but I accept and respect that other free improvisers may think in another way and be interested in 'non-musical' sounds having an influence on their improvising. (see 6.2.1 Listening)

K. Difference regarding ownership and work:

- 1- crass economy is one difference between improvisation and composition since paying for music presupposes an ownership that is difficult to apply to improvisation (especially group improvisation, and funding structures tend to favor payment to individuals rather than groups) (Pelz-Sherman 1998)

Crass economy, based on copyright laws that are more easily enforceable, and are usually enforced when it comes to compositions, is, of course, a difference between improvisations and compositions. Such a compositional ownership is naturally impossible to enforce when it comes to improvisation. However, as far as I know, a group can, as a group, demand payment if documentation(s) of a group's improvisation(s) is/are played in public.

- 2- improvisation is not evaluated as highly as composition because improvisation doesn't demonstrate work in the same way that composition does, but prioritizes instead intuition, spontaneity, and group interaction. If a system doesn't demonstrate hard work, it could possibly be no more than 'mere' play and therefore not worthy of serious consideration. There is too a fear that such a system (not based on hard work) might get "out of hand", over-indulge itself, tend toward chaotic, anarchic, and time-wasting activities, that do not serve industry, the military, or the church. (Shoup 1986).

When it comes to evaluation of improvisation in terms of work put in, there is, unfortunately, quite a bit of truth behind Shoup's statement. Even though improvisation prioritizes intuition, spontaneity and group interaction, these phenomena represent different abilities, which have not come to improvisers without cost. Behind the actions of good improvisers lie, as a rule, many years of work and experience. The difference is that

this work is expressed directly and only in improvisation, i.e. in a more abstract and ephemeral way than is the case with the more materially tangible object of the score, with attached performances of it. I have myself, in different contexts, noticed the reaction that free improvisations are not taken quite as seriously as compositions, a reaction I cannot see as anything other than ignorance and a somewhat narrow-minded and conventional idea about what is counted as 'real' music, of how music should be presented, and of the work that lies behind it. The work behind composing a score, and the interpreter's study of it, is easier to measure and describe than the many years of work that lie behind an improviser's musical actions. It is also easier to order, systematize, study and analyse the hardware that is a score, which creates the opportunity to be able to control and even make choices for the different functions that can be found within, for example, the systems of the church, the state, the industry, and the military etc. Free improvisation, on the other hand, exists only when it sounds; it can go anywhere, and can do so quickly, and it has no duties or bindings to any style, tradition or function. This is probably felt by many as something that could spin out of control, and lead to chaos and anarchy. Put in simple terms, free ensemble improvisation can be seen as a threat rather than as a possibility.

To compose is a process that creates prerequisites for music (as a sounding translation of symbols through interpretation). It is an indirect creation of music outside of musical real-time. To improvise is a process that creates music directly, within musical real-time (see also the other differences above). Perhaps the whole question of improvisation in relation to composition can be seen as a question of methods, where the goal is the same but the methods are different and differ not in degrees but in kind. Perhaps also the fact that we use different names for these methods is an indication that we see them as different in kind, not as being different in degrees, nor as forms of each other in one direction or the other.

14.2 SIMILARITIES

REFERENCES

Improvisation and composition can be seen as “stand-up composing” and “sit-down composing” respectively, that is, they are two different kinds of composing. (Childs & Hobbs 1982: 27)

Dahlstedt points out that both improvisers and composers have the same difficulties in breaking out of “common patterns and habits”. Improvisers can achieve this through systematic work and, in ensemble situations, by interaction with others. Composers can achieve the same thing by systematically cultivating their techniques (“learned or invented, inherited or personal”). (Dahlstedt 2004: 16–17)

Karkoschka (1999) sees improvisation as nothing more than “a fast, in a sense a vista produced composition”. It is therefore judged according to how close it comes to composed music, “the closer the better”. He does, however, have viewpoints about this basis for evaluation, and states that it shows how “completely traditional understanding of music is coupled with the notation”. Within such an understanding,

improvisation is always seen as fundamentally inferior to composition, for even the master will not at the instrument ever equal that which can be done at the desk, taking much more time, provided that the goal is the same in both cases: a music which does not appear improvised. (p. 1)

Accordingly, it is necessary “first to liberate oneself from this understanding in order to see the possibilities for making music based on other assumptions, music /.../ which is not fundamentally inferior to composed music”. (p. 1)

For Barry Guy, both improviser and composer, there is, according to Kimberly, no conflict between improvisation and composition. Improvisation is about intense discipline in the live situation, and composition is about intense discipline at the table. (Kimberly 2003: 9)

According to Nachmanovitch, Schönberg sees composition as “a slowed-down improvisation; often one cannot write fast enough to keep up with the stream of ideas”.¹³ (Nachmanovitch 1990: 6)

Improvisers work with the same musical elements as avantgarde composed music. The difference is that the improviser works naturally and intuitively with these elements, while in avantgarde composition they are subordinate to complicated systems and theories. (Poulsen 1998: 2)

¹³ Arnold Schoenberg. *Brahms the Progressive*, 1933, in *Style and Idea*, 1950.

For Smith and Dean, “there is no absolute opposition between improvisation and composition, only a gradient of creative endeavour from pure improvisation to complete composition”. (Smith & Dean 1997: 26)

Solomon sees no great difference between improvisation and composition.

Improvisation has been called incomplete composition, but it is just as valid to call composition overdone improvisation. /.../ Composition implies something more fixed, less changeable, than improvisation, but the distinction is a matter of degree and has never been defined. (Solomon 1982: 74–75)

The difference between improvisation and composition is “essentially between “stand-up” (immediate) and “sit-down” (more “considered”) composing”. And

structuring in improvised contexts is essentially no different from that in notated compositions. From their contact with the written tradition, highly skilled improvisers are aware of such procedures as motivic development and thematic unity, which they apply in contexts of free improvisation. (Wallace White 1999: 9)

SUMMARIES AND REFLECTIONS

Similarities:

- 1- improvisation can be seen as “stand-up composing” and composition as “sit-down composing” respectively, that is, they are two different kinds of composing (Childs & Hobbs 1982)
- 2- an improvisation is a fast, in a sense a vista produced composition (Karkoschka 1999)
- 3- improvisation and composition can be seen as “stand-up” and “sit-down” composing respectively (Wallace White 1999)
- 4- composition is a slowed-down improvisation (Schönberg/Nachmanovitch 1990)
- 5- there is no absolute opposition between improvisation and composition, only a gradient of creative endeavour from pure improvisation to complete composition (Smith & Dean 1997)
- 6- improvisation can be called incomplete composition and composition can be called overdone improvisation; the distinction is a matter of degree and has never been defined (Solomon 1982)

In points 1–3, improvising and composing are seen as different forms of composing, in point 4 the perspective is reversed, and in points 5 and 6 composing and improvising are seen as being separated to a certain degree, without the one becoming the other.

As is evident from section 14.1 (Differences), both composing and improvising have the common aim and intention of creating music. The methods differ, however, in that composing is an indirect way of creating music outside of musical real-time, a process that, in symbol form, creates prerequisites for music and is not itself music, while improvisation is a direct way of creating music within musical real-time. There is a difference in nature (not in degrees but in kind) between the methods, and they are not merely on a gradient. If one starts with the aim and intention of improvising and composing, it is, as mentioned

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above, the same, and is therefore a similarity between composing and improvising. If one, however, looks the methods, then point 1 and 2, the first part of point 3, and points 4–6 do not hold. I myself have the method perspective on improvising and composing, respectively, and see the method distinction as an attempt at least to find the definition of the difference that Solomon misses (point 6).

- 7– improvisation is about intense discipline in the live situation, and composition is about intense discipline at the table (Guy/Kimberly 2003)

Neither improvising nor composing are about intense discipline, whether live or at the table, but rather presuppose/demand this in order to be good. This is a similarity.

- 8– improvisers and composers have the same difficulties in breaking out of common patterns and habits (Dahlstedt 2004)

Another similarity consists of both the composer and the improviser running the risk of getting caught in their own clichés (“common patterns and habits”). For the improviser, the cures are systematic work and interaction with others in ensemble situations. For the composer, the cure is systematic cultivation of his or her techniques. I think that Dahlstedt is correct regarding both the risks and the cures. For a free improviser, it is, of course, especially interesting that the activity itself (the musical interaction with co-musicians in free ensemble improvisation) is a cure against getting caught in the cliché trap. (see 6.1.3 Short-term – long-term collaboration, 13.1 Free improvisation – idiomatic improvisation)

*For Wishart, musical gestures can be executed on two levels. On one level they are executed consciously, where conscious does not necessarily mean that the musician’s consciousness has the time to describe them precisely in real-time. On the second level, musical gestures are executed unconsciously. They have, through practice and application become second nature to the improviser. They have been internalized. Internalized musical gestures may, however, be made conscious through self-examination. They can be externalized. Externalized musical gestures can be put under conscious control, they can be altered and developed. The new, altered and developed musical gestures may then possibly be internalized in turn. This process of externalization and internalization is an “essential feature of learning to be a free improvisation musician. It is necessary to become aware of ingrown habits and musical clichés. Otherwise so-called ‘spontaneity’ reveals only mental habits and the clichés of one’s musical milieu”. (Wishart 1985: 57)

I see Wishart’s externalization/internalization processes as an application of such systematic work that Dahlstedt recommends as a cure against getting caught in one’s own “common patterns and habits”. (see 6.1.2 Ensemble, 6.1.3 Short-term – long-term collaboration, 8 A word about freedom)

- 9– improvisers work with the same elements as avantgarde composed music (improvisers work naturally and intuitively with these elements, while in avantgarde composition they are subordinate to complicated systems and theories) (Poulsen 1998)

- 10– structuring in improvised contexts is essentially no different from that in notated compositions, and skilled improvisers are aware of for example motivic development and thematic unity, which they apply in contexts of free improvisation (Wallace White 1999)

Poulsen claims that improvisers and composers of avantgarde music work with the same elements (point 9), and Wallace White sees the same kind of structuring (motivic development and thematic unity) in both improvising and composing (point 10).

It is difficult to know exactly what Poulsen means by elements. If, by elements, he mean symbols for sound, those are not common for composers and improvisers; the former use them, the latter do not. If he means the sounds themselves, these are not common for both, either; composers use symbols for sounds, improvisers use sounds. It is, however, unavoidable that sound / sound groups (gestures) get relations to one another, whether they are established intentionally or unintentionally, directly sounding or indirectly in symbol form, naturally and intuitively or subordinate to complicated systems and theories (see 6.2.1 Listening, 6.2.4 Ways of interaction – relations – complexity, appendix A2 Gesture processing alternatives). If, by elements/structuring, Poulsen and Wallace White mean techniques for the establishing of such relations, then these are common to both composers and improvisers and can result in gestural/motivic development. Thematic unity is, however, not a matter of course, neither within composition nor within free improvisation. This is due, in part, to the fact that different themes can be used (simultaneously and/or successively) in both these activities, more or less independently of each other, and, in part because there is no obvious point to a theme permeating an entire composition or improvisation. Free improvisation is, as a rule formally distinguished by sections, the thematic contents of which can have little or nothing to do with one another.

- 11– improvisation is judged according to how close it comes to composed music (the closer the better), and is always seen as inferior to composition. It is however necessary to liberate oneself from evaluating improvised music according to the ideal of not appearing improvised and to be able to see the possibilities for making music based on other assumptions, music which is not inferior to composed music. (Karkoschka 1999).

Karkoschka states that one should not judge improvised music according to the norms of composed music, according to the ideal of not appearing improvised. No, why would one do that? If the methods are distinctly different, then the evaluation of the application of these methods should also be distinctly different, and according to the premises of the methods. Why would one accuse apples of not looking like bananas, and why would the one fruit be worth less than the other?

*Derek Bailey is, according to Couldry, very clear on this point. (see 9 Evaluation)

Derek Bailey is quite blunt about what the improviser is *not* trying to produce: a performance that aspires to be mistaken for a composition. He insists, in other words, on the specific virtues of improvisation being noticed and not betrayed. (Couldry 1995: 29)

14.3 MIXED FORMS

REFERENCES

Bailey (1993) interviews the composer John Zorn about the way he uses improvisation in compositions. For Zorn, the most important thing is not focusing on the sounds in the improvisation, but on the improvisers themselves, their “way of relating to their instruments and to each other”. What they play is totally up to them. Zorn began composing his “game pieces by using a timeline but abstracting everything away from sound and talking about people”. His game pieces are built on people instead of sound, and the instrumentation is about choosing people rather than instruments. Zorn chooses ensembles in the Ellington tradition, where “the selection of people is very important”, where “everybody is vital”, and where the “chemistry is going to be different” if one takes one person out. (pp. 75–77)

The question of how “composition can best utilise improvisation”, is more interesting for composers than for improvisers, and for the latter it might even be irrelevant. (p. 79)

Hugh Davies, interviewed by Bailey, says, apropos Stockhausen’s *Intensitat* from *Aus den Sieben Tagen*, that even if the composition is very sparse and very free, “one is very conscious of playing a definite composition”. In many ways, such a composition “is very close to a group improvisation, with the difference that /.../ one remains aware of the composer influencing the performance from a distance through his score”. (p. 80)

Pignon states that predetermined frameworks for free improvisation usually have a devastating effect. According to him, one of three possible reactions take place: in the best case, a control division is established, which immediately eliminates self-organizing FFE behaviours; or the agreed-upon framework is rejected, since everyone notices that it is making the music stiff; or an unsolvable conflict appears between these tendencies, which leads to pure disorder (a static state, a maximal entropy). For Pignon, who relates free group improvisation to thermodynamic systems, unstable FFE states are positive. (Pignon 1992: 7)

According to Smith Brindle (1987), avant-garde improvisation spreads over a wide area,

varying from situations in which the performer is given only a limited degree of freedom, to schemes which indicate only skeleton details which must be considerably elaborated. More rarely, there are even occasions when the performer is virtually composer, as the score may contain such minimal information that almost complete improvisation is the only solution. (p. 81)

Smith Brindle also points out the problems a composer has controlling improvisation in compositions.

This problem of controlling improvisation, or rather channelling it into a musical result of a specific and desirable nature, has preoccupied composers considerably. Many different methods of indicating improvisation have been involved, none of them being completely successful, for they all have to rely on one intangible factor – they must take it for granted

that performers know the rhythmic designs and note successions most suitable not only to avant-garde music in general, but to each individual composition. It is no use merely indicating 'play as fast as possible', if the result is going to sound like a Paganini Capriccio. We have to assume that the player will play as fast as possible using irregular rhythmic designs, eliminating scale patterns, using a variety of intervals comprising the total-chromatic, etc. This is why, in order to ensure a result similar to that designed, composers usually make some specific indications. (p. 84)

In spite of the difficulties pointed out by Smith Brindle in including and integrating improvisation in compositions, he feels that improvised music, or compositions that contain improvisation, can often be more convincing than "through-composed" works.

Good improvisation can produce some of the most convincing music of our time. As a member of a jury in a composition competition I recently had to listen to tapes of a number of new works, many of them based on improvisation to some degree. As far as performances went, the difference in performance quality between improvised and non-improvised works was striking, so much so that one was tempted to dismiss 'through-composed' works and listen only to those which entailed improvisation – which was absolutely wrong. (p. 87)

Smith and Dean mention an intermediate position between "completely notated composition and interactive process improvisation" consisting of "improvisations based on referents which contain precise musical material". Particularly in the US, "the results are often termed 'comprovisation'". (Smith & Dean 1997: 71)

SUMMARIES AND REFLECTIONS

Mixed forms can by way of introduction be divided into two categories:

- 1– more or less freely improvised sections are used in compositions
 - 2– more or less completely notated/predetermined elements are used in improvisations.
- The borderline between the categories is, however, not always entirely obvious and easy to define.

Mixed forms:

- 1– how composition can best utilise improvisation is more interesting for composers than for improvisers (and for the latter it might even be irrelevant) (Bailey 1993)
- 2– avant-garde improvisation varies from situations in which the performer is given only a limited degree of freedom, to schemes which indicate only skeleton details which must be considerably elaborated (Smith Brindle 1987)
- 3– composers can have problems controlling improvisation in compositions into a musical result of a specific and desirable nature, which has made them use specific indications in order to ensure a result similar to that designed (Smith Brindle 1987)
- 4– in spite of difficulties in including and integrating improvisation in compositions, improvised music, or compositions that contain improvisation, can often be more convincing than "through-composed" works (Smith Brindle 1987)

Of course, category 1 is more interesting for composers than for improvisers (point 1), since such initiatives are more likely to come from composers. From the viewpoint of

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composers, category 1 is about attaining the level of detail that is appropriate for them (point 2); it should not be too free so that they lose control over the performance, but it should not be too restricted so that the improvisation in practice ceases to be improvisation. Apart from the level of detail, composers also have problems with improvisation concerning the character of the latter (point 3). Though they might want improvisation to be part of a composition, they may simultaneously want special results from it, which can cause them to use additional and special indications to reach the improvisation result they want. This means a wish to even control the character of the improvisation(s) that are part of the composition. In spite of the need for control and the conflicts connected with it, Smith Brindle still claims that improvisations, and/or compositions that contain improvisation(s), can be more convincing than thoroughly composed music, an acknowledgement as good as any of the organic life and power of improvisation (point 4).

- 5- even if the composition (*Intensitat* from *Aus den Sieben Tagen*) is very sparse and very free, one is very conscious of playing a definite composition, and one remains aware of the composer's influence from a distance through his score (Davies/Bailey 1993)
- 6- Zorn's "game pieces" start from a timeline on which he places people instead of sounds. The most important thing is not to focus on the sounds but on the improvisers, their way of relating to their instruments and to each other. What the musicians play is up to them. The instrumentation is, in the Ellington tradition, about choosing people rather than instruments. (Zorn/Bailey 1993)

A wish to control of both the details and the character of improvisations in compositions is understandable from a composer's perspective. From an improviser's perspective, however, this control seems more like being on probation than improvisation in its truest sense. That the composer's control does not need to be so great to be noticed, and quickly become an obstacle is seen in point 5. Even such loosely-formulated indications as the poems in Stockhausen's *Aus den Sieben Tagen* are enough to restrict the freedom and give the improvisation an aspect of composition interpretation, to the detriment of improvisatorial real-time interaction with gestural real-time interpretation (cf. 7 Intuitive music). Zorn, who is also an improviser, shows great understanding of this problem in his "game pieces" (point 6). Instead of putting together instructions for sounds / sound producing, he puts people together who themselves choose what and how they will play. The limitations placed on freedom comprise the combinations of people and the time frames within which they are allowed to improvise. From my perspective, and if I were in Zorn's situation, I would try and go one step further and put people together in different constellations, but I would replace the timeline with a time-order line, having the constellations coming in consecutive order, without time limits for each respective constellation (cf. 6.1.4 Ensemble size – large ensembles – directing).

- 7- predetermined frameworks for free improvisation usually have a devastating effect in one of three possible ways: a control division is established, which immediately eliminates self-organizing FFE behaviors, the agreed-upon framework is rejected, since everyone notices that it is making the music stiff, or an unsolvable conflict appears between these tendencies which leads to pure disorder (Pignon 1992)

Pignon states that predetermined frameworks for free improvisation result in a control section that eliminates self-organizing FFE behaviours, in that the agreed-upon framework is rejected, or in an unsolvable conflict between these tendencies that leads to disorder. I believe, as seen above, that there are risks to predetermined frameworks, that they can be quite enervating and annoying, but that it is also possible to form and apply frameworks that do not need to result in such negative consequences for improvisation. An example of such frameworks is the example mentioned above, with a time-ordered framework but with an unlimited time framework for the musician constellations. Another example could be a collection of themes that in accordance with a collective agreement could exist as possible stations during the improvisation. The frameworks could then partly include the possibility of the improvisation landing in the themes without a predetermined order, and partly in not needing to land in all themes or even in any theme at all if the situation becomes such that self-organizing FFE behaviours make it unnatural or inorganic. Within the framework of the framework there is then space for self-organizing FFE behaviours and the framework includes the possibility of being able to reject itself, which means that there should not be any real risk of conflicts. One might think that conflicts would occur if one part of the ensemble land in a theme while another part does not, or if different parts of the ensemble land in different themes simultaneously or close to simultaneously. But even these possibilities can be included in the framework. If one wants to form frameworks, if one sees any point in it, and, even more, if one believes that predetermined frameworks are necessary, is however, quite another matter. I personally have no need for them, and see them not only as unnecessary but as fundamentally and deeply inconsistent with free ensemble improvisation. Category 2 may be of interest to improvisers in general, but not to free improvisers.

- 8- “comprovisation” is an intermediate position between completely notated composition and interactive process improvisation consisting of improvisation based on referents which contain precise musical material (Smith & Dean 1997).

Taking into account how open Zorn’s “game pieces” seem to be as compositions, they can serve as examples of the difficulties that can exist in the drawing of boundaries between categories 1 and 2. The compositions could just as easily be seen as controlled/directed improvisations. The term “comprovisation” seems to be an attempt to make a virtue of the difficulties that occur in this borderland. However, the term still appears, according to Smith and Dean’s description, to lean towards category 2. No matter which, I see the reasoning above as applicable to “comprovisation”. The weight can, however, be pushed towards one or the other category, depending on from which direction the initiative comes and on what the aim and intention is (freer composition or more controlled/directed improvisation, respectively). In this presentation, I regard the term as another name for category 2. (see 6.1.4 Ensemble size – large ensembles – directing)

15 Free improvisation – interpretation

REFERENCES

In Grove, the term interpretation is defined as “a term used in musical parlance with reference to the understanding of a piece of music. It has often been used primarily to signify the way in which notation should be interpreted” and this understanding is manifested “in the way in which it [a piece of music] is performed”.

(Grove music online: Interpretation)

In Sohlman, interpretation is described, in the broadest sense of the word, as such activities that have as their goal the deciphering and understanding of intended human messages of any sort. Musical interpretation presupposes an executor for the music to sound. The interpretation then includes two parts: partly a) the interpreter’s striving to reach understanding himself, and partly b) the actions through which he seeks to bring understanding to others. (Sohlman Dictionary of Music: Interpretation [Tolkning])

Interpretation does not exist in improvisation, since there is no work to interpret.

Interpretation, a prime feature of conventional musical performance, may be safely said to be absent from an improvisation: it makes no sense to characterize an improvisation as an interpretation or to praise it as a good interpretation of a previously existing work since no such work exists. (Alperson 1984: 26)

For Anthony Pay, interviewed by Bailey (1993), interpretation has to do with trying “often against fairly heavy odds, to find out what somebody has meant when they said something”. He sees improvisation as “unknown poetry” in which he can progress, while when he plays notated music he is not actually progressing, he is just learning to do better what he already does. (pp. 68–69)

Bailey has some rather sarcastic viewpoints on interpretation, and on music education.

One reason why the standard Western instrumental training produces non-improvisors (and it doesn’t just produce violinists, pianists, cellists, etcetera: it produces specifically non-improvisors, musicians rendered incapable of attempting improvisation) is that not only does it teach how to play an instrument, it teaches that the creation of music is a separate activity from playing that instrument. Learning how to create music is a separate study totally divorced from playing an instrument. Music for the instrumentalist is a set of written symbols which he interprets as best he can. They, the symbols, are the music, and the man who wrote them, the composer, is the music-maker. The instrument is the medium through which the composer finally transmits his ideas. The instrumentalist is not required to make music. He can assist with his ‘interpretation’ perhaps, but, judging from most reported remarks on the subject, composers prefer the instrumentalist to limit his contribution to providing the instrument, keeping it in tune and being able to use it to carry out, as accurately as possible, any instructions which might be given to him. The improvisor’s view of the instrument is totally different.

/.../

Studying formally with a teacher might be the right way to achieve certain specific aims, but to do only that is a very distorted way of approaching a musical instrument. It has to be realised that a person's own investigation of an instrument – his exploration of it – is totally valid. (p. 98)

Improvisation's advantage over interpretation is that the former allows for "more creativity" in contrast to the latter's "re-creation". For too long, audiences have "been content to quibble over inadequacies in performances of music its hundredth time around". In improvisation they can experience sounds "for the first, and possibly last, time express themselves". (Cope 1972: 76)

Interpreters run the risk of being censored until they are nothing more than "a machine of a certain sort", while "improvisation rejects this censorship". Improvisation also means "that a great deal of complexity can be generated through performance without loss of expressive power, when the performer is freed from the need to reproduce complex instructions which he or she has not generated". (Couldry 1995: 33–34)

Pelz-Sherman differentiates between "heteroriginal music" and "monoriginal music". The former category has many creators, and is collectively improvised, while the latter only has one creator [the composer]. Using this division as a basis, he differentiates between improvisers and interpreters such that "the performers of heteroriginal music *are* its sole creators while performers of monoriginal music are *interpreters* who realize or render the ideas of the creator audible to an audience". (Pelz-Sherman 1998: 10)

The improviser dedicates himself 100% towards creating art, while the interpreter is usually engaged in a strongly goal-oriented activity. (Pignon 1992: 8)

The improviser and the interpreter have different relations to their instruments. The interpreter's "interaction with the instrument is conducted and adjusted to a musical idea, which is not his own one". Since "an extra-personal desire is determinating his work with the instrument, even the instrumental sound-ideal is a non-personal one /.../, a trans-personal ideal". Schipper thinks that even the aesthetics of "a pure and pitch-fixed sound originates from this [trans-personal ideal], with the claim of a standardized sound". But

the improvising musician can't accept this trans-personal sound-ideal, because it doesn't admit what the improviser wants: that is, to articulate his specific personal musical identity, to elaborate and express his whole musical nature and abilities.

The free improvising musician is down-right thrown to his instrument and the experiment of the sound and its inner laws and energy. This original source of musical practice is the starting point of every serious musical improvisation. Therefore the concrete musical material of free improvisation is determined by this interaction of sound and musician. (Schipper 1984: 35)

Smith, quoted by Wallace White, says that

the term “improvisation” should be reserved for that spontaneous way of music making which from the performer’s point of view stands in contrast to interpretation, or the re-creation of music fixed /.../ prior to performance – be it through writing or through rehearsal.¹⁴ (Wallace White 1999: 15)

SUMMARIES AND REFLECTIONS

A. Interpretation is:

- 1– a term used in musical parlance with reference to the understanding of a piece of music, that has often been used to signify the way in which notation should be interpreted, and where this understanding is manifested in the way in which it [a piece of music] is performed (Grove)
- 2– in the broadest sense of the word, such activities that have as their goal the deciphering and understanding of intended human messages of any sort, and in music include two parts: a) the interpreter’s striving to reach understanding himself, and b) the actions through which he seeks to bring understanding to others (Sohlman).

The term in its broadest sense means to decipher and understand intended human messages. In musical contexts, the intended human messages are most often in the form of some sort of notation. The interpretation process then comprises two parts: that the interpreter first acquires an understanding of the message, in order to then transmit his understanding through his actions, which in musical contexts usually consists of playing the understood. (points 1, 2)

Even if the interpretation of ‘interpretation’ can be taken much further than what is described here, the above definitions of the term will have to be sufficient in this context. This is because this is the way the term is used in musical daily use and in the references; to interpret means to get oneself an understanding of a score or other musical instructions and, together with one’s preunderstanding and one’s general allround understanding, to apply this interpretation, i.e. one’s understanding, in one or more performances.

B. Improvisation–interpretation:

- 1– interpretation does not exist in improvisation since there is no work to interpret (Alperson 1984)

Alperson is both right and wrong. There is no work to interpret in free ensemble improvisation, but there are gestures from co-musicians to interpret. In this sense, interpretation exists even in free ensemble improvisation.

- 2– interpretation has to do with trying to find out what somebody has meant (“often against fairly heavy odds”) when they said something, while improvisation is unknown poetry (Pay/Bailey 1993)

¹⁴ Gregory E. Smith. In quest of a new perspective on improvised jazz. *World of music*, 1991, 33/3: 34–35.

Even Pay has the view of work when he writes about interpretation and also misses the perspective of the interpretation of the gestures produced during the course of the improvisation. I imagine that the odds of being able to interpret vary to a great extent depending on the interpreter's preknowledge and general musical knowledge of the work(s) involved, the interpreter's musical baggage, etc., whereby the interpretation of a work does not always have to be "against fairly heavy odds".

- 3- in improvisation one can progress, while when playing notated music one is not progressing, but just learning to do better what one already does (Pay/Bailey 1993)

I agree that one can progress in improvisation, but I have difficulty agreeing with the rest of this point. Is not doing something better than one did before a kind of development? Can one not also speak of interpretational development, partly in general with regard to the craft/art of interpretation, and partly, and especially, when it comes to the understanding/interpretation of individual works, if these, for example, are part of the interpreter's repertoire for a long period of time and are interpreted more than once?

- 4- improvisation allows for more creativity, in contrast to interpretation's re-creation (Cope 1972)
- 5- the term "improvisation" should be reserved for that spontaneous way of music making, which stands in contrast to interpretation (the re-creation of music fixed prior to performance) (Smith/Wallace White 1999)

Points 4 and 5 point to an important difference between gestural interpretation and work interpretation; gestural interpretation is a creative process, whereas work interpretation is a re-creative process. The first part of interpretation (see point A) is applicable to both; to understand gestures and works, respectively. The second part of interpretation is, however, different for the two; the improviser creates new gestures from his understanding of heard gestures, whereas the musician who plays works re-creates the work from his understanding of it.

Yet another difference between gestural interpretation and work interpretation is that the former occurs in real-time, which the latter as a rule does not. One can, from point A, describe work interpretation as a process with the parts: notation/instructions-interpretation-performance. Gestural interpretation can then in a similar manner be described: gesture(s) is/are heard-interpreted-bring(s) forth sounding reaction(s) or silence. In work interpretation, the parts of the process can be separated, in principle, over an unlimited period of time (apart from practicalities such as concert dates, etc.). In improvisation's gestural interpretation, this is not possible. The parts of this process take place continually in real-time and can even, to a certain extent, overlap one another (see 6.2.2 Process). One can speak of a gestural real-time interpretation. The model for the interpretation process in free ensemble improvisation is really just another way of describing the process model in 6.2.2 (Process), which, in turn, is also a model for feedback in free ensemble improvisation. I therefore see feedback and gestural (real-time) interpretation as different aspects of the improvisation process in free ensemble improvisation.

- 4- improvisation allows for more creativity, in contrast to interpretation's re-creation (Cope 1972)

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Improvisation does not only allow but perhaps even demands “more creativity” than work interpretation, since the second part of interpretation, according to point A, in the gestural interpretation of improvisation means that the improviser himself must create gestures, while the interpreter of works re-creates something that is already made in symbol form. (see also point 5)

- 6- in improvisation one can hear sounds for the first and possibly last time express themselves, while in interpretation one can quibble over inadequacies in performances of music its hundredth time around (Cope 1972)

I agree that one can hear sounds for the first/last time in improvisation, but I see no self-justification or inherent value in that. Most of the sounds in improvisations have also been made before and will most probably be made again. It is the way in which the sounds relate to one another that is interesting, not the sounds in themselves. Cope also points to something that from an improvisation perspective can look like a negative aspect of work interpretative activities: the “quibbling” about the 100th performance of a work. Newspaper reviews of the symphonic orchestra repertoire, for example, are very much proof of this quibbling taking place. As an improviser one can ask, and does ask, how fruitful such activities are (apart from the value of keeping a sounding cultural history alive).

- 7- improvisation means that a great deal of complexity can be generated through performance without loss of expressive power, when the performer is freed from the need to reproduce complex instructions which he or she has not generated (Couldry 1995)

I see this statement as more of an open question than a fact. How can one know that improvisation means that a higher level of complexity can be generated without loss of expressive power when the practitioner is freed from the need to reproduce complex instructions that he has not generated? At the same time, I can imagine that one can gain more expressive power when one as an improviser is freed from the restrictions that only certain complexities are allowed to be realized and that these should be done in the ‘right’ way. It is easy to imagine that focus on instructions and their ‘proper’ completion steals expressive power from musicians, compared to the realization of improvisatorial complexities that are their entire reality, the way they are or become, and where there is no right or wrong. Neither is it unlikely that expressive power can be greater if one goes into and realizes complexities on one’s own terms along with those of one’s co-musicians, than if one does this on the terms of an outsider, where the conditions are also determined in advance. A sub-point is that the possible complexity in free ensemble improvisation, especially when the size of the ensemble grows, probably exceeds the complexity that a single human can conceive and also form into instructions (see 6.2.4 Ways of interaction – relations – complexity).

- 8- the improviser dedicates himself 100% towards creating art, while the interpreter is usually engaged in a strongly goal-oriented activity (Pignon 1992).

*Pignon thinks that art is not goal-oriented, that art is all kinds of non goal-oriented mental activity that is expressed in communicable form, that it is a random by-product of nature's surfeit in the otherwise goal-oriented development of the human brain's ability, and that if a goal can be identified then it is no longer a question of art. (Pignon 1992: 4) [cf. 10 Spiritual aspects of free improvisation]

It is in light of this view that Pignon feels that the improviser dedicates himself 100 per cent to creating art, while the interpreter for the most part is engaged in a strongly goal-oriented activity, i.e. with the goal of re-creating a work. Free improvisation has no such goals, it is enough in itself, and has nothing to re-create. Interpretation of works has, however, always the goal of re-creating something that exists in symbolic form. In this sense, work interpretation is a goal-oriented activity, and according to Pignon, non-art. It feels, however, rather tough and unfair to reduce work interpretative activity, especially its second part according to point A, to non-art due to its being goal-orientated. There is much notated music that I have heard before, and would gladly hear again, and that I would persist in referring to as art (although without any great need to "quibble" about the merits of one performance in relation to another). In addition, if one looks closer at the parts of work interpretation and gestural interpretation, respectively, according to point A, one finds that they are rather alike in the perspective of what general goals they have. In work interpretation, the first part is about achieving as good an understanding of the work as possible. This can be seen as a goal. In gestural real-time interpretation, the first part is about achieving as good an understanding of heard gesture(s) as possible. This can be seen as a goal. For the work interpreter, the second part means re-creating the work from his own understanding of it. This can be seen as a goal. In improvisational contexts, the second part means creating gestures that the improviser finds fitting for the context. This can be seen as a goal. There is perhaps no artistic activity at all that does not in some sense have a goal, as long as we do not see art as simply non-reflective functions of the reigning conditions of the moment, as random by-products of the surfeit of nature. I cannot see free improvisation only in this way, even if reflections and reactions during an improvisation take place in real-time and are often therefore more or less unconscious and intuitive, and perhaps in this sense not goal-oriented (see 6.2.2 Process, cf. 10 Spiritual aspects of free improvisation).

C. Improviser–interpreter:

- 1– the creation of music is a separate activity from playing an instrument. Music is a set of written symbols, which the instrumentalist interprets as best he can, and the man who wrote the symbols is the music-maker. (Bailey 1993)
- 2– the instrument is the medium through which the composer finally transmits his ideas, and the instrumentalist is required only to assist with his 'interpretation' (not to make music) (Bailey 1993)
- 3– interpreters run the risk of being censored until they are nothing more than a machine of a certain sort, while improvisation rejects this censorship (Couldry 1995)

Some form of notation is a prerequisite for work interpretation. It is also a prerequisite for questions of 'right' or 'wrong' interpretation and for questions about evaluation precedence. A work interpreter can complete both parts of the interpretation according to

point A more or less in the ‘right’ or in the ‘wrong’ way, but as a rule it is only the interpretation’s second part that is manifested to others than the interpreter himself, and that therefore can be judged by others. The highest rank with regard to evaluation on the production side is held by the composer and the conductor, and on the consumer side by the listener. The lowest rank on the production side is held by the musician, and on the consumer side there is hardly any rank at all. Apart from the fact that composers, conductors and reviewers are not always in agreement, there still appears a hierarchy in work interpretation, where the musician ends up at the bottom. I think this is the explanation for why the views in points 1–3 exist and have existed for a long time. I call this the downside of work interpretation. Without getting into a discussion of the need for such a hierarchy (for example in connection with coordinating such a large and complicated apparatus as a modern symphony orchestra) I would posit, like Couldry (point 3), that it is within the spirit of free ensemble improvisation to reject such censorship (read ‘reduction of the musician’) – in part because this order feels repugnant to a free improviser, in part because it is not necessary, since questions of right and wrong do not exist in free ensemble improvisation (because, among other reasons, the notational basis for such evaluation does not exist), and in part because no individual improviser is given a rank above anyone else.

For more than 30 years as a teacher at the Academy of Music and Drama, the University of Gothenburg (although not as an instrumental teacher), I have, within the framework of the educational programmes there, had many courses in free improvisation, where students from all different departments of the school have taken part. Among the ‘classical’ music students, I have noted how the views from points 1–3, just as Bailey states, have permeated instrumental teaching. Certain students have apparently felt rather exposed and vulnerable when there have been no notes but only one’s own listening to relate to. I have also found in informal discussions after improvisations that certain students’ views on what music is, and on their own role in music, have corresponded well with the views in points 1–3, and even too well, in certain cases. There have, however, also been ‘classical’ and other music students who have quickly become comfortable with the notelessness of free improvisation, found joy and security in having their own listening as their foundation, and in being able, from this starting point and without any limitations coming from the outside, to relate to what was heard from the other participants. The positive reactions have often been about less demands, about being able to fulfil one’s own musicality, about beginning to find one’s own musical personality, about not having to be “a machine of a certain sort” on which production demands are placed, and about being able to reject all censorship except for one’s own. No matter the musical direction otherwise, it is my conviction that free ensemble improvisation has a large and important function to fulfil in the development of all musical practitioners, and that the experiences taken from there can be transferred to other musical activities.

- 4– interpreters realize or render the ideas of the creator [the composer] audible to an audience, while improvisers are the music’s sole creators (Pelz-Sherman 1998).

Point 4 is a good summary of the difference between work interpretation and the gestural interpretation of free improvisation.

D. The improviser's and the interpreter's respective relationship to the instrument:

- 1- a person's own investigation of an instrument, his exploration of it, is as valid (totally valid) as studying formally with a teacher (Bailey 1993)

For a free improviser, the following alternatives are open: one can learn one's instrument by having music lessons with one, or more, instrumental teacher, where the lessons are on the teacher's terms; one can explore and learn one's instrument entirely by oneself, and on one's own terms; or one can use both ways of learning in different combinations. Of the free improvisers I know, most have chosen the last alternative, a smaller number the second, and as far as I know, none have chosen the first.

- 2- the interpreter's interaction with the instrument is conducted and adjusted to a musical idea, which is not his own one. An extra-personal desire is determining his work with the instrument and even the instrumental sound-ideal, a trans-personal ideal from which even the aesthetics of a pure and pitch-fixed sound originates (claiming a standardized sound). (Schipper 1984)
- 3- the improvising musician can't accept this trans-personal because it does not allow him to articulate his specific personal musical identity, to elaborate and express his whole musical nature and abilities (Schipper 1984)
- 4- the free improvising musician is down-right thrown to his instrument and the experiment of the sound and its inner laws and energy, which is the starting point of every serious musical improvisation (Schipper 1984)

If one is fostered in the view of music and musicians represented by points C1-3, a direct consequence of this is that the interpreter's relationship to his instrument is determined by the musical ideas of others (point 2). If anyone involved in free ensemble improvisation were to have viewpoints on any other person's tone ideal, intonation etc., this, however, would, to the extent that anyone cared about them, at most be experienced as irritating. The idea of a "trans-personal" instrumental ideal probably does not seem so enticing to a free improviser (points 2, 3). On the contrary, it is rather seen as a virtue that the personality behind the instrument is expressed and is recognizable through the instrument. This is a prerequisite for being able to articulate one's own personal identity, to be able to form and express one's musical nature (point 3); however, in the case of free ensemble improvisation, this is in interactive collaboration with the other participating musicians. Therefore, I do not believe that a free ensemble improviser (but probably a free solo improviser) can only dedicate himself to his instrument, its sound possibilities and to the sounds' inner laws and energy (point 4). In ensemble improvisation that is only one part of the truth. The musical interaction cannot and must never be neglected, and is, according to my view, the most important. Without that interaction there will be no ensemble improvisation at all. The instrument and its sounds are, however, decisive prerequisites for being able to improvise and interact musically at all, and are naturally from this view a starting point for every improvisation.

- 5- the concrete musical material of free improvisation is determined by the interaction of sound and musician (Schipper 1984).

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I see point 5 as a continuation and a clarification of point C4. Improvisers create everything themselves, and what they create, the material, is comprised of gestures that are determined by the interaction with their instruments – and with their co-musicians.

Finally, the individual improviser is not only a function of instrument and co-musician interaction, he also has a will of his own. Interaction also includes one's own ideas and initiatives.

16 Free improvisation – aleatorics – indeterminacy

REFERENCES

In Grove, the term aleatory

is usually restricted to music in which the composer has made a deliberate withdrawal of control, /.../. Three types of aleatory technique may be distinguished, although a given composition may exhibit more than one of them, separately or in combination: (i) the use of random procedures in the generation of fixed compositions /.../; (ii) the allowance of choice to the performer(s) among formal options stipulated by the composer /.../; and (iii) methods of notation which reduce the composer's control over the sounds in a composition /.../. The liberty offered by these various means can extend from a choice between two dynamic markings to almost unguided improvisation. (Grove music online: Aleatory, 1. Introduction)

As here defined, aleatory composition involves the use of random procedures in determining musical aspects that are to be notated; unless other aleatory techniques are also used, the resultant score is no less fixed than a conventional composition. Chance procedures in composition have been most fully and diversely exploited by Cage. In producing the *Music of Changes*, for example, he tossed coins to decide how he should make choices from charts of pitches, durations, intensities and other sound aspects, deriving his chance operations from the 'I Ching', the Chinese book of changes.

(Grove music online: Aleatory, 3. Aleatory composition)

By contrast with Cage and his chance operations in composition, other composers have avoided introducing any randomness into their composing or notation, but have permitted the performer some flexibility in realization by means of the provision of alternative orderings. Sometimes, as in Stockhausen's *Klavierstück XI*, the player is instructed to pick from the alternatives on the spur of the moment.

(Grove music online: Aleatory, 4. Mobile form)

The types of aleatory music so far described use conventional notation to determine sounds, although, in compositions of mobile form, new signs may be necessary to guide performers in choosing a route. Many composers have introduced new notations which render the sounds themselves indeterminate, frequently by abandoning traditional signs for graphics or texts, /.../. But it is possible to use conventional notation in an indeterminate manner. An early example is Stockhausen's *Zeitmasse* (1955–6), whose tempos depend on the physical capacities of the five wind players: the duration of a single breath, or the fastest speed possible.

The composer can also allow flexibility in the interpretation of conventional symbols by giving alternatives or by specifying sound aspects in only relative terms. Alternative tempos, dynamic degrees and so on have been extensively used by Boulez. Relative notation has often been employed to specify a more or less narrowly defined register rather than a determined pitch, particularly in vocal music. /.../

Greater indeterminacy is introduced, still with conventional notation, when performers are asked to improvise on the basis of given pitches or rhythms, to interpret a given pitch sequence with any rhythm, to interpret a given rhythm with any pitches, and so on. All these possibilities have been used by composers as different as Kagel and Lutoslawski.

(Grove music online: Aleatory, 5. Indeterminate notation)

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Graphic notation /.../ has been employed to supplement conventional notation where the latter proves inadequate. For example, the 'shape' of a glissando (i.e. the variation of pitch with time) can be shown by a curved line on a staff. /.../ Alternatively, graphics may be used as a total replacement for standard symbols, as in Brown's *December 1952*. Logothetic, Cardew (in *Treatise*, 1963–7) and other composers continued in this direction, raising graphic notation to the level of visual art, but beyond the level of musical intelligibility, since such scores often provide the performer with little or no information as to how the signs are to be interpreted, and the possibilities for sound realization are exceedingly diverse. (Grove music online: Aleatory, 6. Graphics)

Like graphics of this latter sort, verbal texts can be used to give the performer a very large degree of freedom in determining both form and content. The text may be a straightforward instruction for action – often a far from conventionally musical action, as in Young's *Composition 1960 no.5*, whose principal requirement is 'Turn a butterfly (or any number of butterflies) loose in the performance area'. Other text scores are more inscrutable; Young's *Piano Piece for David Tudor no.3*, for example, consists of the text: 'most of them were very old grasshoppers'. More usually, texts have been used to give a more or less clearly stated basis for ensemble improvisation; notable examples include Rzewski's *Love Songs* (1968) and Stockhausen's *Aus den sieben Tagen* (1968) [regarding the latter, see 7 Intuitive music]. (Grove music online: Aleatory, 7. Texts)

In Sohlman, a process is called aleatory when it is impossible to foresee, in the same way as a dice cast ("lat. *alea* = dice"). The aleatory process can take place 1) between the composer and his score, 2) between the score and the musician.

(1) In the later stages of serial music, an athematic style was developed where the important thing was not the often extremely complicated detail structure but more the type and style of the events in the separate sections. Even rather far-going changes in the details do not as a rule change the main impression, as long as the median disposition of the elements is kept. The most important thing is therefore to fix the boundaries within which the details are allowed free play. An aleatory process is then fitting for the structure, since it is about a statistical formal conception: the details are not exactly foreseeable as in serial music, but are fixed through a roll of the dice with the given statistical commands. The form that results is called *global*, or – if it is ruled by mathematical calculations – *stochastic*. Such forms have been used by among others I Xenakis, K Stockhausen and G Ligeti.

(2) Many forms of aleatorics can take place between the score and musician. They all have in common that the performance is not clearly indicated by the score. The field of variations can be great or small. As long as the possibilities are within the realm of conception, it is a question of *steered variability*, but even if this is not the case, the music can still be so well-defined that it is recognizable from one performance to the next and therefore retains its identity. If on the other hand the result of the performance is impossible to predict, even in a broad sense, it is called *chance music*. – The variability can concern the larger form or the details. In a variable large form, there are game rules for how the individual formal parts are chosen and ordered (or possibly excluded). A special case of this is *labyrinth form*, where the musician (musicians) is/are occasionally allowed to choose one or more possibilities to continue with; this choice determines the situations that then occur, and exclude all the rest. The variability in the details can be reached by performance notes in the score, by notating the alternative possibilities, by encouraging improvisation within defined limits or through a more or less inexact notation, that forces an individual interpretation of what is written. The latter is the case in **graphic notation*; it can vary between rather small divergences from traditional notation to wholly freely imagined

graphics, which allow for almost unlimited possibilities for interpretation. – The variability in the details can reign from the beginning to the end, or only during certain sections, while the others are fixed in all details. (Sohlman Dictionary of Music: Aleatory)

[(1) I den seriella musikens senare faser utvecklades en atematisk stil, där det avgörande inte är den ofta ytterst komplicerade detaljstrukturen utan mera arten och karaktären av förloppet i de enskilda avsnitten. Även rätt långt gående ändringar i detaljer ändrar i regel inte huvudintrycket, om bara den genomsnittliga fördelningen av elementen bevaras. Det viktigaste är därför att fastställa gränserna innanför vilka detaljerna har fritt spelrum. En aleatorisk process är då ändamålsenlig för struktureringen, eftersom det är fråga om en statistisk formkonception: detaljerna är inte exakt förutsägbara som i seriell musik utan fastläggs slutgiltigt genom "tärningskast" under de givna statistiska betingelserna. Den på så sätt skapade formen kallas *global* eller – om den är reglerad genom matematiska beräkningar – *stokastisk*. Sådana former har bl a I Xenakis, K Stockhausen och G Ligeti arbetat med.

(2) Många former av aleatorik kan förekomma mellan partituret och musikern. Gemensamt är, att utförandet inte entydigt framgår av partituret. Variationsfältet kan vara stort eller litet. Så länge möjligheterna är överskådliga, är det tal om *styrd variabilitet*; men även om detta inte är fallet, kan musiken ännu vara så väldefinierad, att den är igenkännlig från det ena framförandet till det andra och således bevarar sin identitet. Där å andra sidan resultatet av utförandet är omöjligt att förutse ens i grova drag, är det tal om *chance music* (*slumpmusik). – Variabiliteten kan gälla storformen eller detaljerna. Vid variabel storform ges det "spelregler" för hur de enskilda formdelarna väljs ut och ordnas (ev. utelämnas). Ett särfall av denna är *labyrintisk form*, där det under utförandet då och då överläts åt musikern (musikerna) att välja en av flera möjligheter till fortsättning; detta val bestämmer de situationer som sedan uppstår och utesluter alla andra. Variabilitet i detaljerna kan uppnås genom spelanvisningar i partituret, genom notering av alternativa möjligheter, genom uppmaning till improvisation inom utstakade ramar eller genom en mer eller mindre inexact notation, som tvingar till en individuell tolkning av det skrivna. Det senare är fallet vid **grafisk notation*; den kan variera mellan ganska små avvikelser från traditionell notation och helt fritt fantiserande grafik, som ger spelrum för oöverskådliga tolkningsmöjligheter. – Variabilitet i detaljer kan härska från början till slut, eller också kan den gälla vissa partier, medan de övriga är fastlagda i alla detaljer. (Sohlmans musiklexikon: Aleatorisk sats)]

In Sohlman, indeterminacy is defined as more or less non-predeterminedness. The term is used primarily in English-speaking nations as a collective name for the processes that appear in aleatory music.

(Sohlman Dictionary of Music: Indeterminacy [Indetermination])

Indeterminate composition "might be described as any kind of composition in which the composer deliberately relinquishes control of any element of the composition". Earle Brown, interviewed by Bailey, thinks that "aleatory is a word that Boulez used in an article a long time ago which means throwing of dice and so forth. It's really chance, and I am vehemently against considering improvisation as chance music". (Bailey 1993: 60)

Benitez sees indeterminacy / chance operations and improvisation as different methods of making music. The result of the former is still a composition (and does not change the relationship between composer and performer), while the latter is not.

Precisely because indeterminacy or the use of chance operation is to be considered a compositional device, we must distinguish it from improvisation. Improvisation is only a type of musical practice. It is true that indeterminacy opened the doors of Western art music to make group improvisation possible, but indeterminate music does not aim at improvisation. Through the use of chance operations to create ambiguity, Cage and his followers aimed rather at a music that cannot comply with the Western notion of a “work”: a music that refuses to be considered as a complete whole. In other words, Cage did not change the relationship between composer and performer: to transmit his musical ideas to the performer he uses the means of notation, that is, of a written input. /.../ But no matter how close the final result might be, the processes by which it is obtained in indeterminate music and in collective improvisation are quite different. However similar the results may appear, we cannot draw the conclusion that they have been reached by the use of similar methods. (Benitez 1986: 454)

Aleatory music refers to music which is “*determinate in respect to composition but indeterminate in respect to performance*”. Indeterminacy “involves total lack of knowledge about the outcome of an action in respect to composition, performance, or both”. There are a number of works that are “*indeterminate in respect to composition but determinate in respect to performance*”, while music which is “*indeterminate in respect to both composition and performance* is rare and necessarily conceptual”. (Cope 1972: 90–92)

Couldry (1995) notes the paradox that

in order to achieve a musical surface which demonstrably bears no relation to intention or desire, needs a compositional process which inevitably will generate instructions of great arbitrariness and (potentially, therefore) of great complexity.¹⁵ (p. 25)

Couldry also cites Cage’s statement that “to ensure indeterminacy with respect to its performance, a composition must be determinate of itself”.¹⁶ (p. 25)

The term aleatory “should be confined to those situations where musical elements are well defined, but used in chance combinations”. (Dean 1989: xvii–xviii)

¹⁵ John Cage. From *Silence*. Calder and Boyars, 1973.

¹⁶ *Ibid*

For the listener, a musical form is not really mobile, since,

as far as the naïve listener is concerned, an aleatory work does have fixed order: he cannot receive the impression of formal mobility from a single performance, still less from a gramophone record. This is where any analogy with, for instance, the mobiles of Calder breaks down, for music is a temporal art. Limited freedom may be evident in the flexibility and spontaneity of a performance, but not formal mobility. (Griffiths 1992: 178)

Lange asks John Cage in an interview if he distinguishes between chance operation and improvisation. Cage answers that “chance operations are a discipline, and improvisation is rarely a discipline”, and that “improvisation is generally playing what you know, and what you like, and what you feel”. In order for improvisation to be a discipline, it must reach “beyond the control of the ego”, and in a Zen Buddhist sense be freed from “feelings and likes”. (Lange 1998: 1)

Ton de Leeuw (1967) takes Stockhausen’s *Klavierstück XI* from 1957 as an example of open form, a form entirely without direction and without end. Nothing is added to the existing structure (as in jazz, or figured bass practice); on the contrary, the player remains bound to what the composer prescribes. (p. 215)

The musician is asked (“absichtslos”[without any aim or intention]) to tie the first group his eyes fall on with the preceding one. Here, the word chance appears, but it is not a case of chance, since the player can never choose from more than the 18 possibilities prescribed by the composer. All possibilities are already contained in the fundamental idea, and one can, at most, speak of an unplanned decision that takes place at the last minute. It is freedom without meaning, which is possible thanks to another understanding of form, namely the open form, which does not have a cause and effect context. Stockhausen’s contribution has consisted of moving the decision from the composer to the performing musician. Instead of *one* notated possibility, there are now several possibilities for practical realization. (pp. 217–218)

Aleatorics refers to music where defined musical elements are used in random combinations. Indeterminacy refers to music where the composer strives for an infinitely large richness of variation by fixing very little, and therefore giving greater possibilities for random musical results. (Lutz 1999: 20)

Indeterminacy can be defined as “implying some lack of determination on the composer’s part about the performance realization of the music”, that is, “a kind of music in which the composer gives up a degree of control to the performers”. (Nunn 1998: 18)

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Cage compares composing and improvising with regard to the role of the “self”.

Cage’s method of exposing the interrelatedness of all things was to remove the “self”: ego, style, tastes and preferences, from the process of generating compositions.¹⁷ Modern improvisation takes exactly the opposite approach; it *demand*s the complete participation of each performer’s ego, style, tastes and preferences, surfacing them as much as possible. (Pelz-Sherman 1998: 12)

Smith Brindle (1987) posits the unclear use of the term indeterminacy.

For instance, to one composer indeterminacy may mean completely random operations, while to another it can apply to music which is well defined and may have some freedom only in one musical parameter.

Indeterminacy can in fact be partial or total; it can affect a small area of a composition only or the whole. (p. 60)

Mobile or open form came about, according to Smith Brindle, as the result of the influence from the visual arts.

During the Fifties, painters, sculptors, and architects exploited a factor which has always existed in the visual arts – that is, an object when seen from different angles varies in appearance, while in addition, a number of objects grouped together actually change their relative positions. A work of visual art can therefore have several forms, or an infinite variety of forms, and yet remain the same. /.../ Similarly, music can be written in short sections which can be arranged by the performer as he desires (either previous to the performance or while he plays) so that, in theory at least, every time the music is played, it offers new aspects. (p. 70)

He defines the term aleatory as given elements in chance combination.

This kind of music, where elements given with complete definition are put in chance combinations, perhaps comes nearest to what some of us mean by ‘aleatory’. Though this term is used to mean many things, from a small degree of indeterminacy to out-and-out improvisation, it would seem that its true application is only where musical elements are well defined, but used in chance combinations. If the musical elements themselves were random or undefined, they could not be put in ‘aleatory’ combinations. After all, one cannot play dice if the dice are not numbered. (pp. 74–75)

“There is a difference between improvisation and chance. The latter does not involve decisions, whereas in improvisation decisions are constantly being made at the moment, in the present.” (Solomon 1982: 76)

¹⁷ Here, Pelz-Sherman refers to Cage’s comments to his piece *Indeterminacy*, 1959, which appeared in *Silence*

There is a difference between improvisation and chance in that “improvisation involves making decisions /.../ during its performance”, while “decisions play no part in chance”. Improvisation “is more than just chance. It relies on the performer's control and intuition”. (Solomon 1986: 226–227)

SUMMARIES AND REFLECTIONS

A. Aleatorics and indeterminacy:

- 1– the term aleatory is usually restricted to music in which the composer has made a deliberate withdrawal of control. Three types of aleatory technique may be distinguished: (i) the use of random procedures in the generation of fixed compositions, (ii) the allowance of choice to the performer(s) among formal options stipulated by the composer, and (iii) methods of notation which reduce the composer's control over the sounds in a composition. The liberty offered by these various means can extend from a choice between two dynamic markings to almost unguided improvisation. (Grove)
- 2– aleatory composition involves the use of random procedures in determining musical aspects that are to be notated; unless other aleatory techniques are also used, the resultant score is no less fixed than a conventional composition (Grove)
- 3– mobile form means that chance operations are not used in the compositional work, but instead that the performer is allowed some flexibility in realization by means of the provision of alternative orderings (Grove)
- 4– new notations have been introduced by many composers which render the sounds themselves indeterminate (e.g. graphics or texts), but it is also possible to use conventional notation in an indeterminate manner. The composer can allow flexibility in the interpretation of conventional symbols by giving alternatives or by specifying sound aspects in only relative terms (e.g. alternative tempos, dynamic degrees), and relative notation has been employed to specify a more or less defined register rather than a determined pitch. Greater indeterminacy is introduced when performers are asked to improvise on the basis of given pitches or rhythms (interpret a given pitch sequence with any rhythm, to interpret a given rhythm with any pitches etc.). (Grove)
- 5– graphic notation has been employed to supplement conventional notation when the latter proves inadequate, or graphics may replace standard symbols entirely. Since such scores often provide the performer with little or no information as to how the signs are to be interpreted, the possibilities for sound realization are exceedingly diverse. (Grove)
- 6– texts can be used to give the performer a very large degree of freedom in determining both form and content. The text can be a straightforward instruction for action, or be more inscrutable. More usually, texts have been used to give a more or less clearly stated basis for ensemble improvisation. (Grove)
- 7– a process is aleatory when it is impossible to foresee, in the same way as a dice cast. The aleatory process can take place 1) between the composer and his score, 2) between the score and the musician.
 - (1) The details are allowed free play within fixed boundaries, so that an aleatory process is fitting for the structure, since it is about a statistical formal conception: the details are not exactly foreseeable, but are fixed through a roll of the dice with the given statistical commands. The resulting form is called *global* or – if it is ruled by mathematical calculations – *stochastic*.

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(2) Common for all forms of aleatorics between score and musician is that the performance is not clearly indicated by the score. As long as the possibilities are within the realm of conception it is a case of *steered variability*. If the result of the realization is impossible to predict, even in a broad sense, it is called *chance music*. The variability can concern the larger form or the details. In a variable large form, there are game rules for how the individual formal parts are chosen and ordered (or possibly excluded). *Labyrinth form* means that the musician (musicians) is/are occasionally allowed to choose one or more possibilities to continue with, which in turn determines the situations that then occur, and exclude all the rest. The variability in the details can be reached by performance notes in the score, by notating the alternative possibilities, by encouraging improvisation within defined limits, or through a more or less inexact notation that forces an individual interpretation of what is written. *Graphic notation* can vary between rather small divergences from traditional notation to wholly freely imagined graphics, which allow for almost unlimited possibilities for interpretation. Variability in the details can reign from the beginning to the end, or only during certain sections, while the others are fixed in all details. (Sohlman)

In Sohlman, aleatory processes (where the result(s) of the process(es) is/are impossible to foresee) are said to be able to take place: a) between composer and score or b) between score and musician (point 7). In Grove, the alternatives for the aleatory processes (where the composer has consciously chosen to refrain from a certain control) are said to be: c) chance processes in the generation of fixed compositions, d) choices by the executor between alternatives chosen by the composer; or e) methods of notation that reduce the composer's control over the sounding result (points 1–6). If one compares the array of aleatory possibilities in Grove with those in Sohlman, one finds that c) is included in a) and that d) and e) are included in b). Aleatorics can therefore appear:

- I (a+c) – between composer and score in the form of chance processes during the generation of the score, so that the details are allowed free play within fixed boundaries
- II (b+d+e) – between score and musician by letting the executor choose between fixed alternatives (mobile/open form), or by the methods of notation not being explicitly interpretable and therefore reducing the composer's control. Common to all methods under II is that the performance is not clearly indicated by the score.

- 8– aleatory music refers to music which is determinate in respect to composition but indeterminate in respect to performance (Cope 1972)
- 9– the term aleatory should be confined to those situations where musical elements are well defined, but used in chance combinations (Dean 1989)
- 10– for the listener there is no mobile form, since he only experiences one form (due to the temporality of music, the analogy with Calder's mobiles breaks down). Limited freedom may be evident in the flexibility and spontaneity of a performance, but not formal mobility. (Griffiths 1992)
- 11– open form is without direction, end, or cause and effect context. Nothing is added to the existing structure and the player remains bound to what the composer prescribes. In Stockhausen's Klavierstück XI, one cannot speak of chance, since the player can only choose between the 18 possibilities prescribed by the composer. One can at most speak

- of unplanned decisions. Stockhausen's contribution has consisted of moving the decision from the composer to the performing musician, which gives several possibilities for practical realization, instead of just one. (de Leeuw 1967)
- 12- aleatorics refers to music where defined musical elements are used in random combinations (Lutz 1999)
 - 13- mobile form means music in short sections which can be arranged by the performer in the way he desires so that the music, in theory at least, offers new aspects every time it is played (Smith Brindle 1987)
 - 14- the term aleatory means music where elements given with complete definition are put together in chance combinations. If the musical elements themselves were random or undefined, they could not be put into aleatory combinations – one cannot play dice if the dice are not numbered. (Smith Brindle 1987)

Other viewpoints on aleatory music say that it is determinate with regard to the composition but indeterminate with regard to performance (point 8); in short, that it consists of well-defined musical elements that are used in random/chance combinations (points 9, 12, 14). Points 8, 9, 12 and 14 all fall under alternative II. In points 9, 12 and 14, aleatorics is equated with mobile/open form, while in points 11 and 13 mobile/open form is defined as a choice between predetermined alternatives. According to point 11, one cannot speak of chance in mobile/open form but possibly of unplanned decisions, since the musician can only choose between given and prescribed alternatives. In point 10, it is questioned whether mobile/open form exists at all in music since a listener during a listening occasion can only experience one formal alternative, while a viewer can experience different forms of a mobile during one and the same viewing.

- 15- indeterminacy stands for something not predetermined, and the term is used primarily in English-speaking nations as a collective name for the processes that appear in aleatory music (Sohlman)
- 16- indeterminate composition is any kind of composition in which the composer deliberately relinquishes control of any element of the composition (Bailey 1993)
- 17- indeterminacy involves total lack of knowledge about the outcome of an action in respect to composition, performance, or both, where the last alternative is rare, while there are a number of works that are indeterminate in respect to composition but determinate in respect to performance (Cope 1972)
- 18- to ensure indeterminacy with respect to its performance, a composition must be determinate of itself, and needs a compositional process which inevitably will generate instructions of great arbitrariness and (potentially, therefore) of great complexity (Couldry 1995)
- 19- indeterminacy refers to music where the composer strives for infinitely large richness of variation by fixing very little, and therefore giving greater possibilities for random musical results (Lutz 1999)
- 20- indeterminacy means a kind of music in which the composer gives up a degree of control over the performance realization to the performers (Nunn 1998)
- 21- the use of the term indeterminacy is unclear and can mean completely random operations, or can apply to music which is well defined and may have some freedom only in one musical parameter. Indeterminacy can be partial or total; it can affect a small area of a composition only or the whole. (Smith Brindle 1987).

Indeterminacy refers to something that is not predetermined, as, for example, the results of aleatory processes (points 15–17, 19, 21), which means that indeterminacy can be seen as synonymous with aleatorics according to alternatives I and II. In points 18 and 20, indeterminacy only holds for alternative II, so that an indeterminate performance presupposes a determinate composition and that the composer leaves some of the control of the performance to the executor.

I regard indeterminacy as the overall term for alternatives I and II, as a result term, and aleatorics as a term that summarizes the chance methods used to reach indeterminate results, that is, as a method term. The results of aleatory methods are therefore indeterminate and non-predetermined.

A composer can compose indeterminately by leaving his choices to the throw of a dice or I Ching, for example, that is, by using aleatory composition methods. I do not, however, see composers' or executors' own choices as aleatory, nor the choice to leave one's choices to aleatory methods. The composition in question is from the perspective of the executor, and no matter the compositional method(s), determinate and fixed. The composition in question can, however, be formed in such a way that different and unpredictable performances are made possible. The performances can be indeterminate. In the case of mobile/open form consisting of predetermined (determinate) alternatives, the executor has basically three possibilities for choosing the order of alternatives: a) to choose oneself in the moment, b) to make one's choice before, perhaps long before, the performance; or c) to have left one's choices, prior to the performance, to some sort of aleatorics, such as, for example, throwing dice. One can only speak of mobile/open form as aleatory in the last alternative, that is, when aleatory methods of choosing are used, and one cannot equate it in general with aleatorics. Even the composing of a mobile/open form is only aleatory to the extent that chance methods are used. The decisive factor is the methods of choice, not given and prescribed alternatives for choice.

When it comes to the question whether mobile/open form exists at all, one must differentiate between listener, executor and composer. It does not exist for the listener, since the listener only hears one form during one and the same performance. For executor and composer it does exist, since they can see several possibilities of performing, in one and the same performance. For the executor, with regard to performance, the alternative a) is indeterminate, b) determinate, and c) aleatory but determinate.

In the case of multifaceted notation, the executor has, in principle, two options: d) to choose the interpretation of the notation in the moment, or e) to decide in advance, work out, an interpretation. To leave the choice to aleatory methods is seldom possible here since such methods presuppose a conceivable number of (defined) alternatives, which is seldom the case in, for example, graphic notation, texts, etc. Even here, I differentiate between human and aleatoric choices, which is why I, as far as the executor is concerned and with regard to performance, see alternative d) as indeterminate but not aleatory, and alternative e) as determinate.

B. Free improvisation – aleatorics – indeterminacy:

1– aleatory is about chance, but improvisation is not chance music (Brown/Bailey 1993)

- 2- chance does not involve decisions, while decisions are constantly being made (at the moment, in the present) in improvisation (Solomon 1982)
- 3- decisions play no part in chance. Improvisation is more than just chance, and relies on the performers' control and intuition. (Solomon 1986)

Aleatorics are about chance (point 1) and chance does not involve decisions (points 2, 3). Even I, as shown, make this distinction between chance (aleatorics) and decisions (human choices). In improvisation, decisions are constantly being made (point 2). Whether the decisions are conscious or unconscious, planned or unplanned (point A11), this differentiates improvisation from chance, that is, from aleatorics. Musicians are not dice.

- 4- precisely because indeterminacy or the use of chance operations is to be considered a compositional device, we must distinguish it from improvisation. Indeterminate music does not aim at improvisation, and the use of chance operations aims rather at a music that cannot comply with the Western notion of a "work". Cage did not change the relationship between composer and performer (to transmit his musical ideas to the performer he uses the means of notation). Improvisation is a type of musical practice, and no matter the similarities in results, the processes and methods by which the results are obtained in indeterminate music and collective improvisation are quite different. (Benitez 1986)

I do not see indeterminacy as a compositional method but as a possible result of applied methods, of which aleatorics here stands as a collective name for chance operations. In composed music, indeterminacy does not necessarily refer to improvisation, but improvisation, and usually in a limited sense, can be used to contribute to a composition becoming more or less indeterminate, which aleatorics can as well.

However Cage's compositions were conceived and constructed by him, and no matter which methods he used to reach indeterminate performances, he did not change the relationship between composer and executor; he transmitted his musical ideas to the executor via some sort of determinate notation. His method of creating music was to compose, or rather, this was his prerequisite for music. Improvisation is another method of creating music, where the praxis of free ensemble improvisation does not consist of starting from any form of notation but of interacting musically in real-time with one's co-musicians, without anything musical being predetermined or binding, and where everything musical is allowed (see 6.3 Definitions). This praxis makes free ensemble improvisation indeterminate, since the results that ensue are not predetermined. To compose music, indeterminately or not, and to improvise freely in ensemble form, are different methods of creating music (indirect and direct, respectively), no matter the possible sounding similarities.

Free ensemble improvisation is not predetermined, and, according to Smith Brindle's terminology, the level of non-predeterminedness is total, that is, it holds for all parameters and for the entire improvisation (point A21). Free ensemble improvisation is therefore totally indeterminate but not, however, aleatoric.

- 5- chance operations are a discipline, and improvisation is rarely a discipline; improvisation is generally playing what one knows, what one likes, and what one feels. In

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order for improvisation to be a discipline, it must reach beyond the control of the ego, and in a Zen Buddhist sense be freed from feelings and likes. (Cage/Lange 1998)

- 6– Cage’s method of exposing the interrelatedness of all things was to remove the self: ego, style, tastes and preferences from the process of generating compositions. Modern improvisation takes the opposite approach; it *demand*s the complete participation of each performer’s ego, style, tastes and preferences, surfacing them as much as possible. (Pelz-Sherman 1998).

Cage states that chance operations are a discipline where the ego with its style, tastes and preferences are peeled away from the process of generating compositions, while improvisation, on the other hand, is seldom a discipline but is about playing what one knows, what one likes and what one feels. In order for improvisation to be a discipline, it must reach beyond the ego and in a Zen Buddhist spirit be freed from feelings and likes. Cage removes the ego from the compositional process by using chance operations. (points 5, 6)

Pelz-Sherman states that modern improvisation goes in the opposite direction with an optimal participation of each musicians’ ego, style, tastes and preferences, and that these are also lifted to the surface as much as possible. (point 6)

*Nachmanovitch (1990) speaks of “disappearing” and “surrender”. He says that “for art to appear, we have to *disappear*” (p. 51), and “in order to play freely, we must disappear” (p. 171). This occurs when “mind and senses are arrested for a moment, fully in the experience. Nothing else exists” (p. 51). The disappearance happens through focusing on what we do instead of who we are, what we think, etc.; “It is possible to *become* what you are doing; these times come when pouf! – out you go, and there is only the work” (p. 51), whereby the ego’s noun becomes a verb (p. 52). When the “self-clinging” personality disappears we are simultaneously both ecstatic and alert (p. 52). Nachmanovitch says the following about “surrender”:

Unless I surrender my identity, the instrument’s identity, and the illusion of control, I can never become one with my own process, and the blocks will remain. Without surrender and trust – nothing.

We can now return with a richer and more poignant understanding to our earlier theme – to create you have to disappear.

/.../

Only unconditional surrender leads to real emptiness, and from that place of emptiness I can be prolific and free. (p 144)

If one goes back to Cage’s viewpoints above and compares them with Nachmanovitch’s, both feel that the disappearance of the ego is important for “art to appear”. However, their methods differ. While Cage wants to reach beyond the ego by using chance operations in the compositional process, a discipline that lies outside of the music, Nachmanovitch aspires to reach beyond the ego in improvisation through a total focus on the music itself, not on chance or on anything else that is extramusical.

As far as I know, there is no elimination of the self/ego à la Cage represented within free improvisation. This is possibly because no free improviser has the time to throw dice or practice I Ching during the course of the improvisation, or perhaps, and more likely,

because the method is felt to be unmusical. The Nachmanovitch model for freedom from the ego is, however, represented.

I personally prefer an as 'ego-freed' a free improvisation as possible in the Nachmanovitch sense, where the gestures as they sound are the interactive/communicative building blocks in the improvisation, and without any encumbering feelings, opinions, subtexts or 'overttexts' standing in the way. (cf. 8 A word about freedom, 10 Spiritual aspects of free improvisation)

However, even the attitude that Pelz-Sherman posits is represented in free improvisation and must of course be allowed to exist; otherwise, free improvisation would not be free.

17 Free improvisation – system analogies

REFERENCES

To liken free ensemble improvisation to different types of systems should, according to Borgo (1999), be seen as a metaphor for greater insight into free improvisation, not as a scientific explanation of how it works. (p. 176)

Synergy can be described “as the behavior of whole systems unpredicted by the behavior of their parts taken separately”, and for free improvisers “synergy appears to be a common goal and a cherished activity”. (p. 151)

Feedback, which in its broadest sense “simply means conveying information about the outcome of a process or activity to its source”, can be positive or negative. Negative feedback “allows a system to be self-balancing or self-regulating”, while “positive or self-amplifying feedback” reinforces an ongoing process. In chaotic systems, “positive feedback becomes both a generative and an organizing force” and “as a result of positive feedback, chaotic systems demonstrate what is called extreme sensitivity to initial conditions”. As a musical example of the interplay between positive feedback and sensitivity to initial conditions, Borgo compares a note-bound woodwind quintet with a free improvisation quintet.

For purpose of contrast, imagine a woodwind quintet performing a classical score and a quintet of woodwind players engaged in free improvisation. With the former, one musician might choose in the moment of performance to adopt a slightly more expressive vibrato than usual during a particular passage. This interpretive decision could then be perceived by the other quintet members and in turn inspire them to highlight the expressive nature of a similar or related passage. However, since the score and possibly the rehearsed interpretive decisions of the group provide a strong agreed-upon musical foundation, these slight changes in performance approach can trigger only a limited deviation from the norm. Small changes in initial conditions can give rise only to proportionally small effects in the final performance.

In the case of the free improvisation quintet, if one player adopts an expressive vibrato, it may trigger the other musicians to explore a similar vibrato effect until the expressive device itself becomes the organizing musical force for the next few minutes of improvisation. Without a preconceived musical score or a strict array of agreed-upon performance attributes, small changes in the performance of a free improvisation ensemble may amplify via positive feedback and iteration to create radically divergent effects. (pp. 97–99)

Since free improvisation /.../ involves no preconceptions as to what may follow the initial performance gesture, the system naturally displays an extreme sensitivity to its initial state. Even a small change in the first performance gesture – a shift in dynamic level, attack, or articulation, etc. – can lead to a sudden divergence from the evolution of a system started with nearly identical initial conditions. (p. 177)

At a bifurcation point in a chaotic system, the system

may branch off into entirely new states and demonstrate novel behaviors and emergent order. The behavior of the system at a bifurcation point depends critically on the previous

history of the system. Depending on which path it has taken to reach instability, it will follow one or the other of the available branches after the bifurcation. (p. 100)

Borgo sees Nunn's transitions [see Nunn 1998 below] as

analogous to the bifurcations exhibited in chaotic systems. However, the appearance of collectively perceived transitions is never entirely predictable due to the extremely varied interactions and influences endemic to the practice [of free improvisation]. /.../ both the musical direction of the improvisation up to that point and the ensemble's collective experiences with improvisation strongly influence which musical path is pursued by the group after the "bifurcation". (p. 179)

Attractors in chaos theory "are regions of phase space that organize the long-term dynamic behaviour of systems". (p. 100)

As an example of a musical attractor, he mentions a long tone: "Jonathon enters with an electric guitar drone on the note concert E, which ends up becoming a musical 'attractor' that frames both overtly and subtly the entire 13-minute performance". (p. 170)

Borgo is of the opinion that "the uncertainty of free improvisation appears tempered by common attractor types defined by relational functions and transitions". The relational functions consist of "solo with support or ground, dialogue, interpolation, fragmentation, and a dense and dynamically textured sound mass" [see 6.2.4 Ways of interaction – relations – complexity]. (p. 179)

He has also noted two types of 'attractors' that "appear to be of less interest to free improvisers".

The more periodic or predictable the behavior of the group, the more restless many practitioners will become to reshape the ensemble dynamic or transition to a distantly-related idea space. If too many references to traditional musical idioms creep into a performance, many free improvisers will begin to search for more uncharted and uncertain musical terrain. (p. 180)

Time dependency and irreversibility of chaotic systems also exists in free improvisation.

The "arrow of time" or irreversibility evident in nonequilibrium thermodynamics is valid as well for free improvisation. Improvisers must continually operate in the moment. They may contextualize a gesture by themselves or others after the fact, but the real-time nature of the creative act does not allow for revision. Yet free improvisers must be continually aware that they are improvising both content and form. The most effective free improvisation performances involve decisive musical idea spaces and marked transitions that take place at moments of group consensus with an awareness of what has occurred and a conception of what may follow. (p. 178)

Borgo can also see a free improvisation ensemble "as an autopoietic social organization that establishes dynamic codes of acceptable behaviour and conduct through a network of conversations /.../ and through continued structural and self-amplifying feedback". (p. 204)

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Although individuals certainly bring diverse backgrounds to the practice, once engaged in free improvisation, each musical gesture and the various roles within the ensemble are continually negotiated through structural coupling and self-amplifying feedback loops. /.../

While free improvisation is in one sense liberated from many idiomatic constrictions, social hierarchies, and externally-imposed constraints that may be located in other musics, for the practice to be meaningful and for something to emerge out of the union of musicians and musical/cultural backgrounds, an autopoietic boundary must develop - not a physical boundary, but one of trust, conviviality, expectations, and loyalty. This boundary remains dynamic and is continually maintained and renegotiated by the autopoietic network of musical and social interactions. (p. 199–200)

An emerging theory in evolutionary biology, symbiogenesis, presents another view on evolution than that proposed by Darwin. This is a view that may shed additional light on the idea of a free improvisation ensemble as an autopoietic social organisation.

Rather than conceiving of evolution solely in terms of random mutations and competitive natural selection as Darwin proposed, several contemporary biologists are focusing on the cooperative and creative aspects of life that lead to the ever-increasing diversity and complexity inherent in all living systems. (p. 204)

In free improvisation,

cooperation necessarily replaces competition as the primary performance objective. With free improvisation, it may be useful to view the evolution of the individual musician and the collective ensemble in symbiogenetic terms. A single player exists within the larger entity, taking in resources and energy and offering in return additional grist for the improvisational mill, all in a delicate balancing act of attempting to collectively create a performance gestalt which transcends the input of its isolated parts. (pp. 206–207)

But

symbiogenesis is not the only type of evolution evident in the living world or in free improvisation. Standard mutation still plays an important role, as does the process of gene sharing (a common procedure among bacterium). Mutation and natural selection may be analogous to chance occurrences that occur in an individual's playing (whether in "practice" sessions or performance) that become incorporated in his or her body of available techniques and in his or her intelligent body. Gene trading analogously relates to traditional ideas of improvisation education involving the sharing of repertoire or "licks" – flexible devices to be used and transformed in improvisation. (p. 207)

Free improvisation seeks, according to Bradlyn (1988), to increase unpredictability.

The improvising musician wants to intensify his or her awareness of initial conditions and to incorporate this sensitive dependence, this freely fluctuating locally chaotic state into musical events as the music unfolds, thus actively lessening the probability of repeating something previously played. (p. 16)

Attractors are forces that pull a chaotic system from "random disorder into a shape of complex non-periodic order". (p. 17)

Free improvisation is self-organizing, is aesthetically independent, and is sensitive to initial conditions and strange attractors.

Improvisation organizes itself as nature organizes itself: not according to familiar, ideal rules of order in strict opposition to chaos, but through a dynamical dialectic of chaos and order working through the talents and musical awareness of the players. /.../

Free improvisation makes few concessions to preconceptions of order and beauty and finality. This music is order and beauty in the raw, emerging like Aphrodite from the foam.

Sensitive dependence on initial conditions, and the existence of strange attractors limiting the extremes of chaotic systems, two of the central concepts of chaos, suggest that the science of chaos may be applied to many different aspects of the phenomenology of music. (p. 18)

The term “entrainment” is a mark of free improvisation. Entrainment is “the synchronization of two or more rhythmic systems into a single pulse”, a phenomenon that holds for such different things as a group of men “hammering on a building site”, “the body’s physiological rhythms”, and “even electronic oscillators operating at close to the same frequency”. The entrainment effect causes improvisers playing together to “breathe together, pulse together, think together”. (Nachmanovitch 1990: 99–100)

Transitions are, according to Nunn (1998), “vital to the perception of form in free improvisation”. They imply “notable changes in the general character of direction of an improvisation” and “in most instances, Transitions are easily heard by improvisers and audience”. Transitions are connecting “relatively equally important but unique sections”, and free improvisation is “inherently segmental in its formal nature”. (p 51)

Nunn sees seven types of transitions:

Sudden/Unexpected Segue –	Unprepared, immediate change with unexpected continuation. /.../
Pseudo-Cadential Segue –	Implied cadence with sudden and unexpected continuation. /.../
Climactic Segue –	Peak moment that stimulates unexpected change and continuation. /.../
Feature Overlap –	One feature of antecedent section is sustained and becomes part of the consequent section. /.../
Feature Change –	Gradual change of one feature that redirects the Flow (usually subtly). /.../
Fragmentation –	Gradual breaking up, or fragmenting, of the general texture and/or rhythm. /.../
Internal Cadence –	Prepared cadence followed by short silence then continuation with new material. (p. 51–53)

He sees the types as archetypes, and writes a more detailed description of each type.

Internal Cadence is the most easily recognized; the Flow stops for a moment, and there is silence. Sudden/Unexpected Segue happens without warning, but is also often obvious, in retrospect. Climactic Segue and Pseudo-Cadential are PROCESSES that prepare the listener

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for a special moment. A climax builds the Flow to a peak of energy; or the intimation of an impending cadence within the Flow is made more obvious. However, the listener is fooled (expectations are denied) by the sudden change of direction or character, or an uninterrupted continuation of the Flow without full cadence. This is a common characteristic of free improvisation /.../.

Fragmentation is a gradual PROCESS; sometimes the more gradual the more effective. If a group sound is Fragmented evenly, it could lead to an Internal Cadence (or the end of the improvisation); or whether evenly Fragmented or not, it could lead to the establishment of a new Identity, a new direction for the Flow, a new characterization of the music. Feature Overlap and Feature Change both, obviously, rely upon some “feature” about the Flow (ultimately, about someone’s idea or a particular Identity) which acts as a “bridge” to the next section. Feature Overlap, as explained before, merely sustains one feature of the antecedent section which becomes part of the consequent section. What is interesting about this is how that overlapping feature is expressed and what part it plays in the following section. Such a feature would likely be an Identity, a potential Identity, or a ground, which invites a potential Identity. Feature Change is self-evident; a feature is subjected to its own transition, a transformation that becomes the focus of the Flow. How this transformation plays out expresses the character of the Transition and will strongly INFLUENCE the section to follow. Although most likely the articulation of a single “voice”, Feature Change can be collective PROCESS as well. (p. 83)

Mathematical, natural scientific, or engineering scientific models can, according to Pignon (1992), offer help and supply a form to otherwise elusive, intuitive, mental pictures of what is actually happening when one creates or receives art. However, one cannot deduce anything from these models that one has not already empirically experienced in the field, and one must be careful not to see these derived results as explanations in a scientific sense. (p. 5)

In his metaphorical system thinking, Pignon starts with thermodynamics.

Classical thermodynamics is mainly about states of balance and how systems are drawn to such; after a disturbance, a system seeks out the state of balance that it has been disturbed from, or to some new balance if this has less energy. The state of balance is a sort of *attractor*. /.../ One has, however, discovered systems that do not behave in this way, but rather that – when they find themselves far from their state of balance – begin to show an instable self-organizing behaviour in both time and space, often surprisingly diversified. This discovery seems to point to a fundamental rethinking of our understanding of nature. (p. 5)

[Klassisk termodynamik handlar huvudsakligen om jämviktstillstånd och hur system dras till sådana; efter en störning söker sig ett system till det jämviktstillstånd det rubbats ur, eller till någon ny jämvikt om denna har lägre energi. Jämviktstillståndet är en sorts *attraktor*. /.../ Man har emellertid upptäckt system, som inte uppför sig så, utan som – när de befinner sig fjärran från sitt jämviktstillstånd – börjar uppvisa ett instabilt självorganiserande uppträdande i både tid och rum, ofta förvånansvärt diversifierat. Denna upptäckt tycks innebära en grundläggande omvärdering av vår förståelse av naturen. (s. 5)]

Points of bifurcation are mentioned as typical for FFE states. Pignon defines points of bifurcation as critical stages from which the system can take one or two (or more) paths with radically different behaviours. The system is tremendously sensitive to small

fluctuations and influences at the points of bifurcation that can steer it into quite different behaviours. This is entirely foreign to classic thermodynamics where small disturbances are expected to only have a small effect that quickly dies out. (p. 5)

Pignon transfers the idea of FFE states to free ensemble improvisation.

Let us now look at the following situation: one or more musicians say: "We are going to play, but we have no idea about what, absolutely nothing about the music has been decided in advance, not harmony, melody, rhythm, dynamics or form." The classically indoctrinated musician or the listener probably answers: "This can only result in complete disorder (maximal entropy)." But I would posit that much of the music that has been created in this way during the past thirty years shows unique values and is very enlightening. Might we perhaps see the processes that cause this music as somehow analogous to the instable, self-organizing behaviours in certain FFE systems? (p. 5)

[Låt oss nu betrakta följande situation: en eller flera musiker säger: "Vi tänker spela, men vi har ingen aning om vad, absolut inte någonting av musiken har bestämts i förväg, varken harmoni, melodi, rytm, dynamik eller form". Den klassiskt indoktrinerade musikern eller lyssnaren svarar förmodligen: "Detta kan endast resultera i fullständig oordning (maximal entropi)". Men jag vill påstå att mycken musik som skapats på detta sätt under de senaste trettio åren uppvisar unika värden och är mycket givande. Kan vi måhända betrakta de processer som ger upphov till denna musik som på något sätt analoga med de instabila självorganiserande beteendena i vissa LFJ-system? (s. 5)]

He thinks that a free improvisation ensemble can reach a state that is far from equilibrium, in which a catalytic line [positive feedback] can cause instability, a wasteful structure with self-organizing behaviour that at least intermittently is tremendously sensitive to very small influences, if all musicians are given equal power and if no recognizable formulation of a goal is allowed to create a hierarchic pattern. (p. 6)

There is no form of artistic creation that is as involved in its own synthesis as free improvisation.

Nowhere else is the product of artistic creation so involved in its own 'synthesis' as in (free) improvised music. The musician's psyche is directly connected with the music that has just been played, and is, in its lack of a goal-oriented supervisory section, very strongly affected by it. The music is its own catalyst. (p. 6)

[Ingenstans är produkten av konstnärligt skapande så involverad i sin egen 'syntes' som i (fri) improviserad musik. Musikerns psyke står i direkt förbindelse med den musik som just spelats, och är, i avsaknad av en målorienterad övervakaravdelning, mycket starkt påverkad av den. Musiken är sin egen katalysator. (s. 6)]

As opposed to the creativity of musicians in stable systems, with their tendency to draw themselves back to an attractor state when brought out of balance, Pignon believes that musicians can become creative in an essentially new way by reaching an instable, self-organizing FFE state, sensitive to the smallest influence, which steers them into new, fresh behavioural patterns. (p. 6)

Sawyer speaks of “emergent systems” and claims that

although each member of the group contributes creative material, a musician’s contributions only make sense in terms of the way they are heard, absorbed, and elaborated on by the other musicians. The performance that results *emerges* from the interactions of the group.

/.../

The concept of emergence is becoming increasingly important in many fields that study complex systems, including biology, meteorology, and cognitive science. In an emergent system, interaction among constituent components leads to overall system behavior that could not be predicted from a full and complete analysis of the individual components of the system. Group behavior must be thought of as emergent in those cases where there is not a structured plan guiding the group and where there is no leader who directs the group.

(Sawyer 2000: 182–183)

SUMMARIES AND REFLECTIONS

A. General:

- 1– to liken free ensemble improvisation to different types of systems should be seen as metaphors for greater insight into free improvisation, not as scientific explanations of how it works (Borgo 1999)
- 2– mathematical, natural scientific, or engineering scientific models can offer help and supply a form to otherwise elusive intuitive mental pictures of what is actually happening when one creates or receives art. However, one cannot deduce anything from these models that one has not already empirically experienced in the field, and one must be careful not to see these derived results as explanations in a scientific sense. (Pignon 1992)

It is important to make clear that comparisons between free ensemble improvisation and different systems are metaphors that do not aim at scientific explanations, which does not, however, prevent the metaphors from casting a complementary light on the phenomenon free ensemble improvisation. (points 1, 2)

- 3– in an emergent system, interaction among constituent components leads to overall system behavior that could not be predicted from a full and complete analysis of the individual components of the system (Sawyer 2000)
- 4– group behavior must be thought of as emergent in those cases where there is not a structured plan guiding the group and where there is no leader who directs the group (Sawyer 2000)
- 5– although each member of the group contributes creative material, a musician’s contributions only make sense in terms of the way they are heard, absorbed, and elaborated on by the other musicians. The performance that results emerges from the interactions of the group. (Sawyer 2000).

The marks of “emergent systems” (points 3–5) correspond well with free ensemble improvisation, so one can call free ensemble improvisation “emergent”, and a free improvisation ensemble an “emergent system”. The music emerges as a result of the musical interaction of the members, and, if one sees musicians as system components, then the behaviour of the system, that is, the music that emerges, cannot be predicted “from a full

and complete analysis of the individual components of the system” (point 3). Nor is there a structured plan to guide a free improvisation ensemble, nor any leader (point 4).

According to point 5, “a musician’s contributions only make sense in terms of the way they are heard, absorbed, and elaborated by the other musicians”.

Firstly, one must differentiate between “heard”, “absorbed” and “elaborated”, respectively. For a contribution to be absorbed and elaborated, it must be heard first. However, a contribution can be heard but not absorbed, or heard and absorbed but not elaborated. It is reasonable that a prerequisite for any contribution to make sense is *that* it is heard and absorbed by the other musicians but not necessarily that it is elaborated by all/some of them. It is also possible to react to a contribution by adding non-elaborated (i.e. new or repeated) material (or keep silent) while still maintaining the opinion that the original contribution is making sense.

Secondly, one must think of “the way”, that is, *how*, contributions are heard, absorbed and elaborated. One can, for example, hear a contribution more or less clearly, and absorb a contribution more or less consciously/unconsciously. The ways of both hearing and absorbing will probably influence one’s opinion of the contribution making more or less sense and one’s sounding reactions, where the latter, in turn, will probably influence one’s co-musicians opinion about one’s sounding reaction making more or less sense, and so on. A contribution can also be elaborated in many different ways, of which probably not every way will be regarded as making as much sense as every other way(s) of elaborating. Elaborating is, furthermore, and according to the above, only one way of establishing relations (i.e. interacting, which is that which causes the ensemble improvisation to emerge). (see 6.2 How free improvisation comes about, appendix A2 Gesture processing alternatives)

B. Biological systems:

- 1- in an emerging theory in evolutionary biology (sybiogenesis), several contemporary biologists are focusing more on the cooperative and creative aspects of life that lead to the ever-increasing diversity and complexity inherent in all living systems, than on random mutations and competitive natural selection (as proposed by Darwin) (Borgo 1999)

The biological system analogy with free ensemble improvisation is easy to adopt. The members of a free improvisation ensemble cannot compete with one another. Competition would be devastating for the musical interaction that free ensemble improvisation stands and falls with, and especially for musical interaction within collective understanding. Furthermore, what would one compete about? To play most soli, be heard the most, stand at the front of the stage, decide over others...? I believe that any sort of competition would seem rather ridiculous in the eyes of most free improvisers.

- 2- in free ensemble improvisation, cooperation necessarily replaces competition. A single player exists within the larger entity, taking in resources and energy and offering in return additional grist for the improvisational mill, all in a delicate balancing act of attempting to collectively create a performance gestalt which transcends the input of its isolated parts. (Borgo 1999)

Cooperation, and cooperation on equal terms is, to the utmost extent, part of the idea of free ensemble improvisation and is another way of describing interaction within collective understanding. It is also part of the idea of free ensemble improvisation that one is part of something that is greater than oneself, of something one belongs to and can contribute to. Then there can, and often does, appear a feeling of wholeness that exceeds one's own contributions, of something that is greater than oneself. I have only experienced the opposite once, and the result was a musical desert march, and death. A continuation of that collaboration was never discussed.

- 3- mutations and natural selection may be seen as analogous to chance occurrences that occur in an individual's playing that become incorporated in his or her body of available techniques and in his or her intelligent body (Borgo 1999)

Mutations can be seen as analogous to unforeseen events in an individual's playing, but one can also see normal variations of gestures as mutations. Natural selection, in the form of unforeseen events that are incorporated in one's technique to the extent one finds them useful, I find more doubtful. The situation in a free ensemble context is seldom such that one has the time to make such considerations and/or decisions. One can remember certain unforeseen events – however, not so much as contributions to an increasing reserve of technique, but rather as events that were appropriate, or that came as a surprise, at a particular moment. There is nothing that obviously says that such an event would be able to be used again, and no free improviser I know would consider using improvisation time to wait for a suitable occasion to use a special musical event. Everyone has their hands full relating to what is actually happening, unforeseen or not.

- 4- the term gene trading may be seen as analogous to traditional ideas of improvisation education involving the sharing of repertoire or “licks” – flexible devices to be used and transformed in improvisation (Borgo 1999).

Applied “gene trading” in the form of “licks” from a common warehouse is a phenomenon that belongs more to idiomatic than to non-idiomatic improvisation. In idiomatic improvisation, licks contribute to defining a style, and can then be described as returning gestures, formed so that they fall within and express the style in question. Conversely, one can see licks as products of a style. In free improvisation, there is no need for and no wish to define any style at all, which, however, does not mean that licks and other stylistic elements cannot be used (see 13 Free improvisation – idiomatic improvisation – stylistic influences). At least as uninteresting for a free improviser would be, to the extent they occur, to use recurring gestures that someone else in the ensemble has produced because someone else in the ensemble has produced them. It is, however, interesting to take the gestures of others as a starting point for producing one's own, to establish relations between gestures, where repetition is only one alternative (see 6.2 How free improvisation comes about).

C. Social systems:

- 1- a free improvisation ensemble may be seen as a social organization that establishes dynamic codes of acceptable behaviour and conduct through a network of conversations and through continued structural and self-amplifying feedback (Borgo 1999)

It is difficult to know what Borgo means by codes for acceptable musical behaviour. If he means playing in a certain or certain ways, then it does not correspond to the conditions for, or my experience of, free ensemble improvisation. If, however, he means openness to different musical alternatives and, above all, openness to musical interaction without preconditions, then I agree with Borgo's viewpoint. If he is referring to social behaviour, I think that the establishing of dynamic codes of acceptable behaviour and conduct (through conversations or by other means) are quite normal for all kinds of social organizations, not only for free improvisation ensembles.

- 2- although individuals have their diverse backgrounds with them, each musical gesture and the various roles within the ensemble are continually negotiated through structural coupling and self-amplifying feedback loops (Borgo 1999)

The latter holds, no matter the musical background. The members in a free improvisation ensemble do not negotiate gestures in the form of conversations; one plays gestures and reacts to them (cf. point 1). This can, in turn, be seen as a negotiation, but in this case a musical one, not a verbal one. Roles follow as consequences of the relations gestures get to one another and are not special subjects for negotiation, especially not verbal ones. On the other hand, conversations, when musicians ventilate how the improvisation went, often take place in free improvisation ensembles after an improvisation. The conversations are mostly about an overall perspective and often in terms of how the musicians succeeded in communicating, that is, how the musical interaction worked. These conversations are linked to coming improvisations and through this receive a feedback effect. (with regard to points 1 and 2, see 6.2 How free improvisation comes about, and point E)

- 3- even though free improvisation in one sense is liberated from idiomatic constrictions, social hierarchies, and externally-imposed constraints (that may be located in other musics), for the practice to be meaningful and for something to emerge out of the union of musicians and musical/cultural backgrounds, an autopoietic boundary must develop one of trust, conviviality, expectations, and loyalty (Borgo 1999)

I see point 3 as a dream scenario. I do, however, wish to differentiate between social and musical autopoietic boundaries. Of course, musicians want both kinds, but I have experienced situations where the social part has left much to be desired, while on the other hand, the ensemble has worked well musically. Musicians in one and the same ensemble can have difficulties with trust, conviviality, expectations and loyalty, from a social aspect, but not necessarily from a musical aspect. The reverse is also possible, but in my case only in theory since I have never experienced it. I have, however, and luckily most often, experienced that both kinds have existed in the ensemble. Of the two, it is, however, the musical autopoietic boundary that is most important and that which constitutes the qualities that are closely related to collective understanding.

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- 4– the autopoietic boundary remains dynamic and is continually maintained and renegotiated by the autopoietic network of musical and social interactions (Borgo 1999).

It is true that free improvisation ensembles are dynamic; however, they are dynamic from a musical perspective rather than from a social one. An ensemble can work, and often does work, quite well, without any social interaction whatsoever, apart from the times one meets to improvise. The ensemble can be undynamic with regard to social interaction, if there is no interest in meeting one another except for during improvisations. Nevertheless, this does not necessarily mean that the musicians dislike one another; they simply have their social lives elsewhere. There are, of course, also examples of musicians combining and enjoying both social and musical interaction. Musically, though, free improvisation ensembles must be dynamic. The members must feel that the group develops musically. If this does not happen, it is experienced as stagnation, and the continuing existence of the group might be questioned. The musical dynamics of the ensemble is maintained and renegotiated continually through musical interaction and conversations according to the comments to point 2. To the extent that the ensemble is both musically and socially dynamic, both forms of dynamics can reinforce one another so that the prerequisites for both musical and social trust, conviviality, expectations and loyalty can increase (see point 3).

D. Synergy:

- 1– synergy can be described as the behavior of whole systems unpredicted by the behavior of their parts taken separately (Borgo 1999)
- 2– for free improvisers synergy appears to be a common goal and a cherished activity (Borgo 1999).

Synergy in the given sense is an excellent description of free ensemble improvisation, whose whole cannot be predicted from the musical actions of the individual members “taken separately”. Synergy is, however, not a “common goal” or a “cherished activity” in itself in free ensemble improvisation but a natural consequence of the way it works. (points 1, 2) (cf. points A3–5)

E. Dynamic/chaotic systems:

- 1– feedback simply means (in its broadest sense) conveying information about the outcome of a process or activity to its source. Negative feedback allows a system to be self-balancing/-regulating, while positive or self-amplifying feedback reinforces an ongoing process. In chaotic systems positive feedback becomes both a generative and an organizing force. (Borgo 1999)

The feedback spoken of in section 6.2.2 (Process) is negative and consists of an adaptation to an existing direction (basically a musical character), and is, from this view, a self-balancing/-regulating process. Positive feedback adds yet another aspect: that gestures in free ensemble improvisation can be brought back to the improvisation so that it takes another direction (a change of musical character in some sense).

My reading about positive feedback has convinced me that both types of feedback exist in free ensemble improvisation. Certain reactions to gestures can mean an immediate change of direction, or indirectly result in a change of direction (positive feedback, cf. the functional relation “catalyst” in 6.2.4 Ways of interaction – relations – complexity), whilst

other reactions do not mean or result in any change in direction (negative feedback, adaptation to existing direction). Each respective alternative occurs collectively as a rule, but both alternatives can also, from the same gestures, occur more or less simultaneously for different individuals/sub-groups in the ensemble. The result of the simultaneous case can at least for a shorter period of time become different simultaneously ongoing musical directions (cf. the functional relation “interpolation” in 6.2.4 Ways of interaction – relations – complexity).

Moreover, if reactions mean to adapt to a new direction, then one can see both negative and positive feedback as two time-displaced sides of the same coin; adapting to a new direction can be seen as negative feedback on a positive. (cf. 6.2.2 Process)

- 2- as a result of positive feedback, chaotic systems demonstrate what is called extreme sensitivity to initial conditions (small changes in the performance of a free improvisation ensemble may amplify via positive feedback and iteration to create radically divergent effects). Since free improvisation involves no preconceptions as to what may follow the initial performance gesture, the system displays an extreme sensitivity to its initial state. (Borgo 1999)
- 3- sensitive dependence on initial conditions, and the existence of strange attractors (limiting the extremes of chaotic systems) suggest that the science of chaos may be applied to many different aspects of the phenomenology of [freely improvised] music (Bradlyn 1988)

One can, with the exception of cases involving feedforward (see 6.2.2 Process), see free ensemble improvisation as just one long chain of unforeseen initial conditions/states, since nothing else is available for the musicians other than the states that reign for the moment or had done so previously, and since none of these have been predetermined. All gestures, not only the first, are free from predetermined decisions about what will follow. It is then not so strange that a free improvisation ensemble is sensitive to, and dependent upon, the initial conditions in the form of the nature of the gestures that sound or have sounded; something that therefore holds for all gestures, not just the first. This sensitivity and this dependence are also prerequisites for being able to speak of free ensemble improvisation at all, and they are consequently present during the entire improvisation in a free improvisation ensemble. (points 2, 3)

The continuous flow of perpetual unforeseen initial conditions does not, however, necessarily mean that a change in direction through positive feedback takes place. In free ensemble improvisation, the second possibility, the maintaining of the direction through negative feedback, is always open. This in itself adds yet another uncertainty. Musicians in a free improvisation ensemble know that any gesture(s) at all can lead to negative or positive feedback, but they do not know in advance which will occur, nor when or how. The unpredictability is always present and is one of the prerequisites.

Borgo exemplifies the interplay between positive feedback and sensitivity for the initial conditions with a comparison between a note-bound woodwind quintet and a free improvisation ensemble. In the former case, negative feedback sees to it that the direction is retaken and the divergences are minimal, while both aspects are open in a free improvisation ensemble, and the change in direction can be as radical as one likes and with as large deviations as one likes. The woodwind quintet represents a stable linear system,

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while the free improvisation ensemble can work in a linear and stable way and/or in a dynamic and chaotic one.

- 4- a free improvisation ensemble can reach a state that is far from equilibrium, in which a catalytic line [positive feedback] can cause instability with self-organizing behaviour that at least intermittently is tremendously sensitive to very small influences, if all musicians are given equal power and if no recognizable formulation of a goal is allowed to create a hierarchic pattern (Pignon 1992)

Free improvisers cannot be sensitive to the small influences that are part of the free ensemble improvisation's continuous stream of momentarily reigning initial conditions/states, if they are not completely free to do so. Free improvisers cannot, to express myself biblically, serve two masters (at least, not as well). They either serve the improvised music on its own terms or they serve some form of directing; the one takes place to the detriment of the other. Directing is excluded if all musicians are given equal power and if no recognizable formulation of a goal is allowed to establish a hierarchic pattern. Only then can free improvisers completely serve one master, that is, improvised music on its terms, and be fully sensitive to the influences that appear.

- 5- free improvisation seeks to increase unpredictability. Improvisers want to intensify their awareness of initial conditions and to incorporate this sensitive dependence into musical events as the music unfolds, thus actively lessening the probability of repeating something previously played. (Bradlyn 1988)

I assume that repeating refers to repetitions within one and the same improvisation (to repeat improvisations as a whole, I see as basically impossible, if anyone were even to think of trying). As far as I know, there is, however, no general fear of repetition in free improvisation. Repetition is seen as just as useful and uncontroversial a musical means as variation and contrast. I can possibly imagine a certain reservation about repetition in the sense 'to sound about the same too long', but not even this reservation is always obvious. There can, at least as a one-off event, be a point in sounding about the same for quite a long time.

- 6- points of bifurcation are typical for FFE states, where points of bifurcation are critical stages from which the system can take one or two (or more) paths with radically different behaviours (Pignon 1992)
- 7- at points of bifurcation, a system can branch off into entirely new states and demonstrate novel behaviours and emergent order (Borgo 1999)
- 8- the system is tremendously sensitive to small fluctuations and influences at the points of bifurcation and can steer it into quite different behaviours, which is entirely foreign to classic thermodynamics where small disturbances are expected to only have a small effect that quickly dies out (Pignon 1992)

I see points of bifurcation in free improvisation contexts as places where positive feedback comes about, as places where a change of course takes place, and where the new behaviour and the new course can be more or less radically different from what was before. (points 6-8)

- 9- the behaviour of the system at a bifurcation point depends critically on the previous history of the system (depending on which path it has taken to reach instability, it will follow one or the other of the available branches after the bifurcation), that is, the musical direction of the improvisation up to that point, and on the ensemble's collective experiences with improvisation (influencing which musical path is pursued by the group after the "bifurcation") (Borgo 1999)

As critical for the choice of path after a bifurcation point, Borgo mentions the musical direction up to the bifurcation point, that is, the path that leads to it, the history of the system, but also the ensemble's collective experience of improvisation. Both components are reasonable, but I would like to complement them with a third – the musicians' individual experiences of free improvisation. This is because these experiences are components of the ensemble's collective experience, and especially since all musicians probably have experiences from different improvisation ensembles in which not all of the other musicians in the group have been members. The ensemble's and individual's experience of free improvisation can be seen as a system history in a larger perspective. Generally, I do, however, believe that the path there, the musical direction up to the bifurcation point, has the greatest importance for the choice of path afterwards.

- 10- transitions can be seen as analogous to the bifurcations exhibited in chaotic systems (Borgo 1999)
- 11- Nunn has seven types of transitions: sudden/unexpected, pseudo-cadential, climactic, feature overlap, feature change, fragmentation, and internal cadence (Nunn 1998)

Borgo mentions transitions in free ensemble improvisation as analogous to bifurcations (point 10). If one looks at Nunn's choices of transitions (point 11), which Borgo refers to, it is, however, only in the first that a transition takes place immediately (sudden/ unexpected). In the other cases, the transition is more about a period than a point in time. One can then speak of the alternative transition points and transition periods, respectively, where, in the latter case, the 'points' can be seen as places where the transitions begin and end. Furthermore, bifurcation/transition points do not necessarily take place simultaneously for all the musicians in the ensemble, either; transitions can be started/ended at different points in time for different musicians (see 6.2.1 Listening, 6.2.4 Ways of interaction – relations – complexity).

I do not see the fourth alternative (feature overlap) as a transition type of its own but rather as a special case of one of the others. A case where something from an earlier section is maintained over the transition and into the next section, no matter which type the underlying transition has been. Also, I miss the alternative pause (silence), without a tie to any particular preceding process, such as, for example, a cadence or a climax-creating intensification (alternative seven, internal cadence and alternative three, climactic). As a consequence of these objections, the transition alternatives become: sudden/unexpected, pseudo-cadential, climactic, feature change, fragmentation, internal cadence and silence.

The system of a free improvisation ensemble becomes especially sensitive to small fluctuations and influences at points of bifurcation/transition, since most musicians as a rule feel, more or less, that a change is happening, but do not feel exactly when it will lead to something, how it will do so, or what it will lead to. (see point 8)

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- 3- sensitive dependence on initial conditions, and the existence of strange attractors (limiting the extremes of chaotic systems) suggest that the science of chaos may be applied to many different aspects of the phenomenology of [freely improvised] music (Bradlyn 1988)

I am also convinced of the occurrence of attractors in free ensemble improvisation, or, rather, that the term is applicable to and meaningful for free ensemble improvisation.

- 12- transitions and relational functions can be attractors (Borgo 1999)
- 13- the uncertainty of free improvisation appears tempered by common attractors. As an example of a musical attractor, Borgo mentions a long tone (Jonathon enters with an electric guitar drone on the note concert E, which ends up becoming a musical 'attractor' that frames both overtly and subtly the entire 13-minute performance). (Borgo 1999)

If one focuses on attractors as values, then neither transitions nor relational functions are good examples of attractors in free ensemble improvisation (point 12). Though they are events that draw the interest of the musicians and influence their actions, they are not values (they do, however, have time values for when they take place). Transitions are processes, and functional relations are categorizations of relations between the actions of the musicians in terms of gestures. Also, transitions are named above as examples of bifurcation points/periods. Even if a process might possibly be both a bifurcation point/period and an attractor, I prefer to see transitions as bifurcation points/periods, since the music in the 'system' takes another direction during transitions. The example of a long tone (point 13) is simpler. A long tone has a value that can be expressed as a frequency and/or tone name. Generally, a central tone appears as a result of the melodic-rhythmic actions of the musicians, where a long tone is simply one example of how a central tone can be established. The attractor quality is established through the way the tone is understood. When a tone gets a general quality of a fundamental tone, though not as narrowly as in a conventional tonal or modal sense, then it gets a central tone function and affects the choice of other tones that orbit around it, so to speak. The central tone becomes a value that one relates to and that is difficult to neglect. A central tone can, also as a result of the melodic-rhythmic actions of the musicians, develop into a tone row / scale for a shorter or longer period of time. (see 19.1.2 More about objects)

There is yet another value I would like to call an attractor in free ensemble improvisation, and this is pulse. At least regular pulse has a value that can be expressed in metronome beats (BPM). Pulse does occur from time to time in free improvisation, more or less clearly and regularly and in a more or less clear and regular form. Generally, pulse appears through the rhythmic actions of the musicians, and when it occurs it has the same attracting effect on the rhythm as a central tone has on the choice of tones. One relates to it in some way, and it is difficult to neglect it. A pulse can, also through the rhythmic actions of the musicians, develop into metrical patterns for a shorter or longer period of time. (see 19.1.1 Complementary material under the term heading: Objects, 19.1.2 More about objects)

- 14- the term entrainment (the synchronization of two or more rhythmic systems into a single pulse) is a mark of free improvisation, and causes improvisers playing together to breathe together, pulse together, think together (Nachmanovitch 1990)

- 15– attractors in chaos theory are regions of phase space that organize the long-term dynamic behaviour of systems (Borgo 1999)
- 16– attractors are forces that pull a chaotic system from random disorder into a shape of complex non-periodic order (Bradlyn 1988)
- 13– the uncertainty of free improvisation appears tempered by common attractors. As an example of a musical attractor, Borgo mentions a long tone (Jonathon enters with an electric guitar drone on the note concert E, which ends up becoming a musical ‘attractor’ that frames both overtly and subtly the entire 13-minute performance). (Borgo 1999)

It is as a result of pulse as an attractor that I see the “entrainment” effect Nachmanovitch speaks of (point 14). For me, central tone and pulse represent attractors/values that other values tend to be drawn towards, that for a shorter or longer period of time contribute to “organize the long-term dynamic behaviour of systems” (point 15), that contribute to pull a chaotic system from random disorder to a complex non-periodic order, and that hereby, at least for the moment, can partly reduce the uncertainty in free ensemble improvisation (point 16, 13).

- 17– examples of attractors of less interest to free improvisers are periodic or predictable musical group behaviours, and references to traditional musical idioms (Borgo 1999)

The less interesting attractors Borgo speaks of are not values either, but processes. As such, they are, however, as a rule negative for a free ensemble improviser and should probably, if they were seen from an attractor perspective, rather be called repellents.

- 18– free improvisation is, through a dynamical dialectic of chaos and order working through the talents and musical awareness of the players, self-organizing as nature itself and makes few concessions to preconceptions of order and beauty and finality (Bradlyn 1988)
- 19– the processes that cause free ensemble improvisation might perhaps be seen as somehow analogous to the instable, self-organizing behaviours in certain FFE systems (Pignon 1992)
- 4– a free improvisation ensemble can reach a state that is far from equilibrium, in which a catalytic line [positive feedback] can cause instability with self-organizing behaviour that at least intermittently is tremendously sensitive to very small influences, if all musicians are given equal power and if no recognizable formulation of a goal is allowed to create a hierarchic pattern (Pignon 1992)

Free ensemble improvisation is self-organizing simply because there is nothing else than its own process and its own musicians that organize it (see 6.2 How free improvisation comes about, complemented with positive/negative feedback according to the above). A consequence of its self-organization is that its practitioners neither can nor want to make any “concessions to preconceptions of order and beauty and finality”, that is, to have any ideas about how it will sound in advance. The extent to which such self-organization corresponds to nature’s way of organizing is beyond my knowledge, but I do see it as a natural way of organizing ensemble music, perhaps the most natural. (point 18)

I do, however, see, a perspective that permeates my comments under point E, that there is a great possibility of finding analogies between free ensemble improvisation and instable self-organizing behaviour in certain FFE systems, especially if “certain” stands for

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organic systems. To the extent that this is the case, it speaks for the fact that self-organization in free ensemble improvisation maybe has similarities with nature's way of being self-organizing. (points 18, 19, 4)

I do not, however, see the order-chaos dialectic as the self-organizing driving force behind free ensemble improvisation, but see musical interaction as its driving force instead. Order and chaos, respectively, become consequences of musical interaction, but there is no special striving towards either the one or the other. (point 18)

So self-organization takes place through musical interaction, which, however, presupposes, in turn, that all musicians are given the same power, that no recognizable formulation of goals is allowed to establish a hierarchic pattern, and that no other form of outside directing occurs. (see the comments above to point 4)

20- there is no form of artistic creation that is as involved in its own synthesis as free improvisation, and where the music is its own catalyst (Pignon 1992)

If free improvisation only stands for free music improvisation, then I am not as sure as Pignon that there is no other form of artistic creation that is as involved in its own synthesis as free improvisation. I am convinced that theatre improvisation and contact improvisation, for example, are also as involved in their own syntheses.

If one, however, allows free improvisation to include all real-time interaction within any area (not just musical) between two or more people (not just musicians) where nothing is predetermined or binding, then I agree with Pignon's opinion. This is because there is nothing else in that kind of activity to be involved in than its own synthesis, and where the activity itself is the catalyst for its own continuation.

21- the most effective free improvisation performances involve decisive musical ideas and marked transitions that take place at moments of group consensus with an awareness of what has occurred and a conception of what may follow (Borgo 1999)

There is a risk that musical ideas that are too clear become boring, and it is also not certain whether free ensemble improvisers want to be effective. Musical real-time interaction of course presupposes that musical ideas are understandable and perceivable to the recipient, and that even larger or smaller misunderstandings and those musical ideas that are only partly understood and perceived can result in exciting consequences.

If transitions are always marked and always take place collectively, there is a risk of them becoming boring, too. More or less diffuse transitions and/or transitions that do not take place for all participants simultaneously also exist, and they can contribute to the improvisations becoming even more exciting. A common consciousness about what has happened is, however, desirable in free ensemble improvisation since it is a prerequisite for being able to relate to an improvisation from a more holistic perspective (see 6.2.2 Process).

Having an idea about what is to come can be both good and bad. If such an idea appears too early, it can influence the actual development of the improvisation in an unnatural way. The risk is that one decides in advance what one should do, without taking into account if it is relevant in relation to the conditions that actually exist when one does it; that one acts from what one thought would come whether it does or not. Ideas about

what will come can also, for good and bad, be different for different musicians on the same occasion. At the same time, the idea of being able, to a certain extent, to feel what will come falls under the term feedforward, and belongs, as a consequence of the 'system's' history and how well the musicians know one another musically (and possibly other factors as per above), to free ensemble improvisation as a positive component (see 6.2.2 Process).

The aspect of effectivity can in fact be dangerous if one reads into such values that 'effective' becomes the same as 'good'. That ideas should be clear and that transitions should be marked can then be a goal in itself. I do not see such possible rules as consistent with free ensemble improvisation.

- 22– the time-dependency and irreversibility of chaotic systems also exist in free improvisation (contextualization of one's own or others' gestures can be done after the fact, but the real-time nature of the creative act does not allow for revision) (Borgo 1999)

It is true that free improvisation is time-dependent and irreversible; however, that can, on the other hand, be said of all music, since all music takes place in and over time and no music can be rewound in order to be revised. (This does not, however, apply to symbols for music such as notes, for example; they can be revised). One cannot really speak of revision of music during retakes of sections in connection with rehearsals either; each retake is a version of the music that cannot be changed but that can, however, be different compared with previous versions/retakes.

- 23– the discovery of systems that, far from their state of balance, begin to show an instable, self-organizing behaviour, seems to point to a fundamental rethinking of our understanding of nature (Pignon 1992)

To the extent that similarities between such systems and free ensemble improvisation exist, free ensemble improvisation should, to the same extent, be able to mark a fundamental rethinking of our understanding of music and of how music can be created, which, in such a case, should be paid attention to, not least within music education at all levels.

Such a rethinking does not, however, mean that stable, linear musical systems (read as predetermined music, such as note-bound music, for example) should be disregarded. They exist, they must be allowed to exist, and will most likely continue to exist. Even free ensemble improvisation can, as a result of negative feedback, at least periodically be rather stable (see above), if not in the linear sense of playing according to notation.

This, however, means that stable linear musical thinking should be put in relation to instable, non-linear ways of creating music, which, according to the aspects of similarity mentioned above, can be seen as a deeper and more fundamental understanding of the nature of music, of our understanding of music, and of how music can be created.

- 24– as opposed to the creativity of musicians in stable systems, with their tendency to draw themselves back to an attractor state when brought out of balance, musicians can become creative in an essentially new way by reaching an instable, self-organizing FFE state, sensitive to the smallest influence, which steers them into new, fresh behavioural patterns (Pignon 1992)

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- 6- points of bifurcation are typical for FFE states, where points of bifurcation are critical stages from which the system can take one or two (or more) paths with radically different behaviors (Pignon 1992).

The view in point 24 corresponds well with point 6, and it is this latter kind of creativity that free ensemble improvisation comprises, that it is dependent on, that it offers, and that, for the most part, is missing from music education at all levels.

The terms from the system analogies that I find useful for conceptual use are: bifurcation points/periods (transitions) and attractors (central tone and pulse), while the term positive feedback complements the process model for free ensemble improvisation. (see 6.2.2 Process)

III Concept model

18 Concept model based on previous sections

REFERENCES

Nunn brings up the importance of theory and terminology for free improvisation.

A common theoretical foundation for free improvisation is currently absent, though numerous authors (usually improvisers) have written about it in books, articles and reviews.

/.../

Indeed, there seems to be little consensus about a theoretical understanding of free improvisation, per se, and a terminology to more precisely and consistently discuss it.

/.../

But without some common ground of understanding, there can never be the fullest appreciation for the evolving language of this music. (Nunn 1998: 7)

Improvisation “presents formidable challenges to analysis, the least of which include classifying concepts and defining terms”. (Wallace White 1999: 1)

SUMMARIES AND REFLECTIONS

Reasons for devoting oneself to terms for free ensemble improvisation :

- 1- there is no common theoretical foundation for free improvisation, even though numerous writers have written about it (Nunn 1998)
- 2- without some common ground of understanding, there can never be the fullest appreciation of the evolving language of this music (Nunn 1998)
- 3- there seems to be little consensus about a theoretical understanding of free improvisation per se (Nunn 1998)
- 4- there seems to be little consensus about a terminology to more precisely and consistently discuss free improvisation (Nunn 1998)
- 5- improvisation presents formidable challenges for analysis, the least of which include classifying concepts and defining terms (Wallace White 1999).

In order to be able to fully appreciate free improvisation, one must have a common theoretical foundation for an understanding of it, which is something that does not exist (points 1, 2). However, I do not see free ensemble improvisation as an evolving language

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but as a method of making music, and therefore, in an evolutionary perspective, possibly as an evolving method of making “this music” (point 2). If a common ground for understanding is lacking, and therefore also the prerequisites for being able to appreciate free improvisation for what it is, and on its own terms, then it is natural that there is little consensus regarding its understanding, to the extent that it exists at all (point 3). I see the growth of relevant concepts/terms as at least one prerequisite for a better theoretical foundation for and understanding of free ensemble improvisation.

Terminology, with its attendant term definitions for an activity, not least a definition of the activity itself, must grow out of the interplay between the activity and the reflections on this activity. In order to reflect, one must, however, have an activity to reflect upon and terms by means of which one is able to reflect. However, I have difficulty imagining that a flora of terms exists before the activity that feeds the flora of terms and what these terms are meant for, exists. It is through the formulation of terms and definitions concerning an existing activity that any possible contradictions can be revealed, explained, and perhaps dissolved. (points 4-5)

From the two-way directed process activity–reflection, I believe that there might grow a common theoretical foundation for the understanding of free improvisation, which, in turn, is a prerequisite for being able to fully appreciate it (I see “fully”, however, as meaning that appreciation of the activity is still possible without a comprehensive terminology, quite simply as an experience). (points 1, 2)

The activity free ensemble improvisation is, however, so complex and varied that it might not be possible, and perhaps not even desirable, to reach a uniform and all-encompassing terminology. Nor do I see uniformity as necessary for reaching a common theoretical foundation; I believe that such a foundation can be multi-faceted. (points 1, 2)

Hopefully, this work can also be part of and contribute to the process of interplay that takes place between activity and reflection and hereby leave a contribution to a growing common theoretical foundation for understanding, which, in turn, can lead to a greater appreciation of free ensemble improvisation and to a further growth and deeper understanding of this art form. (point 1-5)

Suggestion for a concept model based on the preceding sections

My concept model is meant as a theoretical basis for free ensemble improvisation and is mainly based on what I listen to and relate to when I improvise. It is meant as a basis to be able to speak or write about free ensemble improvisation in a more differentiated and precise way, and, in its extension, to eventually even become a basis for the analysis of free ensemble improvisation. My ambitions have been to come up with a model that is as simple, concise and easy to grasp as possible, since I consider it easier to expand a simple fundamental model than to reduce one that is complex from the start, and also to focus the model on what is central to me.

The model is presented in two steps. In section 18, I present a first version, which is built on terms taken from the preceding sections (6.1.1 Solo – ensemble, 6.1.2 Ensemble, 6.1.3 Short-term – long-term collaboration, 6.1.4 Ensemble size – large ensembles – directing, 6.2.1 Listening, 6.2.2 Process, 6.2.3 Interaction – communication – conversation, 6.2.4 Ways of interaction – relations – complexity, 9 Evaluation, 12 Free improvisation –

instrument, technique and virtuosity, 17 Free improvisation – system analogies). In section 19 (Complementary material to the concept model), I add more terms that I consider to complement the concept model, and in section 19.4 (Rhythm, and the complemented concept model), the complemented concept model is finally presented.

In section 6.1.1 (Solo – ensemble), *aesthetics*, or *aesthetic positions*, are mentioned, with the sub-categories *outer aesthetics* and *inner aesthetics*, where outer aesthetics are about the way the music should sound, and inner aesthetics about the way the musical interaction should work.

In section 6.1.2 (Ensemble), *collective understanding*, which can be *total*, *partial*, or *absent*, is introduced. Also, the term *interactive influence*, summarized into *cause (what influenced)* and *effect (the result of the influence)*, is presented.

In section 6.1.3 (Short-term – long-term collaboration), collaborative time is mentioned in the form of long-term, short-term, or ad hoc collaboration; and that the time aspect can be shortened to *collaboration time*.

In section 6.1.4 (Ensemble size – large ensembles – directing), the terms *ensemble size* and *instrument combination* are added.

In section 6.2.1 (Listening) the terms *sound/pause*, *gesture*, *section*, *property*, and *relation* are presented. A gesture is defined there as an intuitive *selection of sounds/pauses* and a section as an intuitive *selection of gestures*. Gestures can be individual or collective, with successive or entirely/partially simultaneous sounds/pauses. In the same way that there can be pauses between sounds in a gesture, there can be pauses between gestures. Gestures in a section can be successive or entirely/partly simultaneous. Gestures and sections are seen as *formal units*, which, when necessary, can be divided into *sub-gestures* and *sub-sections*, respectively, or put together into *meta-gestures* and *meta-sections*, respectively.

Properties are defined as *values / value differences* and/or *value series / value difference series* within the *parameters length±, strength* and *height*. Value series are determined by the included values *size, number, and order*. They can be *successive* or entirely/partly *simultaneous*. Value difference series are determined by the included value differences *size, direction, number, and order*. They can be *successive* or entirely/partly *simultaneous* and constitute *curves*. *Colour properties* are defined as *instrument name(s)*, individually or in *combinations*, and (descriptions of) *timbre / timbre changes* within the framework of the possibilities of the respective instrument.

Relations are divided into *material* and *functional* relations. Material relations are defined as *similarity–dissimilarity* with regard to values / value differences or value series / value difference series, possibly in terms of *repetition–variation–contrast*. Functional relations are defined as musical functions in terms of *foreground–middleground–background* or just *foreground–background*. Relations can be established intentionally or unintentionally; whether one wants to or not, a gesture gets relations to other gestures.

In this section, a distinction is made between *musical* and *non-musical* sounds, where the former are defined as sounds that come from the playing of the ensemble members and that are understood as intended to be part of the ensemble playing. The latter are

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exemplified by audience noise, sounds from the traffic, clink of porcelain, etc. *Hearing away* is connected with the non-musical sounds.

Also named are *primary listening* (with the synonyms “focal”-listening, “listening-in-search”, “figure listening”) and *secondary listening* (with the synonyms “global”-listening, “listening-in-readiness”, “background listening”). Primary and secondary listening are independent of what, in analytical terms, can be called foreground, background, solo, accompaniment, etc. Primary listening refers to musical sounds but can easily be directed towards foreground or background, towards accompaniment or solo, and can quickly change direction/object.

In section 6.2.2 (Process), *musician’s musical background* and *experience*, along with *negative feedback* (that complements its positive form, see 17 Free improvisation – system analogies), are introduced. Also presented are *contextualization* with the categories *silence with acceptance*, *acceptance of two/more simultaneous courses of events*, *adaptation/affirmation* in the form of *reinforcement*, *development*, or *support*. *Feedforward* is given as a name for forebodings about what will happen.

In section 6.2.3 (Interaction – communication – conversation), the term *miscommunication* is given for situations where intention and interpretation are not in accordance.

In section 6.2.4 (Ways of interaction – relations – complexity), *functional relations* are redefined to consist of *solo*, *support*, *ground*, *dialogue* (with *gap-fill*), *catalyst*, *soundmass*, *interpolation*, and *independence*. There, it is also stated that the establishment of relations are ways of interaction and the reverse, that interaction causes relations to be established. Relations and ways of interaction are seen as two sides of the same coin.

Also, *lag time* is introduced as the time changes take within a section (while *transitions / transitional periods* represent the changes and time for changes that lead to a new section, see 17 Free improvisation – system analogies).

Interaction connections refer to the individuals/sub-groups between which interaction takes place. Interaction connections can hold for *individual–individual* and/or *individual–sub-group* and/or *sub-group–sub-group*.

In section 9 (Evaluation), *material utilization* (*material criterion*) and the sense of unity (*unity criterion*) are introduced as bases for evaluation. There, it is also stated that the unity (criterion) is another name for *collective understanding* (see 6.1.2 Ensemble) and that both this and the material utilization are part of the musical interaction, or the interactional skill (see 12 Free improvisation – instrument, technique and virtuosity), as the ultimate evaluation criterion.

In section 12 (Free improvisation – instrument, technique and virtuosity), the four skills: *listening skill*, *choosing skill*, *instrumental skill*, and *interactional skill* are presented. The first three skills are seen as part of, and the foundation for, the fourth and most important (cf. terms from sections 6.1.2 and 9 above).

In section 6.2.1 (Listening), *transition / transition period* are named. In section 17 (Free improvisation – system analogies), the term transition is complemented by a division into the alternatives *sudden/unexpected*, *pseudo-cadential*, *climactic*, *feature change*, *fragmen-*

tation, internal cadence, and silence. Transitions are divided into *transition points* and *transition periods*; transition points are equated with bifurcation points and the relationship between transition points and transition periods is clarified. The term *attractor* is presented and receives the two musical examples *pulse* (with possible *metre*) and *central tone* (with possible *tone row/scale*).

In section 17, *positive feedback* is also mentioned, which, as opposed to negative feedback, reinforces a development that has begun. Positive feedback becomes a complement to its negative form, which is mentioned in section 6.2.2 (Process).

In order to create a better structure for the flora of terms, I would like to complement the terms *properties* and *relations* with the terms *objects, individual, ensemble, evaluation, and complementary aspects*. These seven terms will stand as term headings for the terms in the concept model. Hereby, my concept model can be summarized and ordered as below.

OBJECTS

- sounds/pauses
- gestures (sub-/meta-) (formal unit) (selection of sounds/pauses)
- sections (sub-/meta-) (formal unit) (selection of gestures)
 - lag time
 - transitions (points/periods)
 - sudden/unexpected
 - pseudo-cadential
 - climactic
 - feature change
 - fragmentation
 - internal cadence
 - silence
- attractors
 - pulse (with possible metre)
 - central tone (with possible tone row/scale)

PROPERTIES

- values (successive–simultaneous)
 - value differences (successive–simultaneous)
- parameters (length±, strength, height)
- colour (instrument, instrument combinations, timbre)
- value series (size–number–order) (successive–simultaneous)
 - value difference series (size–direction–number–order = curve) (successive–simultaneous)
- parameters (length±, strength, height)
- colour change (instrument, instrument combinations, timbre)

III CONCEPT MODEL

RELATIONS

- material
 - similarity–dissimilarity
 - repetition–variation–contrast
- functional
 - solo
 - support
 - ground
 - dialogue
 - gap-fill
 - catalyst
 - sound mass
 - interpolation
 - independence

INDIVIDUAL

- listening
 - musical sounds
 - primary listening
 - secondary listening
 - non-musical sounds, hearing away
- feedforward
- aesthetics
 - outer aesthetics
 - inner aesthetics

ENSEMBLE

- interaction connections
 - individual–individual
 - individual–sub-group
 - sub-group–sub-group
(combinations with more than two components are possible)
- interactive influence
 - cause (what influenced)
 - effect (result of the influence)
 - possible miscommunications
- feedback
 - negative
 - positive
- contextualization
 - silence with acceptance
 - acceptance of two/more simultaneous courses of events
 - adaptation/affirmation

- reinforcement
- development
- support

EVALUATION

- interactional skill
- listening skill
- choosing skill
- instrumental skill
- material utilization (material criterion)
- collective understanding (unity criterion)
- total
- partial
- absent

COMPLEMENTARY ASPECTS

- musicians' musical background, experience
- collaboration time
- ensemble size and instrument combination.

The term headings: objects, properties, relations, individual, ensemble, evaluation and complementary aspects can be seen as general terms, and the sub-headings as specifications - one general and one specific term selection. One of the points of having this double term selection is that, with the prerequisite that the general selection is applicable, one can adjust/change the specific term selection according to need and direction.

19 Complementary material to the concept model

In section 19, I take up such things that I feel complement the concept model, sorted under the term headings: objects, properties, and relations (19.1.1 Complementary material under the term heading: Objects, 19.2.1 Complementary material under the term heading: Properties, 19.3.1 Complementary material under the term heading: Relations). In addition, other things are taken up that do not change the concept model, but that I feel have a certain value with regard to informative background (19.1.2 More about objects, 19.2.2 More about properties, 19.3.2 More about relations).

19.1 OBJECTS

19.1.1 Complementary material under the term heading: Objects

REFERENCES

Pulse can be “regular or irregular, periodic or aperiodic. Organic pulse, or free rhythm, is a rhythmic flow that is elastic and flexible. Somewhat similar to the concept of rubato”. (Briggs 1986: 55)

Pulses are, according to Dean, “obvious if they recur at a fixed interval of time, and several times over (say, at least three)”. But one might ask if

in the sections of free improvising which lack stated pulses there are comparable divisions of time into rhythmic units larger than the short notes played? In other words, might an improviser feel division of time in a way which is just as strong as regular pulses, even when these divisions are irregular in length /.../ and sometimes unstated?

In summary of this issue, there seem to be two different stances, for both performer and listener. In the first, there is taken to be a continuing function of the same status as pulse (we can term it ‘freepulse’ or ‘impulse’ to distinguish it from fixed pulse) throughout most of the music. These impulses usually occur fairly close together in time – between twice and four times per second. /.../

On the other hand, many musicians, including many of my European free improvising colleagues, admit to feeling rather slow impulses, of around one per 1 1/2 seconds, which are fairly regular, but do not quite qualify as pulses, and within which they place irregular groupings of subimpulses. /.../ The positions of the main impulses are usually not accentuated, but felt to move in relation to the ongoing subimpulses and to change duration in relation to these. The flexibility of approach this allows is useful for the improvisers in giving a sense of space units, which can be taken as appropriate for placing successively contrasting ideas, often one per space. (Dean 1992: 44–45)

With regard to the music in *Caseworks*,¹⁸ Kiroff (1997) differentiates between “pulse in continual flux” [pulse with *ritardandi* and *accelerandi*], “free-floating pulse or stasis” [indeterminable, floating pulse], and “traditional steady pulse” [regular pulse]. (p. 140)

In addition, there also exists a sort of “rhythmic displacement that creates another aural dimension like a perspective or a relief. The fluid nature of pulse comes about as a result of ensemble communication”. (p. 140)

When note values “vary to the extent that it is difficult to identify a pulse – steady, quickening, slowing, or otherwise”, Kiroff sees this as an example of “free-floating” pulse. (p. 161)

“When the pulse is free-floating, nothing is actually happening to articulate the pulse. These periods are usually preceded by a steady pulse or a *ritard.*” (pp. 183–184)

The evolution of pulse is “initiated through spontaneous ensemble communication”, and it builds and subsides collectively. The building and subsiding, respectively, come about gradually over an unpredictable period of time. (p. 184)

“The rhythm section and Ornette [Coleman] begin to play in the same 4/4 time at the beginning of the bridge.” In “the A section of the solo is a freer pulse floating over the pulse of the rhythm section”. (Perkiömäki 2002: 21)

SUMMARIES AND REFLECTIONS

Types of pulse:

- 1– pulse can be regular or irregular, periodic or aperiodic (Briggs 1986)
- 2– organic pulse (free rhythm) is a rhythmic flow that is elastic and flexible, similar to *rubato* (Briggs 1986)
- 3– pulse can be fixed (at fixed interval of time) (Dean 1992)
- 4– there can be comparable divisions of time into rhythmic units larger than the short notes played, time divisions as strong as regular pulse, though irregular in length and sometimes unstated: “freepulse” (a continuity function with the same status as pulse) or “impulse” (fairly regular and with irregular groupings of sub-impulses, “space units”) (Dean 1992)
- 5– pulse can be in continual flux (pulse with *ritardandi* and *accelerandi*), free-floating indeterminable, floating pulse, where note values vary to the extent that it is difficult to identify a pulse), and traditional steady pulse (regular pulse) (Kiroff 1997)
- 6– when the pulse is free-floating, nothing happens that articulates the pulse, which normally is preceded by a steady pulse or a *ritardando* (Kiroff 1997)

From points 1–6, four types of pulse appear:

- a– regular, fixed, traditionally steady pulse (points 1, 3, 5) (regular)
- b– irregular, organic-elastic-flexible, in continual flux (points 1, 2, 5) (evenly irregular)
- c– freepulse, impulse, space units, subimpulses (point 4) (unevenly irregular)
- d– free-floating (point 5) (floating).

¹⁸ Cecil Taylor and Art Ensemble of Chicago. *Thelonious Sphere Monk*. CD DIW 846, DIW/Columbia CK 48962.

III CONCEPT MODEL

That pulse can be periodic or aperiodic (point 1) has more to do with metre than with pulse, which is why this aspect of pulse can be set aside here.

Types a and b (regular and evenly irregular) belong to the standard selection of pulse types within Western music at least, that is, regular pulse and pulse with rubato achieved by *accelerandi/ritardandi*. The difference between types b and c is that the pulse changes in type b happen gradually, whereas they occur in leaps in type c.

Type c (unevenly irregular) is the result of interplay between different individual but not completely temporally coincidental gestures (with regard to the start and end of the gestures), which explains the pulse type's collective uneven irregularity.

Type d (floating) also occurs in free ensemble improvisation. An example of this is the functional relation "sound mass", where it is often very difficult to hear any pulse at all, and especially no common one. That "free-floating" pulse is normally preceded by "a steady pulse or a *ritardando*" should be seen in the light of Kiroff's research of *Caseworks*, but has, as far as I have noticed, no general validity. Type d can also be seen as the absence of pulse.

7- a freer pulse can float over a fixed pulse (the rhythm section) (Perkiömäki 2002)

To complicate the picture even more, different pulse types can occur at the same time and be divided among individuals and/or sub-groups within the ensemble. Pulse types can also shift over time, where the shifts do not need to take place simultaneously for all.

8- there also exists a sort of rhythmic displacement that creates a perspective- or relief-like dimension (Kiroff 1997)

That sounds do not always occur on or halfway between pulse markings is something that is not new to any musician, no matter his musical alignment. There are, in principle, an infinite number of possibilities for "rhythmic displacement" before or after pulse markings.

9- the fluid nature of pulse comes about as a result of ensemble communication (Kiroff 1997)

10- evolution of pulse is initiated through ensemble communication, and builds and subsides collectively over an unpredictable period of time (Kiroff 1997).

Pulse types appear as a result of ensemble communication (interaction) but also affect interaction when the pulse types occur as attractors (point 9) (see 17 Free improvisation – system analogies). The length of time needed to build and discard pulse types is unpredictable but generally take place not only gradually but can also happen more or less immediately; the length of time can come close to a point in time (point 10) (see 17 Free improvisation – system analogies). This, Kiroff's final viewpoint, should also be seen in the light of his research of *Caseworks*.

As a side point, one can see the pulse types from regular to floating as stations on the way towards a dissolution of pulse. (cf. 17 Free improvisation – system analogies, 19.1.2 More about objects)

19.1.2 More about objects

REFERENCES

In Grove, it is stated that

if pitch is concerned with the disposition of the frequencies of musical notes, then rhythm is concerned with the description and understanding of their duration and durational patternings. These durations may be more or less regular, may or may not give rise to a sense of beat or tempo. (Grove music online: Rhythm)

Broadly stated, rhythm involves the pattern of durations that is phenomenally present in the music, while metre involves our perception and anticipation of such patterns. In psychological terms, rhythm involves the structure of the 'temporal stimulus', while metre involves our perception and cognition of such stimuli. /.../ different perceptual attitudes give rise to different metres /.../ 'metre [is] a mode of attending', while rhythm is that to which we attend. (Grove music online: Rhythm, §I Fundamental concepts and terminology, 1. The distinction between rhythm and metre)

Group boundaries can be marked by changes in any musical parameter, including dynamics, timbre and texture. (Grove music online: Rhythm, §I Fundamental concepts and terminology, 3. Durational patterns and rhythmic groups)

Pulses need not be phenomenally present in music, though they typically are. Rather, the sense of pulse arises through the listener's cognitive and kinaesthetic response to the rhythmic organization of the musical surface /.../ A clear sense of pulse is a necessary condition for musical metre, as it forms the temporal anchor for higher levels of metric structure (measures or bars marked by downbeats) as well as smaller levels of metric subdivision. /.../ The pulse of musical passage is a crucial, though not the only, aspect of our sense of tempo. Rapid tempo is correlated with a rapid pulse rate, and slow tempo with a slow pulse rate. (Grove music online: Pulse)

In Sohlman, it is stated that rhythm is highly dependent on the other elements in music [melody, harmony, and sometimes tone color], and that any clearly noticeable musical factor can be what is called a *rhythm-determinant*, that is, of importance for the performance and experience of rhythm. Still, it is unreasonable to state that rhythm 'exists' in the actual sound course: seen acoustically, there are only sounds with varying frequencies, durations and intensities. (Sohlman Dictionary of Music: Rhythm [Rytm])

Improvisation does not refer any longer to a "technique or body of techniques grafted *into* a musical performance but instead to the very process of organizing the *form* of the performance. In other words, free improvisation is not formless music making, but form-making music". (Borgo 1999: 32)

III CONCEPT MODEL

Form in creative improvisation is, according to Briggs (1986), “organic, not imposed. It emanates from the unfolding of the musical materials, as a result of processes of interaction between performers, performers and their instruments, and performers and their environment”. (p. 54)

Central tones, or tone referents, she characterizes as universal elements.

Another universal element is the use of tone referents. Tone referents of varying durations are like fulcrums around which other pitches revolve. /.../ It is analogous to the root in diatonic music, the drone in Indian raga, tonal regions in the “wandering tonality” of pre-serial compositions by Schoenberg and Webern, and emphasized tones in the music of the impressionists. (pp. 56–57)

Pulse is, according to Cooper and Meyer (1963), “necessary for the existence of meter”, where meter is the “measurement of the number of pulses between more or less regularly recurring accents”, and where the existence of meter therefore presupposes that “some of the pulses in a series must be accented – marked for consciousness – relative to others”. Even if there cannot be any meter “without an underlying pulse to establishes the units of measurements”, “there can be rhythm without meter – as in the ‘free’ rhythm of some Oriental and folk music and in what has been called the “measured rhythm” of Gregorian chant”. (p. 4)

Rhythm “is at least theoretically independent of pulse” (p. 6); and, “both within and between groups, some of the elements of music [duration, pitch, harmony, instrumentation, etc.] will tend to produce group coherence, others will tend to produce group separation”. (p. 9)

“Do you think in terms of tempo?”

I think in terms of density more than tempo – speed and rates of events.”
(Davidson 1997: 19)

A tonal centre (“pitch centre”) is, according to Dean (1989), “a pitch which by frequency of repetition, or degree of accentuation, or for whatever reason, tends to be viewed as predominant”. A tonal centre is

a pitch centre within music which adheres to western scales (the major and minor scales). But pitch centres can exist within other kinds of scales, such as the older modes, and even within passages of atonal music based on the twelve-tone compositional system ... (p. 11)

He also points to the possibility of having pulse both within and outside metred music.

When equal pulses are within metred music (i.e. within bars say of 4/4) they are often called beats. But finally remember that it is possible to have pulses outside metred music: in other words, to have pulse in music which does not have regular organisations of accentuation patterns, as metre requires. This can be very interesting in improvisation. (p. 24)

According to Gabrielsson (1988), the term “tempo first of all relates to experienced motion /.../ the experienced rapidity of motion or flow”. (p. 34)

With perceived tempo we usually mean the *rapidity of the beat* or pulse. This often coincides with the indicated metronomic tempo but not necessarily. Moreover, since the beat often can be alternatively felt at different rates (say, at the crotchet level *or* at the quaver level in a certain piece), the perceived tempo depends on which beat rate is meant. In either case, however, the perceived tempo is only one aspect, although a very important one, of the listener’s impression of the speed of the piece. The experienced ‘overall rapidity’, as well as the rapidity of different parts, also depends on such factors as the number of tones per unit of time /.../ and various melodic and harmonic factors. For instance, a melody with many large leaps may seem faster than a melody which proceeds stepwise /.../, and a piece with frequent harmonic shifts may appear more rapid than a piece with fewer shifts. (p. 32)

According to Jost (1994), Coleman [Ornette] used central tones (“tonal centres”) instead of chord patterns as an improvisational reference. If one by tonality means relations to a tone, not relations to a functional harmonic progression, then one can say that Coleman’s music was tonal.

It becomes clear from the first three choruses of *Tears Inside*¹⁹ that while Coleman may accept the formal structure of the blues, he rejects its harmonic implications and the resultant hierarchy of the three 4-bar periods. His point of reference is not changes but a kind of fundamental sound, for whose focal tone the term “tonal centre” was coined in the jazz literature of the Sixties.

As understood by present-day music theorists, tonality does not necessarily involve functional harmonic progressions; rather, it implies first and foremost a relationship to *one* tone. For that reason, Coleman’s music at this stage – and, generally speaking, later too – can be regarded as entirely *tonal*. (p. 48)

Short moves away from the central tone clearly show that while Coleman takes a central tone as a reference, usually for an entire improvisation, “it is not imperative throughout in that it permits shifts to *secondary centres*”. Such shifts do not, for the most part, “arise from functional harmonic changes but from motivic chain-association, and are thus independent of any time-order”. (p. 51)

In solo improvisation, “insofar as they are not limited to energy-sound playing, tonal centres can usually be recognized. In collective improvisations, the many independent parts have tonal bearings when taken separately, while together they create a sort of polytonality”.²⁰ (p. 198)

Associated with the question of rhythm in Cecil Taylor’s music, and in free jazz in general, is the matter of tempo.

¹⁹ On the LP *Tomorrow is the Question*, 1959, Contemporary S 7569.

²⁰ Refers to the horn players in Sun Ra’s Arkestra.

III CONCEPT MODEL

If we say that tempo, as it came to be defined in traditional music, presupposes a constant or nearly constant metre, then Taylor's music after 1961 has no "objective" tempo. If, however, one understands tempo – in accordance with the findings of modern musical psychology – as "impulse density" (i. e. the frequency of musical impulses per time unit), one arrives at one of the phenomena that cause a subjective feeling of tempo in free jazz: the relative density of impulse series creates the impression of different tempi. But there is a second variable, which is probably more important on the whole: above and beyond the impulse density, *accentuation* is instrumental in giving an impression of tempo. It is not the regularity of accents that counts, but their frequency in time. Here too, we must realize that changes in impulse density and accent frequency, and thus in the subjective tempo, are not the result of actions in the bass and drums only /.../, but arise from the interactions of all the players. (pp. 72–73)

With regard to Cecil Taylor's development concerning musical form, Jost states that

it was clear very early in Cecil Taylor's musical development that the formula "theme-improvisation-theme" had no validity for him. Just as transitions between solos and collective improvisations were already fluid in the recordings with Steve Lacy and Earl Griffith, there is often no dividing line between the end of the theme and the beginning of the improvisation. But to the same degree that external boundaries (bar patterns, sequence of solos, etc.) start to fade, internal formal associations are set up by register changes, dynamic gradations, and variations in the rhythm, kinetic pace and instrumentation. (p. 76)

Improvised ensemble music necessitates us to see its form as a process. The ways in which "each player develops material over time collectively creates a level of form". The material development takes place collectively "as the performers are in constant communication with one another" [that is, they interact], and it is "this collective development of several elements at once, in the same direction /.../ that allows us to think of process as form". (Kiroff 1997: 180–181)

Concerning the parts/sections of a form in written music and in free improvisation, respectively, Nunn thinks that

in the analysis of written music, a "section" or "part" of a larger form is usually so designated according to its specific harmonic/rhythmic/thematic CONTENT, rather than how the music moves from one such section to another. In free improvisation, it is more likely to be the PROCESS of change itself that captures the listener's attention rather than the specific differences between the antecedent and consequent section, though these, too, will have an impact upon the listener. (Nunn 1998: 51)

Large-scale segments are "principally articulated by successive points of initiation (thematic entrances, changes in tempo and texture, and dynamic or rhythmic contrasts)", and "segmentation by initiation reveals large-scale grouping structure with clarity and ease". (Smyth 1986: 238)

Sharing “a common pulsative surface” allows, according to Wallace White (1999), the ensemble Oregon a “collective polymetric organization in a manner similar to that found in Stravinsky’s *L’Histoire du Soldat*”. In such a context, both individual and collective activity “exhibits strategies of metric reorganization of a pulsative surface (changing metric lengths) and metric disruption (superimposing syncopated figures on a more stable element or grouping patterns across the barline)”. (pp. 70–72)

Under the heading Pitch logic, he states that activities around central tones [“pitch foci”]

is a common technique used in non-tonal passages [for the ensemble Oregon]. Often, two or more pitch foci are juxtaposed simultaneously, producing a background harmonic tension that resolves once players negotiate an agreement on a single tonal focus or a competing pitch center disappears from the texture. (p. 73)

According to Wennerstrom (1967), form is “a compound of structure relationships. Relationships denote similarities, differentiations, and processes between elements important in themselves, elements that can occur in any parameter”. (p. 20)

By parameter, she means “any [general] distinctive attribute of sound, in terms of which one (elementary) sound or sound-configuration may be distinguished from another”. (pp. 25–26)

By elements, Wennerstrom means “a specific class within a parameter, representing a comprehensible configuration such as sonority (in the pitch parameter), rhythm pattern (in the duration parameter), etc”. (p. 26)

Generally, [Ornette] Coleman applied “a nondiatonic approach to harmony, centered ‘around’ a given tone in nonfunctional usage”. (Westendorf 1994: 7)

According to Yeston (1976), any regularly recurring pulse,

whether considered conceptually or whether represented by musical events, will indicate no other motion except an infinite recurrence when it is considered by itself. In order to create some regular grouping of elements within a simple pulse, there must be some event occurring at regular intervals within it. Such an event may be sounded in the music, or it may be a purely conceptual division of the pulse. (pp. 65–66)

This recurrent act of grouping, “whether it is conceptual or represented by something in the music”, becomes a pulse in itself that necessarily goes more slowly than the original simple pulse. There is “no such thing as a level of meter or a level on which meter may appear”.

/.../ the fastest articulated musical motion will occur at the absolute surface of a composition. Since this rhythmic foreground cannot move slower than itself it can manifest no internal rhythmic groupings by itself, and so no meter can exist at this level. The extreme foreground is accentually uninterpreted by definition. (pp. 66–67)

SUMMARIES AND REFLECTIONS

A. Rhythm:

- 1- rhythm is concerned with pitch duration and durational patternings, which may be more or less regular, and may or may not give rise to a sense of beat or tempo (Grove)
- 2- rhythm involves the pattern of duration that is phenomenally present in the music, it involves the structure of the 'temporal stimulus' (Grove)
- 3- it is unreasonable to state that rhythm 'exists' in the actual sound course: acoustically, there are only sounds with varying frequencies, durations and intensities (Sohlman)
- 4- any clearly noticeable musical factor can be what is called a rhythm-determinant (Sohlman).

According to point 1, rhythm is about pitch durations, while point 2 broadens the perspective to encompass all durational patterns in the music. In point 3, it is denied that rhythm can exist in the actual sound course. I personally tend towards the perspective in point 2 and would like to, in accordance with point 4, broaden it even more so that here I define rhythm as: (all kinds of) temporal lengths over time. One might try to include material relations in the definition of rhythm. However, I do not see rhythm as relations. Material relations (similarity–dissimilarity, repetition–variation–contrast) belong rather to the listener's pulse/metre conceptions about rhythm (material relations between durational patterns) than to rhythm in itself. (cf. 19.4 Rhythm, and the complemented concept model)

B. Pulse:

- 1- the sense of pulse arises through the listener's cognitive and kinaesthetic response to the rhythmic organization of the musical surface (Grove)
- 2- regularly recurring pulse can be considered conceptually or be represented by musical events (Yeston 1976)
- 3- there can be rhythm without pulse (rhythm is independent of pulse) (Cooper & Meyer 1963).

Pulse is something that comes into being inside me as a response to the surface rhythm (points 1, 2), that is, the sound/pause lengths that are immediately audibly accessible. These exist outside of me, while the pulse exists within me. Pulse is an inner phenomenon, not an outer one.

Pulse can, however, also be represented by "musical events" (point 2). This presupposes that the events 'stick out' from the surroundings in some way. However, the opinion of what 'sticks out' and in which way(s) they 'stick out' is also an inner phenomenon (for example, returning events that are stronger and/or higher than their surroundings do not necessarily have to be experienced as pulse-creating events). This holds true whether the pulse is experienced as regular or not. Still, many can agree on both the choice of events and the type of 'sticking out', and on the pulse the events cause (as, for example, in the case of a repeated comp pattern).

Most likely, our musical upbringing and our musical experience play a large role in how we understand pulse, and for an unanimous understanding of pulse. Even the level of surface rhythmic complexity of the music is important; the simpler the music is with regard to its surface rhythmic complexity, the greater the probability for unanimity will be

regarding the understanding of its pulse. Since pulse is an inner phenomenon, the fact remains, however, that the same sequence of sound/pause lengths can lead to different understandings of pulse (type/speed) in different people. Understandings of pulse, and whether they are unanimous or not, can also be more clear or less clear for different people. From an understanding perspective, pulse can develop into metre. (see 17 Free improvisation – system analogies)

Pulse as an inner phenomenon also opens up the possibility of sequences of sound/pause lengths not leading to any understood pulse. (point 3, A1)

The pulse types in section 19.1.1 (Complementary material under the term heading: Objects) should therefore really be seen as types for the understanding of pulse, and the discernment of pulse types during, for example, analysis as understood pulse types.

C. Tempo:

- 1– pulse is a crucial, though not the only, aspect of our sense of tempo (rapid tempo is correlated with a rapid pulse rate, and slow tempo with a slow pulse rate) (Grove)
- 2– one can think in terms of density, speed and rates of events, more than in terms of tempo (Davidson 1997)
- 3– tempo usually means the rapidity of the beat or pulse (which can however be felt at different rates, or speed levels) (Gabrielsson 1988)
- 4– the experienced rapidity also depends on the number of tones per unit of time and on various melodic and harmonic factors (many large leaps vs. stepwise movement, dense chord changes vs. fewer) (Gabrielsson 1988)
- 5– tempo relates first of all to experienced motion (Gabrielsson 1988)
- 6– tempo in its traditional sense (as it came to be defined in traditional music) presupposes constant or nearly constant metre (Jost 1994)
- 7– tempo can be understood as “impulse density” (i.e. the frequency of musical impulses per time unit), a subjective feeling of tempo in free jazz (the relative density of impulse series creates the impression of different tempi), in combination with the frequency of accents in time (not their regularity). Impulse density and accent frequency (subjective tempo) are the result of the interaction of all the players (not only that of the bassist and drummer). (Jost 1994).

Tempo is a sense of tempo (point 1), an experience (point 4), an experienced motion (point 5), a subjective feeling of tempo (point 7), that is, an inner phenomenon. The factors that determine our feeling of tempo are:

- a– pulse, pulse rapidity (points 1, 3)
- b– event density (point 2)
- c– number of tones per time unit (point 4)
- d– melodic and harmonic factors (point 4)
- e– constant or nearly constant metre (point 6)
- f– impulse density and accent frequency (point 7).

Of these, factors b, c and f can be summed up as attack density, that is, to the number of sound attacks per time unit (see 19.2.1 Complementary material under the term heading: Properties), of which some can be accented (factor c should be broadened to encompass the number of sound attacks per time unit so as not to exclude sounds without fixed pitches).

III CONCEPT MODEL

From factor d, melodic qualities are of interest for the feeling of tempo in free ensemble improvisation. The importance of harmonic qualities is, however, almost negligible, since chords, especially conventional ones, seldom occur in free ensemble improvisation in a way that is comparable to notated music (especially tonal). One might possibly speak of shifting pitch density having a certain importance for the feeling of tempo; something I, personally, have not felt. (see 19.2.1 Complementary material under the term heading: Properties)

Factor e, constant or almost constant metre, is no prerequisite for a feeling of tempo in any music at all. The speed of the pulse that the metre is built on is, however, one of the prerequisites for a feeling of tempo. The more regular the pulse is experienced as, the simpler it is to get a decided tempo feeling.

To sum up, the factors that contribute to creating a feeling of tempo can be reduced to pulse rapidity (a), attack density (b, c, f), and melodic factors (d). The nature of these factors is the result of the self-chosen interaction of all the participating musicians (point 7), an important viewpoint on and prerequisite for free ensemble improvisation.

Tempo is therefore not only an inner phenomenon, since both attack density and leap sizes/directions in pitch/height exist outside us and can, as a rule, be measured.

The factors do not, however, work separately but in tandem with each other. The collaborative proportions between the factors can, however, be experienced differently by different people on the same occasion (different people can on the same occasion affix different levels of importance to the different factors). This, in combination with the fact that tempo can be understood on different speed levels (point 3) and that pulse, according to the above, is an inner phenomenon, means that the same sequence of sound/pause lengths (with possible pitch/height qualities) can result in different understandings of tempo in different people. Understandings of tempo, whether these understandings are unanimous or not, can also be more clear or less clear for different people. Most likely, our musical upbringing and experience, as well as the level of complexity in the surface rhythm, plays a large role in our (unanimous) understanding of tempo.

Point A1 also opens up the possibility of sequences of sound/pause lengths not leading to any understood tempo.

D. Metre:

- 1- the fastest articulated musical motion occurs at the surface of the music, but cannot by itself manifest any internal rhythmic groupings (it cannot move slower than itself), which is why meter cannot exist on this level (the extreme foreground is accentually uninterpreted by definition) (Yeston 1976)
- 2- there is no such thing as a level of meter or a level on which meter may appear (Yeston 1976)
- 3- rhythm involves the pattern of durations that is phenomenally present in the music, while metre involves our perception and anticipation of such patterns (Grove)
- 4- rhythm involves the structure of the 'temporal stimulus', while metre involves our perception and cognition of such stimuli, and different perceptual attitudes give rise to different metres. Metre is a mode of attending, while rhythm is that to which we attend. (Grove)
- 5- there can be rhythm without meter (Cooper & Meyer 1963)
- 6- it is possible to have pulses outside metred music (Dean 1989)

- 7– a clear sense of pulse is a necessary condition for musical metre, as it forms the temporal anchor for meter (higher levels of metric structure as well as smaller levels of metric subdivision) (Grove)
- 8– there cannot be any meter without an underlying pulse (to establishes the units of measurement), pulse is necessary for the existence of meter (Cooper & Meyer 1963)
- 9– any regularly recurring pulse will indicate no other motion except an infinite recurrence when it is considered by itself (Yeston 1976)
- 10– meter is the measurement of the number of pulses between more or less regularly recurring accents (which presupposes that some of the pulses must be accented – marked for consciousness – relative to others) (Cooper & Meyer 1963)
- 11– meter presupposes that there, within a simple pulse, must be some event occurring at regular intervals within the pulse. Such an event may be sounded in the music, or it may be a purely conceptual division of the pulse. (Yeston 1976)
- 12– a recurring [pulse]grouping, whether it is conceptual or represented by something in the music, becomes a pulse in itself that necessarily goes more slowly than the original simple pulse (Yeston 1976)

The surface rhythm in itself supplies no metre (point 1) and there is no level at which metre can show itself (point 2). Metre is instead a question of understanding (“a mode of attending”) of durational patterns (“temporal stimulus”), that is, of the surface rhythm’s sound/pause lengths (points 3, 4), which is why both surface rhythm as well as experienced pulse can exist without leading to any understood metre (points 5, 6).

Simultaneously, a clear feeling of pulse is a prerequisite for any sort of understanding of metre (points 7, 8). Pulse alone is not, however, enough (point 9). There must also occur a recurring pulse grouping so that there are as many pulse units between something that is “marked for consciousness”, that can sound in the music or be “a purely conceptual division of the pulse” (points 10–12). This pulse grouping forms a pulse in itself that goes more slowly than the original pulse (point 12).

Taken together, the viewpoints show that even metre is a question of understanding (an inner phenomenon), and that one’s understanding of metre is a result of the interplay between surface rhythm and the understanding of pulse. Metre can be seen as an understanding of pulse that is layered over the surface rhythm and the understanding of pulse, in other words, a slower pulse on the pulse. The prerequisites for any understanding of metre to exist at all are probably greater for types a and b (regular, evenly irregular) with regard to the understanding of pulse, than for the others (c – unevenly irregular, d – floating) (see 19.1.1 Complementary material under the term heading: Objects).

- 4– rhythm involves the structure of the ‘temporal stimulus’, while metre involves our perception and cognition of such stimuli, and different perceptual attitudes give rise to different metres. Metre is a mode of attending, while rhythm is that to which we attend. (Grove)
- 13– sharing a common pulse allows both individual and collective metric reorganization of a pulsative surface (changing metric lengths) and metric disruption (superimposing syncopated figures on a more stable element or grouping patterns or grouping patterns across the barline) (Wallace White 1999).

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Since both pulse (including pulse speed) and metre are what I call inner phenomena, that is, a question of understandings based on the surface rhythm, then in the case of pulse understanding being unanimous, the same sequence of sound/pause lengths can still lead to different understandings of metre for different people (points 4, 13). If, in addition, understandings of pulse should differ, the same sequence of sound/pause lengths can lead to both different pulses (type/speed) as well as to different metres for different people (one can also imagine that the same sequence of sound/pause lengths can lead to the same metre but with different pulse speeds for different people). That even the understanding of metre can be unanimous probably depends on the same factors that have been mentioned above under points A and B, that is, similar enough musical upbringing and experience, along with the level of complexity of the surface rhythm (the simpler the music is regarding surface rhythm, the greater the probability for an unanimous understanding of pulse/metre). Even understandings of metre, whether these are unanimous or not, can on the same occasion be more strong/clear or less strong/clear for different people.

In the different kinds of teaching materials for music education, rhythmic hierarchy is, as a rule, explained in such a way that pulse and tempo are its basic foundation. On top of this foundation comes metre, and finally, on top of both pulse/tempo and metre, comes surface rhythm. I can imagine that such a view is conditioned by conventions related to notation. In scores, both pulse units and metre, and very often tempo, are specified from the start. From these symbols for music, a rhythmic hierarchy is apparent before any music has been heard at all.

In freely improvised music, the order and hierarchy is different; the surface rhythm is the foundation from which understandings about possible pulses can grow. From the combination of surface rhythm and pulse understanding, possible understandings of metre can grow.

Here, too, there is the possibility that sound/pause lengths will not lead to any understood metre.

E. Central tone:

- 1- Coleman used central tones (tonal centres) instead of chord patterns as an improvisational reference. If one by tonality means relations to a tone, not relations to a functional harmonic progressions, then one can say that Coleman's music was tonal. (Jost 1994)
- 2- Coleman also used secondary centers, which for the most part did not arise from functional harmonic changes but from motivic chain-association (Jost 1994)
- 3- generally, Coleman applied a non-diatonic approach to harmony, centered around a given tone in nonfunctional usage (Westendorf 1994)

Central tones (one or more) can replace chords or chord progressions as improvisation references (points 1, 2). This is, however, done without tonal (functional) or modal baggage (point 3), which means that any central tone at all can be followed by any other central tone. Such use of central tones corresponds well not only to Ornette Coleman's music but also to the sections in free ensemble improvisation where central tones occur.

- 4– central tones (tone referents) are like fulcrums around which other pitches revolve. They are analogous to the root in diatonic music, the drone in Indian faga, tonal regions in the “wandering tonality” of pre-serial compositions by Schoenberg and Webern, and emphasized tones in the music of the impressionists. (Briggs 1986)
- 5– a tonal centre (pitch centre) is a pitch which by frequency of repetition, or degree of accentuation, or for whatever reason, tends to be viewed as predominant. A pitch centre can adhere to western scales, but can also exist within other kinds of scales (older modes, passages of atonal music based on the twelve-tone system) (Dean 1989)

A central tone is a tone that other tones move around (point 4), but this is not enough for a tone to become a central tone. The other tones that move around the central tone must point it out as a central tone by moving towards/around it, and/or establish such intervallic relations that, at least within Western music, can be interpreted as central tone signals (for example, falling fifths, dominant–tonic relationships). The central tone can also point itself out by repetition and/or through accentuation (point 5). This self-pointing can also take place by a tone being held for a long time, especially if this takes place in a low register. These possibilities probably do not, however, cover all the possibilities that cause a tone to be experienced as a central tone. This is why it is a smart safeguard to describe a central tone as one that “for whatever reason” tends to be seen as dominant (point 5). So the experience of a central tone does not have to be commanded by any special scale (for example major, minor, church modes, or other, non-Western scales). The fact remains, however, that one can experience a pitch sequence as pointing out a tone as a central tone without being sure exactly why this is. I would therefore like to classify central tones as inner phenomena as well, as a result of the way that pitch sequences are understood, as a response to pitch sequences in combination with rhythm. (see 17 Free improvisation – system analogies)

- 6– activities around central tones (pitch foci) is a common technique in non-tonal passages for the ensemble Oregon. Often, two or more pitch foci are juxtaposed simultaneously, which can resolve into one (once players negotiate an agreement on a single tonal focus or a competing pitch centre disappears from the texture). (Wallace White 1999)
- 7– in Sun Ra’s horns’ solo improvisations, tonal centers can usually be recognized. In collective improvisations, the many independent parts have tonal bearings when taken separately, while together they create a sort of polytonality. (Jost 1994).

Central tones as inner phenomena allow the same pitch sequence to give rise to different understandings of central tones for different people. These understandings, and whether they are unanimous or not, can be more strong/clear or less strong/clear for different people. From an understanding perspective, a central tone can develop into a tone row/scale.

Unanimous central tone understanding can be attained or lost. Musicians can also, consciously or unconsciously, choose the same or another central tone as one/several other musicians in the ensemble (points 6, 7). Both possibilities also hold for tone row/scale, pulse, tempo and metre.

Two or more central tones can turn into one: by musicians agreeing on one, by certain musicians agreeing on one and the central tone of another musician / other musicians disappearing, or by all central tones except for one disappearing. (point 6)

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Central tone understandings being unanimous is probably also due to musical upbringing, experience and pitch complexity. The possibility also exists that pitch sequences do not give rise to any tone understood as being a central tone. This happens rather often, and has been more common in most of the contexts where I have improvised, than improvisation with central tones.

If and when central tones exist, or rather, central tone understandings exist, they can exist for a shorter or longer time, as can the other understandings mentioned above.

F. Drawing boundaries:

- 1- to the same degree that external boundaries (bar patterns, sequence of solos, etc.) in Cecil Taylor's started to fade, internal formal associations were set up by register changes, dynamic gradations and variations in the rhythm, kinetic pace and instrumentation (Jost 1994)
- 2- group boundaries can be marked by changes in any musical parameter (including dynamics, timbre and texture) (Grove)
- 3- form in music is a compound of structure relationships which denote similarities, differentiations, and processes between elements important in themselves, elements that can occur in any parameter (Wennerstrom 1967)
- 4- both within and between groups, some of the elements of music (duration, pitch, harmony, instrumentation, etc.) will tend to produce group coherence, others will tend to produce group separation (Cooper & Meyer 1963)

In specific terms, parts of a form are results of changes in length± and/or strength and/or height and/or colour (point 1) or, put in more general terms, in any parameter(s) at all (point 2). Through changes, similarities or dissimilarities appear between different parts of a form (point 3). In short, form emerges out of material relations. If noticeable changes take place within one parameter, but little or none in another parameter, the former contributes to create separation and the latter to create coherence (point 4). Since the number of parameters is greater than one, and since it is not the case that changes either exist or do not exist but can be graded in terms of greater or lesser changes, a summary describing coherence-creating and separating forces can, however, be rather complex.

Since form can be seen as a consequence of material relations, the problem of drawing boundaries between parts of a form can be related to and are identical with the problem concerning the drawing of boundaries between material relations (see 19.3.2 More about relations). By formal parts, I mean formal units, that is, gestures and sections, that thus correspond to the terms: groups, segments and sections, respectively, as used in this context (points 2, 4-6).

- 5- large-scale segments are principally articulated by successive points of initiation (thematic entrances, changes in tempo and texture, and dynamic or rhythmic contrasts), a segmenting by initiation (Smyth 1986)
- 6- in free improvisation, it is more likely to be the process of change itself that captures the listener's attention rather than the specific differences between the antecedent and consequent section (though these, too, will have an impact upon the listener) (Nunn 1998).

The term initiation point corresponds, as I see it, to the term transition point. Both stand for places in time where some change is begun; the transition point also stands for the end of a change (point 5) (see 6.2.1 Listening, 17 Free improvisation – system analogies, 18 Concept model based on preceding sections). Change process stands, in a similar way, for the term transition period and only means that a change takes place over time and does not necessarily mean where it is going (point 6). One should perhaps in this context differentiate between different types of listening. For a musician or musicians and/or an audience, it can very well be the case that change processes attract more attention than the surrounding sections. For analytically-directed listening, however, I regard sections as more interesting, and I see transitions more like ‘runways’; this listening can, however, also hold for musicians, and sometimes even to a great extent. It is from the material relations between adjacent sections that the form appears. Transitions can, however, have their own value even from an analytical point of view. It can be of interest to see how ‘runways’ begin, how they are formed and how they are completed, to see what they consist of, and where they lead.

One can possibly even see functional relations as that which creates form. If this is the case, a solo with support/ground in relation to a following sound mass, for example, could probably be experienced as different (sub)-sections.

G. Form:

- 1– free improvisation does not refer to a technique or body of techniques grafted into a musical performance but instead to the very process of organizing the form of the performance. Free improvisation is not formless music making, but form-making music. (Borgo 1999)
- 2– form in creative [free] improvisation is organic, not imposed. It emanates from the unfolding of the musical materials, as a result of processes of interaction (performers-performers, performers-instruments, performers-environment) (Briggs 1986)
- 3– in improvised ensemble music, form is a process, where the ways in which each player develops material over time collectively creates a level of form, and where the material development takes place collectively as the performers are in constant communication/interaction with one another. It is this collective development that allows us to think of process as form. (Kiroff 1997).

It is important to point out that free improvisation musicians are not uninterested in form. However, it is in the nature of the music that its practitioners are uninterested in special types of form, and especially of predetermined ones, or of any predetermined form at all. Form is created and emerges collectively instead, as a result of the participating musicians’ interactive material development/utilization, that is, free ensemble improvisation is a form-creating process (points 1–3).

This is a rather open thinking and it is therefore understandable that this kind of thinking about form has led to the formal aspects of free ensemble improvisation, in particular, often having been the object of criticism.

*Bailey, one of the European free improvisation's pioneers and foreground figures, has naturally not been excluded from such viewpoints either, and expresses his opinion of this criticism, opinions he is far from alone in having.

Perhaps I have given the impression that there is no forward planning, no overall structure, no 'form'. Adverse criticism of free improvisation – pretty nearly the only kind available – almost always aims itself at the same two or three targets and the clear favourite of these is 'formlessness'. As the criteria for assessing a piece of music, any piece of music, is usually inherited from the attitudes and prejudices handed down by the mandarins of European straight music, this is to be expected. Nowhere is the concept of form as an ideal set of proportions which transcend style and language clung to with such terrified tenacity as by the advocates of musical composition. 'The necessity for design and balance is nowhere more imperative than in music, where all is so fleeting and impalpable – mere vibrations of the tympanic membrane.' Although written many years ago, that is still probably a fairly accurate indication of the importance attached to form by those people concerned with composed music. Even in those parts of contemporary composition where the earlier types of overall organization no longer serve, a great deal of ingenuity is exercised in finding something upon which the music can be 'based'. Myths, poems, political statements, ancient rituals, paintings, mathematical systems; it seems that any overall pattern must be imposed to save music from its endemic formlessness.

There is no technical reason why the improviser, particularly the solo improviser, should not do the same thing. Most musical form is simple, not to say simple-minded. But generally speaking, improvisers don't avail themselves of the many 'frameworks' on offer. They seem to prefer formlessness. More accurately, they prefer the music to dictate its own form.

(Bailey 1993: 111)

Gestures – sections – formal terms

One might remark that the formal terms used here (formal units = gestures, sections) are a rather sparse selection of terms in order to talk about form. Still, at least five reasons point to the preferability of this paucity of terms:

- one avoids a swelling flora of terms where both defining and drawing boundaries can be difficult to do, and where the problems inherent in drawing boundaries are worsened
- I do not believe that form in free ensemble improvisation can be made clearer by means of an expanded flora of terms (which, instead, causes its own problems according to the preceding point)
- the terms gesture and section can, if and when necessary, be made more flexible by using the prefixes sub-/meta-, without the original simple meaning of the terms getting lost (see 6.2.1 Listening)
- in the literature about free ensemble improvisation, the terms gesture and section appear to be rather well established
- the terms correspond well with my own understanding of form in free ensemble improvisation.

It is understandable that one, even if merely for linguistic reasons, would want to vary the terms somewhat. In this context, however, I see it as an advantage that there are as few terms as possible, that they always have the same meaning, and that they are 're-used' instead of being varied.

19.2 PROPERTIES

19.2.1 Complementary material under the term heading: Properties

REFERENCES

As an example of attempts to complement the traditional music-theoretical arsenal for art music after the Second World War, Bengtsson mentions the term density. The term could be used in connection with any forms of music, both old and new, if it had not stood for so many different concepts. It can refer to simultaneous density (from thin two-part harmony to massive chords and noise effects, for example), but also to event density in time, measured in the number of sound events per time unit, for example.

(Bengtsson 1973: 234)

Density “may be expressed in terms of how many sounds are produced per time unit”.

(Bergström-Nielsen 1998: 27)

According to Berry (1987), the level of density is determined “by the number of simultaneous or concurrent components and by the extent of vertical ‘space’ encompassing them: *density-number* and *density-compression*”. By the term “*texture-space*”, Berry means “the overall field or ambitus in which events take place”.

(p. 191, fn)

The “particular distribution of components within a given space is a further parameter of consideration within the factor of density-compression”, and the “evaluation of density-compression may require consideration of simultaneous numbers of sounds *within segments of the total texture-space*”. (p. 210)

Melodic contour is a function of pitch and time. Contours can be categorized, but so as not to “end up with as many contour types as individual tunes”, it is necessary to “categorize the music's pitch structure in a much more drastically reduced way”. One categorization method, suggested by Charles Adams, “takes account of only four pitch features in any one melody: its first note, its final note, its highest note and its lowest note” [where the first or last note can also be a high or low point]. The ways in which these tones can be distributed [in terms of higher than – as high as – lower than, and in assuming one high point and one low point] “gives rise to fifteen different types of contour” [see appendix A5 Curvature types]. In a temporal perspective, such a categorization can also encompass the placement of high/low points in relation to the length of the entire melody.²¹ (Cook 1996: 196–199)

²¹ Melodic Contour Typology. *Ethnomusicology*, 1976, 20: 179–215.

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Systems of proportion are, according to Howat (1989), “based principally on two ratios traditionally associated with formal balance in many fields of art and science: exact symmetry or bisection, as achieved by dividing into halves; and the ratio known as the Golden Section”. (p. 1)

Two objections are sometimes raised against the idea of investigating proportional coherence in musical form.

The first is the opinion that such coherence merely springs from a fairly ubiquitous proportional instinct, and is thus banal or unimportant. The second is the opinion that the human mind cannot instinctively evaluate precise temporal proportion on such a scale, and thus that such proportional plans are musically irrelevant. Clearly both objections cannot apply at once, as they are mutually exclusive. If, on the one hand, such precise and logical proportional schemes are indeed a result purely of instinct, then the existence of this instinct is proved (at least on the composer’s part, even if it may be less developed in many listeners). If, on the other hand, such instinct does not exist, then the structures can only have been designed intentionally. (p. 9)

Proportional structures are, in themselves, abstract;

in music they can have real existence only in terms of the music’s other structural functions. Awareness of other structural aspects is therefore necessary not only to be able to detect the presence of proportional structures, but also to be able to determine their significance. (p. 11)

Howat raises the question whether temporal proportions are “to be measured in clocked time, or in the notated pulse of the music”.

For some recent music (for example, Karlheinz Stockhausen’s *Fresco* and *Mikrophonie II*) the former method is specified in the score by strict timings. But music with a defined internal metrical pulse is more problematic. Any recording producer will vouch for the enormous variations in duration between different performances of any one work, or sections within it. (p. 15)

Another aspect on time is the listener’s experience of it.

It seems reasonable to suppose that for the involved listener the music’s audible pulse provides a more vivid or emphatic articulation of time than his watch does, even if he is aware of the presence of fluctuations in that pulse such as *accelerando*, *ritardando* or *rubato*. /.../ But the problem is more complex. Do other events in the music, regardless of its tempo, affect the listener’s awareness of time? Does this vary with the listener’s mood or state of concentration? (p. 15)

The golden ratio is reversible;

either the longer or shorter portion can come first. Evidently its aesthetic effect must be affected by this: for example, the short-plus-long type would be a risky position for a principal climax, since attention would be hard to sustain for the rest of the piece. The evidence of the following chapters [a research of the music of Debussy] reveals a distinct tendency – though this is not an invariable rule – for certain events to be associated with one

particular type: points of maximum tension mostly with the former type (long plus short), and points of regeneration or growth more with the latter. (p. 22)

One might think that the music has a natural tendency to develop towards increased complexity. However, “an improvisation may well start with the most complex statement of the material, and gradually breaking down its elements, move towards greatest simplicity”.²² (Kiroff 1997: 181)

With directed motion, LaRue (1970) means changes that “produce a recognizable sense of direction, a feeling of activity that carries us definitely away from the area of initial statements instead of oscillating or cycling around it”. As an example of such changes, he names “crescendos, either written or intrinsic; modulatory sequences that break away from the tonic orbit; profiles of higher and higher melodic peaks; and constant diminutions of rhythmic values”. (p. 14)

According to “the Rule of Three”, that LaRue applies throughout his analytical thinking, one can even divide the level of complexity of curves into three types; “*merely for initial analysis* we badly need the Rule of Three as a grouping device to control the evidence, to sort out the types of curves”. As simple curves he sees “those containing one directional change, e.g. the up-down of a parabola”, as “middling” complex, he sees curves that can “be thought of as “compound”, i.e. more than one directional change”, and as “complex”, curves that “connote many changes”. The difference between simple and compound curves he sees as clear, while “the line between compound and complex needs further clarification”. He states, however, that

we would waste a great deal of time, however, attempting to decide whether a contour gives a complex feeling already with three directional changes or perhaps not until five. This is not the time to make such decisions, which might be appropriate for a closely detailed study of a composer’s melodic characteristics *after* general analysis has revealed that melody is the most significant part of his style. We lose nothing by using simpler categories at early stages of observation; the material is all still there, ready for closer study if required. And we may avoid a great deal of unnecessary work by postponing this more detailed consideration until a later stage. (p. 18–19)

The structure of a melody depends, among other things, on its

- direction and curvature (by *direction* is meant the melody’s motion up or down; by *curvature*, the actual form of the motion curve, which can be of vastly differing appearance with regard to both the whole and the details)
- interval distance (stepwise and/or skipwise motion)
- range (ambitus) (the distance between the highest and lowest points of the melody)
- attraction points (places in the melody that especially attract interest, for example high and low points, accents of different kinds, etc.).

(The Radio Conservatory 1968a: 19–20)

²² With regard to *Caseworks*, as performed by Cecil Taylor and the Art Ensemble of Chicago.

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Articulation means primarily the differences regarding many nuances from short tone bursts to coherent bows. Phrasing is not bound to any special characteristic of the tones but has more to do with the way the tones are experienced as coherent groups. There is no exact symbol system for articulation since the phenomenon at the detail level is something rather complicated. (The Radio Conservatory 1968b: 78)

In connection with a general characterization of Albert Ayler's improvisations, Reynolds (1993) mentions "long glissandi" and "wide vibrato". (p. 12)

In connection with Roscoe Mitchell's improvisations, she says that "he gradually increased and/or decreased the dynamic level on long sustained notes", and that he uses "subtle vibrato" and "increasingly wider vibratos". (pp. 57-58)

In his study of four improvisations by the ensemble Oregon, Wallace White (1999) introduces three types of "directed structural motion" that he feels characterizes the activities of improvisers: "these motions flow towards, away from, or around significant events in a developing improvisation". "Equilibrium" is not a motion in itself but rather "a condition in which roughly equal amounts of progression and recession are present in a balanced manner".

<u>Structural motion and function:</u>	<u>Tension profile emotional feel*:</u>	<u>Correlative phenomena:</u>
Progression (to)	Intensification (increasing intensity)	Growth; increase Up Dense Complex
Recession (from)	Abatement (subsiding intensity)	Decline; decrease Down Sparse Simple
Stasis (around)	Equilibrium (unchanging degrees of intensity)	Balance

* emotional or psychological sensations

Table 2-4. Types of directed structural motion: function, feel, and correlatives.
(pp. 96-97)

The middle column ("tension profile; emotional feel") refers to "the feelings of motion and shape" that improvisers respond to and that contain "different sensations of structural tension relating to progression, recession, or stasis". The right hand column ("correlative phenomena") is a list of phenomena that Wallace White feels "produce similar sensations of processive, recessive, or static tension". (pp. 97-98)

Important events that "punctuate the developing architecture, and thus emerge as points of articulation in proportional ratios" are created by

(1) initiative, regenerative, climactic, or closural events in an individual's playing that directly influence another player's activity, and (2) the convergence of two or more players' activity (players coordinate and interact in a tighter, more congruent manner). These types of events are clearly audible, both during the improvisational process and on subsequent playback. (p. 107)

In addition, "significant punctuating events and the directed structural motion surrounding these events /.../ are portrayed by graphing proportional ratios between structural units". He means that "charting the proportional network among formal units" within the improvisations he has studied suggests, among other things, "the improvisers' sensitivity to 'formal proportions' and dynamic structural forces", and that it "conveys a sense of the characteristic feel of large-scale temporal patterning, or /.../ the formal rhythm". (pp. 99-100)

Within improvised music, "consideration of proportion /.../ is rare", which is something that Wallace White bemoans since he feels that "references to proportioning illuminate analytical understanding". (p. 105)

With regard to measuring time, he simply states that

in this study, measurement is taken according to elapsed clock time, regardless of whether the music is metric or not. Significant points of articulation are marked in minutes/seconds along a time continuum /.../. Spans of activity between points of articulation are measured by total real time duration in seconds /.../. This approach thus accounts for all variations in tempo, changes in metric grouping, and pauses or silences, and approximates the mode in which the improvising musicians are sensing and shaping the music in real time. (p. 106)

Wallace White feels he has found "four proportional designs, or archetypal structural profiles": "growth-initiation (GI)" with the split point 0.382, "stasis-equilibrium (SE)" with the split point 0.5, "climax-resolution (CR)" with the split point 0.618, and "super climax-resolution (SCR)" with the split point 0.764. The profiles GI and CR are both variants of the golden ratio. He calls the three profiles with different length units dynamic, since "motion is conveyed due to the asymmetrical relationship between units", while the fourth, with equally long units, he says "suggests stasis: symmetrical units balance each other in equilibrium". The "structural units or spans, within a certain profile are marked by activity that is progressive, recessive, or static in nature". (pp. 109-110)

The names come from the different characters of the profiles as a whole: GI ("initiative or regenerative in nature"), SE ("stabilizing; balancing"), CR ("climactic and closural in nature; resolute") and SCR ("climactic and closural in nature; quick resolution"). (p. 110)

In the profiles CR and SCR, the activity is progressive-recessive, and in the profile SE, it is static-static. In the GI profile, the activity is progressive-recessive but more often progressive-progressive in the sense that the activity after the split point can be a new ("initiative") or an intensified version of previous events ("regenerative"), which means that the GI profile is able to cause and be part of a larger overall profile, like, for example, CR. The latter activity alternative (progressive-progressive) lies behind the name of the profile ("growth-initiation"). (pp. 111-112)

Wallace White establishes proportion profiles on a collective and on an individual level. The collective level represents the improvisation as a whole, and the individual level

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represents the activities of each respective participant. On both levels, alternative proportion profiles occur. On both levels, subdivisions of one or both of some alternatives' time spans (segments) also occur; sometimes, and especially on the individual level, they occur in several hierarchical links. On the collective level, the boundaries of the proportion profiles correspond to the boundaries for the formal parts (sections) of the improvisation. The boundaries for the proportion profiles on the individual level can agree with, or overlap, the boundaries for proportion profiles on the collective level. The overall proportion profile on the collective level is a splitting into two parts of the entire improvisation. (pp. 136, 167, 185, 238, 247, 260)

Of the 200 profiles he has researched, 79 fit the CR profile (0.618) [golden ratio], 60 fit the GI profile (0.382) [reversed golden ration], 26 fit the SE profile (0.5) and 22 the SCR profile (0.764). The other 13 profiles are, according to Wallace White, spread out among different non-typical proportion profiles (five on the median: 0.1528, four on the median: 0.2975 and 4 on the median number: 0.8517). (pp. 336-340)

So, Wallace White says that even other proportions appear in Oregon's four improvisations but less frequently than the four archetypes. He says that they "feel different" and show directed motion qualities that differ from the four main profiles, but states that even these can be explained analytically, and that there are musical reasons for their existence. (p. 116)

"Successive density is horizontal, or temporal, density. It refers to the number of sound units perceivable in a given time-span. Simultaneous density refers to vertical density, or the aggregate of sound units perceivable at a given moment." (Wennerstrom 1967: 27)

Westendorf uses, among other things, the following descriptions of [John] Coltrane's playing in *India*²³: "slide/bend" ("gestures depict microtonal shifting or glissandi") and "scream" ("gestures depict shrieked notes in the altissimo register at a loud dynamic level"). (Westendorf 1994: 92-93)

SUMMARIES AND REFLECTIONS

A. Curve, curvature, curvature type:

- 1- one categorization method for melodic contours is to take account of only the first and final note, and the highest and lowest note (Cook 1996)

I see "contour" here as synonymous with curvature (see below) and reasoning about melodic contours (melodic curvatures) as applicable to all sorts of curvatures, not only melodic ones.

One method to categorize curvatures into types is to focus on certain curve components so that the number of types becomes fewer than the number of curves researched, thereby making comparisons easier. The starting and ending points are rather obvious components since they limit the curve in time. The high and low points are also

²³ On the LP *Impression*, 1963. Impulse A-42, or on CD, 1987, MCA Impulse MCAD-5887.

good candidates since they limit the curve within the respective area. Among the possible high and low points are, of course, even the starting and ending points.

A curve can, however, contain more than one equally high/low high and low points. Such curves can, however, be broken down into combinations of the 15 types of curvature types suggested by Adams/Cook (see appendix A5 Curvature types). This means that the categorization of curvature types needs only 15 basic types, and, possibly, in addition to these, combinations of two or more of the 15 basic types. The simplicity and manageability of this solution appeals to me.

I differentiate here between type categorization and descriptions of curvatures. The reason for this is that type categorization shows differences in kind, whereas descriptions of curvatures show differences in grade. A curvature cannot, for example, belong more or less to a certain type of curvature; either it belongs to it or it does not. Descriptions of curvatures can, however, contain more or less of something, such as the number of directions, for example. One can simultaneously see type categorization of curvatures as a first fundamental description.

- 2- in a temporal perspective, such a categorization (taking account of only the first, final, highest, and lowest note) can also encompass the placement of high/low points (highest/lowest notes) in relation to the length of the entire melody (Cook 1996)

It is not just starting and ending points that have positions in time, but even high and low points do, too. Both temporal order and temporal placement of high/low points are of interest. The temporal placement of high/low points should, from the viewpoint of comparison, either be expressed in proportional terms of the length of the entire curve (not in fixed measurements), or as relative value placement in relation to the total number of values of the curve (for example H3/5 = the third value of five is the high point), or in relation to the total number of turning points of the curvature (directional changes, for example H3/5 = the third turning point of five is the high point). I prefer the second or third alternative, since one hereby avoids the problem of 'when' a length value exists in relation to the length or the entire curve. Temporal placement of high/low points is, in all alternatives, relative. The temporal order of high and low points is part of and is necessary for the type categorization of curvatures. I do not, however, see temporal placement of high/low points as a type categorization alternative, but as a description alternative.

- 3- the structure of a melody depends, among other things, on its direction and curvature, interval distance, range, and attraction points (The Radio Conservatory 1968a)

In section 6.2.1 (Listening), I define curves as value difference series. These are determined by the size, direction, number and order of the included value differences. According to this definition, a melody's structure does not depend on its direction *and* curvature, since direction(s) is/are a part of the curvature. A good distinction is, however, the distinction between curve and curvature, where the latter term stands for the form of the curve.

Interval distance is not an entirely satisfactory term since it can imply that it has to do with the distance between intervals. What is referred to should be the sizes of the intervals, or rather the value difference's sizes, which, however, is also part of the curvature.

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I regard the direction sizes, in the sense of the sum of adjacent value differences' sizes within the same direction, as more interesting for the curvature than the value differences' sizes. Direction sizes, possibly complemented with value difference sizes, can be description alternatives.

Attraction points are described as places in the melody that attract particular attention. Here I reserve "attraction points" for starting, ending, high and low points.

The distance between the highest and lowest point on a curve gives the curve its ambitus or range. The curvature range can be yet another description alternative.

For both direction sizes and value difference sizes as well as for ranges, it holds that comparisons can only be made within the same area, that is, when the curve refers to the same type of scale.

- 4- curves can be divided into simple, middling complex, or complex curves, depending on their number of directional changes (LaRue 1970).

The number of directional changes, or simply put, the number of (different) directions, can be a useful description alternative, even though the terms simple, middling complex, and complex curves are perhaps not immediately obvious. The number of directions can also be expressed as the number of turning points. Both should be used in relation to the total number of value differences of the curvature, since that says more about the curvature than simply the number of its directions / turning points.

From points 1-4, and apart from the type categorization of curvatures, one finds the following description alternatives:

- temporal placement of high/low points (point 2)
- direction sizes, possibly complemented with value difference sizes (point 3)
- curvature range (point 3)
- number of directions / turning points (point 4).

By using the definition of curves presented in section 6.2.1 (Listening) as the starting point, that is, by using value differences' size, direction, number and order, one can complement the above description alternatives with:

- directional order
- number of directions per direction alternative (in relation to the total number of directions of the curvature)
- number of value differences per direction

and for combinations of basic types

- selection of basic types
- combination order
- number of combinations
- number of basic types per basic type alternative in relation to the total number of basic types of the curvature
- number of high and low points.

Apart from the basic type categorization, curvatures can then be described and compared with regard to:

- directional order
- number of directions / turning points (in relation to the total number of value differences of the curvature)
- number of directions per direction alternative (in relation to the total number of directions of the curvature)
- number of value differences per direction
- relative placement of high and low points (in relation to the total number of values / turning points of the curvature)
- direction sizes, possibly complemented with value difference sizes (comparisons only possible within same area)
- curvature range (comparisons only possible within same area)

and for combinations of basic types

- selection of basic types
- combination order
- number of combinations
- number of basic types per basic type alternative in relation to the total number of basic types of the curvature
- number of high and low points.

Sequences of directions (directional order) can be described and compared as combinations of u (up), s (straight) and d (down). These combinations can be put together into combinations of three (perhaps with a combination of two or a single direction at the end). This gives us 12 alternatives and enables the chain of u/s/d to be reduced to one third, thereby making the curvatures' direction descriptions/comparisons easier to grasp: 1-usd, 2-uds, 3-dus, 4-dsu, 5-sdu, 6-sud, 7-usu, 8-dsd, 9-dud, 10-sus, 11-sds, 12-udu. Direction sequences also give us the number of directions per direction alternative that can be expressed in relation to the total number of directions of the curve (up x/y, down z/y, straight w/y).

One might also, just as for gestures and sections, divide curves into sub-curves, or put them together into meta-curves, with the corresponding consequences for the curvatures.

Curves (value difference series) can be established, thereby giving curvatures and curvature types for, in principle, all value series. Apart from the exceptions direction size, value difference size and range, according to the above, comparisons can be made between curvatures:

- within the same type and from the same area
- within the same type but from different areas
- within different types and from the same area
- within different types but from different areas.

B. Directed motion, types of motion:

- 1- directed motion means changes that produce a recognizable sense of direction, a feeling of activity that carries us definitely away from the area of initial statements instead of oscillating or cycling around it (e.g. crescendos, modulatory sequences that break away

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from the tonic orbit, profiles of higher and higher melodic peaks, and constant diminutions of rhythmic values) (LaRue 1970)

Directed motion can thus consist of increasing/decreasing strength and/or height and/or length. “Modulatory sequences that break away from the tonic orbit” are, however, hardly applicable as criteria for directed motion within free ensemble improvisation, since such tonal thinking seldom or never occurs there in practice. One can, however, in a broad sense, imagine some sort of modulating activity towards a new central tone, scale, pulse, metric pattern, etc.

There are some things that seem important to clarify in connection with directed motion. A motion should refer to the same area. It does not, for example, seem reasonable to speak of a directed motion from high tones towards strong tones, etc. Since the term can probably be applied to many musical areas, one can generalize this term to refer to motion from/towards/around something, where that ‘something’ is specified, that is, with regard to what the directed motion takes place. Within the framework of the generalization, one can also generalize the motion types as ‘increasing’, ‘decreasing’ and ‘constant/circulating’. Directed motions can occur simultaneously within different areas, which in turn can cause them to collaborate or oppose, reinforce or weaken one another. Directed motion can be individual or collective. Directed motion can be seen with different resolutions, that is, in a more overall or a more detailed perspective. If ‘with regard to what’ is given, if it is apparent whether it is individual or collective motion that is meant, and if the perspective is evident, then the types of directed motion can be used as descriptions of formal units (gestures, sections) but also as a means of separating them from one another. Directed motion can be seen as a way of speaking about curves over time, and more precisely, about the direction of curves over time.

- 2- progression (to) (intensification (increasing intensity), growth, increase, up, dense, complex), recession (from) (abatement (subsiding intensity), decline, decrease, down, sparse, simple) are expressions for directed motions, and stasis (around) (equilibrium (unchanging degrees of intensity), balance) is a state with roughly equal amounts of progression and recession (Wallace White 1999)
- 3- important events, points of articulation, that punctuate the developing architecture and which directed motions go towards, from, or around, are created by (1) initiative, regenerative, climactic, or closural events in an individual’s playing that directly influence another player’s activity, and (2) the convergence of two or more players’ activity (players coordinate and interact in a tighter, more congruent manner) (Wallace White 1999)

The terms “progression (to)”, “recession (from)”, and “stasis (around)” (point 2) correspond to the terms increasing, decreasing and constant/circulating. Which events the directed motion is going towards/from/around are given in point 3. These events can consist of new initiatives (“initiative”), retaken old initiatives (“regenerative”), climactic events, or closural events of someone who also influences the activity of another musician. They can also consist of two or more musicians coordinating their activities by coordinating and interacting “in a tighter, more congruent manner”.

A directed motion can, in itself, only go towards its own end in the form of “climactic, or closural events”. It is not until it is in a perspective greater than the motion itself that one can see it as going towards a new initiative (“initiative”), or towards a new try at an old one (“regenerative”). Directed motions influence and are influenced by the ever-present musical interaction in free ensemble improvisation, which is why one cannot say that they are going towards/from that interaction. Reciprocal influence, that is, interaction, is a constant state that *is* free ensemble improvisation, not something one is on one’s way towards or from, or that one circles around. The coordination of the activities of two or more musicians can, however, be seen as a special case of interaction, where two or more individually-directed motions within the same area work in the same direction and become a collectively-directed motion. In this case, but again, in a larger perspective, one can speak of different individually-directed motions being on their way towards, or from, such an interaction. The motion in itself can, however, only go towards its own end, according to the above.

*In his research of the affective expressions in Bach’s organ works, Forsblom (1985) discerns three main tendencies within figurative theory associated with affective expressions. These tendencies are called anabasis, katabasis and kyklosis (or circulatio), where

- anabasis (rising tendency) refers to an upward tendency or motion within a figure or in a larger context. /.../ Anabasis expresses increasing tension and energy, joy, happiness and ecstasy. (p. 24)
- katabasis (sinking tendency) refers to a sinking tendency or motion in a figure or in a larger context. It represents ánthesis, which expresses decreasing tension. (p. 25)
- kyklosis (circulatio, circling tendency) refers to a circling around the same tone in small intervals, often in the form of circolo-structures. /.../ In a setting that comprises several parts, kyklosis occurs by the texture circling around one and the same centre. (p. 26)

The tendencies are not figures in the true sense of the word but rather an attempt to create and shape with the help of a decided motion direction. According to Forsblom, the roots of the tendencies can be found in the antique Greek concept of tónos, which means tension and is an expression for a concept according to which music is a process that moves between increased tension (epítasis, intensio) and decreased tension(ánthesis, remissio). (p. 23)

The similarities between the terms: increasing - progression to - anabasis, decreasing - recession from - katabasis, and constant/circling - stasis around - circulatio are striking. And why would these similarities not exist? Sound has the same properties now as then (and ever), and I see no reason to believe that we would describe changes within sound properties in so different a way now than before. This is, however, said with the reservation that the different types of motion do not necessarily stand for the same affects now as they did then. Affective effects as a result of directed motion is something other than the directed motion types in themselves in terms of changes of sound properties.

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- 4- [improvised] music can move towards increasing complexity, but an improvisation may well start with the most complex statement of the material, and gradually breaking down its elements, move towards greatest simplicity (Kiroff 1997).

Wallace White presents four proportion profiles: “growth-initiation (GI)”, “stasis-equilibrium (SE)”, “climax-resolution (CR)” and “super climax-resolution (SCR)”, with splitting points in the middle (SE) or in different versions of the golden ratio (GI, CR, SCR). The profiles are characterized by directed motion. In CR and SCR, the activity is progressive-recessive, in SE, it is static-static, and in GI the activity is progressive-recessive but can also be progressive-progressive in the sense that after the splitting point an activity can be new (“initiative”) or an intensified version of previous events (“regenerative”).

Kiroff’s statement does not contradict Wallace White’s motion profiles (not proportion profiles since this is not a question of length proportions between profile parts), but also opens the possibility for more.

Two basic alternatives exist: motion profiles can be simple or compound. A simple motion profile consists of either increasing, decreasing, or constant/circulating motion, that is, it coincides with the respective type of motion. A compound motion profile consists of at least two different motion types. Actually, there are simple motion profiles in Wallace White’s work too, since the alternative SE (stasis-equilibrium) with the motion profile static-static can be reduced to constant/circulating motion. Stasis cannot be more than stasis, even when split down the middle. The same can be said of the second alternative for GI (progressive-progressive), which can also be reduced, but to increasing motion.

Wallace White’s actual compound alternatives (CR, SCR, GI) all consist of two links according to the form increasing-decreasing (though with shifting temporal proportions). If one extends Kiroff’s viewpoint to also encompass motion profiles that are two-part compounds, then they can also be decreasing-increasing.

The reason why Wallace White creates ‘two-component profiles’ is that he makes two-component proportional calculations. However, I see no obstacle in putting both proportional and motion profiles together with more than two links; and the more links, the greater the reason to see directed motions as another way of speaking of curve directions over time.

Apart from seeing directed motions as curve directions over time, one can also see the motion alternatives increasing and decreasing as processes, and the motion alternative constant/circulating as a state.

C. Articulation, phrasing:

- 1- articulation means primarily the differences regarding many nuances from short tone bursts to coherent bows (The Radio Conservatory 1968b)

That articulation primarily means different nuances from short tone bursts to coherent bows only becomes meaningful in relation to a notated referent. A sequence of quarter notes with staccato markings that cause the quarter notes to be played as eighth notes or sixteenth notes, for example, makes it meaningful to say that these quarter notes have been articulated as short tone bursts. Without a notated referent, there are, however, only

short or long notes, or something in between, and no notation to relate them to. The tones are simply as long as they are and cannot be said to be articulated shorter or longer than they are. I do, however, see the sounds' height and strength qualities as more interesting from an articulation viewpoint than their lengths. In the absence of notated referents, I therefore define articulation as the height and strength curvature over the length of the sound (see 6.2.1 Listening, appendix A2 Gesture processing alternatives).

- 2- phrasing is not bound to any special characteristic of the tones but has more to do with the way the tones are experienced as coherent groups (The Radio Conservatory 1968b)

This definition of phrasing corresponds to my understanding of the term, but with the difference that I see "coherent groups" as gestures, that is, I see phrase as synonymous with gesture, and phrasing as synonymous with creation/understanding of gestures.

(The articulation perspective can also be extended from one sound to an entire gesture with more than one sound, a sort of meta-articulation. In this perspective, even length± curvatures can be seen as a part of the articulation. In the same way, the putting together of several gestures can be seen as a meta-phrasing.) (see appendix A2 Gesture processing alternatives)

To what extent one should see a sound as a unit, as one value within each respective parameter, or a sound as height and strength curves over its length, as articulation, I regard as an open question. Focus on one or the other can, and should be allowed to, shift depending on which perspective one has in one's listening, on what one is interested in, hears, or wants to research for the moment. This problem does not exist for pauses since they can only have length values (see 6.2.1 Listening).

- 3- there is no exact symbol system for articulation since the phenomenon at the detail level is something rather complicated (The Radio Conservatory 1968b)
- 4- examples of articulation descriptions can be: long glissandi, wide vibrato, subtle vibrato, increasingly wider vibratos, and increasing and/or decreasing dynamic level on long sustained notes (Reynolds 1993)
- 5- examples of descriptions of articulation can be: slide/bend (gestures depict microtonal shifting or glissandi), scream (gestures depict shrieked notes /.../ at a loud dynamic level) (Westendorf 1994).

On the detail level, there may not be a symbol system for articulation (point 3). On a somewhat higher and more general level, however, one can speak of height and strength changes in terms of increasing-decreasing-constant/circling. More specifically, one can also use the more or less established terms as point 4 exemplifies to describe articulations. One can also, as in point 5, use one's own terms to categorize articulation types. This is, however, with the prerequisite that the terms are well enough defined to be understandable for more people than the one who invented them.

D. Length proportions:

- 1- within improvised music, consideration of proportion is rare, unfortunately, since references to proportioning illuminate analytical understanding (Wallace White 1999)

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Consideration of proportion is not only rare; as far as I know, Wallace White is the only one who has put a proportion analytical perspective on free ensemble improvisation. He is, however, conscious of the fact that four free improvisations by one ensemble is rather too small a sample size to judge the value of proportion analysis in general for music of this kind. What proportion analysis can contribute to the question of analytical understanding of a larger base, therefore, remains to be seen. I personally believe that proportion analysis can contribute with aspects that would otherwise not be revealed and that it can therefore contribute to increased understanding of the way free ensemble improvisation works.

- 2- two mutually exclusive objections to the idea of investigating proportional coherence in musical form are: that such coherence merely springs from a fairly ubiquitous proportional instinct, and is thus banal or unimportant, and that the human mind cannot instinctively evaluate precise temporal proportion on such a scale, and thus that such proportional planes are musically irrelevant. If the first objection is true, then the existence of this instinct is proved, and if such instinct does not exist, then the structures can only have been designed intentionally. (Howat 1989)
- 3- improvisers are sensitive to formal proportions and have a sense of the characteristic feel of large-scale temporal patterning, or formal rhythm (Wallace White 1999)

Musicians either have or do not have an instinct for proportions (point 2). Musicians have an instinct for proportions (point 3). My experiences, like Wallace White's, speak for musicians having such instincts.

However, this instinct does not necessarily have to be the same for all musicians. Furthermore, musicians may have personal aesthetic understandings about what is good or not so good form and/or proportions; understandings that can have been acquired to a greater or lesser extent and that do not have to be the same for all musicians either. A common opinion is, for example, that good form means shifting between sections with different characters. Another opinion is that form as a state, with a continuously ongoing flow of music, where the section's differences are uninteresting or even not desired, is preferable.

Both these factors can, taken together, result in the musicians' instinct for proportions taking different collective expressions in different ensembles, which makes it not banal or unimportant, but important, to research proportional relations in free ensemble improvisation. As a side effect, such research on free improvisation ensembles can also reinforce the idea that an instinct for proportion exists, but, as shown by the reasoning above, not even divergent research results would be absolute proof that it does not exist.

In free ensemble improvisation, no proportional structures are normally created intentionally; they grow as a result of the development of the music through the musical interaction of the musicians. If proportions are not created intentionally, and if the musician does not have an instinct for proportions, then free ensemble improvisations would show a formidable chaos of proportions, which, however, is not the case according to Wallace White's research. If proportions grow as a result of the musical interaction of the musicians, then proportion analysis should be able to show us something about how this growth takes place.

- 4- proportional structures are in themselves abstract, and can have real existence only in terms of the music's other structural functions (Howat 1989)

This is easy to realize, since the alternative would be to base proportions on something that does not exist. Proportional structures must be based on lengths, which, in turn, are based on something that exists in or can be deduced from the music. What it is that forms the basis for length divisions should of course be specified. In order to make comparisons possible, the bases for the divisions should also be applied consistently to the material that is to be compared.

- 5- systems of proportion are based principally on two ratios: exact symmetry or bisection; and the ratio known as the Golden Section (Howat 1989)
- 6- the golden ratio is reversible; either the longer or the shorter portion can come first, which results in different aesthetic effects. Points of maximum tension is mostly associated with the former type (long plus short), and points of regeneration or growth more with the latter [short-long]. (Howat 1989)
- 7- in the researched improvisations there are four recurring proportion profiles, of which two are the golden ratio in both its forms: CR (climax-resolution, 0.618, climactic and clousal, progressive-recessive) and GI (growth-initiation, 0.382, initiative or regenerative, progressive-progressive). The third is a supervariant of the long-short golden ratio, SCR (super climax-resolution, 0.764), and the fourth is a symmetric split down the middle, SE (stasis-equilibrium, 0.5, stabilizing, balancing, static-static). The three first are dynamic while the fourth is static. (Wallace White 1999)
- 8- there are other proportions in Oregon's four improvisations than the four named, but they are less frequent. They feel different and show directed motion qualities that differ from the four main profiles, but even these can be explained analytically. There are musical reasons for their existence. (Wallace White 1999)

In musical proportion contexts, the golden ratio dominates in two variants, and there is also a division down the middle (point 5). The clear favourite is the golden ratio, and above all in the form long-short. The views of both golden ratio variants in point 6 correspond with those in point 7, which is probably due to the fact that in his reasoning on proportions, Wallace White refers, to a great extent, to Howat.

If one feels like being mean, it is difficult to free oneself of the suspicion that being conscious of the golden ratio in advance can contribute to the discovery of golden ratios. On the other hand, it may be the case that this proportion is strikingly typical in music and maybe in other contexts, too. I cannot prove the one or the other, but I regard it as important that one makes divisions into lengths without thinking of any (predetermined) proportion at all, and that one is open to any proportions at all.

There is a tendency towards this direction in point 7 with the SCR profile ("super climax-resolution"). In point 8, other proportions than the four main alternatives are also mentioned. Wallace White does not give these proportions special names, but he observes them, feels that they are different and reports them in his writings about form and proportions in chapters 3-5. This is perhaps an opening towards a more differentiated thinking regarding proportions.

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- 9- time can be measured in clocked time or in the notated pulse of the music. Music with a defined internal metric pulse can show great variations in duration. The listener's experience of it does not necessarily correspond to clocked time (pulse fluctuations such as *accelerando*, *ritardando*, *rubato*, other events in the music, and the listener's mood or state of concentration can affect the listener's awareness of time). (Howat 1989)
- 10- time is measured according to elapsed clock time (minutes and seconds) regardless of whether the music is metric or not. The clocked time accounts for all variations in tempo, changes in metric grouping, and pauses or silences, and approximates the mode in which the improvising musicians are sensing and shaping the music in real time. (Wallace White 1999)

When it comes to free ensemble improvisation, the problem of measuring time does not exist (point 9). In free ensemble improvisation, there is no notation with tempo and metre markings. There are no length variants between different performances of the same notated work or part(s) thereof, either, since every improvisation is unique and only occurs once. There is no other time to refer to but the clocked time that passes during the course of the improvisation. There is no conflict between clocked time and notated time, and the only time-measuring alternative that is left is that under point 10. The listeners', and even the musicians' experiences of time are difficult to measure, which is why I consider it reasonable that clocked time is also allowed to approximate "the mode in which the improvising musicians are sensing and shaping the music in real time".

- 11- proportion profiles are established for entire improvisations on a collective level, and for the activities of each respective participant on an individual level. Alternative proportion profiles can occur on both levels, and proportion profiles can be subdivided. On the collective level, proportion boundaries correspond to section boundaries. Proportion boundaries on the individual level can agree with or overlap the boundaries for proportion profiles on the collective level. The overall proportion profile on the collective level is a splitting into two parts of the entire improvisation. (Wallace White 1999).

Proportion profiles can be established in a more or less complex way, that is, with or without sub-divisions in one or more links. What one wins in shown complexity, one may possibly lose in simplicity (and in the clarity that is connected to that simplicity). My humble criticism of Wallace White, who has otherwise done excellent pioneer work on proportion analysis in free ensemble improvisation, is that he sometimes touches upon losing the overall picture, the clarity, in favour of complexity. This is especially noticeable in connection with alternative proportion profiles and sub-divisions (sometimes in combination with one another). However, free ensemble improvisation is far from always simple, and a complexity that is not so accessible maybe shows precisely that – an overall understanding in its own way.

In principle, it seems reasonable to see proportions in improvisations as based, in part, on collective actions, and in part on individual actions. It also appears reasonable that proportional boundaries for collective actions coincide with section boundaries. In addition, I regard it as probable that proportional divisions on the individual level can come to overlap those on the collective level, since individual actions do not need to be dependent on section boundaries but can overlap these during transitions. However, one

can also add the possibility of proportions in improvisation being based on the action of sub-groups.

Wallace White's entire research of proportions is built on hierarchic divisions of lengths into two parts. One can, however, also imagine length proportions as a series of non-hierarchic length values in relation to a given total length, which might, for example, make comparisons of different improvisations easier, especially those that have different total lengths but the same number of sections.

E. Density:

- 1- density can refer to event density in time (number of sound events per time unit) (Bengtsson 1973)
- 2- density may be expressed in terms of how many sounds that are produced per time unit (Bergström-Nielsen 1998)
- 3- successive density refers to the number of sound units perceivable in a given time-span (Wennerstrom 1967)

Points 1-3 refer to definitions of temporal density. If one looks at the definitions, one can, however, see two problems. The definition of density as the number of sounds within a given time unit does not differentiate between simultaneous and non-simultaneous sounds, or whether sounds begin simultaneously or not. A problem arises here in that simultaneous attacks are not, and are not heard as, differentiated in time. The density for these becomes 1, that is, low, no matter how many attacks take place at the same time. Also, the definition seems to refer to entire, completed sounds. However, the boundary for a time unit can very well go through sounds. So, to which time unit should they be counted?

I prefer to define temporal density as: the number of non-simultaneous sound attacks per time unit, and call it attack density. In this perspective, sound attacks become the sound events per time unit (point 1) that temporal density is built on, and the number of sound attacks per time unit becomes the event density in time, that is, it becomes temporal density. If we use this definition, the problem of simultaneity disappears, and the boundary problem is greatly reduced, since the probability of sound attacks occurring precisely on the boundary between two successive and adjacent time units is much less than the boundary going through any entire sound(s). Successive density becomes attack density (point 3).

One can, however, if one finds it useful, reverse the objection to simultaneity and speak of momentaneous attack density, where, for example, five simultaneous sound attacks have a higher density than three. These views might possibly complement one another. Here, however, I find no use for momentaneous attack density.

- 4- density can refer to simultaneous density (from thin two-part harmony to massive chords and noise effects) (Bengtsson 1973)
- 5- the level of density is determined by the number of simultaneous or concurrent components (*density-number*) and by the extent of vertical space encompassing them (*density-compression*) (Berry 1987)
- 6- the distribution of components within a given space is a further parameter of consideration within the factor of density-compression, and may require consideration of simultaneous numbers of sounds *within segments of the total texture-space* (Berry 1987)

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- 7- simultaneous density refers to vertical density or the aggregate of sound units perceivable at a given moment (Wennerstrom 1967).

One can even speak of height density, and probably even about other types of densities (points 4, 5, 7). Here, however, I limit the term density to mean attack density, since height density, as opposed to attack density, is more something I can note now and again in passing than something that influences my improvising. If and when height densities appear in the form of conventional chords, however, I hear them and handle them as special cases. (see 19.1.2 More about objects, 19.3.2 More about relations)

However, Berry adds two important aspects of height density that also hold for attack density: unit size and the distribution within the unit (points 5, 6). For example, it is reasonable, from a distribution perspective, to speak of different densities for three closely connected attacks within a ten second unit, compared to the same three attacks within a two second unit. One can solve the question of distribution by either working with time units that are small enough (the smaller the unit, the less importance the distribution per unit gets), or by indicating the distribution within larger units in some way. I prefer the former method.

19.2.2 More about properties

REFERENCES

As examples of colour descriptions, Bergström-Nielsen names: “hard-soft or dark-light or tone-noise (these three apply to the single sound as well as to the analysis of the process”. (Bergström-Nielsen 1999: 24)

In connection with a general characterization of Albert Ayler’s improvisations, Reynolds (1993) mentions “the use of overtones, or harmonics”, “growling from the back of his throat”, and “overblown tones” as examples of timbral development. (p. 12)

In connection with a general characterization of Roscoe Mitchell’s improvisations, his use of tone colour (also a central element for the Art Ensemble of Chicago) is described, among other things, as: “overtones, or multiphonics, controlled by the embouchure to produce pitches of different timbre”, and “overblown pitches produced with a loose embouchure to break up the pitch”. (pp. 56-57)

Concerning Oregon’s improvisations, Wallace White, under the heading “Instrumentation and timbre”, notes some “timbral archetypes”:

1. The use of referential timbral archetypes
 - a. Descriptive sonic imagery (e.g., “flutiness”, “buzzy percussion”, certain ethnic references)
 - b. Instrumental combinations with qualitative associations (e.g., orchestrations that are “bluesy” or “spacious”)
 2. The use of change over time (e.g., from dark to bright, from strident to mellow).
- (Wallace White 1999: 69)

SUMMARIES AND REFLECTIONS

Timbre descriptions:

- 1- hard-soft, dark-light, tone-noise (Bergström-Nielsen 1999)
- 2- use of overtones, or harmonics, overtones, or multiphonics, growling, overblown tones, overblown pitches (Reynolds 1993)
- 3- flutiness, buzzy percussion, ethnic references, bluesy, spacious, dark to bright, strident to mellow (Wallace White 1999).

It is difficult to see any generally accepted, comprehensive and consistent system behind the descriptions of timbre (points 1-3). I do not have one to offer, either, but suggest that one uses, as much as possible, the established terms that one can find, for example, in textbooks and teaching materials on instrumentation, composition, and arranging (sub-tone for saxophones, *sul ponticelli* for stringed instruments, etc. etc.). Apart from this, one can, of course, use one's own terms, but with the prerequisite that they are so well-defined that they are understandable for more people than the one who created them, and with the prerequisite that they cover something that established terms do not. Within electro-acoustic music, attempts have been made for a long time to find a suitable terminology to describe the tremendously rich array of timbre possibilities that this music offers, and that go far beyond the possibilities of conventional acoustical instruments.

19.3 RELATIONS

19.3.1 Complementary material under the term heading: Relations

REFERENCES

When it comes to melody in counterpoint, one often differentiates between the following types of internal relations between parts: a) *oblique motion*, that is, one part moves in relation to one or more part(s) that remain(s) stationary, b) *similar motion*, all parts move in the same direction, c) *parallel motion*, parts move in the same direction, always at the same intervallic distance from each other, and d) *contrary motion*, parts move in opposite directions to each other. (Sohlman Dictionary of Music: Counterpoint [Kontrapunkt])

Ordering of elements can take place according to some simple topological principle, for example, according to the relations larger than, higher than, stronger than, etc. (Bengtsson 1973: 181)

By "I-events" ("interaction events"), Pelz-Sherman (1998) means musical information that is "successfully transmitted from one agent to another". I-events "can only happen when two performers are interacting", and are distinct from "solo events", for example. "It is common for such events to be perceived as complete syntactical units or "phrases", as though the second agent were completing a thought begun by the first, or answering a question posed by the first." (p. 137)

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As examples of I-events Pelz-Sherman mentions: “imitation”, “question-and-answer”, “completion/punctuation” and “interruption”. (pp. 141–145)

Question-and-Answer i-events differ from imitation in two important ways: 1) the response needs not necessarily re-use any features of the cue; and 2) the response is consequential in relation to the antecedent cue, whereas in imitation i-events this is not necessarily the case. (p. 143)

In completion/punctuation i-events

the first agent provides a cue strongly directed toward a predictable “destination” point, which the responding agent can easily predict and match up with. By a “directed” gesture, I mean one which a listener (whether inside or outside the group) can *predict* when the first performer’s gesture is going to end, allowing for a second performer to complete or punctuate the gesture in synchrony with the first. When successfully done, this i-event type produces a strong feeling of a phrase boundary, similar to the function of a period at the end of a sentence. The cue events are typically either single-note crescendos, scale-wise movements or glissandi, or some combination of the two. (p. 145)

An interruption i-event

is somewhat like an “anti-cue” – a signal from B telling A to stop immediately. The initiating agent provides such a cue by playing a very extended non-directional gesture, which the responding agent interprets as a “request for interruption”. Rather than providing completion, the responding gesture serves as a “cutoff” of the cue, and provides a new point of departure for a completely new idea. (p. 145)

Reinholdsson defines “call-and-response” as

two actors role-taking and interchanging gestures immediately, mutually, and sequentially. In a group context, one player (A) may initiate a musical gesture (call, phrase), and another player (B) may perceive, interpret and respond to it more or less immediately and sequentially. /.../ Through this, in such a situation, a processual moment of interaction resembling a dialogue between the two players is created in their consciousnesses. (Reinholdsson 1998: 214)

SUMMARIES AND REFLECTIONS

A. Material relations:

- 1– ordering of elements can take place according to some simple topological principle, for example according to the relations larger than higher than, stronger than, etc. (Bengtsson 1973)

Individual values / value differences can be ordered into three alternatives: greater than (>), as large as (=), or less than (<). The alternatives < and > mean, for individual values / value differences, a differentiation of the term dissimilarity in the pair of terms similarity–dissimilarity, in the concept model. The symbols can be translated into suitable terms for the areas they refer to. Sequences of >, = and < in different combinations are also a way of describing curve directions, (directions of value differences) and direction changes.

- 2- one often differentiates between the following types of internal relations between parts: oblique motion, similar motion, parallel motion, and contrary motion (Sohlman).

Parallel motion, as a special case of similar motion, can be complemented with inversion as the corresponding special case of contrary motion (though with the reservation that the term inversion can be interpreted more loosely than what is normally the case for the term parallel motion). The term inversion also, and more usually, means a form of gesture processing (see appendix A2 Gesture processing alternatives). The three basic terms are similar, contrary and oblique motion.

These terms can, however, be made more general so as to be applicable to all kinds of curves, not just height curves (melodics), whether they are simultaneous or not. The terms can be applied in detail (interval by interval) or in a larger perspective (overall directions).

B. Functional relations:

- 1- an I-event occurs when musical information is successfully transmitted from one agent to another and can only happen when two performers are interacting (complete syntactical units or “phrases”, completing a thought, or answering a question) (Pelz-Sherman 1998)
- 2- examples of I-events are: imitation, question-and-answer, completion/punctuation and interruption (Pelz-Sherman 1998)
- 3- question-and-answer differs from imitation in that the response needs not necessarily reuse any feature of the cue, and in that the response is consequential in relation to the antecedent cue.
Completion/punctuation consists of a “directed” gesture (towards a predictable “destination” point) from one performer, allowing for a second performer to complete or punctuate the gesture.
Interruption is a signal from B telling A to stop immediately, it serves as a “cutoff”, and provides a new point of departure (for a completely new idea). (Pelz-Sherman 1998)
- 4- call-and-response consists of two actors role-taking and interchanging gestures immediately, mutually, and sequentially, and is a processual moment of interaction resembling a dialogue (Reinholdsson 1998).

Four examples of I-events are mentioned. As stated in section 6.2.4 (Ways of interaction – relations – complexity), I see all establishment of relations as ways of interaction. At the same time, all gestures get both material and functional relations to other gestures. In this perspective, I see imitation (point 2) as a material way of interaction, where the imitating gesture gets the corresponding material relation (repetition) in relation to the gesture it imitates.

However, I regard the other three examples (question-and-answer, completion/punctuation, interruption) (point 3) as functional ways of interaction with corresponding functional relations. Their placement follows naturally from point 4 – they can be regarded as special cases within the functional relation dialogue (which does not, however, prevent them from simultaneously also being able to get another functional relation, such as catalyst, for example). The explanation of what an I-event is (point 1) points in the same direction. I regard question-and-answer as synonymous with call-and-response (points 2–4).

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*The term “response (interdependence)” refers to “continuations that give an antecedent-consequent effect, even though not specifically derived from preceding material. /.../ (ax, ay)”. (LaRue 1970: 80)

Even within Western composed music, there appears to exist something that corresponds to the phenomenon of call-and-response.

19.3.2 More about relations

REFERENCES

Bengtsson (1973) sees repetition, variation and contrast as fundamental principles for the structuring of musical courses of events. The terms can manifest themselves both on different levels, in different formats, and to varying degrees, and can refer to one or more structural factors or ‘variables’. All three can be differentiated and specified in several directions. (p. 233)

He clarifies the meaning of the terms and also finds difficulty in drawing boundaries between them.

Repetition can mean direct *iteration* (where only the time relationship before-after keeps them from being wholly identical) but also *return* of sections, themes, sound series, etc. A repetition can be unchanged or varied, and where the boundary should be between repetition and variation (that is, when the latter becomes distinctive) must be decided from case to case, taking into account style, structural level, and – not least – the role of the executors in the context. /.../

Even contrast is a highly relative term apart from being a typical relations term. Contrasts, which once were seen and experienced as large, can in addition have “shrunk” for contemporary listeners, used to other, more disturbing effects of contrast. (pp. 233–234)

[Upprepning kan innebära direkt *iterering* (där blott tidsrelationen före-efter utesluter total identitet) men också *återkomst* av avsnitt, temata, klangföljder m. m. En upprepning kan vara trogen eller varierad, och var gränsen skall anses gå mellan upprepning och variation (dvs. när den senare blir distinktiv) måste avgöras från fall till fall med hänsyn till stilläge, struktureringsnivå och – inte minst – exekutörernas roll i sammanhanget. /.../

Även kontrast är ett högst relativt begrepp förutom att vara ett typiskt relationsbegrepp. Kontraster, som en gång avsågs vara och upplevdes som stora, kan dessutom ha ”krympt” för nutida lyssnare, vana vid andra och mer påträngande kontrastverkningar. (s. 233–234)]

In the case of similarity, a first specification must be made before a concrete material, by more closely determining similarity/dissimilarity with regard to what (in which respects, variables, relations), where the answers will vary according to what kind of music and what level one is studying. (p. 251)

Briggs sees ostinati as “archetypal sound patterns”. (Briggs 1986: 58)

The gradations between repetition, variation and contrast is, according to Dean (1989), “absolutely continuous, and so infinite in number. Where one starts and another finishes cannot be defined”. (p. 44)

Repetition, variation, and contrast “are indications, not precise terms, and there are always many gradations at work (rhythm, pitch, texture, etc.)”. (p. 45–46)

For LaRue, the term “recurrence” means “both immediate repetition /.../ (a a), and also return after change (a b a)”. (LaRue 1970: 80)

Sound must, according to Nunn (1998), “be emphasized as “the starting point” of free improvisation (as opposed to a pre-existing style, theme, instrumental technique, etc.)”. (p. 37)

Normally, one would describe music in reference to pitches and rhythms, harmonies, melodies, even timbre as a “coloristic” element. Although these traditional musical elements exist and function within free improvisation, they are not the starting point; SOUND is the starting point. (p. 47)

In his analysis of *Lonely Woman*,²⁴ Perkiömäki takes up the “motivic chain association” that is so well-known for Coleman [see also Jost 1994: 50, Westendorf 1994: 74–75].

The technique differs from classical motive development, where the entire musical entity is constructed by developing one or two principal motifs. In Coleman’s solos, new motifs are introduced continuously, but the new motif is usually developed from the previous one; the new motif then provides inspiration for the next one and so on (chain association). (Perkiömäki 2002: 20)

Free improvisation is based more on timbre and sound than on harmonic and rhythmic structures, or on melodies in their conventional sense. Repetitions seldom occur, and the individual voice is fundamental. (Tuominen 1998: 2)

We must, according to Wennerstrom (1967), “learn to understand contemporary music and to perceive it on its own terms – not as a compilation of mathematical operations but as an unfolding of relationships”. (p. 18)

She divides repetition into “repetition” (“immediate restatement of sound events”) and “recurrence” (“delayed repetition; later restatement of a complete, or almost complete, inter-parametric unit”). By “inter-parametric unit”, Wennerstrom means “a comprehensible sound stimulus including all recognizable parameters, elements and sound events”. (pp. 26–27)

²⁴ Ornette Coleman. *The Shape Of Jazz To Come*. Atlantic 1317. Composed 1954 and recorded 1959.

SUMMARIES AND REFLECTIONS

A. Sound – relations:

- 1– sound is the starting point for free improvisation (Nunn 1998)

Sound may well be the starting point for free improvisation. Sound is in reality the starting point for all music. Sound is the prerequisite for music to come into being, due to the simple fact that music is something that is heard. However, being the starting point and prerequisite for something is not the same thing as actually being this something.

- 2– free improvisation is based more on timbre and sound than on harmonic and rhythmic structures, or on melodies in their conventional sense. Repetitions seldom occur, and the individual voice is fundamental. (Tuominen 1998)
- 3– contemporary music should not be understood and perceived as a compilation of mathematical operations but as an unfolding of relationships (Wennerstrom 1967).

Judging from point 2, Tuominen does not mean chords when he writes timbre and sound; he means the colour of the sounds. However, if one does not accept a single unchanging sound colour during an entire improvisation to be music, which probably not so many people do, then it appears more probable that it is the *change* of the sound colour in relation to one's own sounds *and* the sounds of others that is interesting, not the sound colour in itself. I, personally, however, am more interested in other properties of sound, here specified as length, strength, and height. From these parameter perspectives, there are both rhythmic structures and melodies, or rather length±, strength and height curves to listen to, and first and foremost length± curves, that is, rhythm to listen to. Melodies in the conventional sense, especially known melodies, are however rarities in free ensemble improvisation. Harmonies/chords are not of special interest to me either. (see 6.2.1 Listening, 19.1.2 More about objects, 19.2.1 Complementary material under the term heading: Properties)

From my perspective, it is, however, the experience of the combination of both the material and functional relations together, which comes into being through the musical interaction of the musicians, that produces the music in free ensemble improvisation. These relations concern only to a small extent timbral relations, and definitely not only sound colour in itself. Music is born in and through relations, and freely improvised music, which is highly contemporary, should be understood as a development of relations where, for example, the changing of sound colour, according to the above, should be understood as a development of timbral relations (point 3).

The extent to which repetitions occur in free ensemble improvisation is beyond my estimation (point 2). In the contexts that I have taken part in, repetitions have occurred to varying degrees, and, among other ways, in their simplest form as riffs/ostinati. Repetitions, and sequences, are also part of the normal array of possibilities for gestural processing.

The individual voice is necessary, since, in free ensemble improvisation, I neither can nor want to speak with anyone else's voice (point 2). Who would I be in that case? More important for free ensemble improvisation than the individual voice is, however, the musical interaction. If sound is a prerequisite for music, but is not music, then the

individual voice is a prerequisite for musical interaction, but is not interaction. Without a personal voice, be it more or less original, one has nothing with which to interact.

B. Repetition–variation–contrast:

- 1– the terms repetition, variation, and contrast are fundamental principles for the structuring of musical courses of events. They can manifest themselves on different levels, in different formats, to varying degrees, can refer to one or more structural factors (or variables), and can be differentiated and specified in several directions. (Bengtsson 1973)
- 2– repetition can be unchanged or varied, but where the boundary between repetition and variation lies, must be decided from case to case (Bengtsson 1973)
- 3– even contrast is a highly relative term (apart from being a typical relation term), where contrasts which once were large can have “shrunk” for contemporary listeners (Bengtsson 1973)
- 4– in the case of similarity/dissimilarity, one must determine with regard to what (in which respects, variables, relations), where the answers will vary according to what kind of music and what level one is studying (Bengtsson 1973)
- 5– the gradations between repetition, variation, and contrast is absolutely continuous, and so infinite in number. Where one starts and another finishes cannot be defined. (Dean 1989)
- 6– repetition, variation, and contrast are indications, not precise terms, and there are always many gradations at work (rhythm, pitch, texture, etc.) (Dean 1989)

Points 1–6 are all about the problem of drawing boundaries between the material relations: repetition–variation–contrast. Where does one end and the other begin? The consistent theme of the answers is that the boundaries cannot be defined but are fluid, with continuous and indefinable transitions (point 5), that the terms are relative relation terms where the boundaries must be decided from case to case (points 2, 3), and that they are more indications than precise terms within many areas of grading and grading possibilities (points 1, 6). To complicate the question even more, one cannot eliminate the possibility that the evaluations not only vary from case to case but perhaps also from evaluator to evaluator, because it is in no way obvious that everyone understands what is heard in the same way or focuses to the same extent on the same things. This is indeed an evaluative relativity of a multi-faceted kind.

In addition, two objects, A and B (for example, two gestures), can be similar with regard to a certain property or certain properties, less similar with regard to another or others, and dissimilar with regard to yet another or others, still, in all cases, with the same problems drawing boundaries. If object A is original, then object B can show such properties that some can be called repetition, some can be called variation, and some can be called contrast in relation to object A’s properties. This means that one, two, or all three terms, spread among different properties, can thus, and all at the same time, be relevant in a comparison. What then is object B as a whole in relation to object A? It is indeed a multi-faceted evaluational differentiation.

In point 4, it is pointed out that similarity–dissimilarity must be specified “with regard to what”. From my perspective, one should, when making a comparison, specify:

- which objects one compares (for example, gestures)
- what in the objects one is comparing (for example, height curvatures)

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- what the similarity–dissimilarity consists of (similarity–dissimilarity “with regard to”)

and decide if the result should be called repetition, variation or contrast. One should also, as much as possible, give an account of the the drawing of boundaries one applies.

The result can be such that one perhaps cannot see object B in its entirety as a repetition–variation–contrast in relation to A but only with regard to (a) certain property or certain properties. The result will probably also, apart from the evaluational relativity according to the above, vary “according to what kind of music and what level one is studying” (point 4).

In appendix A2 (Gesture processing alternatives), at the gestural level, the many possibilities of changing an original gesture are concretized; however, the difficulties in giving the changes headings such as repetition, variation, or contrast are also indirectly mirrored. (cf. 6.2.4 Ways of interaction – relations – complexity)

- 7– repetition can mean direct iteration, or return (Bengtsson 1973)
- 8– recurrence means both immediate repetition, and also return after change (aa, aba) (LaRue 1970)
- 9– repetition stands for immediate restatement of sound events and recurrence for delayed repetition; later restatement of a complete, or almost complete, inter-parametric unit (Wennerstrom 1967)

In points 7–9, a distinction is made between immediate repetition (iteration, repetition) and delayed repetition, where something else happens between something and the return of this something (return, recurrence). The difference may seem insignificant, but deserves to be noted since it makes it possible to speak of repetitions with links that are hopped over. The same holds, however, even for the two other material relations: variation and contrast.

- 10– ostinati can be seen as archetypal sound patterns (Briggs 1986)

Ostinati, archetypal or not, are both a special name for repetition, where everything is repeated in an unchanged form as far as possible, and an example of immediate repetition. A comparable term is ‘riff’. Use of ostinati is, at least in improvisational contexts, one of the safest ways of establishing pulse and metre. Due to this, ostinati can simplify rhythmic/metric coordination and can be a stable metric background against which other types of rhythmic patterns can stand out. Ostinati can also, depending on the tone content, contribute to the establishment of a central tone, possibly with a resulting tone row/scale.

Different but simultaneously used ostinati can contribute to the establishment of one or both of the attractors, pulse and central tone, in plural. Taken together, they can also contribute to creating a unique rhythmic ‘groove’.

One and the same ostinato can also be understood in different ways by different musicians, which can supply a mental plural effect for the ensemble with regard to attractors.

In particular, different but simultaneous ostinati, and different but simultaneous understandings of them, can contribute to a pluralistic musical milieu with regard to

attractors, which is a far from inconceivable situation in free ensemble improvisation. (cf. 6.2.4 Ways of interaction – relations – complexity)

However, even ostinati can be played so slowly, and/or with such irregular time intervals between them, and/or with such great variations that their attractor-creating effect can diminish, or not come into being at all.

11– motivic chain association is a technique where the new motif is developed from the previous one (and provides inspiration for the next one and so on) (Perkiömäki 2002).

Motivic chain associations stand for a method of variation that is called metamorphosis technique in Western art music, that is, a technique where each variation is regarded as the original of the following one. Through metamorphosis technique, it becomes possible to quickly get as far away from the first original motive, which is usually the basis for variations, so that derivable similarities between this and some variation later in the chain can be few or none.

19.4 RHYTHM, AND THE COMPLEMENTED CONCEPT MODEL

REFERENCES

Since “all music involves duration(s), all music necessarily has some manner of rhythm”. (Grove music online: Rhythm)

Two or more musical durations “may cohere into a larger unit, a ‘rhythmic group’. /.../ From this process the basic musical shapes of a piece may be discerned”. The grouping is “primarily marked by patterns of duration and timing, with pitch playing an important, though secondary role.” The same pattern of pitches and/or durations may, however, “allow for more than one grouping interpretation”. (Grove music online: Rhythm, §I Fundamental concepts and terminology, 3. Durational patterns and rhythmic groups)

In Sohlman, it is stated that rhythm, along with melody, chords (harmony), and, in certain cases, tone colour, according to traditional music theory, is seen as one of the fundamental elements of music. Its division is seen as schematic and in part misleading, since elements in a musical movement interact in ways that become inaccessible if one isolates individual elements. Rhythm is, in other words, highly dependent on melody, harmony and tone colour and in reality, any clearly discernable musical factor can be what is called a *rhythm determinant*, that is, of importance to the performance and experience of rhythm. (Sohlman Dictionary of Music: Rhythm [Rytm])

All “element-processes are rhythmic. In an important sense, the study of rhythm is thus the study of all musical elements, the actions of those elements producing the effects of pace, pattern and grouping which constitute rhythm”. (Berry 1987: 301)

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Cooper and Meyer (1963) feel that

every musician, whether composer, performer, or theorist will agree that “In the beginning was rhythm”. For the shaping power of rhythm and, more broadly speaking, of the temporal organization of music, is a *sine qua non* of the art. (p. v)

To study rhythm is to study all of music. Rhythm both organizes, and is itself organized by, all the elements which create and shape musical processes. (p. 1)

According to Dean (1989), “concentration on rhythm rather than pitch helps your freedom of commanding the instrument”. (p. 32)

That pitch comes out of rhythm was also demonstrated by Karlheinz Stockhausen, the contemporary German composer, who

used to give a lecture in which he demonstrated (by means of an electronic device) the effect of playing electronically a low note with ever-increasing rapidity of repetition: eventually (at repetition frequencies of several hundreds per second) a high pitch emerges instead of the original. Thus rhythm becomes pitch. (p. 34)

According to Dean,

most jazz and much free improvising has concentrated on rhythm, and thus shared the emphasis given to rhythm as motive by some other musics, such as Arabian music /.../, in which rhythmic constancy of a motive may be the important factor, and pitch variation of it quite secondary. (Dean 1992: 46–47)

Whether or not one agrees that rhythm is more essential to music than pitch, no argument is needed to justify the evident fact that “while music may escape both tonality and harmony, it cannot escape duration. The time factor is, ultimately, the most potent connection between music of all eras and all civilizations.”

(Dunsby & Whittall 1988: 165)

Of the two components of the motive, “rhythm, more than pitch (and pitch contour), seems the more powerful in terms of perceptual impact”. (Epstein 1995: 31)

To look at whole movements as rhythmic quantities may, according to LaRue, at first seem so vague that it appears pointless.

Yet the evidence of musical literature itself, i.e. the fairly consistent preferences that composers have demonstrated in associating particular tempos and lengths of movements in groupings such as the suite, sonata, and symphony, suggest that underlying rhythmic responses exist even in the largest dimensions. (LaRue 1970: 106)

Music can exist in the form of rhythmic sounds only but hardly for any great length of time in the form of equally long tones. In motivic work, the temporal gestalt is often as

important as, or more important than, that of the pitch, for us to recognize the motive. (The Radio Conservatory 1968b: 87)

Creativity [here applied to improvisation] is characterized by two occurrences: “ideation” and “selection”. In the ideation process, “ideas are generated”, and in the selection process “ideas are filtered” and the usable ideas are chosen. Rhythmic patterns are fundamental in the ideation processes, where “musicians are particularly aware of rhythmic ideas from the other band members”. On ideation level number two comes melody, “the melodic phrase itself; selection of the solo phrase, frequently with elaboration and repetition”, and on level three comes musical style (“musicians explicitly distinguish “style” from the melodic pattern level”). (Sawyer 1992: 257–258)

For Williams, “the single element most particular to the occurrence and perception of music is its passage in time, its duration”. (Williams 1986: 33)

Duration and intensity have, in contrast to pitch, not changed historically in meaning.

All general theories of rhythm which take durational length or dynamic intensity of sounds into account may be said to address themselves to the same phenomena. In the sense that duration is the length of time a signal is sounded and intensity is its loudness, duration and intensity have not changed historically in meaning. To the extent that pitch almost always relates to some system of pitch context, however, the historical view changes. New generation of theorists have altered the views of previous ones with respect to the structural functions of pitches as pitch theory has developed from modal, to tonal, to free-atonal, to serial systems; and this is not to mention the pitch relations that obtain in ethnographic spheres other than Euro-American. (Yeston 1976: 4)

SUMMARIES AND REFLECTIONS

Rhythm

A. The importance of rhythm in general:

- 1– since all music involves duration(s), all music necessarily has some manner of rhythm (Grove)
- 2– the study of rhythm is the study of all musical elements, because all element-processes are rhythmic (the actions of those elements producing the effects of pace, pattern and grouping which constitute rhythm) (Berry 1987)
- 3– “in the beginning was rhythm”. The shaping power of rhythm, of the temporal organization of music, is a *sine qua non* of the art. (Cooper & Meyer 1963)
- 4– to study rhythm is to study all of music; rhythm both organizes, and is itself organized by, all the elements which create and shape musical processes (Cooper & Meyer 1963)
- 5– rhythm is more important for music than pitch (music may escape tonality and harmony but not duration), and the time factor is the most potent connection between music of all eras and all civilizations (Dunsby & Whittall 1988)
- 6– even whole movements can be seen as rhythmic quantities (LaRue 1970)

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- 7- music can exist in the form of only rhythmic sounds but hardly for any great length of time in the form of equally long tones (The Radio Conservatory 1968b)
- 8- the single element most particular to music is its passage in time, its duration (Williams 1986).

In short, rhythm is the basis for all music, from individual sounds/pauses to entire parts over time (points 1-8). If one looks at the array of music-theoretical literature in the Western world, one can, however, get the impression that the state of things is different. If one can measure literature on harmony in so-called metres on bookshelves, then one could measure those on melody (mostly on counterpoint theory) in decimetres, whilst, on the other hand, the literature on rhythm would be measured in centimetres. I do not know the reason for this, but I can speculate on three possible causes. Firstly, harmony is something of a speciality for the Western world, and is, moreover, not so old a phenomenon, which can explain people's curiosity about and desire to explore it. Secondly, harmony is also easier to speak about, to specify, and above all to systematize, than rhythm. A third reason might possibly be that rhythm is so omnipresent in both harmony and melody that one quite simply does not think about it; it is taken for granted.

B. Rhythm on the gestural level:

- 1- two or more musical durations may cohere into a larger unit, a "rhythmic group", from which process the basic musical shapes of a piece may be discerned (Grove)
- 2- grouping is primarily marked by patterns of duration and timing, with pitch playing an important, though secondary role (Grove)
- 3- of the two components of the motive, rhythm, more than pitch (and pitch contour), seems the more powerful in terms of perceptual impact (Epstein 1995)
- 4- in motivic work, the temporal gestalt is often as important as, or more important than, that of the pitch, in order to recognize the motive (The Radio Conservatory 1968b)
- 5- the same pattern of pitches and/or durations may allow more than one grouping interpretation (Grove).

Points 2-4 confirm point A, in the smaller perspective. They also clarify the definition of gesture in section 6.2.1 (Listening). There, I define a gesture as an intuitive selection of sounds/pauses. Here, it is made clear that this intuitive selection is primarily based on rhythm, which also corresponds well with the views under point C1,2. Point 1 confirms the viewpoint in section 6.2.1 on gestures being the fundamental musical formal units.

Point 5 points to the consequence that since the selections according to my definition are intuitive, they might then be different for different people before the same sequence of sounds/pauses, which is yet another aspect of the drawing of boundaries between gestures and material relations, respectively. (see 19.1.2 More about objects, 19.3.2 More about relations)

C. Rhythm in free ensemble improvisation:

- 1- much free improvising has concentrated on rhythm, and thus shares the emphasis given to rhythm as motive by some other musics (such as Arabian music, in which rhythmic constancy of a motive may be the important factor, and pitch variation of it quite secondary) (Dean 1992)

- 2- rhythmic patterns are fundamental in the ideation process (ideas are generated, and musicians are particularly aware of rhythmic ideas from the other band members). On ideation level two comes melody, and on level three comes musical style (musicians explicitly distinguish “style” from the melodic pattern level). (Sawyer 1992)
- 3- rhythm is one of the fundamental elements of music, and any clearly discernable musical factor can be a rhythm determinant (Sohlman)

Points 1 and 2 confirm point A. I cannot speak for all free improvisers or for free improvisation as a whole, but for me and for my own improvising, it is, and has become to an even greater extent as time has gone by, undoubtedly the case that rhythm is the main strand, the base of, the foundation for and the life itself in all the steps of the three-stage model on both levels 1 and 2 (see 6.2.2 Process). As opposed to Sawyer, however, I put dynamics in second place. In first place after these comes melody. And as far as I am concerned, music styles are not interesting at all (cf. 13.1 Free improvisation – idiomatic improvisation, 13.2 Free improvisation – stylistic influences).

Bearing this view in mind, one can say that rhythm is not *one*, but *the* basic element in music, and that any clearly discernable musical factor whatsoever *cannot be*, but *is* a rhythm determinant, and perhaps primarily that. (point 3) (cf. 19.1.2 More about objects)

- 4- concentration on rhythm rather than pitch helps your freedom of commanding the instrument (Dean 1989).

I can corroborate point 4. Since I began to realize the importance of rhythm and began to shift my own focus from pitches and chords to rhythm, I have felt greater freedom on my instrument. This freedom has enabled me to have a more concentrated focus on my practicing and playing. One musical element has become more important than the others. *When* one sounds has become more important than *how* one sounds in terms of melody, harmony and colour, as opposed to both when and how to an equal extent, or to more how than when. I also believe this attitude to be possible only in music that is without stylistic rules or demands.

D. Additional viewpoints:

- 1- pitch comes out of rhythm (thus rhythm becomes pitch) (Dean 1989)
- 2- duration and intensity have, in contrast to pitch, not changed historically in meaning (Yeston 1976).

I heard the same viewpoint, that is, that tones are transcended rhythms (point 1), from the Danish composer Per Nørgård during a conversation in the 1980s. In practice, this does not mean so much, but as an idea, the thought is appealing. A fundamental tone can, apart from its overtones, be seen as a rhythm where the rhythmic markings are too close to one another in time for us to be able to separate them – they meld together into a tone. A chord can, with the same perspective, be seen as a polyrhythmic construction. If one counts the overtones, even a large part of a tone’s colour can be seen as polyrhythmics. Dynamics cannot, on the other hand, be reduced to rhythm, and I have, like Yeston, difficulty seeing that long–short and strong–soft, respectively, have been understood in a particularly different way in the past than we understand them now (point 2).

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Yet another point in favour of rhythm is the fact that pauses are regarded, at least by most people, as just as important for music as sound, and that the only property of a pause is length. Consequently, length is the only common denominator for sounds and pauses.

From my perspective, then, rhythm is both the practical and theoretical, and, by extension, even the analytical basis for free ensemble improvisation, with everything else being complementary viewpoints.

Complemented concept model

The terms in section 19 (Complementary material to the concept model) that have been added as a complement to the concept model are:

- the pulse types *regular*, *evenly irregular*, *unevenly irregular*, and *floating* (19.1.1 Complementary material under the term heading: Objects)
- *curvature* with *type* and *description*, *directed motion* as *curve direction over time* with the motion types: *increasing* (progression to, anabasis) (*process*), *decreasing* (recession from, katabasis) (*process*), *constant/circulating* (stasis around, circulatio) (*state*), and *articulation* (*meta-articulation*), *length proportions* (*on collective/sub-group/individual actions*), *density* (19.2.1 Complementary material under the term heading: Properties)
- differentiation of the term dissimilarity (<, >), *similar*, *contrary*, and *oblique motion*, and further differentiation of the functional relation dialogue in the form of *question-and-answer/call-and-response*, *completion/punctuation*, *interruption* (19.3.1 Complementary material under the term heading: Relations),

which gives the complemented concept model according to below. (cf. the concept model in section 18 Concept model based on preceding sections)

OBJECTS

- sounds/pauses
- gestures (sub-/meta-) (formal unit) (selection of sounds/pauses)
- sections (sub-/meta-) (formal unit) (selection of gestures)
 - lag time
 - transitions (points/periods)
 - sudden/unexpected
 - pseudo-cadential
 - climactic
 - feature change
 - fragmentation
 - internal cadence
 - silence
- attractors
 - pulse (with possible metre)
 - regular
 - evenly irregular

- unevenly irregular
- floating
- central tone (with possible tone row/scale)

PROPERTIES

- values (successive-simultaneous)
 - value differences (successive-simultaneous)
- parameters (length±, strength, height)
 - density
 - length proportions (on collective/sub-group/individual actions)
- colour (instrument, instrument combinations, timbre)
- value series (size-number-order) (successive-simultaneous)
 - value difference series (size-direction-number-order = curve) (successive-simultaneous)
- parameters (length±, strength, height)
 - density
 - articulation (meta-articulation)
 - length proportions (on collective/sub-group/individual actions)
- curvature
 - type
 - description
- directed motion (curve direction over time)
 - increasing (process)
 - decreasing (process)
 - constant/circulating (state)
- colour change (instrument, instrument combinations, timbre)

RELATIONS

- material
 - similarity-dissimilarity (>, <)
 - repetition-variation-contrast
 - similar, contrary, oblique motion
- functional
 - solo
 - support
 - ground
 - dialogue
 - gap-fill
 - question-and-answer/call-and-response
 - completion/punctuation
 - interruption
 - catalyst
 - sound mass

III CONCEPT MODEL

- interpolation
- independence

INDIVIDUAL

- listening
 - musical sounds
 - primary listening
 - secondary listening
 - non-musical sounds, hearing away
- feedforward
- aesthetics
 - outer aesthetics
 - inner aesthetics

ENSEMBLE

- interaction connections
 - individual-individual
 - individual-sub-group
 - sub-group-sub-group
(combinations with more than two components are possible)
- interactive influence
 - cause (what influenced)
 - effect (result of the influence)
 - possible miscommunications
- feedback
 - negative
 - positive
- contextualization
 - silence with acceptance
 - acceptance of two/more simultaneous courses of events
 - adaptation/affirmation
 - reinforcement
 - development
 - support

EVALUATION

- interactional skill
 - listening skill
 - choosing skill
 - instrumental skill
 - material utilization (material criterion)
 - collective understanding (unity criterion)

- total
- partial
- absent

COMPLEMENTARY ASPECTS

- musicians' musical background, experience
- collaboration time
- ensemble size and instrument combination.

Internal – external

I see my concept model as an internal concept model, that is, as directed towards the sounding music itself and its practitioners. There is, however, nothing to prevent an internal concept model from being complemented with an external one in order to encompass the context(s) of improvisations in a narrower or wider sense (for example, improvisation musicians' or music's relations to their or its environment: audience, room, spirit of the times, political events, political and ideological ideas, biographical facts, life philosophy, belief, social conditions and relations, methods of education, etc.). Such a complementary model can be especially useful in a wider analysis of free ensemble improvisation – an analysis with the ambition of reaching beyond the sounding music in itself and the actual actions of the musicians, an analysis that seeks the answers to questions like why the music turned out the way it turned out, what this might possibly imply and mean, contextual relations, etc.

What I have focused on in this thesis are internal musical aspects on grounds that have been accounted for above, and what I have left out are external aspects according to the previous paragraph. I may also have left out a number of other aspects, without being conscious of it.

Outro

I What characterizes free ensemble improvisation?

6.1.1 Solo – ensemble

What are the differences between solo and ensemble improvisation apart from the obvious numerical difference?

Solo improvisation offers greater coherence, cohesiveness and control than ensemble improvisation (the improvisation can continue as long as the improviser wishes, and there is no one to ‘disturb’ the soloist in the form of musical interjections/comments / other ideas).

Solo improvisation is not the best base for ensemble improvisation. Practising one’s ability to interact, that is, to practise ensemble improvisation, is a better foundation, but practising on one’s instrument is, however, a necessary complement to practising ensemble improvisation.

In solo improvisation, one is free from group loyalties and from permanent commitment to any stylistic or aesthetic positions. However, in ensemble improvisation, permanent commitment (to the group) and loyalty towards (the group’s) stylistic/aesthetic positions, respectively, can be seen as cases of group loyalty. Secondly, one can play with other musicians without any permanent/long-term commitment, which is rather normal within free ensemble improvisation. With regard to aesthetic positions, I divide these into outer and inner aesthetic positions, where outer aesthetic positions have to do with the way the music should sound, and inner aesthetic positions with the way the musical interaction should work. Thirdly, if outer aesthetic positions mean acceptance of the music as it turns out sounding, then they should be acceptable to both free solo and ensemble improvisers since they give equal respect to everyone’s contributions. Fourthly, if inner aesthetic positions entail striving after as good an interaction as possible, then they should also be acceptable to both free solo and ensemble improvisers, since the alternative would be an interaction that was less good, or no interaction at all. The second, third and fourth point are valid to the extent that a free solo improviser is interested in ensemble improvisation at all.

For me, the varying contributions from the members of the ensemble open up musical dimensions within the ensemble as a whole. It is in the musical interaction in free ensemble improvisation (with its telepathic foundation) that I find the essence of im-

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provisation, and this can only be discovered by people who play together. These varying contributions and dimensions, and the interaction that takes place, are lacking in free solo improvisation.

It is, however, primarily one's personal disposition that decides if one prefers solo or ensemble improvisation, or likes both just as much.

6.1.2 Ensemble

Can one find any central/general viewpoints on free ensemble improvisation and the effects it can have on its practitioners?

Viewpoints

As a musician one should:

- be attentive to the other players (listen to each other very deeply)
- be attentive to what one is doing oneself in relation to the other musicians
- be prepared to alter what one is doing.

Collective understanding is a prerequisite for the development of a collective direction. The other development alternatives for the ensemble are:

- 1- individual directions do not meld into or become subordinate to a collective direction, but rather continue to exist independently
- 2- some of the participants in the ensemble agree on one direction, whereas others agree on another, and both live parallel lives (if the ensemble is big enough, more than two parallel but different group directions can develop and coexist)
- 3- one musician develops/maintains one direction, while the others develop/maintain another direction that is collective and common for them.

Alternatives 1-3 can take place within or outside of collective understanding. Alternatives 2 and 3 can be seen as examples of partial collective understanding within the ensemble. Collective understanding can thus be total, partial, or absent, but can and should normally be a part of the musical interaction in free ensemble improvisation to various extents.

The possibilities for a musician to influence the process of free ensemble improvisation are dependent on:

- what the musician is doing
- how this is done
- how what is done is perceived and understood by the other musicians
- which reactions that which is perceived and understood arouses in the co-musicians.

More interesting than who influenced the process and to what extent is, however, rather: what influenced the process and what was/were the result(s), i.e. interactive influence as cause and effect.

Free ensemble improvisation:

- does not belong to the Western notation-based art music tradition
- does not belong to an oral or aural tradition in music-ethnological terms.

However, elements of art music, jazz, different ethnic traditions or any tradition at all can appear to various extents in free ensemble improvisation.

Free improvisation ensembles do not want to create or transmit a praxis/tradition of their own, or take over some other group's praxis/tradition. No group has any ambitions to improvise in the same way as any other group, or to get another group to improvise the way it does. The complexity of the music also makes taking over or transmitting a praxis improbable, except in very general terms.

A free improvisation ensemble does, however, run the risk of creating its own tradition, which can be counteracted by systematic work, musical and human meetings with other musicians, and by the musical interaction itself.

Effects

In free ensemble improvisation, one's own ideas can be mixed with those of others so that idea identity and the cause-effect relationship is dissolved, and so that what the others play almost becomes part of one's own material. This depends at least upon:

- time overlap (of gestures)
- sound colour
- number of musicians
- positioning of musicians
- musical personal chemistry
- collaboration time.

To the extent that one is interested in and listens to one's co-musicians and takes in their ideas, one's own ideas will probably be renewed and complemented. Cross-breeding can be seen as a metaphor for this effect.

Free ensemble improvisation has forced me to go through both musical and personal self-examination. I believe that through these self-examination processes I have learned to better understand myself, both in a personal and musical way. From those experiences, I do not believe that one can wholly separate the personal from the musical (at least not within the context of free ensemble improvisation). What I am as a person is mirrored in my playing, and the other way around. The process of self-examination has led to me restraining and changing some sides of my nature, as well as to strengthening some other sides. The process of self-examination, together with the musical and personal work they lead to, is, hopefully, 'a never-ending story'.

Finally

The musical meeting with other musicians in free ensemble improvisation is the nourishment and that which furthers the development of the music – with the addendum that even the musician himself can develop through these meetings, and that one's own reflections also contribute to the development of the music.

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6.1.3 Short-term – long-term collaboration

What characterizes short-term and long-term collaboration, respectively?

Short-term collaboration does not necessarily, to any greater extent, provide:

- another sort of response/reaction
- a more fantastic music which none of the participants could have imagined beforehand
- a music where the final result is more unpredictable than what long-term collaboration provides.

Elitism and defence of positions do not necessarily make themselves more explicitly known when people who do not know one another improvise together. Nor does this situation necessarily cause the musicians to be more frightened to play honestly. Such situations are rather marked by mutual respect and a will to make the best of the situation.

The risks of long-term collaboration are that:

- the music can tend to be personalised and closely identified with a player or group of players
- a common language that might limit the development and the freedom of the improvisation can grow.

Cures for the potential risks of long-term collaboration are:

- to play with as many different sorts of improvisers as possible (to the extent that one is or makes oneself receptive to such temporary influences, short-term collaboration can be a refreshing complement to long-term collaboration)
- the mutual musical interaction in itself (it is unlikely that each musician has heard the whole repertoire of ideas of every fellow musician, and, furthermore, such repertoires comprise highly dynamic and varying phenomena)
- systematic work (exercises that do not prompt any special way of improvising but that open up possibilities to think along new paths, and exercises that widen and differentiate one's perspective on free ensemble improvisation and the musical possibilities it offers, both materially and interactively – essentially reducible to relational exercises).

Short-term collaboration only reaches the first stage of one of Nunn's cyclical three-stage development processes ("freshness", "beginner's mind", "the wall", "a new plateau"), ad hoc ensembles perhaps only the beginning of the first stage, while long-term collaboration opens up possibilities to also reach stages two and three. In contrast to short-term collaboration, long-term collaboration can also make it possible for musicians to go through the cycle more than once. The number of cyclical development processes that are possible for an ensemble to go through, is, however, an open question (naturally also dependent on the length of the long-term collaboration).

Long-term collaboration:

- is in itself not a prerequisite for attaining something one could not have attained individually or collectively in short-time collaboration, but it probably helps both the

individually- and collectively-attained to reach a greater depth, as well as being more pervading and transforming for both the individual and the ensemble than that attained in short-term collaboration

- has, as a prerequisite, people who have played together for a long time, and things that are established and known between musicians as a common base that grows and is in constant change during the collaboration's cyclical development processes
- increases the probability that real musical communication will have more time to develop between the musicians, together with the probability that this communication may also become deeper and of a more transforming nature.

It is meaningless to propagate for an either/or when it comes to short- and long-term collaboration, respectively. They complement one another, they guarantee more breadth and development within free ensemble improvisation, and both are necessary for the survival of the music form.

If I were forced to choose one of the alternatives, however, I would choose long-term collaboration. This is because I am most interested in and fascinated by the interactive/communicative potential of free ensemble improvisation, which I feel is best attainable through long-term collaboration and through the cyclical development processes Nunn speaks of, and which I, to a great extent, would like to trace back to systematic work being a prerequisite. However, this choice is a personal one, and others can, for their own equally personal and good reasons, prefer short-term collaboration.

6.1.4 Ensemble size – large ensembles – directing

Is there an ideal size for a free improvisation ensemble?

The ideal size for smaller free improvisation ensembles comprises between 3–5 musicians. An ensemble of this size is: big enough for the individual to get varied impulses, small enough for each member to be able to make himself heard as an important part of the group; small enough to be graspable, big/small enough to achieve self-organizing FFE instability, and small enough for everyone to be able to focus on what everyone else is playing. Also, a group of, at the most, five musicians is easier to handle logistically than a larger group.

Apart from the size of the ensemble, no matter what its size is, the ensemble's combination of instruments is also of interest.

What characterizes large free improvisation ensembles?

Large ensemble improvisation is a “scarce commodity”. My experiences from large improvisation ensembles have, however, not given me any reason to categorically speak of a “high-risk strategy” or a “high-risk activity”, but rather of an exciting journey with greater possibilities for musical variation/combinations than in small improvisation ensembles. Free large ensemble improvisation is possible at an acceptable musical level. It can be, and sometimes is, fantastic, something incomparable and extraordinary.

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Large ensemble improvisation is more difficult to manage than improvisation in small ensembles, since there are more musical contributions to take into account and relate to in large ensembles than in small ones. Each musician gets less musical space in a large improvisation ensemble than in a small one, and, to a corresponding extent, less responsibility for if and how the improvisational process develops. It is more difficult to manage and coordinate all the practical things in connection with concerts and trips, etc., in a large improvisation ensemble than in a small one. The possible musical reward has about the same musical odds as improvisation in small groups, and can include everything from catastrophe to success.

Larger groups may (and do) produce rather stable, highly entropic, static states. Such states occur, as I interpret the expression, when everyone plays simultaneously and the musical event density, and often also the strength, is high and even, and therefore the possibilities for interactive detailed playing between a few musicians fewer.

Larger groups can (and do), however, also divide themselves into smaller constellations, and even soloists, within the large ensemble, while the rest of the ensemble is silent or act as a discreet background. Collective manifestations may, in such a context, be experienced not as stable, highly entropic, static states but rather as refreshing contrasts to, and often musical consequences of, the constellation/solo sections.

Yet another view can be that stable, highly entropic, static states are not necessarily, and not by definition, something bad; they can also be seen as something musically good and satisfying by their creators. This happens occasionally.

One difficulty that is proportional to the number of participants is the increased complexity that can occur in large ensemble improvisation – especially if and when all the musicians play simultaneously.

There is a certain delay before a new direction has taken root in the entire ensemble, and the delay probably increases the more musicians there are in the ensemble. Less delay means greater demands on the musicians to be able to quickly and without preparation change direction (the more people that are improvising simultaneously, the more important it becomes for each to have the ability to change his or her direction on the spur of the moment, according to the ever-changing context).

However, one can also see an intrinsic value in the delay and its effect(s), and remain there interestedly as long as possible. Then the demand to be able to quickly change direction no longer exists. Quick changes in direction might even be something negative.

The delay is, however, not only dependent on the size of the ensemble but also at least as much on the quality of the musicians. The more skilled the improvisers, the less time a change in direction can take, whether the ensemble is large or small, as long as all the musicians are interested in the change. (If not everyone is, the result will either be different parallel directions or that the last-born direction lives a short life.)

A free improvisation ensemble, whether it is large or small, can, but does not, however, have to work, and does not always work, just like a flock of birds or a school of fish that apparently without preparation change direction immediately and simultaneously. (One can therefore only claim that skilled improvisational musicians should be able to change direction quickly and without preparation according to the ever-changing context,

but not that they have to do so. If they choose not to do so, this does not necessarily mean that they are worse improvisers or that the improvisation is less successful.)

I have not experienced much greater difficulty in collecting musicians to take part in a large free improvisation ensemble than in a small one. I think this may partly be due to the fact that large free improvisation ensembles are relatively uncommon and can therefore seem interesting for improvising musicians, and partly due to the fact that musicians naturally see the unique musical potential of such an ensemble and want to experience its manifestation.

It has, however, shown itself to be true that it is more difficult to keep a large ensemble together for a longer period of time than it is to keep a small one together. In a large ensemble, the individual musician is more anonymous than in a small one, gets less space, and therefore probably feels less responsibility for the ensemble as a whole, which makes specific projects/concerts more important as a motor for a large ensemble's existence and survival than is the case with regard to a small ensemble.

There is a limit to the number of musicians that can meet in a space so that everyone hears everyone else, due, among other things, to the room one is in, its size, form and acoustics. This can make it more difficult to place everyone so that everyone hears each other in large ensembles.

However, if the state of not hearing one another does not last too long but takes on a more ephemeral character, even that alternative can be accepted; however, generally, hearing one another is naturally preferable.

Regarding the positioning of the musicians, common sense, previous experience of large groups, and, if necessary, collective decisions about where the musicians should be positioned go a long way. Even this is a consequence of musical maturity (see below).

Besides the positioning of the musicians, the combination of instruments and the sound colour are decisive for the musicians being able to hear one another (quiet instruments risk disappearing in the sound picture if and when they are combined with louder instruments, and many instruments of the same kind make it more difficult for the musicians to discern who does what).

In large ensemble improvisation, instrumental combinations and sound colour are therefore just as important to take into account as the positioning of the musicians.

I regard structure, in this context, as the material and functional relations that come about between gestures and sections in improvisations. With this definition of structure, all improvisations (even the freest) unavoidably attain a structure.

In light of this view, I interpret the difficulties (in large free improvisation ensembles) of using the sound potential in a structured way, without any normative organization, for example, in the form of sheet music, such that structure stands for some special (and predetermined?) kind of structure that is desirable and that is seen as a prerequisite for discussing structure at all.

I feel, however, that free ensemble improvisation, no matter the size of the group, is not consistent with having to attain or adhere to any special kind of structure, nor do I feel that any manifestation of structure can be a non-structure, nor even considered as having a better or worse structure – improvisations quite simply get the structures they get.

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The need for control in free large ensemble improvisation is not only proportional to the number of participants; more decisive for the success/failure of a free large ensemble improvisation is quite simply the musical maturity of the participants.

To the extent that it exists, and as a consequence of it, not everyone plays all the time in free large ensemble improvisation (just as everyone does not always play in a symphony orchestra). This leads to shifts between tutti, smaller constellations and soli, the latter with or without background. As a consequence of musical maturity, the dynamics also vary (besides the demands placed by the relations between loud–quiet instruments), and the density of events in both tutti and constellation sections, which, together with shifts between tutti, smaller constellations and soli, make it easier for the participants to hear one another and thus be able to perceive and grasp the ever-changing complexity.

Yet another consequence of musical maturity is that the combining of instruments in smaller constellations becomes more self-regulating so that the ensemble as a whole strives for varied/contrasting instrumental combinations and for the optimal functioning of the instrument combinations (attained either through the combinations in themselves (similar–dissimilar and quiet–loud instruments, respectively) or through the musicians in the smaller combinations that do occur, quite simply adapting to the potential of the instruments that the combinations are made up of).

I therefore see the need for control in free large ensemble improvisation as conversely proportional to the musical maturity of the participating musicians rather than proportional to the number of musicians.

There is not, as far as I have noticed, a greater trend towards unifying elements, such as “pedal points, tonality, rhythmic and melodic motives, etc.”, in large free improvisation groups than in small ones. (To the extent that such elements occur, and they do, they occur, as far as I can tell, independently of the size of the group.)

The same holds true for “less variation in individual parts”. A musician does not generate less imagination and creativity because the ensemble is large. However, and as noted earlier, there is less musical space (“greater individual restraint”), which has to do with the size of the ensemble.

I do not recognize that the idea of a tutor/managerial division, which tries to ensure that the player contributes in the ‘right’ way to the whole, is automatically set up in large improvisation ensembles. I have, however, often experienced self-critical conversations after improvisations, conversations that have taken place whether the group has been large or small, that have included all the group’s participants and that have, for the most part, been fruitful and meaningful. These conversations have, in turn, affected future improvisations with the group and have in this sense been indirectly tutorial, but not supervisory or managerial. Such conversations are just as important in all free improvisation ensembles, large as well as small.

Which principal methods of directing exist for free ensemble improvisation, and what effects does directing have on the latter?

Directing can be placed into three principal method categories:

- non-invasive (“which seek to define very general principles, such as who might play when, a very general description of the type of material to be explored (either verbal or notated) or an indication of the mood/atmosphere which the piece might seek to generate (without specific musical instructions)”)
- invasive (consisting of “a scheme or structure which requires the musicians to divide their attention between improvising and some other activity (watching the conductor, reading music, throwing sponges around(!) etc)”)
- “soloist(s) and the rest” (where the musician is “allocated one of those two roles at any given time”, and where “soloists are allowed freedom to develop material, hopefully in their own time, whilst the ‘rest’ follow cues, realise notation, etc.”).

Of the methods for directing I have had the opportunity to try, it is the non-invasive methods that have worked best since they force the musicians to a lesser extent to divide their attention between what is actually happening in the improvisation and some other activity, such as, for example, reading and following instructions (texts, graphics, etc.) or following the directions of a leader. To a correspondingly greater extent, they allow the musicians to improvise in relation to each other’s contributions and thereby let themselves be led by what they actually hear and by their musical intuition.

Of the non-invasive methods, those that only comprise a who-plays-with-whom approach have worked best since even general descriptions of the material to be explored, a predetermined time limit, or indications of moods/atmospheres that the music may seek to generate do not either take into account what is happening in the improvisation, i.e. how it is actually developing.

Non-invasive methods at least show one possibility of using the sound potential of a larger group in a predetermined, ‘structured’ way without going back to the organization of the classical big band.

I have experienced invasive methods as distracting, and sometimes as overtly disturbing, since they take into account what is actually happening in an improvisation to a lesser extent than non-invasive methods. They also demand to a greater extent that the musicians divide their attention between the improvisation and some other activity. The question is if they are at all consistent with and useful in free ensemble improvisation. I do not think so.

Directing in the form of “soloist(s) and the rest” can be formed in different ways. If the soloist on the one hand is free while the rest are to follow cues, notations, etc., this form of directing becomes a mix of free improvisation (the soloist) and invasive methods (the rest). A consequence of invasive methods taking less account of what is actually happening in an improvisation is that they take away the possibility to be able to decide from “the rest” of the musicians, the suitability of playing at a given moment and how the contributions should be formed “within the wide-ranging spectrum from silence to total dominance”, which makes this method of structuring a backward step, if seen from the point of view of free ensemble improvisation.

If, on the other hand, the division between the soloist and “the rest” takes place according to a non-invasive who-plays-with-whom method, the soloist is still just as free,

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and the other musicians are free to decide when, what and how they should play in relation to the soloist.

The first method can hardly stimulate the musicians to take more or even just as much responsibility for the music as the second, and also means that the musicians leave the responsibility for the music to another person, that is, the one who stands for the cues, notations, etc. This attitude is certainly not something free improvisers should “inherit from classical forms”.

Moreover, one can, within this form of directing, accept playing in turns, without any limits for the soloists and leave the rest to “the rest” to shape their contributions as they wish, according to their own judgement and in relation to what the respective soloist plays.

Self-chosen limitations may, according to section 8 (A word about freedom), be another aspect of directing.

Predetermined structures can cause improvisations to be interpreted as if they were compositions (a habit that is deeply ingrained), or lead to the belief that composed structures are necessary for successful group improvisation.

Free improvisers do not want their free improvisations to be interpreted as compositions. Predetermined structures are, in themselves, compositions. To improvise according to predetermined structures is, then, to interpret such compositions. Free ensemble improvisations are, however, not compositions or interpretations of compositions, and predetermined structures are consequentially not necessary for free improvisations, not even for, or perhaps especially not for, successful ones.

I even find it probable that a predetermined structure in the form of, for example, a detailed referent hinders rather than contributes to the coming into being of “inter-relating streams”, since it is through such a referent that certain “streams” are rejected, and only those that are consistent with the referent are accepted. A referent also causes the musicians to divide their attention between what is actually happening and the referent.

I do not believe that imposed structures necessarily make large ensemble improvisation simpler, but I do believe that they miss the point of free ensemble improvisation. It is better to accept that the music in a large free improvisation ensemble “neither needs to nor should want to” be like composed music, i.e. be bound by any form of directing, and instead let it flourish as easily and as readily as it can on its own terms. The same reasoning applies to small free improvisation ensembles as well.

A free improvisation ensemble can be the result of one person’s idea in one or both of two ways. It can be created through one person’s initiative but afterwards be left free to collectively develop musically; or it can, after its creation (by one or more creators), also be more or less directed musically by one person’s idea. I see the first as acceptable and consistent with free ensemble improvisation, but not the other way. In the latter case, the musicians do not take responsibility for the music themselves but have given it to another person. In such a situation, one can naturally ask oneself if the group’s identity really is a free improvisation ensemble. I do not think so.

That mutually-agreed-upon aesthetic criteria can be side-stepped can only take place as a consequence of the second way, and is thus not consistent with free ensemble improvisation. (Aesthetic criteria can be of different kinds in a free improvisation ensemble,

but the only aesthetic criteria that can be mutually agreed upon and that are consistent with free ensemble improvisation are, in my view, that the musicians accept the musical result no matter how it turns out and that the musicians strive for as good an interaction as possible (outer and inner aesthetics, respectively). What is considered good interaction cannot be stipulated in advance, and especially not by one person. However, during conversations, both the views that the participants mutually agree upon, as well as the views that they do not mutually agree upon can come up. A certain disagreement about these views can work as a positive force in the development of an ensemble, on the condition that the different viewpoints are tolerated and experienced as dynamic and negotiable by the participants, and on the condition that the conversations are not allowed to be dominated by the views of one person. Moreover, acceptance of the music as it turns out does not preclude the musicians, during conversations, from wanting to ventilate their views on the musical result, too. This is not unusual, either. Nor should such conversations be allowed to be dominated by one person's viewpoints.

If a process is directed, the space for spontaneous developmental processes must necessarily be limited to the scope of the directing framework, the participating musicians must necessarily limit and adapt their creativity to the directing conditions and cannot be fully creative, not even within the framework of their own limitations, and the details of the playing must, necessarily, comprise "the right sort of musical component", where "right" is included within the directing conditions and the rest is not.

Directing of any kind, and in all its forms, makes free ensemble improvisation, to various degrees, into something other than free ensemble improvisation. The only form of directing that I really think is acceptable is to have a selective choice of co-musicians, with good musical maturity, and not in the form of what they should play. Such a form of directing contributes to reaching an all-encompassing concord and to avoid mere "co-existing", in favour of "inter-relating streams". Apart from logistical questions, such organizing and preplanning are the preferable forms of directing limitations and are what give the best result from the point of view of free ensemble improvisation.

Finally, the ultimate referents, and the only ones that are needed, are the musical gestures in themselves, that is, one's own and those of the other co-musicians.

6.2.1 Listening

What importance does listening have in general in free ensemble improvisation?

Free ensemble improvisation demands "an intense concentration on the music" and an "intense listening to the whole", since there is nothing else to adopt as a base for the interaction between the musicians, that is to say, the ensemble improvisation, than their listening to one another. Our playing becomes better, the better our listening is.

However, in order for interactively-directed listening to reach satisfactory results as reactions to what is heard, instrumental skill is necessary – the instrument must not be in the way. Listening skill and instrumental skill are both important but have different functions.

Ideal listening should result in a good, yet shifting balance between one's own playing and that of others, as well as between the music in the moment and the music as a whole.

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“It was stated that free improvisation is not made, it is allowed to make itself, and this comes from active listening”. (Nunn 1998: 87)

How does my listening work in free ensemble improvisation?

I differentiate between musical and non-musical sounds. By musical sounds, I mean those sounds that come from the playing of the ensemble members, and that I understand as intended to be part of the ensemble playing. The non-musical sounds consist of audience noise, traffic noise, the clink of porcelain etc. I almost always “hear away” the non-musical sounds (if they are not already drowned by the musical sounds), and they usually do not affect the music but only maybe disturb my concentration.

What I hear when I listen to the musical sounds are, based on the sounds/pauses, gestures and relations between gestures. Indirectly, and in a longer temporal perspective, I also hear sections, including transitions between these sections, and, to a certain extent, even relations between sections.

With regard to musical sounds, I do, in fact, focus on the gesture(s)/section(s)/relation(s) I am interested in at the moment as a base for my own improvising. I call this focus primary listening. Other gestures/sections/relations belong to secondary listening. Primary listening corresponds to “focal”-listening, “listening-in-search”, or “figure listening”. Secondary listening corresponds to “global” listening, “listening-in-readiness”, or “background listening”. Primary and secondary listening, respectively, are independent of what, in analytical terms, can be called foreground, background, solo, accompaniment, etc. Primary listening can be directed just as easily towards the foreground as towards the background, towards accompaniment as towards solo, and can shift direction/object quickly.

Which sound properties do I relate to, and how do they function within my listening?

Sounds/pauses have properties. By properties, I mean values within the parameters length±, strength, and height. I use these parameters because they are the basis of my own improvising. In this perspective, gestures can be seen as (different) value series within these parameters. A value series is determined by the included values’ size, number and order. A value series can be successive over time or entirely/partly simultaneous. I can discern the parameter values for length±, strength and height more or less exactly or approximately.

Sound also has (sound) colour. By colour properties, I mean instrument(names), individual instruments or combinations of instruments, and (descriptions of) timbre / timbre shifts with the framework of the respective instrument’s possibilities. Colour does not, however, influence my improvising to any greater extent (the instruments serve primarily as a medium to identify who plays what, and timbre primarily as only a ‘sound spice’). Colour is instrument-specific, while the parameters apply to all instruments.

Gestures can also be seen as value difference series within the named parameters, that is, as curves within the respective parameter. A value difference series (curve) is determined by the size of the included value differences, their direction (up = positive value difference, down = negative value difference, straight = no value difference), number and order. Even value difference series can be successive over time or entirely/partly simultaneous.

If gestures are not played slowly enough and/or repeated enough times, I can seldom in real-time have the time to discern gestures more than as curves, or as “shapes”, or as “contours” within different parameters.

I can also discern sounds in themselves as value difference series, as curves, within the parameters strength and height over the length of the sound.

Which relations do I account for in my listening?

I divide relations into material and functional relations. I define material relations as similarity–dissimilarity with regard to values / value differences or value series / value difference series, possibly in terms of repetition, variation or contrast. I define functional relations as musical functions in terms of foreground–middleground–background or just foreground–background. Relations can be established intentionally or unintentionally; whether I want to or not, a gesture gets relations to other gestures.

What are gestures and sections?

I define a gesture as an intuitive selection of sounds/pauses (smallest gesture = one sound). Gestures can be individual or collective, with successive or entirely/partly simultaneous sounds/pauses. In the same way that there can be pauses between the sounds in a gesture, there can also be pauses between gestures. The term gesture includes/replaces the term motive.

A section is a larger part of an improvisation that is, in at least one aspect, discernible in relation to the preceding and following sections. Analogous to the definition of the term gesture, I define a section as an intuitive selection of gestures (smallest section = one gesture). Gestures in a section can be successive or entirely/partly simultaneous.

I see gestures and sections as formal units (the most important and really the only formal units in free ensemble improvisation). They can, if necessary, be divided into sub-gestures and sub-sections respectively, or be put together to form meta-gestures and meta-sections, respectively.

6.2.2 Process

How does the individual improvisational process take place in free ensemble improvisation?

General

Free ensemble improvisation is self-organizing, that is, it is allowed to create itself. Free ensemble improvisation follows from what has come before, as a consequence of that, based on what the musicians have perceived of it, how they have perceived it, and the results of their reactions to what they have perceived. To continually make musical decisions within the prevailing context of the moment is part of the musical interaction and is a prerequisite for free ensemble improvisation, but this presupposes that the context is perceived, that is, that the musicians listen to one another and to themselves. Without this listening, there is otherwise very little, musically, to make decisions about.

Process model

The process can be divided into three stages:

- **i** – (I hear something; perceptual coding of incoming sensory data, input)
- **iii** – (I do something; execution and timing of chosen actions, motor output)
- **ii** – (and, in between, something happens inside me that causes the specific action(s) I take; evaluation of possible responses and choice of response, processing and decision making).

Stage **i** must, however, refer to both what I do and what my co-musicians do. Stage **ii** must also include the alternative of deciding not to play. For all the musicians in the ensemble, then, free ensemble improvisation consists of continually ongoing **i–ii–iii** cycles.

Stages **i** and **ii** cannot be completely simultaneous but at least overlapping in time, since I cannot process anything before there is anything to process, that is, before I have heard something (see however Feedforward below). Stages **ii** and **iii**, however, probably cannot overlap, since a decision, in its shortest form an impulse, cannot be executed before it exists. To the extent that a decision that has been made can be executed through automatic “motor sequences”, there is, however, space left for a new stage **i** or **ii** or perhaps even a new stage **i–ii** sequence (or maybe several sequences?) to occur simultaneously as stage **iii**. In this sense, stage **i** or **ii** or the stage sequence **i–ii** can occur simultaneously with stage **iii**. However, the question of simultaneity is also paired with conscious and unconscious attention, which can be divided into different proportions between the stages (see Attention and memory below), which makes it possible for stage **iii** not to have to be wholly automatized (left to unconscious attention), a view that fits better with the way I understand my own playing than stage **iii** always being wholly automatic.

Yet another aspect of **i–ii–iii** cycles is their speed. In practice, I see the speed of the **i–ii–iii** cycles as more essential and decisive for the improvisational playing and the musical flow than the degree of possible simultaneity / time overlap between the stages of the cycle.

During an improvisation, the improvisational processes are built up at different rates of speed, or on different temporal levels. On level 1 (N1), sound/pauses are grouped together (**i**), and processed (**ii**), which results in sound/pauses being produced in a gestural perspective (**iii**) (or results in the alternative of not playing). On level 2 (N2), gestures are grouped together (**i**), and processed (**ii**), which results in gestures being produced in a sectional perspective (**iii**).

The more accomplished and experienced the improviser, the more he can focus on both the part and the whole, that is, focus on both level 1 and 2. How much per level and to what extent this can occur simultaneously is, however, another question. This probably varies from person to person, and even from occasion to occasion for the same person.

One may possibly also speak of a level 3 (N3) and N3 processes where sections are grouped together (**i**), are processed (**ii**), which will result in sections being produced within a perspective of the whole (**iii**).

Yet two more levels are conceivable. At level 4 (N4), I can imagine a ‘piece’ level where those improvisations that have been completed during one and the same performance (i), are processed (ii), which will affect coming improvisations during the same performance (iii). At level 5 (N5), I can see earlier performances as accumulated (i), and as, in some way, processed experiences (ii), which will affect coming performances (iii). In this thesis, however, I limit myself to levels 1–2.

Feedback

I regard stages i, ii, and iii, that is, the entire process model, as a feedback loop. Feedback loops operate between musicians in ensemble improvisation, which means that I adapt my behaviour (playing) not only to my own sounds but also to those of my co-musicians, which is a good description of and a necessary prerequisite for free ensemble improvisation.

Of the listed forms of signals to which feedback can refer, the auditive are primary “in the case of musical improvisation”. Visual signals, in the form of eye contact and body language, for example, can play a certain role in free ensemble improvisation, though to varying degrees for different people and on different occasions.

Short-term feedback is the most obviously present form of feedback in free ensemble improvisation, since free improvisations are built up by the musicians acting in the present, or at least as close as possible to the present.

Longer-term feedback is used in decision-making and response selection within a time perspective larger than the ongoing movements. This view fits well with the idea of N2 processes and makes it reasonable to see these as feedback loops as well, and analogous to the N1 processes. The result is that improvisations can be seen as simultaneously ongoing processes / feedback loops (on levels 1 and 2) that are dependent on each other.

Contextualization

Contextualisation is about “handling larger errors through contextually justifying them after the fact”, about “creation of a musical context to imply meaning in retrospect”. Contextualization occurs in free ensemble improvisation, and the reason for this is that something happens that at least one of the musicians experiences as unsuitable/wrong/disturbing/inappropriate.

Contextualization can be divided into three main alternatives (with sub-alternatives):

- 1– silence with acceptance
- 2– acceptance of two/more simultaneous courses of events
- 3– adaptation/affirmation, with the sub-alternatives
 - a– – reinforcement
 - b– – development
 - c– – support.

Yet another possible form of contextualization could be to bring about a contrast to the ‘unsuitable’ event that has happened. To bring about a contrast can be interpreted as a

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protest, but can also be interpreted as the first event being an inspiration for adding yet another event that contrasts with the first ‘unsuitable’ event, a variant of main alternative number 2. I see main alternative number 3 as the normal way of interpreting the term contextualization, and main alternatives numbers 1 and 2 (with its variant) as pushing the limits of the term.

Contextualization sometimes works as a response to a single N1 process. For reasons of time, it is, however, more common to have, and it also normally requires, more than one gestural process in order for the musician to have enough time to understand and react. Normally, contextualization also requires more than one N1 process for it to be realized. Contextualization is, however, not so slow that it requires entire sections, but ends up in an intermediate position between N1 and N2 processes / feedback loops. There is, however, the possibility that contextualization in itself brings with it a change of section, in which case it ends up on the section level and becomes part of an N2 process. The frequency of and need for contextualization changes from improvisation to improvisation, depending on the participants’ interpretations of what is happening during each improvisation, respectively. Contextualization can be seen as a special case of feedback since it is about adapting behaviours according to what has been heard.

Feedforward

Feedforward can be seen as “quick glimpses of the immediate future”, “some sort of prediction about coming action(s)” and as an “internal model” of the coming actions of the co-player(s). It is, as far as I can understand, directly connected with the factors: the extent to which the musicians know one another musically, what has happened (immediately) before and musical personal chemistry. There are probably also other factors that can contribute to explaining the phenomenon feedforward.

Feedforward is, of course, faster than feedback since the former works before something has happened, while the latter presupposes that something has already happened.

In the process model / feedback loop, I place feedforward as an ‘irrational’ component under stage **ii** since it happens before stage **iii** but is probably dependent on what has happened in stage **i**.

The probability of feedforward increases the more I know the other musicians musically, the more I have observed and internalized what has happened previously during the improvisation, and the better the musicians’ musical personal chemistry is. However, there is never any guarantee that feedforward will occur at all, nor that it will be correct; even a strong feeling for what will come next can turn out to be wrong (something else happened). I see feedforward as a probability, a probability that, to a greater or lesser extent, occurs on both levels 1 and 2. Just as feedforward in N1 can offer a foreshadowing of coming gestures, it can, in N2, foreshadow at least the next section. Beyond the three above-mentioned ingredients that I suppose to be related to feedforward, and whether feedforward appears or not, and whether it turns out to be right or wrong, I also think that there will always be room in improvisation for “accurate authenticity and intuitive responsiveness”, which are neither feedforward nor feedback, but which, hopefully, can facilitate the former, and, maybe, even the latter.

Attention and memory

Attention and memory are two limits “for the possible complexity of improvised behaviour in real time processing”.

Attention can, “according to a resource allocation model be divided into conscious and unconscious attention”, where “the total cognitive load may not exceed the available resources so as to avoid interference”. Within the concept of the resource allocation model the concept also indicates that one’s available resources can be distributed in different proportions between conscious and unconscious attention. The more routines that take place automatically (“requiring only unconscious attention”), the more resources are left for processing routines (“requiring conscious attention”), and vice versa.

Based on my own experiences, I believe that conscious attention is not static but vacillates between level 1 and 2, as well as between stages **i**, **ii** and **iii** on the respective level, with properties and relations included on both levels. Everything else I see as either unconscious attention (as a consequence of conscious attention vacillating, unconscious attention also vacillates), where the sum of conscious and unconscious attention must fit into the available cognitive resources, or as things that I miss entirely, that I do not pay attention to at all, neither consciously nor unconsciously. I imagine that the amount of available cognitive resources a person has, and also a person’s capacity for conscious/unconscious attention, can vary from individual to individual and perhaps also vary for the same individual from occasion to occasion. In regard to listening, I see conscious and unconscious attention as synonymous with what I call primary and secondary listening.

Memory can be divided into long-term and short-term memory, where the short-term memory operates within the framework of 7 ± 2 units. However, the number of units can be increased if conceptual “chunks” form “larger groupings”, where focusing on the curvature of gestures may be seen as a way of attaining conceptually ‘chunked’ “larger groupings”.

Perhaps one can also see the “conceptually ‘chunking’ into larger groupings” on a gestural level, and perhaps one can, from this perspective, imagine an analogous “chunking” for gestures on level 2, though probably to a lesser extent than for a whole section. If so, I would like to place an N2 memory between short-term (N1) and long-term memory, that is, a memory that within its limitations stores gestures within sections.

N1 and N2 memories fade more quickly than long-term memory. I imagine that their permanency depends on personal prerequisites, the particular performance, the way an improvisation develops, the number and selection of musicians, performance milieu, experience, etc.

Long-term memory (musical theory and composition concepts, ‘auditory images’, specific pieces and motives, and memorized muscular sequences (action units), corresponding roughly to the traditional music labels of theory, musicianship, repertoire, and technique) is, as opposed to N1 and N2 memory, independent of an ongoing improvisation but is an ever-present resource that influences both the N1 and N2 processes, and is a foundation and prerequisite for both (and also for processes on levels 3–5). A well-filled long-term memory probably offers more improvisation/interaction alternatives (including sound ideas and their development) than one that is less well-filled. Conversely,

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long-term memory receives nourishment and renewal through ongoing and completed improvisations. Long-term memory is also a prerequisite for making both the individual and collective development of an improvisation ensemble possible, since if I cannot remember what I or the ensemble have done in the (reasonable) past, then how can development take place?

However, long-term memory also seems “critical in establishing long-term musical relations in an extended improvisation” and it “remembers, and can (at times) recall, identities and particular features of the flow (e.g. a particular rhythmic figure) for restatement / later use”. This may indicate that there are two levels, or kinds, of long-term memory: one longer, connected to “theory, musicianship, repertoire, and technique” / “traditional compositional strategies”, and one less long, connected to ongoing improvisations according to the above. If this is the case, I would place the latter between N2 memory and long-term memory, and call it extended memory.

Suggestion for a process model / feedback loop (where contextualization is a part of feedback)

i

Perceptual coding of incoming sensory data. Input. Listening.

- N1 – My sounds/pauses and those of others are grouped together. Properties and intentional/unintentional relations are noted consciously, unconsciously, or not at all.
- N2 – My gestures and those of others are grouped together. Properties and intentional/unintentional relations are noted consciously, unconsciously, or not at all.

ii

Evaluation of possible responses and choice of response. Processing and decision-making. Ideation and selection. Possible feedforward/projection. Impulse. Interpretation.

- N1 – Interpretation(s) is/are made, consciously or unconsciously, of that which is consciously or unconsciously noted. Decisions are made, consciously or unconsciously, about reaction(s) to that which is consciously or unconsciously noted.
- N2 – Interpretation(s) is/are made, consciously or unconsciously, of that which is consciously or unconsciously noted. Decisions are made, consciously or unconsciously, about reaction(s) to that which is consciously or unconsciously noted.

iii

Execution and timing of chosen actions. Motor output. The alternative of not playing. Action–reaction. (Re)action.

- N1 – Sounds/pauses are produced consciously, unconsciously, or not at all in a gestural perspective. Properties and intentional/unintentional relations are created if sounds/(pauses) are produced.

- N2 – Gestures are produced consciously, unconsciously, or not at all in a sectional perspective. Properties and intentional/unintentional relations are created if gestures are produced.

As a consequence of section 17 (Free improvisation – system analogies), "feedback-loop" includes both negative and positive feedback.

6.2.3 Interaction – communication – conversation

What do the terms interaction, communication and conversation mean in free ensemble improvisation?

Interaction is communication or mutual influence that is transmitted via language, gestures, symbols, etc., where communication is transmission of information (that thus can be transmitted via language, gestures, symbols, etc.) that can take place consciously or unconsciously. In short: interaction is communication that is mutual transmission of information.

Connections:

- free ensemble improvisation is musical real-time interaction that is musical real time communication that is a mutual exchange of information where the information is gestures with their properties and intentional/unintentional relations, including understanding and misunderstandings (miscommunications)
- conversation can be used to help to explain how free ensemble improvisation works, but only within the framework of its limitations (a more or less useful metaphor for the musical interaction/communication that takes place in free ensemble improvisation)
- I treat interaction and communication as synonymous terms in this thesis.

In addition to 'interaction':

- different kinds of decision-making and collective problem-solving are part of the interaction and not separated from it
- interaction in free ensemble improvisation can function meaningfully even between musicians that are not "equal personalities" in terms of
 - – not having equal instrumental skill (if more skilled and experienced musicians adapt to those that are not as skilled, which is not the same thing as meaninglessness)
 - – musical personal chemistry not working so well (although equal musical personal chemistry will probably make the interaction easier, and, hereby, also increase the meaningfulness of this activity). The degree of meaningfulness may then, as in the case of musicians not having equal instrumental skills, partly depend on a good will to overcome such obstacles.
- a good will to create a meaningful work, that is, to create improvisations that are experienced as meaningful, should always be present (not only have been "alive for a long time")

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- a musical attitude “that can’t be constituted only as an act of good will” comprises, for me, even seriousness and respect, that is, to be serious about free improvisation and respect it as being as valuable as any other kind of music making
- by the participants’ relationships, I mean material/functional relations, which are hopefully dynamic. I see them as a constantly shifting flow that springs from the process of ensemble interaction. For me, it is this process flow that is the synergetic outcome of the ensemble interactions (not its product)
- the global purpose of free ensemble improvisation is to accomplish a good improvisation, which means a well-functioning musical interaction. The details are worked out interactively in real-time but they are also part of a larger perspective than the immediate present, which affects the detail work in real-time.

In addition to ‘communication’:

- miscommunications do happen in free ensemble improvisation. They are, however, not necessarily something negative but can add something excitingly new and unforeseen (so, no feedforward) that can often lead the music in a new direction. Miscommunications can often (but not always) be contextualized, and the contextualizations do, more often than not, turn into something positive.
- “interpolation” and “sound mass” are examples of “seeming non-communication” where the level of communication depends on
 - – the balance between the included parts
 - – the way the situation is established and left
 - – the musical ambiguity being clearly articulated
- interpolation and sound mass can thus be non-communicative if the three conditions above are not met (or not sufficiently met)
- however, even non-communicative states may have some musical value, at least for limited spaces of time.

In addition to ‘conversation’:

- in ensemble improvisation one can layer multiple textures and ideas (i.e. play simultaneously), which is less effective in verbal communication
- musical communication is based on the properties and relations of gestures, whereas verbal communication is based on words
- words have semantic content, which the components of musical communication do not have.

6.2.4 Ways of interaction – relations – complexity

Which ways of interaction occur in free ensemble improvisation, and which connections are there between ways of interaction and relations?

As far as I can understand there are nine ways of interaction in free ensemble improvisation:

- I – solo
- II – support
- III – ground
- IV – dialogue (including gap-fill)
- V – catalyst
- VI – sound mass
- VII – interpolation
- VIII – independence
- IX – silence.

The establishment of all relations involves ways of interaction, and conversely, all interaction involves relations being established. In this perspective, I see the ways of interaction I–IX as functional ways of interaction, which involves the gestures produced within the framework of the ways of interaction I–VIII attaining the corresponding functional relations. Relations as verbs become ways of interaction, whereas ways of interaction as nouns become relations. I do not, however, see way of interaction IX (silence) as the cause of the corresponding functional relation, since I reserve the term for gestures, not for the absence of gestures.

This division into ways of interaction / functional relations I–VIII replaces the division of functional relations into foreground–middleground–background or just foreground–background.

What affects complexity in free ensemble improvisation?

The level of complexity depends, among other things, upon:

- a musical material being meant and understood as the same functional relation but that still causes/triggers different responses in different musicians
- a musical material being understood as having different functional relations by different musicians, which also means that an intended functional relation does not necessarily correspond to what is understood
- a musical material being able to cause different actions depending on different aesthetics (internal standards of beauty) of the recipient musicians
- different ways of interaction / functional relations being able to exist simultaneously, being spread amongst different musicians and/or over different form/time perspectives
- lag time (I reserve the term for the time a change takes within a section), since lag time can mean that different musicians do not react simultaneously to a change (and perhaps also in different ways)

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- the complexity of the gestures themselves (in terms of the number of sounds/pauses and variations within their other properties)
- gestures, in relation to one another, being able to simultaneously have different material relations for different parameters (multiple material relations)
- gestures being able to overlap more or less within length±, strength and height, as well as over time
- different musicians, to varying degrees, being able to focus on, understand and act from different material relations
- the number of musicians, since the number of possible interaction connections quickly increase with an increasing number of musicians in the ensemble (individual(s)–individual(s), individual(s)–sub-group(s), sub-group(s)–sub-group(s), different interaction connections with the same way of interaction (but probably differently realized), different interaction connections with different ways of interaction, internal ways of interaction (within a sub-group), external ways of interactions (between individual(s) and/or sub-group(s)), etc.)
- the speed of the interactions (in terms of the number of initiated interactive events per time unit)
- the bridges (transitions) between different sections, since they can simultaneously take place in different ways for different musicians, and can also be of different lengths for different musicians (cf. lag time above)
- the understanding relativity about pulse, tempo, metre, central tone, along with the boundary-drawing relativity between formal units and repetition–variation–contrast, respectively.

I doubt, however, that this summary of factors is comprehensive when it comes to explaining the causes of complexity in free ensemble improvisations.

Or, maybe the entire question of complexity in free ensemble improvisation can be reduced, or summarized, to be about:

- the number of sound-/pause-events per time unit
- real-time perception and interpretation of sound-/pause-events
- real-time reactions to sound-/pause-events.

6.3 Definitions

How can free ensemble improvisation be defined?

Free ensemble improvisation can be defined as: musical real-time interaction between two or more musicians where nothing musical is predetermined or binding and where everything musical is allowed.

7 Intuitive music

What is intuitive music?

Intuitive music is identical with free improvisation, with the exception of directing texts being present.

8 A word about freedom

What does the word 'free' mean in free ensemble improvisation?

Freedom can take place within the following limitation categories:

1- things one is not able to do due to:

- a) physical limitations (for example, the instrument's limitations, my own technical skill, etc.), and
- b) mental limitations (for example concentration, attention, memory, inventiveness etc.)

and

2- things one is not allowed to do due to:

- a) self-chosen limitations (possibly chosen together with others, such as, for example, a certain tone row, a certain register, etc.), and
- b) not self-chosen limitations (style, conventions, the ideas of others, notation etc.).

For me, the central aspects of freedom in free ensemble improvisation are not to be bound by given combinations of instruments, and that I, myself, can, during the improvisation choose:

- with which musician(s) I want to interact
- which gesture(s) I want to react to
- how and when I want to react to the chosen gesture(s), that is, which material/functional relation(s) I want to establish within the framework of the limitations that prevail for me (including possible self-chosen ones as per category 2a).

All three points should be made with as great consideration as possible to what my co-musicians do, to how the music develops, and without limitations, as per category 2b.

9 Evaluation

How can free ensemble improvisation be evaluated?

Relevant critical standards for musical improvisation should not be derived from what has been composed or from what has been performed but from what has proven to be possible within the demands and constraints of improvisatory musical activity.

Objective criteria for the evaluation of improvisation do not exist, which can lead to "dialogue-focused evaluative criteria", or to "dogmatic nihilism". I prefer dialogue-focused evaluative criteria, which, moreover, can vary from ensemble to ensemble and even from performance to performance within the same ensemble.

In dialogue-focused evaluations, I feel I can claim and use:

- the material criterion (material utilization, economy and development)
- the unity criterion (synergy, togetherness, coherency, uniting of "opposing forces").

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I consider, as a reasonable consequence of free improvisation being free, that evaluations of it must be subjective. If not, then it presupposes that at least one objective criterion is predetermined and that it is one that the free improvisation must more or less live up to, which, in that case, and to the same extent, would limit the freedom in free improvisation.

If I were still to try and find a criterion that was of primary importance for me, this would be musical interaction – the better the interaction, the better the improvisation. ‘Good interaction’ is, however, not an objective value but rather a subject for dialogue-focused evaluations.

I see unity as another name for collective understanding and thereby as a sub-set of musical interaction. I see the utilization of material as a tool for, and thereby as part of, musical interaction.

II How does free ensemble improvisation relate to . . . ?

12 Free improvisation– instrument, technique and virtuosity

How does free ensemble improvisation relate to instruments?

The instrument is a means/tool to make music. The instrument is, in this sense, a source of material, since all musical sounds must come from it. And, since all instruments can produce more than one sound, then it is likely that one explores which sounds one can make on the instrument. This holds especially true for free improvisers, who are not bound by any idiomatic, performance-praxis viewpoints about acceptable sound choices. A musician can, of course, see this means/tool, this hopefully well-explored source of material, as an ally in his or her music-producing activities.

I see the handling of the instrument/voice as representing the nature of the practitioner. I can also imagine that different instruments (voice included) suit our natures to a greater or lesser extent (it is probably not as natural for a musician to play just any instrument).

If one sees the instrument as a tool, an aural means, it cannot reasonably be said to play the musician as much as the reverse happens. The instrument can, in fact, not play the musician at all, only the reverse. The instrument places no demands whatsoever, but certain things are more or less easy to play on them (being more or less instrument idiomatic). The instrument can impact the music in that the idiom of the instrument can point in one direction whilst the musician’s musical impulses can point in another.

The mutual interaction between musician and instrument in improvisation is unavoidable, just as in all forms of music. It is, however, no guarantee against the music still wandering from one undeveloped idea to the next. The struggle against ideas that are not developed nor followed up on goes on, whether the relationship between instrument and musician is better or worse, and its result is more dependent on the musical judgement of the improviser than on the characteristics of the instrument.

The risk of pyrotechnical shows is directly related to how much pyrotechnical ability a musician has on his instrument and to how interested a musician is in musical pyrotechnics. (Musical pyrotechnics are, however, not a priori meaningless in improvised

music. The level of meaninglessness/meaningfulness must be seen in its context, that is, what music the pyrotechnics that may arise emanate from and what music it leads to, and is a question for the musical judgement of the presumptive musical pyrotechnician.)

To internalize an instrument does not mean to make it part of one's nature but to simply get to know its possibilities and as far as possible master them, that is, to get as good a technique as possible, albeit on one's own terms and according to the characteristics of the instrument.

The possibility for a musician to follow through (more or less conscious/unconscious) decisions, which are continually made while playing, is directly dependent on partly the characteristics of the instrument (its possibilities and limitations) and partly on the musician's technique on the instrument in question.

Pro-instrumentalists want to develop a personal technique and to extend their instruments with different means. For anti-instrumentalists, the instrument comes between the player and his music and has to be defeated.

In terms of the struggle between me and my instrument, however, it is my technical limitations that are to be defeated, not the instrument. This viewpoint causes both attitudes to work together and strive in the same direction, and can be seen as two sides of the same coin. The anti-attitude takes up the struggle with technique, while the pro-attitude more positively develops technique.

In this perspective, I see the oscillation between a pro-instrumental and an anti-instrumental attitude as a switching between larger and smaller technical problems in different musical situations, and between different attitudes towards the problem. Moreover, this oscillation does not just happen but goes on continually for most (or maybe all) improvisers, which can probably also be heard sometimes.

If a musician has a pro-instrumental attitude, it is natural for him or her to take an interest in the instrument's possibilities and limitations, to explore these, and to be interested in this process. Free improvisation offers unlimited freedom for the musician to both explore and apply the results of his or her exploring.

Nevertheless, the instrument merely remains a tool in the production of the music and must not stand in the way of it. It is the musician who is of interest, not the instruments / sound tools. They must not become obstacles by being so complicated to use, for example, and/or offer so many choices that focus is shifted from what is happening musically to the handling of the instruments / sound tools. They must be tools for a natural and immediate musical interaction process.

... to *technique*?

I do believe that one, to a certain extent, can speak of a general instrumental technique (e.g. controlling the flow of air and having a good embouchure for wind instrumentalists etc.). For all instruments, it also holds true that a musician should have a relationship to his instrument that is relaxed, in anatomic terms, so that work-related injuries do not occur. As soon as one goes beyond this, however, the process of adopting a general technique to serve a specialized task starts manifesting itself.

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When it comes to free improvisation, however, there are no guidelines that could point out a path for the musician's development of technique. It is, in fact, up to each musician, according to his or her own judgement, to develop the technique he or she is interested in.

Idiomatic musicians learn technique according to rules and conditions that are imposed by idiom and tradition, whereas free improvisers learn technique on their own and the instrument's terms. The difference between the conditions for these categories of musicians naturally becomes more noticeable if a certain piece by a certain composer demands a certain technique to be performed.

I find it reasonable that studies/learning with regard to technique on the instrument's terms consist, to a great extent, of the components: exploring/discovering and practiced playing, where an important part of the exploring/discovering actually happens in practiced playing in ensemble form.

However, the aspect of exploring/discovering is not just about the instrument but also about the musician himself, his or her conditions, preferences and direction, and, in a deeper sense, about exploring/discovering him or herself, his or her musical 'I', his or her musical identity. Certainly, much playfulness, as well as seriousness and struggle, are all integral parts of this process.

A musician with a poor technique, but with a good musical judgement, can contribute meaningfully to an improvisation within the framework of his technique. This can sometimes possibly be the case when other musicians with better technical skill can make the contributions meaningful through their ways of relating to them musically.

No matter the technical level, one must, of course, presuppose that the participants use their technical resources optimally in the sense of making as good a music together as possible.

I do not believe that a well-grounded knowledge of the instrument and good technique are two different things. One attains a well-grounded knowledge of the instrument by working with one's instrument, i.e. by attaining instrumental technical skill. Knowledge of the instrument and instrumental technical skill are two sides of the same coin.

Improvisers want to make the sounds, with maximal precision, that the music demands for the moment. This precision is conditioned partly by the musician's ability to realize which sounds the music demands for the moment (the musician's choosing skill), meaning both the choice of sound and the choice of the point in time to make the sound(s), which is a skill that is dependent on musicality and improvisational experience, and partly by the musician's skill to produce precisely these sounds with maximal precision, that is, to have control of the instrument (instrumental skill). Good technique leads to instrumental skill, which leads to the musician being able to produce sounds with maximal precision. The contributions of the improvisers should come about as a result of both their choosing skill and their instrumental skill.

An interesting aspect of technique is to exceed it, to release it, as if one did not have it but still has it. I believe that this attitude towards technique is possible, and even positive to the

extent that listening focused on what is actually happening in the music replaces focus on technique. This presupposes, however, that the instrumental technique is actually there, that is, that one does not need to rediscover the wheel at all but can simply let it roll, without worrying about how this comes about, or at least without worrying so much about it.

... and to virtuosity?

It is self-evident that free improvisation is the only form of musical creation that fully allows instrumental virtuosity without adapting oneself to or being limited by a composition or style/idiom, since it takes place without compositions and without regard for style/idiom. This is, of course, not to say that virtuosity that is just as advanced cannot exist within idiomatic improvisation.

The difference between virtuosity as a procedure or process model, respectively, is important. In idiomatic improvisation, virtuosity has a certain legitimacy as a product model. To learn prescriptive clichés is a way to learn the style.

The same procedure, the same thinking and the same philosophy, would, however, be devastating in free improvisation. It would only lead to an idiom (or more), which is the last thing free improvisers want to attain and forward to other musicians.

The only acceptable attitude towards virtuosity in free improvisation is as a procedural model, that is, to inspire others *that* one can play virtuosically but not *how* one is to play (other than possibly in a neutral instrumental technical sense), and definitely not *what* one should play. The point of procedural models in free improvisation is that they can encourage musicians to go further along their own paths instead of along the paths of others, that they can take with them “the *practice* of improvising” and develop it further on their own terms and — most importantly — in relation to what other musicians are playing.

For me, there is no doubt that interactional virtuosity is the most important skill to have in free ensemble improvisation.

Technique on one’s instrument is only a prerequisite for instrumental skill, which is, in turn, a prerequisite for interactional virtuosity.

Another prerequisite is the ability to listen and understand what is happening musically, or in other words, to have virtuosity in listening (listening skill). Without listening and understanding, there is nothing from which interaction can take place.

A third prerequisite is the ability to make appropriate choices (choosing skill) according to the above.

Interactional virtuosity can be reached by using these three skills in applied interaction, by analysing the results afterwards, and also by complementing this with exercises aimed at interaction.

What skills are important in free ensemble improvisation?

In this section, four types of skills appear:

1- listening skill

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- 2- choosing skill
- 3- instrumental skill
- 4- interaction skill.

I see the first three skills as part of, and the foundation for, the fourth and most important. The first three also add a 'skill perspective' to steps **i**, **ii**, and **iii**, respectively, in the process model according to section 6.2.2 (Process), and the first skill also adds a 'skill perspective' to section 6.2.1 (Listening).

The connections between the terms technique, skill, and virtuosity are, according to my understanding:

- technique - a prerequisite for instrumental skill (One can imagine that even for the skills to listen, choose and interact, there are techniques that are prerequisites; however, the term technique is most often used in music contexts with regard to instruments, and there are no techniques, as far as I know, for listening, choice and interaction in the same way as for instruments. Therefore, here, technique will only stand for instrumental technique.)
- skill - the ability to do something
- virtuosity - highly-developed skill.

13.1 Free improvisation – idiomatic improvisation

How does free ensemble improvisation relate to idiomatic improvisation?

Idiomatic improvisation takes its identity from its idiom. Idiomatic improvisers are probably interested both in expressing the idiom and doing it in a personal way.

Non-idiomatic improvisers have apparently other interests than idioms and are not bound to any idiomatic identity. By definition, they do not have, do not need, and do not want any idiomatic identity. They are interested in improvisation in itself, in real-time interaction between freely improvising musicians.

Idiomatic elements do appear in free improvisations, not as main elements, however, but rather on a subordinate level, as by-products.

What I choose and what I relate to, as a response to what I and/or others do, is not an idiom but the gestures in themselves. They are, as opposed to idioms, always present, and any idioms or idiomatic elements that happen to appear occur as consequences of the handling of the gestures, not as a result of independent idiomatic choices. If and when an idiom appears, it has, however, a certain effect on the supply of gestures until the idiom is abandoned or until the gestures have deformed the idiom more than its identity can tolerate and only gestures remain – again. Idiomatic elements come and go, or do not come at all, but the gestures remain, and it is on this level my choices take place – that is, not on two levels but on one, that is, on the gestural level.

A free improviser can, as opposed to an idiomatic improviser, change and deconstruct possible idiomatic elements without any limitations, and through this perhaps provoke an “open-endedness” that is by definition impossible in idiomatic improvisation. Through

this, non-idiomatic improvisation may contain idiomatic elements as by-products without therefore being identified as belonging to any style/idiom.

Non-idiomatic improvisation starts from interaction and process. It is the process of musical real-time interaction itself, through gestures, that replaces idiom-based control systems and interpolation of permutations of idiom-based material and codes, and that turns stylistic/idiomatic elements into ephemeral or absent consequences of that process.

Non-idiomatic improvisation does thus distance itself from idiom-based control systems and interpolation of permutations of idiom-based material and codes, and it encourages FFE states.

Non-idiomatic improvisation has no formalized system in the same way as, for example, improvisation with rhetorical figures has. In point of fact, it has no system at all.

The absence of systems and the absence of the need for any system makes unconditional and unprejudiced exploration possible in non-idiomatic improvisation (exploration of musical real-time interaction through gestures, of the gestures themselves in terms of their properties and their material and functional relations, and of the instruments and their possibilities).

The statement that freely improvised music is idiomatic because it must be limited and systematized due to an unlimited number of musical options is the same as saying that non-idiomatic improvisation is idiomatic, which would be a paradox.

However, whether the number of musical options are limited or unlimited, I know of no free improviser, myself included, who has any need to limit the number of options; on the contrary, the more the better.

And, since no human can handle an unlimited number of options, even if the will were there to do so, this limitation takes care of itself and probably varies from musician to musician and possibly also varies for each individual musician from occasion to occasion.

So, if the need for limitation disappears, then the possibility of systematization does, too, since one would otherwise need to systematize an unlimited number of musical options, which is impossible. Freely improvised (non-idiomatic) music is therefore not idiomatic, and its idiom cannot be changed since it has no idiom to change.

Idiomatic improvisation requires idiomatic limitations but also has certain others forced onto it (physical, technical, etc.).

Non-idiomatic improvisation does not require and has no idiomatic limitations (idiomatic limitations, by definition, do not belong in non-idiomatic improvisation), but, just like idiomatic improvisation, has certain others forced onto it (physical, technical, etc.).

How idiomatic and non-idiomatic improvisation are similar is about the 'other' limitations, not the idiomatic ones, and they do not appear because of demands but are usually there anyway, whether one wants them or not. They do not constitute idea-based or conceptual problems, only practical ones, and each improviser (idiomatic/non-idiomatic) does his best to fight against these limitations.

Idiomatic improvisation has, as a rule, some form of referents, which, to a great extent, constitutes its repertoire, or is the foundation of its repertoire. Traditions regarding aesthetic evaluation and sound ideals are connected partly with the referents, partly with

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the improvisational idiom itself, and partly with improvisations within the idiom, whether they are passed on in an aural tradition and/or in another way. The older an idiom, and the more 'house-trained' it is within the cultural establishment, the more probable it is that it has well-established traditions regarding aesthetic values, repertoire, sound ideals and referents.

Non-idiomatic, free improvisation, has no well-established traditions regarding anything. Nor can I see that one would wish for such traditions regarding aesthetics and/or sound ideals (for evaluations, see 9 Evaluation). There is no repertoire, and the only referents are the gestures of the participating musicians.

Non-idiomatic improvisation is music-making in real-time, but this also holds true for idiomatic improvisation and is therefore not typical only for the former.

The difference between non-idiomatic improvisation and idiomatic (in this case bebop) is that the latter has received a formal normalization (theme-soli-theme), which has brought with it a tiredness of the form, whereas, in the former, one can go anywhere one likes.

All improvisation is said to take place in relation to the known, whether it is traditional or newly acquired.

If "the known" refers to knowledge of style, then there is no similarity between idiomatic and non-idiomatic improvisation since the latter has no style to get to know.

If it refers to the musician's acquired technical skill on the instrument, then there is a similarity.

If it is a type of referent, such as a chord progression, for example, then there is no similarity, since referents are not part of non-idiomatic improvisation.

If "the known" refers to what happens in an improvisation, then it becomes known only when it happens. There, however, it is more probable that what happens in idiomatic improvisation is closer to something already known than is the case with non-idiomatic improvisation, since events within the former are within an idiom. It is also probable that knowledge of the idiom is greater if the idiom is not newly acquired.

That one can only play what one can play is easy to accept as being the same for both idiomatic and non-idiomatic improvisers. What one can play is, however, not static but something that is ever-changing, where all musicians, no matter their aim and direction, are probably interested in constantly expanding their base of knowledge and thereby also their available options. Furthermore, the possibilities connected to the field of combinatorics, variations (with regard to height, transposition/register, rhythm, rhythmic placement, dynamics, timbre, etc.), repetitions, and using parts of gestures (sub-gestures) means that playing only what one can play does not necessarily need to be seen as proof of poverty or as a sign of dearth.

The possibilities to construct, vary and choose combinations of gestures have no idiomatic boundaries for a non-idiomatic improviser, whereas an idiomatic improviser is referred to such constructions, variations and combinations that are acceptable to and exist within the idiom in question. On this point, the similarity of only being able to play what one can play is therefore not equally equal for an idiomatic as for a non-idiomatic improviser.

Both idiomatic and non-idiomatic improvisers have their baggage, in the form of techniques and other musical handicraft, and cannot avoid standing in relation to what has come before.

If “what has come before” is the collection of baggage itself, then there is a ‘baggage-based’ difference between an idiomatic and a non-idiomatic improviser, respectively since, for an idiomatic improviser, the collecting of baggage (techniques and musical handicraft) has an idiomatic aim and direction, whereas for a non-idiomatic improviser, the collecting is more about techniques per se (instrumental and interactive).

If however “what has come before” is what has just happened in an improvisation then there is a similarity between the two in that both an idiomatic and a non-idiomatic improviser must stand in relation to this, and in real-time as well.

Finally, it is possible that a free improviser develops a personal language that is so clear that it is reasonable to speak of a personal idiom, but this is far from given, even after 30 years.

The latter possibility is partly due to the difficulties in defining a personal language from the definition of idiom/style (“the sum of important characteristics in a given amount of artworks, where belonging to a style means that something must have all or part of these characteristics”), partly to the fact that a free improvisers’ journey can be formed as a number of constant changes that never reach a final result, partly to the possibility of a free improviser starting to play another instrument that he or she has not played before, and partly, in free ensemble improvisation, to the interaction with the co-musicians, which will counteract the formation of a personal language, not least in ad hoc ensembles.

One can also free oneself from the idioms one has grown up with and is fostered in, not by forgetting them, but by not applying them. Such a process of freeing oneself is possible by focusing on the gestures in themselves, created during real-time interaction, instead of focusing on the gestures’ possible and more or less idiomatic connections.

13.2 Free improvisation – stylistic influences

How does free ensemble improvisation relate to stylistic influences?

A free improviser:

- can use any style component at all, at any time
- can combine whichever style components at all successively (they do not need to belong to the same style)
- can deconstruct whichever style components at all, at any time and in any way (gesture processing)
- does not need to use any style components at all (at least consciously).

In a free improvisation ensemble, all the musicians also have the same possibilities, which means that the same or different alternatives through different musicians can also appear simultaneously or partially simultaneously.

Under all the style components, one has the gestures in themselves and any possible idiomatic occurrences as secondary by-products. The hunt for possible stylistic elements/

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components in an authentic or deconstructed form is quite simply uninteresting since it is not this that is the point of free ensemble improvisation.

14.1 Differences, 14.2 Similarities, 14.3 Mixed forms

How does free ensemble improvisation relate to composition?

(14.1 Differences) Composing in relation to improvising, and composition in relation to improvisation, differ with regard to:

- process–product (A composition is a noun that defines the object and a product in the form of its score (or for electroacoustic music, computer programs/tapes/CDs etc.). An improvisation is a noun for either an ongoing or a completed process. The score is the decisive difference between improvisation and composition, and the boundary is drawn when something is predetermined about the music, whether it is written down or not, and holds for at least one performance. This predetermined something is a composition, a product. Free ensemble improvisation is a process without a composition/score/product to start from or to rely upon.)
- repeatability and recognizability (Performances of a composition start from a composition, is the consequence of something predetermined, which makes the performance repeatable and the repetitions most often recognizable as a performance of the same composition. Free improvisations do not start from and have no composition from which to start, which makes repeated performances of an unexisting composition impossible and also results in repetitions that are not present not being recognized as performances of an unexisting composition. That is, repeatability and recognizability are relevant criteria for performances of compositions but have no relevance for free improvisations. Free improvisations are quite simply different free improvisations.)
- creation–practice/interpretation (I regard both composers and interpreters (practitioners) as creators. The difference between composers and interpreters is dissolved in free improvisation, and actually disappears entirely, since there is no composition to interpret. To compose and to interpret are different forms of creating that do not exist in free improvisation, although the latter does comprise the exception of gestural real-time interpretation.)
- interaction/communication (To compose refers to an individual creation without real time interaction with others. The interaction that occurs is indirect and goes through a score, and the musicians are involved in the process at a late stage of the process. Composing is usually not open for collective participation but is normally a one-way communication, very far from real-time. To freely improvise in an ensemble means a collective creation that is built on, and stands and falls with, musical direct real-time interaction with the other participants in the ensemble, where all participants have as great a right and opportunity to influence the process. Free improvisation is open for collective participation and is a multi-routed communication in real-time.)
- time (During the composing, the composer can take the time he feels is needed for composing (apart from possible deadlines), weigh ideas for as long as he wants, take a shorter or longer break at any time, and if necessary revise what he or she has already written. An improviser cannot, however, do the same. To compose takes

place within clock real-time, with or without pauses and including possible changes. To compose does not, however, take place within musical real-time, which to improvise does. To improvise means acting only within the musical time that is happening, and not being able to put oneself outside of the temporal demands of the music. This means handling influences from the other musicians, inspiration, performance, communication and structural questions (unity, variation, motion, dissolution, balance, etc.), i.e. to handle several tasks more or less simultaneously and in real-time – musical real-time. Also, all decisions are irreversible and cannot be re-made afterwards, the dice is cast, so to speak, which is not the case when we speak of composing.)

- dominance–control (Composed music is a music of control, because the composer, with his vision in mind, can speak of right or wrong ways of translating his sound symbols to music and demand that the interpreter translates these symbols ‘right’. The interpreter can, of course, have viewpoints, but the composer has the final say about translation alternatives. A free improviser is not only unwilling to be dominated/ exploited by a composer but can quite simply not allow it since the free improvisation then ceases. Instead, free improvisers meet and influence one another on equal terms, are thereby dependent on one another, and must therefore be open to the fact that different initiatives and/or replacements can result in changed collective musical expressions.)
- dependence (People do not need compositions in order to make music themselves or together, although compositions and compositional techniques have inspired and have expanded the frameworks for improvisation for many improvisers. I see improvisation as more fundamental and independent in relation to composition than the converse. Even I am convinced that improvisation can survive without composition, but I am not convinced that it is so obvious that composition can survive without improvisation.)
- roles (In a composition, each musician has the musical role that the score gives him, at every moment. In free improvisation, the musicians choose themselves, hopefully in collective understanding, which roles they will have and when they will have these roles – as consequences of the musical interaction.)
- the choice of instruments (All instruments, and indeed all things one can use to produce sound, are allowed and useful in free improvisation. This possibility is also taken advantage of. The same possibilities actually exist for composers, too, but the opportunity is not taken advantage of to any great extent, due partly to the time it takes to acquire instrumental skill according to the conditions of ‘art music’, partly to the fact that institutional orchestras and established ensembles have the instrument combinations and the instrumentalists that they have, and partly to the fact that it is for ensembles/orchestras of this kind that composers as a rule get the opportunity to write for. Moreover, the choice of instruments is determined and adhered to during the compositional process; instrument flexibility is as good as non-existent. There are, however, exceptions where the compositions do not specify which instruments should be used, or allow different instrumental combinations to be used.)
- note reading and sound milieu (The musicians in a free improvisation ensemble can, since free improvisation presupposes the absence of predeterminants (for example, in

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the form of any sort of notation), choose to react to and allow the sound milieu that prevails at one particular moment to influence the improvisation to a greater or lesser extent. Compositions, however, consist of some form of predeterminants and performances of compositions presuppose that these predeterminants are followed. This means that during the performance of a composition, except for normal acoustic considerations that have to be made, one cannot allow the prevailing sound milieu to affect the performance at all. Composers cannot either take the sound milieu into account when they compose, unless they are writing for a special sound milieu from the beginning, which, however, would lead to less considerations to other sound milieus where the composition might also be played.)

- ownership (Crass economy is one difference between improvisation and composition since paying for music presupposes an ownership that is difficult to apply to improvisation (especially to group improvisation). Copyright laws are more easily enforceable, and are usually enforced, when it comes to compositions. However, as far as I know, a group can, as a group, demand payment if documentation(s) of a group's improvisation(s) is/are played in public.)
- work (Improvisation is not evaluated as highly as composition because improvisation doesn't demonstrate work in the same way that composition does but prioritizes intuition, spontaneity and group interaction instead. The work behind composing a score, and the interpreter's study of it, is easier to measure and describe than the many years of work that lie behind an improviser's musical actions. It is also easier to order, systematize, study and analyse the hardware that is a score, which creates the opportunity to be able to control and even make choices for the different functions that can be found within, for example, the systems of the church, the state, the industry, and the military etc. Free improvisation, on the other hand, exists only when it sounds; it can go anywhere, and can do so quickly, and it has no duties or bindings to any style, tradition or function. This is probably felt by many as something that could spin out of control, and lead to chaos and anarchy. Free ensemble improvisation can be seen as a threat rather than as a possibility.)

To compose is a process that creates prerequisites for music (as a sounding translation of symbols through interpretation). It is an indirect creation of music outside of musical real-time. To improvise is a process that creates music directly, within musical real-time (see also the other differences above). Perhaps the whole question of improvisation in relation to composition can be seen as a question of methods where the goal is the same but the methods are different and differ not in degrees but in kind. Perhaps also the fact that we use different names for these methods is an indication that we see them as different in kind, not as being different in degrees, nor as forms of each other in one direction or the other.

(14.2 Similarities) Similarities between composing and improvising are that they both:

- have the common aim and intention of creating music (there is, however, a difference in nature (not in degrees but in kind) between the methods, and they are not merely on a gradient but they are indirect and direct methods, respectively)

- presuppose/demand an intense discipline (whether live or at the table) in order to be good
- run the risk of getting caught in their own clichés (“common patterns and habits”, where the cures for improvisers are systematic work and interaction with others in ensemble situations, and systematic cultivation of their techniques for composers)
- work with the same elements in terms of techniques for establishing relations between sounds / sound groups (gestures), directly sounding or indirectly in symbol form, which can result in gestural/motivic development
- should be judged and evaluated according to their own respective conditions (if the methods are distinctly different, then the evaluation of the application of these methods should also be distinctly different, and according to the premises of the methods, which also holds for the nouns composition and improvisation).

How does free ensemble improvisation relate to mixed forms of improvisation and composition?

(14.3 Mixed forms) Mixed forms can be divided into two categories:

- 1- more or less freely improvised sections are used in compositions
- 2- more or less completely notated/predetermined elements are used in improvisations.

Category 1 is more interesting for composers than for improvisers. From the viewpoint of composers, category 1 is about attaining:

- the level of detail that is appropriate for them (the improvisation should not be too free so that they lose control over the performance, but it should not be too restricted so that the improvisation in practice ceases to be improvisation)
- the desired character of the improvisation (which can cause them to use additional and special indications to reach the improvisation results they want)

From an improviser’s perspective, however, this control seems more like being on probation than improvisation in its truest sense. Even loosely-formulated indications are enough to restrict the freedom and give the improvisation an aspect of composition interpretation, to the detriment of improvisatorial real-time interaction with gestural real-time interpretation.

Category 2 can, due to predetermined frameworks, result in:

- a control division that eliminates self-organizing FFE behaviours
- the agreed-upon framework being rejected
- an unsolvable conflict between these tendencies which leads to pure disorder.

It is, however, also possible to form and apply frameworks that do not need to result in such negative consequences for improvisation (e.g. a time-order line for different constellations of musicians, but without time limits for each respective constellation). One can form and apply frameworks where there, within the framework of the framework, is space for self-organizing FFE behaviours, or where the framework includes the possibility of being able to reject itself.

If one wants to form frameworks, if one sees any point in it, and, even more, if one believes that predetermined frameworks are necessary, is however, quite another matter. I

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personally have no need for them, and see them not only as unnecessary but as fundamentally and deeply inconsistent with free ensemble improvisation. Category 2 may be of interest to improvisers in general, but not to free improvisers.

The term “comprovisation” represents an intermediate position between completely notated composition and interactive process improvisation consisting of improvisation based on referents which contain precise musical material. “Comprovisation” still appears, according to the description, to lean towards category 2. The weight can, however, be pushed towards one or the other category, depending on from which direction the initiative comes and on what the aim and intention is (freer composition or more controlled/directed improvisation, respectively). In this presentation, I regard the term as another name for category 2.

15 Free improvisation – interpretation

How does free ensemble improvisation relate to interpretation?

Interpretation means to decipher and understand intended human messages. The interpretation process comprises two parts: that the interpreter first acquires an understanding of the message, in order to then transmit his understanding through his actions, which in musical contexts usually consists of playing the understood.

Even if the interpretation of ‘interpretation’ can be taken much further than what is described here, the above definitions of the term will have to be sufficient in this context. This is because this is the way the term is used in musical daily use and in the references; to interpret means to get oneself an understanding of a score or other musical instructions and, together with one’s preunderstanding and one’s general allround understanding, to apply this interpretation, i.e. one’s understanding, in one or more performances.

There is, however, no work to interpret in free ensemble improvisation, but there are gestures from co-musicians to interpret. In this sense, interpretation exists even in free ensemble improvisation.

An important difference between gestural interpretation and work interpretation is that gestural interpretation is a creative process, whereas work interpretation is a re-creative process. The first part of interpretation is applicable to both; to understand gestures and works, respectively. The second part of interpretation is, however, different for the two; the improviser creates new gestures from his understanding of heard gestures, whereas the musician who plays works re-creates the work from his understanding of it.

Yet another difference between gestural interpretation and work interpretation is that the former occurs in real-time, which the latter as a rule does not. One can describe work interpretation as a process with the parts: notation/instructions–interpretation–performance. Gestural interpretation can then in a similar manner be described: gesture(s) is/are heard–interpreted–bring(s) forth sounding reaction(s) or silence. In work interpretation, the parts of the process can be separated, in principle, over an unlimited period of time. In improvisation, the parts of this process take place continually in real-time and can even, to a certain extent, overlap one another. One can speak of a gestural real-time interpretation. The model for the interpretation process in free ensemble improvisation is really just another way of describing the process model in 6.2.2 (Process), which, in turn, is also a

model for feedback in free ensemble improvisation. I therefore see feedback and gestural (real-time) interpretation as different aspects of the improvisation process in free ensemble improvisation.

Some form of notation is a prerequisite for work interpretation. It is also a prerequisite for questions of 'right' or 'wrong' interpretation and for questions about evaluation precedence (composer, conductor, reviewer). The highest rank with regard to evaluation on the production side is held by the composer and the conductor, and on the consumer side by the listener. The lowest rank on the production side is held by the musician, and on the consumer side there is hardly any rank at all. It is within the spirit of free ensemble improvisation to reject such censorship (read 'reduction of the musician') – in part because this order feels repugnant to a free improviser, in part because it is not necessary, since questions of right and wrong do not exist in free ensemble improvisation (because, among other reasons, the notational basis for such evaluation does not exist), and in part because no individual improviser is given a rank above anyone else.

If one looks closer at the parts of work interpretation and gestural interpretation, respectively, one finds that they are rather alike in the perspective of what general goals they have. In work interpretation, the first part is about achieving as good an understanding of the work as possible. This can be seen as a goal. In gestural real-time interpretation, the first part is about achieving as good an understanding of heard gesture(s) as possible. This can be seen as a goal. For the work interpreter, the second part means re-creating the work from his own understanding of it. This can be seen as a goal. In improvisational contexts, the second part means creating gestures that the improviser finds fitting for the context. This can be seen as a goal.

The interpreter's relationship to his instrument is determined by the musical ideas of others. The free improviser's relationship to his instrument is determined by himself – but in interactive collaboration with the other participating musicians.

That "interpreters realize or render the ideas of the creator (the composer) audible to an audience, while improvisers are the music's sole creators" is a good summary of the difference between work interpretation and the gestural interpretation of free improvisation.

16 Free improvisation – aleatorics – indeterminacy

How does free ensemble improvisation relate to aleatorics – indeterminacy?

Aleatorics can appear:

- I (a+c) – between composer and score in the form of chance processes during the generation of the score, so that the details are allowed free play within fixed boundaries
- II (b+d+e) – between score and musician by letting the executor choose between fixed alternatives (mobile/open form), or by the methods of notation not being explicitly interpretable and therefore reducing the composer's control. Common to all methods under II is that the performance is not clearly indicated by the score.

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Indeterminacy refers to something that is not predetermined, as, for example, the results of aleatory processes.

I regard indeterminacy as the overall term for alternatives I and II, as a result term, and aleatorics as a term that summarizes the chance methods used to reach indeterminate results, that is, as a method term. The results of aleatory methods are therefore indeterminate and non-predetermined.

Aleatorics are about chance and chance does not involve decisions. Even I make this distinction between chance (aleatorics) and decisions (human choices). In improvisation, decisions are constantly being made. Whether the decisions are conscious or unconscious, planned or unplanned, this differentiates improvisation from chance, that is, from aleatorics. Musicians are not dice.

The praxis of free ensemble improvisation does not consist of starting from any form of notation but of interacting musically in real-time with one's co-musicians, without anything musical being predetermined or binding, and where everything musical is allowed (see 6.3 Definitions). This praxis makes free ensemble improvisation indeterminate, since the results that ensue are not predetermined. The level of non-predeterminedness is total, that is, it holds for all parameters and for the entire improvisation. Free ensemble improvisation is therefore totally indeterminate but not, however, aleatoric.

While Cage wants to reach beyond the ego by using chance operations in the compositional process, a discipline that lies outside of the music, Nachmanovitch aspires to reach beyond the ego in improvisation through a total focus on the music itself, not on chance or on anything else that is extramusical.

As far as I know, there is no elimination of the self/ego à la Cage represented within free improvisation. This is possibly because no free improviser has the time to throw dice or practice I Ching during the course of the improvisation, or perhaps, and more likely, because the method is felt to be unmusical. The Nachmanovitch model for freedom from the ego is, however, represented.

I personally prefer an as 'ego-freed' a free improvisation as possible in the Nachmanovitch sense, where the gestures as they sound are the interactive/communicative building blocks in the improvisation, and without any encumbering feelings, opinions, subtexts or 'overttexts' standing in the way. (cf. 8 A word about freedom, 10 Spiritual aspects of free improvisation)

However, even the attitude that Pelz-Sherman posits is represented in free improvisation and must of course be allowed to exist; otherwise, free improvisation would not be free.

17 Free improvisation – system analogies

How does free ensemble improvisation relate to system analogies?

System analogies should be seen as metaphors that do not aim at explanations in a scientific sense. They can, however, cast a complementary light over the phenomenon free ensemble improvisation.

Free ensemble improvisation can be likened to emergent systems in that:

- the music emerges as a result of the musical interaction of the members

- the behaviour of the system, that is, the music that emerges, cannot be predicted from a full and complete analysis of the individual components of the system
- there is neither a structured plan to guide a free improvisation ensemble, nor is there a leader.

Free ensemble improvisation can be likened to synergy in that:

- the whole cannot be predicted from the musical actions of the individual members taken separately (synergy is, however, not a “common goal” or a “cherished activity” in itself but a natural consequence of the way it works). (cf. “emergent systems” above).

Free ensemble improvisation can, according to “an emerging theory in evolutionary biology (symbiogenesis)”, be likened to biological systems in that:

- the members of a free improvisation ensemble cannot compete with one another, (competition would be devastating for the musical interaction that free ensemble improvisation stands and falls with, and especially for musical interaction within collective understanding)
- “cooperation necessarily replaces competition” (cooperation, and cooperation on equal terms is, to the utmost extent, part of the idea of free ensemble improvisation and is another way of describing interaction within collective understanding)
- one is part of something that is greater than oneself, of something one belongs to and can contribute to (“taking in resources and energy and offering in return additional grist for the improvisational mill”), a wholeness that exceeds one’s own contributions
- mutations can be seen as analogous to unforeseen events in an individual’s playing (but one can also see normal variation of gestures as mutations).

Free ensemble improvisation can be likened to social systems in that:

- negotiations do occur, but as musical negotiations, not as verbal ones (negotiations in the form of playing gestures and reacting to them)
- roles exist, but they follow as consequences of the relations gestures get to one another and are not special subjects for verbal negotiations
- conversations often take place, but after an improvisation (when musicians ventilate how the improvisation went, and are mostly about an overall perspective and often in terms of how the musicians succeeded in communicating, that is, how the musical interaction worked)
- these conversations are linked to coming improvisations and through this receive a feedback effect
- both social and musical autopoietic boundaries (trust, conviviality, expectations and loyalty) exist in shifting proportions, but the musical one is the most important and that which constitutes the qualities that are closely related to collective understanding
- free improvisation ensembles must be dynamic, but musically rather than socially (The members must feel that the group develops musically, or else it is experienced as stagnation, and the continuing existence of the group might be questioned. The musical dynamics of the ensemble is maintained and renegotiated continually through musical interaction and conversations according to the comments above. To the

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extent that the ensemble is both musically and socially dynamic, both forms of dynamics can reinforce one another so that the prerequisites for both musical and social trust, conviviality, expectations and loyalty can increase.).

Finally, free ensemble improvisation can also be likened to dynamic/chaotic systems.

The feedback spoken of in section 6.2.2 (Process) is negative (self-balancing/-regulating) and consists of an adaptation to an existing direction (basically musical character), and is, from this view, a self-balancing/-regulating process. Positive feedback (self-amplifying) adds yet another aspect: that gestures in free ensemble improvisation can be brought back to the improvisation so that it takes another direction (change of musical character in some sense).

I am convinced that both types of feedback exist in free ensemble improvisation. Certain reactions to gestures can mean an immediate change of direction, or indirectly result in a change of direction (positive feedback), whilst other reactions do not mean or result in any change in direction (negative feedback, adaptation to existing direction). Each respective alternative occurs collectively as a rule, but both alternatives can also, from the same gestures, occur more or less simultaneously for different individuals/sub-groups in the ensemble. The result of the simultaneous case can at least for a shorter period of time become different simultaneously ongoing musical directions.

Moreover, if reactions mean to adapt to a new direction, then one can see both negative and positive feedback as two time-displaced sides of the same coin; adapting to a new direction can be seen as negative feedback on a positive.

One can, with the exception of cases involving feedforward, see free ensemble improvisation as just one long chain of unforeseen initial conditions/states, since nothing else is available for the musicians other than the states that reign for the moment or had done so previously, and since none of these have been predetermined. All gestures, not only the first, are free from predetermined decisions about what will follow. It is then not so strange that a free improvisation ensemble is sensitive to, and dependent upon, the initial conditions in the form of the nature of the gestures that sound or have sounded; something that therefore holds for all gestures, not just the first.

The continuous flow of perpetual unforeseen initial conditions does not, however, necessarily mean that a change in direction through positive feedback takes place. In free ensemble improvisation, the second possibility, the maintaining of the direction through negative feedback, is always open. This in itself adds yet another uncertainty. Musicians in a free improvisation ensemble know that any gesture(s) at all can lead to negative or positive feedback, but they do not know in advance which will occur, nor when or how. The unpredictability is always present and is one of the prerequisites.

Free improvisers cannot be sensitive to the small influences that are part of the free ensemble improvisation's continuous stream of momentarily reigning initial conditions/states, if they are not completely free to do so.

Points of bifurcation are critical stages from which the system can take one or two (or more) paths with radically different behaviours, from which it can branch off into entirely new states and demonstrate novel behaviours and emergent order.

I see points of bifurcation in free improvisation contexts as places where positive feedback comes about, as places where a change of course takes place, and where the new behaviour and the new course can be more or less radically different from what was before.

The musical direction up to the bifurcation point, that is, the path that leads to it, the history of the system, the ensemble's collective experience of improvisation, and the musicians' individual experiences of free improvisation are critical for the choice of path after a bifurcation point. The ensemble's and individual's experience of free improvisation can be seen as a system history in a larger perspective. Generally, I do, however, believe that the path there, the musical direction up to the bifurcation point, has the greatest importance for the choice of path afterwards.

One can speak of the alternatives transition points and transition periods, respectively, as analogous to bifurcations, where, in the latter case, the 'points' can be seen as places where the transitions begin and end. Furthermore, bifurcation/transition points do not necessarily take place simultaneously for all the musicians in the ensemble, either; transitions can be started/ended at different points in time for different musicians.

The system of a free improvisation ensemble becomes especially sensitive to small fluctuations and influences at points of bifurcation/transition, since most musicians as a rule feel, more or less, that a change is happening, but do not feel exactly when it will lead to something, how it will do so, or what it will lead to.

The term attractor is applicable to and meaningful for free ensemble improvisation. For me, central tone and pulse represent attractors/values that other values tend to be drawn towards, that for a shorter or longer period of time contribute to "organize the long-term dynamic behaviour of systems", that contribute to pull a chaotic system from random disorder to a complex non-periodic order, and that hereby, at least for the moment, can partly reduce the uncertainty in free ensemble improvisation.

Generally, a central tone appears as a result of the melodic-rhythmic actions of the musicians. The attractor quality is established through the way the tone is understood. When a tone gets a general quality of a fundamental tone, though not as narrowly as in a conventional tonal or modal sense, then it gets a central tone function and affects the choice of other tones that orbit around it. The central tone becomes a value that one relates to and that is difficult to neglect. A central tone can, also as a result of the melodic-rhythmic actions of the musicians, develop into a tone row / scale for a shorter or longer period of time.

Pulse does occur from time to time in free improvisation, more or less clearly and regularly and in a more or less clear and regular form. Generally, pulse appears through the rhythmic actions of the musicians, and when it occurs it has the same attracting effect on the rhythm as a central tone has on the choice of tones. One relates to it in some way, and it is difficult to neglect it. A pulse can, also through the rhythmic actions of the musicians, develop into metrical patterns for a shorter or longer period of time.

Free ensemble improvisation is self-organizing simply because there is nothing else than its own process and its own musicians that organize it. A consequence of its self-organization is that its practitioners neither can nor want to make any "concessions to preconceptions

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of order and beauty and finality”, that is, to have any ideas about how it will sound in advance.

There is a great possibility of finding analogies between free ensemble improvisation and instable self-organizing behaviour in certain FFE systems, especially if “certain” stands for organic systems. To the extent that this is the case, it speaks for the fact that self-organization in free ensemble improvisation maybe has similarities with nature’s way of being self-organizing.

I do not, however, see the order-chaos dialectic as the self-organizing driving force behind free ensemble improvisation, but see musical interaction as its driving force instead. Order and chaos, respectively, become consequences of musical interaction, but there is no special striving towards either the one or the other.

So self-organization takes place through musical interaction, which, however, presupposes, in turn, that all musicians are given the same power, that no recognizable formulation of goals is allowed to establish a hierarchic pattern, and that no other form of outside directing occurs.

Real-time interaction within any area (not just musical) between two or more people (not just musicians) where nothing is predetermined or binding is involved in its own synthesis. This is because there is nothing else in that kind of activity to be involved in than its own synthesis, and where the activity itself is the catalyst for its own continuation.

Free improvisation is, like chaotic systems, time-dependent and irreversible; however, that can, on the other hand, be said of all music, since all music takes place in and over time and no music can be rewound in order to be revised. (This does not, however, apply to symbols for music such as notes, for example; they can be revised).

The discovery of systems that, far from their state of balance, begin to show an instable, self-organizing behaviour, seems to point to a fundamental rethinking of our understanding of nature.

To the extent that similarities between such systems and free ensemble improvisation exist, free ensemble improvisation should, to the same extent, be able to mark a fundamental rethinking of our understanding of music and of how music can be created, which, in such a case, should be paid attention to, not least within music education at all levels.

Such a rethinking does not, however, mean that stable, linear musical systems (read as predetermined music, such as note-bound music, for example) should be disregarded. They exist, they must be allowed to exist, and will most likely continue to exist. Even free ensemble improvisation can, as a result of negative feedback, at least periodically be rather stable, if not in the linear sense of playing according to notation.

This, however, means that stable linear musical thinking should be put in relation to instable, non-linear ways of creating music, which can be seen as a deeper and more fundamental understanding of the nature of music, of our understanding of music, and of how music can be created.

As opposed to the creativity of musicians in stable systems, with their tendency to draw themselves back to an attractor state when brought out of balance, musicians can become creative in an essentially new way by reaching an instable, self-organizing FFE state, sensitive to the smallest influence, which steers them into new, fresh behavioural patterns.

It is this latter kind of creativity that free ensemble improvisation comprises, that it is dependent on, that it offers, and that, for the most part, is missing from music education at all levels.

The terms from the system analogies that I find useful for conceptual use are: bifurcation points/periods (transitions) and attractors (central tone and pulse), while the term positive feedback complements the process model for free ensemble improvisation.

III What might a conceptual model as a theoretical basis for free ensemble improvisation look like?

18 Concept model based on the preceding sections

OBJECTS

- sounds/pauses
- gestures (sub-/meta-) (formal unit) (selection of sounds/pauses)
- sections (sub-/meta-) (formal unit) (selection of gestures)
- lag time
- transitions (points/periods)
- sudden/unexpected
- pseudo-cadential
- climactic
- feature change
- fragmentation
- internal cadence
- silence
- attractors
- pulse (with possible metre)
- central tone (with possible tone row/scale)

PROPERTIES

- values (successive-simultaneous)
- value differences (successive-simultaneous)
- parameters (length±, strength, height)
- colour (instrument, instrument combinations, timbre)
- value series (size-number-order) (successive-simultaneous)
- value difference series (size-direction-number-order = curve) (successive-simultaneous)
- parameters (length±, strength, height)
- colour change (instrument, instrument combinations, timbre)

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RELATIONS

- material
 - similarity–dissimilarity
 - repetition–variation–contrast
- functional
 - solo
 - support
 - ground
 - dialogue
 - gap-fill
 - catalyst
 - sound mass
 - interpolation
 - independence

INDIVIDUAL

- listening
 - musical sounds
 - primary listening
 - secondary listening
 - non-musical sounds, hearing away
- feedforward
- aesthetics
 - outer aesthetics
 - inner aesthetics

ENSEMBLE

- interaction connections
 - individual–individual
 - individual–sub-group
 - sub-group–sub-group
 - (combinations with more than two components are possible)
- interactive influence
 - cause (what influenced)
 - effect (result of the influence)
 - possible miscommunications
- feedback
 - negative
 - positive
- contextualization
 - silence with acceptance
 - acceptance of two/more simultaneous courses of events
 - adaptation/affirmation
 - reinforcement

- development
- support

EVALUATION

- interactional skill
- listening skill
- choosing skill
- instrumental skill
- material utilization (material criterion)
- collective understanding (unity criterion)
- total
- partial
- absent

COMPLEMENTARY ASPECTS

- musicians' musical background, experience
- collaboration time
- ensemble size and instrument combination.

The term headings: objects, properties, relations, individual, ensemble, evaluation and complementary aspects can be seen as general terms, and the sub-headings as specifications – one general and one specific term selection. This double term selection allows its user, with the prerequisite that the general selection is applicable, to adjust/ change the specific term selection according to need and direction.

19.1.1 Complementary material under the term heading: Objects

The concept model is complemented with the pulse types:

- a) regular, fixed, traditionally steady pulse (regular)
- b) irregular, organic-elastic-flexible, in continual flux (evenly irregular)
- c) freepulse, impulse, space units, subimpulses (unevenly irregular)
- d) free-floating (floating).

Types a and b (regular and evenly irregular) belong to the standard selection of pulse types within Western music at least, that is, regular pulse and pulse with rubato achieved by *accelerandi/ritardandi*. The difference between types b and c is that the pulse changes in type b happen gradually, whereas they occur in leaps in type c.

Type c (unevenly irregular) is the result of interplay between different individual but not completely temporally coincidental gestures (with regard to the start and end of the gestures), which explains the pulse type's collective uneven irregularity.

Type d (floating) also occurs in free ensemble improvisation. An example of this is the functional relation "sound mass", where it is often very difficult to hear any pulse at all, and especially no common one.

Different pulse types can occur at the same time and be divided among individuals and/or sub-groups within the ensemble. Pulse types can also shift over time, where the

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shifts do not need to take place simultaneously for all. There are, in principle, an infinite number of possibilities for “rhythmic displacement” before or after pulse markings.

Pulse types appear as a result of ensemble communication (interaction) but also affect interaction when the pulse types occur as attractors. The length of time needed to build and discard pulse types is unpredictable but generally take place not only gradually but can also happen more or less immediately; the length of time can come close to a point in time.

As a side point, one can see the pulse types from regular to floating as stations on the way towards a dissolution of pulse.

19.2.1 Complementary material under the term heading: Properties

In the concept model the term curve (defined as a value difference series) is complemented with the terms:

- curvature (form of the curve)
- curvature type (type of curve form)

where curvatures, apart from a basic type categorization into 15 basic types (based on their starting, ending, high and low points), can be described and compared with regard to:

- directional order
- number of directions / turning points (in relation to the total number of value differences of the curvature)
- number of directions per direction alternative (in relation to the total number of directions of the curvature)
- number of value differences per direction
- relative placement of high and low points (in relation to the total number of values / turning points of the curvature)
- direction sizes, possibly complemented with value difference sizes (comparisons only possible within the same area)
- curvature range (comparisons only possible within the same area)

and for combinations of basic types:

- selections of basic types
- combination order
- number of combinations
- number of basic types per basic type alternative in relation to the total number of basic types of the curvature
- number of high and low points.

Sequences of directions (directional order) can be described and compared as combinations of u (up), s (straight) and d (down). This gives us 12 alternatives (1-usd, 2-uds, 3-dus, 4-dsu, 5-sdu, 6-sud, 7-usu, 8-dsd, 9-dud, 10-sus, 11-sds, 12-udu) and enables the chain of u/s/d to be reduced to one third, thereby making the curvatures' direction descriptions/comparisons easier to grasp. Direction sequences also give us the number of directions per direction alternative that can be expressed in relation to the total number of directions of the curve (up x/y, down z/y, straight w/y).

One might also, just as for gestures and sections, divide curves into sub-curves, or put them together into meta-curves, with the corresponding consequences for the curvatures.

Curves (value difference series) can be established, thereby giving curvatures and curvature types for, in principle, all value series. Apart from the exceptions direction size, value difference size and range, according to the above, comparisons can be made between curvatures:

- within the same type and from the same area
- within the same type but from different areas
- within different types from the same area
- within different types from different areas.

The concept model is further complemented with directed motion, articulation, length proportions, and density in the form of attack density.

Directed motions:

- should refer to the same area
- can be generalized to refer to motion from/towards/around something, where that ‘something’ is specified, that is, with regard to what the directed motion takes place
- can be generalized into the motion types ‘increasing’, ‘decreasing’, ‘constant/circulating’, with the synonyms ‘progression to’ and ‘anabasis’, ‘recession from’ and ‘katabasis’, ‘stasis around’ and ‘circulatio’, respectively
- can occur simultaneously within different areas, which in turn can cause them to collaborate or oppose, reinforce or weaken one another
- can be individual or collective
- can be seen with different resolutions, that is, in a more overall or a more detailed perspective
- can be used as descriptions of formal units (gestures, sections) but also as means of separating them from one another, if ‘with regard to what’ is given, if it is apparent whether it is individual or collective motion that is meant, and if the perspective is evident
- can be seen as a way of speaking about curves over time, and more precisely, about the direction of curves over time
- can in themselves only go towards their own ends
- influence and are influenced by the ever-present musical interaction in free ensemble improvisation
- can be simple or compound, where a simple motion consists of either increasing, decreasing, or constant/circulating motion, and a compound motion consists of at least two different motion types
- can be seen as processes (increasing/decreasing motion), or as states (constant/circulatio).

I define articulation as the height and strength curvature over the length of the sound. The articulation perspective can also be extended from one sound to an entire gesture with more than one sound, a sort of meta-articulation. In this perspective, even length± curvatures can be seen as a part of the articulation.

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To what extent one should see a sound as a unit, as one value within each respective parameter, or a sound as height and strength curves over its length, as articulation, I regard as an open question. Focus on one or the other can, and should be allowed to, shift depending on which perspective one has in one's listening, on what one is interested in, hears, or wants to research for the moment. This problem does not exist for pauses since they can only have length values.

On the detail level, there may not be a symbol system for articulation. On a somewhat higher and more general level, however, one can speak of height and strength changes in terms of increasing–decreasing–constant/circulating.

I believe that proportion analysis can contribute with aspects that would otherwise not be revealed and that it can therefore contribute to increased understanding of the way free ensemble improvisation works. In free ensemble improvisation, no proportional structures are normally created intentionally; they grow as a result of the development of the music through the musical interaction of the musicians. If proportions grow as a result of the musical interaction of the musicians, then proportion analysis should be able to show us something about how this growth takes place.

Proportional structures must be based on lengths, which, in turn, are based on something that exists in or can be deduced from the music. What it is that forms the basis for length divisions should of course be specified. In order to make comparisons possible, the bases for the divisions should also be applied consistently to the material that is to be compared.

In musical proportion contexts, the golden ratio dominates in two variants (long–short, short–long), and there is also a division down the middle. The clear favourite is the golden ratio, and above all in the form long–short. I regard it, however, as important that one makes divisions into lengths without thinking of any proportion at all, and that one is open to any proportions at all.

In free ensemble improvisation, there is no other time to refer to but the clocked time that passes during the course of the improvisation. There is no conflict between clocked time and notated time.

Proportion profiles can be established in a more or less complex way, that is, with or without sub-divisions in one or more links. What one wins in shown complexity, one may possibly lose in simplicity. However, free ensemble improvisation is far from always simple, and a complexity that is not so accessible maybe shows precisely that.

In principle, it seems reasonable to see proportions in improvisations as based, in part, on collective actions, and in part on individual actions. It also appears reasonable that proportional boundaries for collective actions coincide with section boundaries. In addition, I regard it as probable that proportional divisions on the individual level can come to overlap those on the collective level, since individual actions do not need to be dependent on section boundaries but can overlap these during transitions. However, one can also add the possibility of proportions in improvisation being based on the action of sub-groups.

Length proportions can be built on hierarchic divisions of lengths into two parts. One can, however, also imagine length proportions as a series of non-hierarchic length values in relation to a given total length, which might, for example, make comparisons of different

improvisations easier, especially those that have different total lengths but the same number of sections.

I define temporal density as: the number of non-simultaneous sound attacks per time unit, and call it attack density. One can, however, also speak of momentaneous attack density, where, for example, five simultaneous sound attacks have a higher density than three. These views might possibly complement one another. Here, however, I find no use for momentaneous attack density.

One can even speak of height density, and probably even about other types of densities. Here, however, I limit the term density to mean attack density, since height density, as opposed to attack density, is more something I can note now and again in passing than something that influences my improvising. If and when height densities appear in the form of conventional chords, however, I hear them and handle them as special cases.

Two important aspects of density are: unit size and the distribution within the unit. One can solve the question of distribution by either working with time units that are small enough (the smaller the unit, the less importance the distribution per unit gets), or by indicating the distribution within larger units in some way. I prefer the former method.

19.3.1 Complementary material under the term heading: Relations

The concept model is complemented with:

- differentiation of the term dissimilarity to $<$ or $>$ for values / value differences (material relations)
- similar, contrary, and oblique motion (material relations)
- a further differentiation of the functional relation dialogue in the form of question-and-answer/call-and-response, completion/punctuation and interruption (functional relations).

Individual values / value differences can be ordered into three alternatives: greater than ($>$), as large as ($=$), or less than ($<$). The alternatives $<$ and $>$ mean, for individual values / value differences, a differentiation of the term dissimilarity in the pair of terms similarity-dissimilarity (in the concept model). The symbols can be translated into suitable terms for the areas they refer to. Sequences of $>$, $=$ and $<$ in different combinations are also a way of describing curve directions, (directions of value differences) and direction changes.

Parallel motion, as a special case of similar motion, can be complemented with inversion as the corresponding special case of contrary motion (though with the reservation that the term inversion can be interpreted more loosely than what is normally the case for the term parallel motion). The term inversion also, and more usually, means a form of gesture processing. The three basic terms are similar, contrary and oblique motion.

These terms can, however, be made more general so as to be applicable to all kinds of curves, not just height curves (melodics), whether they are simultaneous or not. The terms can be applied in detail (interval by interval) or in a larger perspective (overall directions).

I regard question-and-answer, completion/punctuation, interruption as functional ways of interaction with corresponding functional relations. They can be regarded as special cases

OUTRO

within the functional relation dialogue (which does not, however, prevent them from simultaneously also being able to get another functional relation, such as catalyst, for example). I regard question-and-answer as synonymous with call-and-response.

19.4 Rhythm, and the complemented concept model

In section 19.1.2 (More about objects), I define rhythm as: (all kinds of) temporal lengths over time. I regard rhythm as the basis for all music, from individual sounds/pauses to entire parts over time. Rhythm is not *one* but *the* basic element in music, and any clearly discernable musical factor whatsoever *cannot be* but *is* a rhythm determinant, and perhaps primarily that.

In section 6.2.1 (Listening), I define a gesture as an intuitive selection of sounds/pauses (and gestures seen as the fundamental musical formal units). This intuitive selection is primarily based on rhythm (although it may, due to its intuitiveness, be different for different people before the same sequence of sounds/pauses).

For me and for my own improvising, it is, and has become to an even greater extent as time has gone by, undoubtedly the case that rhythm is the main strand, the base of, the foundation for and the life itself in all the steps of the three-stage model on both levels 1 and 2 (see 6.2.2 Process). I put dynamics in second place. In first place after these comes melody. And as far as I am concerned, music styles are not interesting at all.

Since I began to realize the importance of rhythm and began to shift my own focus from pitches and chords to rhythm, I have felt greater freedom on my instrument. *When* one sounds has become more important than *how* one sounds in terms of melody, harmony and colour, as opposed to both when and how to an equal extent, or to more how than when. I also believe this attitude to be possible only in music that is without stylistic rules or demands.

A fundamental tone can, apart from its overtones, be seen as a rhythm where the rhythmic markings are too close to one another in time for us to be able to separate them – they meld together into a tone (tones are transcended rhythms). A chord can, with the same perspective, be seen as a polyrhythmic construction. If one counts the overtones, even a large part of a tone's colour can be seen as polyrhythmics. (Dynamics cannot, however, be reduced to rhythm.) Duration and intensity have, in contrast to pitch, not changed historically in meaning.

Yet another point in favour of rhythm is the fact that pauses are regarded, at least by most people, as just as important for music as sound, and that the only property of a pause is length. Consequently, length is the only common denominator for sounds and pauses.

From my perspective, then, rhythm is both the practical and theoretical, and by extension, even the analytical basis for free ensemble improvisation, with everything else being complementary viewpoints.

Complemented concept model

OBJECTS

- sounds/pauses
- gestures (sub-/meta-) (formal unit) (selection of sounds/pauses)
- sections (sub-/meta-) (formal unit) (selection of gestures)
 - lag time
 - transitions (points/periods)
 - sudden/unexpected
 - pseudo-cadential
 - climactic
 - feature change
 - fragmentation
 - internal cadence
 - silence
- attractors
 - pulse (with possible metre)
 - regular
 - evenly irregular
 - unevenly irregular
 - floating
 - central tone (with possible tone row/scale)

PROPERTIES

- values (successive–simultaneous)
 - value differences (successive–simultaneous)
 - parameters (length±, strength, height)
 - density
 - length proportions (on collective/sub-group/individual actions)
- colour (instrument, instrument combinations, timbre)
- value series (size–number–order) (successive–simultaneous)
 - value difference series (size–direction–number–order = curve) (successive–simultaneous)
 - parameters (length±, strength, height)
 - density
 - articulation (meta-articulation)
 - length proportions (on collective/sub-group/individual actions)
 - curvature
 - type
 - description
 - directed motion (curve direction over time)
 - increasing (process)
 - decreasing (process)

OUTRO

- - - constant/circulating (state)
- colour change (instrument, instrument combinations, timbre)

RELATIONS

- material
 - - similarity–dissimilarity (>, <)
 - - repetition–variation–contrast
 - - similar, contrary, oblique motion
- functional
 - - solo
 - - support
 - - ground
 - - dialogue
 - - - gap-fill
 - - - question-and-answer/call-and-response
 - - - completion/punctuation
 - - - interruption
 - - catalyst
 - - sound mass
 - - interpolation
 - - independence

INDIVIDUAL

- listening
 - - musical sounds
 - - - primary listening
 - - - secondary listening
 - - non-musical sounds, hearing away
- feedforward
- aesthetics
 - - outer aesthetics
 - - inner aesthetics

ENSEMBLE

- interaction connections
 - - individual–individual
 - - individual–sub-group
 - - sub-group–sub-group
 - (combinations with more than two components are possible)
- interactive influence
 - - cause (what influenced)
 - - effect (result of the influence)
 - - possible miscommunications
- feedback

- negative
- positive
- contextualization
- silence with acceptance
- acceptance of two/more simultaneous courses of events
- adaptation/affirmation
- reinforcement
- development
- support

EVALUATION

- interactional skill
- listening skill
- choosing skill
- instrumental skill
- material utilization (material criterion)
- collective understanding (unity criterion)
- total
- partial
- absent

COMPLEMENTARY ASPECTS

- musicians' musical background, experience
- collaboration time
- ensemble size and instrument combination.

I see my concept model as an internal one, which, however, does not prevent it from being complemented with an external one in order to encompass the context(s) of improvisations in a narrower or wider sense.

Afterword

It is wrong to believe that the task of physics is to find out what nature is. Physics is about what we can say about nature. (Gyllensten 2004: 92)

[Det är fel att tro att fysikens uppgift är att finna ut hur naturen är. Fysik handlar om vad vi kan säga om naturen.²⁵(Gyllensten 2004: 92)]

Hopefully, this work contains something of interest that can *be said about* free ensemble improvisation. I do not, however, believe that it captures what the true and innermost essence of free ensemble improvisation *is*.

No matter what concept model one constructs for free ensemble improvisation, it will not be without points of contention, nor will it cover everything. The reason for constructing one anyway is an endeavour to contribute to the enrichment and deepening of our understanding of free ensemble improvisation. To believe that one can ever account for ‘everything’ or ‘understand how it works’ is, in my opinion, naive. On the other hand, I do not regard it as naive to embark on that journey with the attitude that the journey is a goal in itself.

The terms in my concept model do not cover the entire flora of terms in this work but do, as mentioned, represent what are the essential things for me in free ensemble improvisation (see 18 Concept model based on preceding sections). Others can probably find more/other terms that are more or less central for them – in this, and/or in other works about free ensemble improvisation – but can hopefully have some use for the concept model presented here.

Perhaps one can say that free ensemble improvisation is, at least from my internal perspective, about establishing sounding relations with one’s musician colleagues, and that from an understanding perspective it is about realizing which relations are established and/or have been established. In order to speak/write about this understanding, one needs the terms. They are probably even more necessary in order to further analyse free ensemble

²⁵ A. Petersen. Bulletin of the Atomic Scientists, Sept. 1963, in Abraham Pais: *Niels Bohr's Times: in physics, philosophy and polity*, Oxford University Press, 1993.

improvisation – even if the terms are not necessarily without points of contention, nor cover everything.

I have long believed that free ensemble improvisation provides experiences that one can bring along and find uses for in other, more or less referent-based/idiomatic music, and that it can be a good foundation for such playing. I still believe this. However, the proportions have shifted. Nowadays, I rather believe that all kinds of musical experience, even those with notated music, can be a useful basic foundation for free ensemble improvisation.

By the way, I have recently discovered, once again, my voice as an instrument. Only the future will show which instrument I will take a preference for – the base, the voice, or both.

Suggestions of areas for further research

- section 6.1.3 (Short-term – long-term collaboration)
- section 6.2.1 (Listening)
- section 6.2.2 (Process)
- section 6.2.4 (Ways of interaction – relations – complexity)
- part III (Concept model (as a theoretical basis for free ensemble improvisation)).

Appendices

A1 Overview of concerts, recordings and presentations

Concerts (the first word, written in capital letters only, is the name of the ensemble)

2001

- 01) GEO, Club Brötzt, Gothenburg, 4 April 2001 (040401)
- 02) STRÖM, Music installation (under the direction of Einar Nielsen), Academy of Music and Drama, Gothenburg, 070401
- 03) E08, KUA-project: "Dance and music improvisation" (together with Ulla Eckersjö), Academy of Music and Drama, Gothenburg, 090501
- 04) AD HOC, Academy of Music and Drama, Gothenburg, 210501
- 05) GEO, EU Conference, outdoor concert, Gothenburg, 170601
- 06) GEO, Café Hängmattan, Gothenburg, 180901
- 07) GEO, Club Brötzt, Gothenburg, 260901
- 08) GEO, Café Hängmattan, Gothenburg, 091001
- 09) GEO, Club Brötzt, Gothenburg, 171001
- 10) AD HOC, Club Brötzt, Gothenburg, 241001
- 11) GEO, Continuum - two days about improvisation, Academy of Music and Drama, Gothenburg, 251001 (**recording 1**)
- 12) GEO, Café Hängmattan, Gothenburg, 301001
- 13) GEO, Club Brötzt, Gothenburg, 071101
- 14) GEO, Café Hängmattan, Gothenburg, 201101
- 15) AD HOC, Club Brötzt, Gothenburg, 281101
- 16) AD HOC, The Galician Association, Gothenburg, 301101
- 17) GEO, Café Hängmattan, Gothenburg, 111201
- 18) INVICEM, Tabernaklet Church, Gothenburg, 121201

2002

- 01) GEO, Club Brötzt, Gothenburg, 160102
- 02) GEO, Club Oceanen, Gothenburg, 290102
- 03) GEO, Club Brötzt, Gothenburg, 130202
- 04) GEO, Club Oceanen, Gothenburg, 260202
- 05) GEO, Club Brötzt, Gothenburg, 130302
- 06) GEO, Club Oceanen, Gothenburg, 260302

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- 07) GEO, Club Brötz, Gothenburg, 100402
- 08) AD HOC, with Einar Nielsen, Academy of Music and Drama, Gothenburg, 120402
- 09) GEO, Club Oceanen, Gothenburg, 230402
- 10) AD HOC, Club Brötz, Gothenburg, 240402
- 11) AD HOC, Club Brötz, Gothenburg, 010502
- 12) STRÖM, Club Brötz, Gothenburg, 080502
- 13) GEO, Club Brötz, Gothenburg, 150502
- 14) AD HOC, The Galician Association, Gothenburg, 250502
- 15) INVICEM, Academy of Music and Drama, Gothenburg, 290502 (**recording 2**)
- 16) GEO, Club Brötz, Gothenburg, 290502
- 17) AD HOC, Academy of Music and Drama, Gothenburg, 070602
- 18) GEO, Falkenberg Culture Association, Falkenberg, 180802
- 19) STRÖM, Academy of Music and Drama, Gothenburg, 021002a (**recording 3**)
- 20) GEO, Club Brötz, Gothenburg, 021002b (**recording 4**)
- 21) GEO, The Galician Association, Gothenburg, 101002 (**recording 5**)
- 22) GEO, “Culture Night”, with S.E. Tandberg, Academy of Music and Drama, Gothenburg, 111002 (recorded but not included because the recording was destroyed in the technical post-treatment)
- 23) INVICEM, Academy of Music and Drama, Gothenburg, 291002 (**recording 6**)
- 24) GEO, Club Brötz, Gothenburg, 061102 (**recording 7**)
- 25) INVICEM and Johannes Landgren, Academy of Music and Drama, Gothenburg, 081102 (**recording 8**)
- 26) STRÖM, Club Brötz, Gothenburg, 271102
- 27) GEO, Club Brötz, Gothenburg, 111202

2003

- 01) INVICEM and INVOCATIO and Johannes Landgren, KUA project: “Mass in a new way” [Mässa i ny gestalt], Vasa Church, Gothenburg, 250103
- 02) GEO, Club Brötz, Gothenburg, 290103
- 03) GEO, Club Brötz, Gothenburg, 050303
- 04) STRÖM, “Siren Festival”, School of Design and Crafts, Gothenburg, 070303
- 05) INVICEM, Lunch concert, Academy of Music and Drama, Gothenburg, 040403
- 06) INVICEM, Stensjö Church, Mölndal, 060403
- 07) Ove Volquartz, Peter Uuskyla and Harald Stenström, Club Brötz, Gothenburg, 090403 (**recording 9**)
- 08) STRÖM, Lunch concert, Academy of Music and Drama, Gothenburg, 160403
- 09) STRÖM, Club Brötz, Gothenburg, 160403
- 10) INVICEM, Lunch concert, Academy of Music and Drama, Gothenburg, 250403 (**recording 10**)
- 11) INVICEM and Three voices, “Mass in a new way” [Mässa i ny gestalt], Annedal Church, Gothenburg, 100503
- 12) GEO, Club Brötz, Gothenburg, 140503
- 13) INVICEM, Club Brötz, Gothenburg, 140503
- 14) Bigge Vinkelou, Peter Uuskyla and Harald Stenström, Röda Sten, Gothenburg, 270503

- 15) INVICEM and INVOCATIO, "Music in Halland", Falkenberg, 070803
- 16) STRÖM and dancers, "Music in Halland", Falkenberg, 080803
- 17) INVICEM and MOLNDAL CHAMBER CHOIR, Gunnebo Castle, Mölndal 200803
- 18) PROTO, Musical Performance Work, Academy of Music and Drama, Gothenburg, 061103 (**recording 11**)
- 19) INVICEM, Club Brötz, Gothenburg, 121103 (**recording 12**)
- 20) INVICEM and MOLNDAL CHAMBER CHOIR, University Assembly Hall, Gothenburg, 071203
- 21) STRÖM, Club Brötz, Gothenburg, 101203 (**recording 13**)

2004

- 01) INVICEM and MOLNDAL CHAMBER CHOIR, Lerum Church, Lerum, 040104
- 02) INVICEM and MOLNDAL CHAMBER CHOIR, Näset Church, Mölndal, 060104
- 03) INVICEM and MOLNDAL CHAMBER CHOIR, Stensjö Church, Mölndal, 060104
- 04) INVICEM and voices, live electronics and dancers, Academy of Music and Drama, Gothenburg, 130504 (recorded but not included due to a quiet dance section in the middle)
- 05) PROTO and Lisa Nordström, Academy of Music and Drama, Gothenburg, 261104 (**recording 14**)

2005

- 01) AD HOC, Club Brötz, Gothenburg, 090205
- 02) PROTO, Club Brötz, Gothenburg, 230205 (**recording 15**)
- 03) AD HOC, Club Brötz, Gothenburg, 230305
- 04) PROTO, Academy of Music and Drama, Gothenburg, 240305 (**recording 16**)
- 05) AD HOC, Club Brötz, Gothenburg, 200405
- 06) AD HOC, Club Brötz, Gothenburg, 250505
- 07) AD HOC, Club Brötz, Gothenburg, 070905
- 08) AD HOC, Club Brötz, Gothenburg, 121005
- 09) AD HOC, Club Brötz, Gothenburg, 161105
- 10) AD HOC, Club Brötz, Gothenburg, 141205

Recordings

Recording 1 (251001), CD 1, Track 1 (25.30), Track 2 (27.11):

- Mats Eklöf (sax)
- Jonny Wartel (various instruments)
- Emma Nordlund (vlc)
- Johan Samuelsson (dr)
- Harald Stenström (el. bass)

Recording 2 (290502), CD 1, Track 3 (16.54), Track 4 (12.57), Track 5 (6.57):

- Andreas Hall (sax)
- John Lönnmyr (pi)
- Samuel Bäckrud (dr)
- Harald Stenström (el. bass)

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Recording 3 (021002a), CD 1, Track 6 (5.34), Track 7 (7.14), Track 8 (8.09),
Track 9 (4.18):

- Karl Ekström (sax)
- André Burström (gi)
- Erik Carlsson (dr)
- Harald Stenström (el. bass)

Recording 4 (021002b), CD 1, Track 10 (24.12), Track 11 (8.33), Track 12 (18.49),
Track 13 (18.03):

- Mats Eklöf (sax)
- Samuel Gustafson (tpt)
- Emma Nordlund (vlc) (only on tr 12, 13)
- Per Sjögren (perc)
- Johan Samuelsson (dr)
- Harald Stenström (el. bass)

Recording 5 (101002), CD 1, Track 14 (39.52), Track 15 (23.19):

- Mats Eklöf (sax)
- Jonny Wartel (sax)
- Samuel Gustafson (tpt)
- David Bolander (bandoneon)
- Per Sjögren (perc)
- Johan Samuelsson (dr)
- Harald Stenström (el. bass)

Recording 6 (291002), CD 1, Track 16 (22.56), Track 17 (18.04), Track 18 (0.47):

- Andreas Hall (sax)
- John Lönnmyr (pi)
- Samuel Bäckrud (dr)
- Harald Stenström (el. bass)

Recording 7 (061102), CD 1, Track 19 (18.41), Track 20 (18.46):

- Mats Eklöf (bcl)
- Jonny Wartel (sax, accordion)
- Samuel Gustafson (tpt)
- Per Sjögren (perc)
- Johan Samuelsson (dr)
- Harald Stenström (el. bass)

Recording 8 (081102), CD 1, Track 21 (17.02), Track 22 (16.06):

- Andreas Hall (sax)
- John Lönnmyr (pi)
- Johannes Landgren (organ)
- Samuel Bäckrud (dr)
- Harald Stenström (el. bass)

Recording 9 (090403), CD 2, Track 1 (34.36), Track 2 (9.39):

- Ove Volquartz (sax, bcl)
- Peter Uuskyla (dr)
- Harald Stenström (el. bass)

Recording 10 (250403), CD 2, Track 3 (17.10), Track 4 (11.48), Track 5 (9.04):

- Andreas Hall (sax)
- John Lönnmyr (pi)
- Samuel Bäckrud (dr)
- Harald Stenström (el. bass)

Recording 11 (061103), CD 2, Track 6 (22.34), Track 7 (8.58):

- Andreas Hall (sax)
- Martin Öhman (dr)
- Harald Stenström (el. bass)

Recording 12 (121103), CD 2, Track 8 (22.33), Track 9 (14.50):

- Andreas Hall (sax)
- John Lönnmyr (pi)
- Samuel Bäckrud (dr)
- Harald Stenström (el. bass)

Recording 13 (101203), CD 2, Track 10 (9.36), Track 11 (8.19), Track 12 (5.26), Track 13 (5.15), Track 14 (7.29), Track 15 (3.59), Track 16 (3.05):

- Karl Ekström (sax)
- André Burström (gi)
- Erik Carlsson (dr)
- Harald Stenström (el. bass)

Recording 14 (261104), CD 2, Track 17 (57.52):

- Andreas Hall (sax, cl, electronics)
- Lisa Nordström (bfl, voice, electronics)
- Martin Öhman (dr, electronics)
- Harald Stenström (el. bass, voice, electronics)

Recording 15 (230205), CD 2, Track 18 (16.25), Track 19 (15.08), Track 20 (13.59):

- Andreas Hall (sax, bcl, electronics)
- Martin Öhman (dr, electronics)
- Harald Stenström (el. bass, electronics)

Recording 16 (240305), CD 2, Track 21 (61.48):

- Andreas Hall (sax, cl, electronics)
- Henrik Wartel (dr)
- Harald Stenström (el. bass, electronics)

APPENDICES

Presentations

- 01) Master's seminar, Academy of Music and Drama, Gothenburg, 111001
- 02) Individual Musician Course, Academy of Music and Drama, Gothenburg, 161001
- 03) Concert Programme: "About ensemble improvisation", Academy of Music and Drama, Gothenburg, 291101
- 04) Study day for music teachers, Mölnlycke, 291002
- 05) Students from Eastman School of Music, Academy of Music and Drama, Gothenburg, 160103
- 06) Seminar presentation, Academy of Music and Drama, Gothenburg, 061103
- 07) Seminar presentation, Academy of Music and Drama, Gothenburg, 240304
- 08) Seminar presentation, Seminar Series at the Academy of Music and Drama, Gothenburg, 310304
- 09) Public seminar, Seminar Series at the Academy of Music and Drama, Gothenburg, 310304
- 10) Improvisation students, Academy of Music and Drama, Gothenburg, 270404
- 11) Swedish Radio, P2: "In the music" [Mitt i musiken], 110504
- 12) Represented in "Doctoral Students and Works in Progress within the framework of Artistic Research at Swedish Institutes of the Arts and Adjacent Arenas" (per April 2004) ["Doktorander and works in progress inom området konstnärlig forskning vid svenska konstnärliga högskolor and närliggande arenor" (per april 2004), Stiftelsen Riksbankens Jubileumsfond och Vetenskapsrådet]
- 13) Master's seminar, Academy of Music and Drama, Gothenburg, 111104
- 14) Seminar presentation, Academy of Music and Drama, Gothenburg, 070405
- 15) Improvisation students, Academy of Music and Drama, Gothenburg, 301105

A2 Gesture processing alternatives

Gestures as value series can be processed through the following alternatives:

sound height(s) can

- 01) – be increased
- 02) – be decreased

sound strength(s) can

- 03) – be increased
- 04) – be decreased

sound length(s) can

- 05) – be increased
- 06) – be decreased

pause length(s) can

- 07) – be increased
- 08) – be decreased

number of sounds can

- 09) – be increased (sounds are added)
- 10) – be decreased (sounds are taken away)

number of pauses can

- 11) – be increased (pauses are added)
- 12) – be decreased (pauses are taken away).

More than one alternative can be used simultaneously. Increasing/decreasing sound height / sound strength can be applied within a sound (articulation, see below) and/or on a sound

as a unit. Alternatives 1–8 can refer to the entire gesture or part(s) of it. Alternatives 9–12 can take place anywhere in the gesture (beginning, end, or in between).

The alternatives 1–12 mean processing of a gesture through changing values. One can also process a gesture through changes in value differences. Values and value differences are two sides of the same coin and constitute different attempts at gesture processing. No matter which side of the coin one chooses, the other side follows.

Gestures as value difference series (curves) can be processed through the following alternatives:

sound height difference(s) can

13) – be increased

14) – be decreased

sound strength difference(s) can

15) – be increased

16) – be decreased

sound length difference(s) can

17) – be increased

18) – be decreased

pause length difference(s) can

19) – be increased

20) – be decreased

sound number difference can

21) – be increased

22) – be decreased

pause number difference can

23) – be increased

24) – be decreased.

More than one alternative can be used simultaneously. Increasing/decreasing sound height / sound strength differences can be applied within a sound (articulation, see below) and/or on sounds as units. Alternatives 13–20 can refer to the entire gesture or part(s) of it. Alternatives 21–24 can refer to any part of the gesture (beginning, end, or in between).

Finally, a gesture can also be divided into two or more gestures, just as two or more gestures can be put together into one.

Apart from the processing alternatives above, additional processing can take place through changes in:

- articulation
- phrasing
- colour.

Here, *articulation* stands for a sound's height and strength curvature over the length of the sound. In relation to a notated example, or in relation to the articulation of a gesture with more than two sounds (meta-articulation), even sound length can be involved in articulation (staccato, legato, etc.).

Here, *phrasing* is reserved only for the binding together of sounds/pauses to gestures.

Here, *colour* refers to instruments and timbre, the latter in the sense of sound variations/nuances within the framework of the respective instrument's possibilities. Within one and the same instrument, it is therefore only timbre that can be changed.

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Articulation can be transferred from a sound to a gesture as a whole, a sort of meta-articulation (in which case even the length±curvature is a part). In the same way, the binding together of several gestures can be seen as a meta-phrasing.

More than one processing method can be used simultaneously.

EXAMPLES OF (MORE OR LESS) TRADITIONAL PROCESSING TECHNIQUES

ALTERATION – tones are altered from/to major/minor, or to a new scale, and can include temporary accidentals.

AUGMENTATION – length values increase (additively or divisively). Refers normally to length± but can also be applied to other parameters (for example, to height intervals).

CONTRACTION – the difference between highest and lowest value (range/ambitus) decreases. Refers normally to pitch but can also be applied to other parameters.

CONVERSION – sounds are replaced with pauses and vice versa.

DIMINUTION – length values decrease (additively or divisively). Refers normally to length± but can also be applied to other parameters (for example, to height intervals).

ELIMINATION/ELISION/FRAGMENTATION – part(s) of the gesture are taken away – in the beginning, end, or in between. The total length of the gesture diminishes.

ESTABLISHMENT/ADDITION – new part(s) are added to the gesture – in the beginning, end, or in between. The total length of the gesture increases.

EXPANSION – the difference between the highest and lowest value (range/ambitus) increases. Refers normally to pitch but can also be applied to other parameters.

FIGURATION – addition of tones to the gesture tones, where the gesture tones are seen as main tones and the figuration as a filling between them. Figuration can, however, mean that main tones are shortened and end up in other metrical positions than in the original. The length of the gesture can be changed, or remain unchanged.

FUSION – two/more length values are put together into greater length values. The number of length values decreases but the total length of the gesture remains constant.

INVERSION – interval directions are reversed.

MODULATION – change of modus/scale/tone row/tonality.

OCTAVATION – tone(s) can be octaved.

ORNAMENTATION – lies close to figuration, but perhaps with greater weight on main tones and less on added tones (the ornaments).

PERMUTATION – height order is intact but length value order is changed, the length value order is intact but the height order is changed, or both length value order and height orders are changed. Permutation can even be applied to parts of gestures so that the order between these is changed.

PHASE DISPLACEMENT – really metrical displacement, that is, moving the starting point of the gesture within the measure.

PROLONGATION – a continuation, an extension, of a gestural idea.

REMELODIZATION/ISORHYTHM – height values are changed but the length values are kept.

RERHYTHMIZATION/ISOMELOS – length values are changed but the height values are kept.

RETROGRADE – the gesture is played backwards:

- only melodically
- only rhythmically
- both rhythmically and melodically.

SEGMENTATION – parts of gestures are separated by pauses.

SUBDIVISION – one/more length value(s) is/are divided into smaller length values. The number of length values increases, but the total length of the gesture is constant (unless pauses are added in between).

TRANSPOSITION/SEQUENCE – the gesture is moved up or down in height while keeping its internal structure, possibly with modal/tonal adaptations. Can also be applied to other parameters.

More than one processing method can be used simultaneously.

COMMENTS

One can wonder how gestural processing came about at all. Has it come about from play that eventually clarified into conscious methods? Has it come about through the connection one can see between how certain processing techniques correspond with the way an object can be changed in the room? Inversion, retrograde, augmentation, diminution and sequence can, for example, without great difficulty, be translated into the way an object is turned upside down, turned sideways so that the ‘first’ part comes ‘last’, is drawn out longer or pressed together to a shorter length (if it is an elastic object), or moved up and down in the room, etc. Intuitively, it is easy for me to see, to visualize, a gesture like an object in the room, which might possibly point to the second explanation alternative.

A3 Number of cases of overlapping for ranges

Two ranges can, with regard to overlapping, relate to one another in exactly 13 different ways. Given a fixed range with the values B1 and B2 ($B1 \neq B2$ and $B1 < B2$), and a moveable range with the values A1 and A2 ($A1 \neq A2$ and $A1 < A2$), range A can relate to range B in the following ways:

- 01) $A2 < B1$
- 02) $A2 = B1$
- 03) $B1 < A2 < B2$ and $A1 < B1$
- 04) $A2 = B2$ and $A1 < B1$
- 05) $A2 > B2$ and $A1 < B1$
- 06) $A1 = B1$ and $B1 < A2 < B2$
- 07) $A1 = B1$ and $A2 = B2$
- 08) $A1 = B1$ and $A2 > B2$
- 09) $B1 < A1 < B2$ and $B1 < A2 < B2$
- 10) $B1 < A1 < B2$ and $A2 = B2$
- 11) $B1 < A1 < B2$ and $A2 > B2$
- 12) $A1 = B2$ and $A2 > B2$
- 13) $A1 > B2$ and $A2 > B2$.

A4 A free improviser's view of the modern symphony orchestra and chamber ensemble

Small views a modern symphony orchestra with the eyes of a free improviser, a view that in his case is rather ironic, not to say provocative.

The modern professional symphony orchestra is in itself the very model of an industrial enterprise, permeated through and through with the industrial philosophy and geared like any other to the making of a product, in this case a performance, which is advertised and sold to consumers, the audience.

The players are under external control, doubly so in fact, first from the precise instructions given in the notated parts (as in a factory, the rank and file see only their own segment of the work) and secondly from the boss, the conductor, to whom they have abdicated their powers of response to, and interpretation of, the musical work as a whole; he alone has the power to act spontaneously in the course of a performance. Relationships within the orchestra are highly formalized and hierarchical, mediated through the written parts and through the instructions of the conductor, whose personality needs to have at least some of the characteristics of the industrial tycoon. They are in fact the relationships of the industrial workplace, being entirely functional and dependent on the job to be done and on the product to be made.

Relationships between players and audience are even more distant and formal. The musicians enter the building through a different door from the audience and remain out of sight while not actually playing, while their demeanour on the platform suggests a complete obliviousness of the audience's presence; only the conductor and the soloist, if there is one, acknowledge by so much as a look or a gesture, their presence. The members of the audience, for their part, do not for the duration of the performance, communicate with one another in

any way (the seating arrangements does not in any case facilitate communication), or even respond in any visible or audible way to the music; indeed it is bad form to do so. Each member of the audience sits still and silent, alone with the music, responding to it only at specific times and in approved ways. We have here, surely, a dramatic representation of one of the central assumptions of industrial society: that of the autonomy and the essential solitariness of the individual.

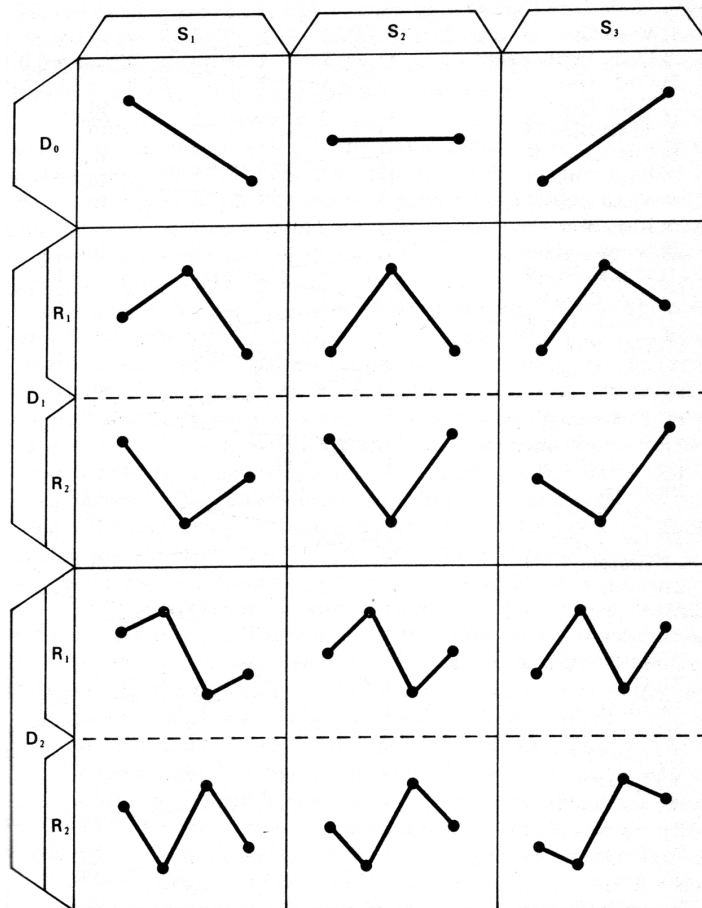
The whole occasion in fact can be seen as a dramatization, an acting out, of the assumptions of the industrial state: the orchestra (the producers) a group of individuals who can be welded into a unified and purposive group only through the abdication of the individual will to a superior authority, and the audience (the consumers) who remain a collection of individuals rather than a community, each solitary, private and autonomous, with the power only to give or withhold approval, to buy or not to buy the performance. Certainly the crucial power of production for oneself, or even of influencing the production of the professionals, is not vouchsafed to them. (Small 1984: 2)

Small seems to find somewhat greater possibilities for intimate interplay and spontaneity within the classical tradition in conductorless chamber ensembles, for example a string quartet, especially if no audience is present. Such an ensemble can be “more self-directed, more free in its response to the printed notes”, but still under the control, through the notes, of “the absent fifth”, the composer. The players’ relationships are mediated through that notation, maintaining a distance which prevents too intimate an engagement between them, an engagement which by definition they do not want, or else they would not be taking part in this kind of “musicking”. The notes supply the musicians with both a ready-made language and a set of responses, which shield the musicians and the audience (“should there be any”), “from a whole realm of possibilities for adventure, for exploration, both intellectual and emotional, which the musician who does not rely on the given text is free to engage in”. Adventures involve risks, however, and we have, according to Small, already seen that the present day classical music lover is more concerned with comfort and stability than with challenge. (Small 1984: 3)

A5 Curvature types

Techniques of Comparative Analysis

Fig. 92 Adams' classification of melodic contours



Cook (1996: 197)

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