

Systemic Improvisation: Confusing Distribution of Roles in Free Improvisation

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During the spring of 2020, we have experimented with forms for online group improvisation, and investigated how our signaling systems for role negotiation can be applied for distance interactions. We demonstrate this to an online audience by doing a session within Zoom, where the specific infrastructure and affordances of this medium are used to constrain and mediate a musical improvisation situation.

Systemic Improvisation

The research project *Systemic Improvisation* investigates different ways to change and challenge the “natural” interaction patterns that often emerge in free improvisation settings. By experimenting with interaction mediators, such as computer systems and dice, distribution of roles, bonding, and power relations can be, if not controlled, but influenced, or if you will: confused. One may evaluate and discuss our systems from different perspectives, and one such angle is from a group dynamics perspective. It is feasible to say that the systemic improvisation research project is about to manipulate group dynamics with mediating systems in ways that are evaluated as musically meaningful by participant players. One key factor about groups is its size, since possible connections and relations increase exponentially with group size. With three members it is just three relations, with four six relations, and with six members twelve relations. This means, the larger the group, the more complex interaction patterns may occur, which in turn affects the design of mediating systems.

All systems developed within the systemic research projects and its predecessors share five partly overlapping properties¹:

- **All sound material come from the human musicians.** The system is empty of content until it is interacted with. However, sounds from the musicians may be used by computer agents in delayed or processed form, as cues or additions.

¹ Taken from the application to The Swedish Research Council in 2016.

- **Every reaction is also an action.** Anything a musician plays, in reaction to input from other player and from the virtual interactors, affects the state of the system. This is also true for the virtual agents, i.e., all agents (human and virtual) have connections in both directions. The systems are impossible (or difficult) to ignore, and every mistake is meaningful.
- **The human players are essential parts of the loop** – the reaction/interaction chain always contain a human in every step. If human players don't react/interact, nothing will happen, and the system is not fully connected until the humans enter the system.
- **There is no predefined timeline.** The system is constant, and does not change. It is always active – the musicians enter the system and hereby make it fully connected, and then things start to happen.
- **The system is homogenous and symmetric.** All players have similar roles, and all virtual agents have similar functions, and are connected in similar ways. This is sort of a democratic ethos – there is no leader in the group.



Norms, Roles and Intermember Relations

One research question is whether and how norms, roles and intermember relations might be changed by using mediating systems. In group dynamics², it is claimed that the constituent elements are relatively fixed in groups: “regulatory standards that define how members are

² Forsyth, Donelson, R, Group Dynamics, Seventh Edition. 2018

supposed to behave (*norms*), given their positions in the group (*roles*) and the connections among members (*intmember relations*)". In free improvisation these norms can be understood such as: A *prescriptive norm* is to be open, to try to nullify yourself, to be in the now, and to listen as much as playing. In contrast, a *proscriptive norm* is about not to force personal ideas to other players, not playing idiomatic, or genre specific material. A *descriptive norm* is that most players subordinate to prescriptive norms, and finally *Injunctive norms* are that most free players expect fellow players to behave and interact in certain ways. Most likely, present norms are a matter of either tacit agreements, and/or the result of discussions that takes place in conjunction with playing sessions, whereas our systems generates and modify distribution of playing behavior, roles and relations in an active way. Examples of such are *busy, extended play, lead, background, interact, opposition, and copy*.

A Telematic Performance

For this particular session, given present epidemic situation, a telematic performance in zoom is chosen. Three musicians interact in one or two sessions of 10-15 minutes each. In the first session, we use dice, hour glasses and such, in addition to the online signaling signs within zoom to trigger role change and assignment. This is a new scheme, based on our previous off-line improvisation systems, but here designed in an environment known to the listeners/viewers, to show how even familiar and simple signals can radically reform musical interactions. The in-meeting signals (**raise hand, yes/no, go slower, go faster, agree/disagree, clap, need a break, away**) are re-interpreted musically according to different musical role and relation schema.

In the second session, we demonstrate our own signaling system which uses custom software and touch tablets for more complex role assignment between musicians.

We have added **verbal roles** to our usual musical ones, primarily those of **Questioner** (musician asks a question about what is happening or what someone or everyone is doing) and **Describer** (describes what is happening, from her own perspective), and **Observer** (observes and retells what the others are doing). In this way, the musical interactions are intermixed with a sharing of what is happening, including confusions, impressions, surprises and expectations. This is related to the Think-Aloud protocol, which we have used as a method in some of our previous research experiments to analyze the underlying thoughts and actions in an improvisational setting, here used as an efficient method to share what is happening with an audience who is new to the context.