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**ACTIVITY BASED STUDIES OF LINGUISTIC
INTERACTION**

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Activity Based Studies of Linguistic Interaction

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This paper will describe an approach to studies of language and communication that has become known as “Activity based Communication Analysis” (ACA). I will also briefly contrast the approach to some other approaches to linguistic interaction. The paper contains the following sections:

1. Conception of language and linguistic interaction - the task of linguistics
2. On methodology and goals
3. Analytical categories to be used in the study of linguistic interaction
4. On the relation to some other approaches
5. Examples of some studies

There are many sources of inspiration for the approach, such as Malinowski (1923), Wittgenstein (1953), Vygotsky (1978), Sacks (1992), Bühler (1934), Rommetveit (1974), Grice (1975), Austin (1962) and Firth (1957). For a more extensive account, see Allwood (1976 and 2000).

1. Conception of language and linguistic interaction - the task of Linguistics

During the 20th century, studies of language have mainly relied on the conceptions of language given by Ferdinand de Saussure and Noam Chomsky. In the Saussurean conception (Saussure, 1955), basically taken over from the French sociologist Emile Durkheim, Durkheim (1894) language, i.e. “langue”, is seen as a social phenomenon constituted by conventions and norms, basically not reducible to individual acts of speaking (“parole”) or to the human capacity for language. Linguistics on this view becomes a part of the social sciences, trying to find the norms and conventions of the social phenomenon of language.

In the Chomskyan conception (Chomsky, 1965), linguistics is concerned with “competence”, i.e. the grammar of an idealized speaker/hearer in an idealized speech community. Language is seen as a phenomenon which is too vague and abstract to become the object of scientific investigation and “performance” (the actual practice of communicating linguistically), the concept that Chomsky contrasts with “competence”, is seen as something which includes many other factors than those which should concern a linguist looking for ideal grammar. The essence of language is claimed to be grammar, which is seen as an abstract organ corresponding to a psychological and neurological modular substratum in individual speakers. Grammar (and by extension language) becomes an abstract property of the neurology and psychology of individuals and linguistics, on this view, thus is closer (perhaps even a part of) to psychology and neurology than to sociology and the social sciences.

Subsequent discussion during the 20th century has shown that there are many difficulties with both of these conceptions and that it might be worthwhile to try to suggest an alternative. The alternative, I would like to suggest, is the following: Language can be characterized and perhaps even defined as “a system for communication of complex information (or thought), primarily using acoustic/auditive or gestural, visual means and secondarily using forms of representation derived from these”. Communication, in turn, can be defined as the sharing of information (or thoughts) between two or more agents, who possess a processing system which can handle, i.e., produce, perceive, understand and react to complex information. The task of linguistics is simply to describe how this is accomplished. This relates linguistics in both of the directions suggested by Saussure and Chomsky, i.e. both to the social sciences and to more individually oriented disciplines like neurology, psychology and cognitive science (including AI (artificial intelligence) and ICT (information and communication technology)).

The central goal of linguistic investigation will be to describe, understand and explain linguistic interaction, especially face-to-face, direct, multimodal communication and the factors that condition such interaction.

Inspired by the notion of a “language game” (cf Wittgenstein 1953), I suggest that the best way to study linguistic interaction (and, thus, language) is to study it in different social activities. The language used in an auction is, in many ways, different from the language used in an academic seminar or the language used in a relaxed conversation over a glass of beer. Linguistic differences between different social activities can be found in vocabulary, grammar, pronunciation and interactive style. Thus, the goal of linguistics will not only be to investigate linguistic interaction as such, but to investigate linguistic interaction in context, as it is conditioned by the different social activities of which it is a part, and for which it serves as an instrument. The results of such investigations might be descriptions and explanations of the language use in particular social activities, giving us an account of differences between activities. It might also be empirical investigations of linguistic similarities (not only of differences) between social activities. Are there certain parts of the vocabulary, grammatical constructions, interactive practices and subactivities which are used in most or all social activities and, thus, form a kind of kernel of our ability to use language?

2. On methodology and goals

The main methodological goal of Activity based Communication Analysis is to develop and use methods, which will allow development of theory in close connection with a study of real linguistic practice. This means that the approach is open to all methods, which allow pursuit of the goal of developing a more empirically grounded type of linguistics. To be more specific, this, will include ethnographic field methods, experimental studies, interviews and even questionnaire based studies. However, the main type of method will be recordings, registration and analysis of authentic linguistic interaction, in as “non-arranged”, “naturalistic” circumstances as possible. The theory and data should have “ecological validity” in the sense of Brunswick (2001), i.e. deal with phenomena which are robust, independently of the researcher’s control and manipulations. The primary focus will be face-to-face, direct, multimodal communication, but there is also room for studies of communication which use different kinds of communication technology, such as telephones or computers. Perhaps the most important example of this will be studies of authentic writing as collected in textual corpora of books, magazines and other written material.

One of the problems facing efforts to develop a more empirically grounded linguistics is the normative tradition in linguistics. Linguistics has since antiquity been explicitly or implicitly normative. Through the ages, the art of writing (*texne grammatike*), often connected to the preservation of sacred or culturally central scriptures (cf. Robins (1967/1997) and to intuitions about the correct way to write, has been the main stream preoccupation of western (and also to a large extent Chinese, Indian and Arabic) linguistics (cf. Itkonen 1991). In the last 200-300 years, the connection with sacred scriptures has been severed, at least in the west, but not the preoccupation with the normatively correct way of writing. In many cases, this normative orientation has persisted, in spite of lip service in the opposite direction. In the 20th century, one of the main ways of maintaining normativity, albeit implicitly, has been reliance on the concept of “grammaticality”, as a corner stone of linguistic theory. Using this perspective, the linguistic expressions which are analyzed in linguistic theory have to be certified as grammatical by some judge, primarily the linguist him/herself, before being analyzed. The grounds for the judgements usually are normative intuitions about grammaticality or put differently “beliefs about what is grammatical”.

As a contrast to this tradition, what is suggested here is to base linguistics on actual linguistic data whether it be spoken written and gestural, reflecting actual use of language, independently of what intuitions and traditions say is grammatical. Perhaps the best way to do this, at present, is to collect large samples of actual language use in a data base or corpus, where subsequently attempts can be made to describe, understand and explain all the data. This is not a view shared by everyone. Noam Chomsky, for example, in an interview concerning corpus linguistics (cf Aarts 1999), raises the objection that corpora are not so valuable because they contain material that is not grammatical and perhaps the result of accidental performance errors. Therefore, in the end, linguists have to rely on their intuitions about grammaticality, in order to find the expressions that should be analyzed in linguistic theory. In contradistinction to this view, the view presented here holds that no filtering mechanisms like the distinctions between “langue” and “parole” or between “competence” and performance” should be used to remove unsuitable (ungrammatical data). Attempts should be made to account for everything including one word utterances, hesitations, changes of mind, coughs, laughter and overlaps.

Another desideratum is that we want to analyze large amounts of data in order to capture statistically significant patterns. This has as a consequence that computer supported analysis of an automatic or semiautomatic kind should be explored and used wherever it is possible.

The methods suggested here are, of course, not perfect since there are limitations and even disadvantages of a corpus based approach. The main limitation is that a corpus is not identical to the language it represents, with all its uses, but only to a small collection (even if it consists of one billion words) of certain types of language use. A corpus is a window on the language. Everything is not there and can not be seen through the window. But very much is there. Among the things that are there are a lot of phenomena and data which linguistics has not been very much aware of earlier. Many features of spoken and gestural interactive language, which earlier have been difficult or impossible to study because of their transient nature, can be “captured” and studied with the help of modern recording technology. Another advantage is that the data in a corpus of the kind we have described above are robust and realistic. They are not just the product of judgements and opinions about what is grammatical. So there is less dependence on prejudice, normative beliefs and limitations of the semantic-pragmatic imagination of linguists.

Thus, what can be gained, through the kind of more empirically oriented linguistics suggested here, is a linguistics where description, understanding, explanation and formalization are based on collections (corpora, data bases) of linguistic material. This would mean that linguistics would become more of a “normal empirical science” comparable to the natural sciences, where suggested descriptions and explanations would be tested against existing empirical data in the corpus. No cleavage need to be assumed, based on notions like “understanding” and “explanation” (cf. von Wright, 1971), between research done on language (as part of the humanities) and research done in the natural sciences. Linguistics would no longer be based on opinions or intuitions about grammaticality which like Esa Itkonen has claimed gives linguistics a non-empirical status, cf Itkonen (1978) but like other sciences be based on data which can support or not support the hypotheses and theories that are suggested.

A different kind of objection that might be raised against the present approach is that we run the risk of becoming over-empirical by getting lost in all the problems of collecting data. We might end up with “data cemeteries” and beyond fairly trivial statistical observations never develop theories that do justice to the material we have collected. Given the amount of work that has to be invested in collecting a corpus, it must be admitted that there is a certain risk here. This risk can perhaps only be tackled by awareness of the problem in combination with attempts at theory building

Turning to the more specific goal of investigating the language of different social activities, the procedure we have been following inspired by the above mentioned general considerations, can be summarized as follows:

- 1) Identification of a particular social activity type (or a set of related social activity types) that we want to study.
- 2) Participant observation and interviews with participants in the activity (activities).
- 3) Recording of one or more particular instances of the selected activity type(s) (after having obtained informed consent from participants). The recording should be multimodal (video) if possible.
- 4) Transcription of the recorded material according to a given transcription standard. In our case, this standard has been GTS & MSO (Göteborg Transcription Standard + Modified Standard Orthography), cf Allwood et al. (2003).
- 5) Reliability control of the transcriptions in two steps; first by having a different person than the transcriber go through and check every transcription against the recorded data and second by automatic computer supported control, to ensure that all transcription conventions have been followed consistently.
- 6) Development and use of coding schemas or other support (where this is appropriate) to capture particular aspects of linguistic interaction such as “speech acts”, “turntaking”, “feedback”, “emotions” or more specific things like “stance” or “expression of trust”.
- 7) Reliability control of codings or other analytical results, by doing tests of intercoder reliability.

- 8) Quantitative-statistical analyses of transcriptions and coded annotation, in combination with qualitative analysis of codings and other material.
- 9) Conclusions based on combinations of qualitative and quantitative analysis. In section 5 below, I will give some examples of data and analyses of data collected using these procedures.

3. Analytical categories to be used in the study of linguistic interaction

In Activity based communication analysis, the concept of social activity might be said to occupy a central organizing role as a link between the macro level and the micro level. It is seen as a kind of natural mid range organizational unit of social life.

The notion of “social activity” is not limited, like in some other approaches of Gumpertz (1977), to what might be thought of as “fairly purely communicative activities” like “debating”, “interrogating”, “discussing” or “negotiating” but includes also activities like fishing, hunting, buying and selling or eating (cf. Malinowski’s (1923) account of how language is used as a necessary instrument on a fishing trip). In other words, there is a spectrum of activities extending from those activities in which language and communication are both the goal of the interaction and the means through which is pursued, to activities where language and communication are not part of the goal, nor necessary as means, but perhaps only present in an optional ancillary role.

Whatever the degree of necessity regarding the role of communication, the goal of the analysis is to analyze the extent and ways in which language and communication serve as goals or instruments for a given activity. Normally, they are seen as the primary means or instruments for pursuing the activity and the goal of the analysis is to study how fairly different properties and characteristics of language and communication can develop in one activity as compared to another. Compare, for example, the language and communication to be found in a travel agency, in teaching, in court proceedings or in an auction. An important goal of the analysis is thus to describe, understand and explain the nature of the similarities and differences between such kinds of activities.

Although the focus of analysis is on social activities, it is assumed that communicators are conditioned by many other factors which simultaneously with those factors that are internal to the activity exert an influence. Some of the most important are the following which can be brought out by adopting a succession of different perspectives on the communicators:

- (i) Communicators are human beings (rather than some other kind of organism or machine), i.e. they are both causally dependent organisms and motivated, rational agents. Thus, there is room for both causal and intention oriented accounts of communication.
- (ii) Communicators are community members, i.e. they belong to a particular culture, nation, region and community and speak a particular language.
- (iii) Communicators are members of social institutions and organizations, i.e. they can be business men, teachers, doctors or carpenters.

- (iv) Communicators are activity role holders, i.e. they can be instructors, negotiators or fellow conversation partners.
- (v) Communicators are communicators, i.e. they can be speakers or listeners, writers or readers and they can be the agents of different communicative acts like “the maker of a statement” or “the asker of a question”.

In harmony with this, we expect to find properties in all types of linguistic interaction which can be explained by factors pertaining to one or more of the characteristics of communicators outlined above. To be more specific, some properties of language and communication are best described and explained in terms of the physical, biological and psychological characteristics given by human nature. Other properties derive from the cultural and linguistic practices of a particular community. A third kind of properties are bound to social institutions (like health, education and industry) and particular organizations within these institutions (like a particular hospital, school or company). A fourth kind of properties are the properties associated with the activities that are pursued within an organization like relaxing, instructing, negotiating, diagnosing or teaching. A fifth kind of properties are related to the production of contributions to communication and the acts of perception and understanding which take place in communication.

In general, all the influencing factors have both an enabling effect (functioning as resources) and a constraining effect on the communication and interaction in the activity. For example, by learning French, I am able to communicate in French, but unless I learn other languages, I am also constrained to communicating in French, or by being a listener, I can benefit from information from another person, but can contribute less myself, etc.

With the exception of the physical, biological and psychological categories given by human nature, the analytical categories of Activity based communication analysis may be placed on three levels, i.e., a macro-, meso- and micro level. On the macro level, there are categories, like culture, language, social institution and organization. These categories are used to situate, contextualize, understand and explain the social activity and the behavior of the participants in the activity. On the meso level, there is the notion of social activity, to which we will turn in more detail below. On the micro level, there are a number of categories, like contribution, turn, communicative act, communicative function, commitment and obligation, which have been developed within the analysis, but there are also categories taken over from traditional linguistics, like acoustic parameter, phonological feature, syllable, morpheme, word and part of speech, which can be used in addition. Returning to the primary focus of our analysis, a social activity can in itself be analyzed according to the following schema which gives four main parameters which can influence the activity.

Table 1 Activity parameters

1. Purpose, function, procedure
2. Roles: rights, obligations and competence
3. Artifacts, instruments, tools, media
4. Environment: social, physical

The first parameter “purpose” is focused on the teleological aspects of an activity, i.e, the purpose(s) and function(s) it serves and possible procedures that might exist to achieve this.

The difference between purpose and function concerns degrees of awareness and explicitness. Purposes are stipulated to be goals which most people are aware of and which are often explicitly formulated, sometimes even in written documents. Functions are goals or better outcomes which people are not necessarily aware of and which are mostly implicit.

The second parameter “roles” focuses on the expectations (and sometimes formal requirements) which exist concerning the rights, obligations and competence needs that are associated with a particular role in an activity. Compare, for example, the rights, obligations and competence requirements of a school teacher and a student with those of a customer and a sales assistant in a shop. The third parameter “artifacts” includes the instruments, tools and media which are used to pursue the activity.

The fourth parameter “environment” includes both the social environment given by the macro level categories discussed above, e.g. culture, social institution and organization and the physical environment with certain properties of lighting, sound, temperature, furniture, etc.

Both the macro level factors and the meso level activity parameters described above are viewed as a collective influence acting on the global communicative features of the activity as well as on its local micro level communication properties (to be discussed below). Besides these two types of influence on a collective level there is also an influence deriving from the personal background of the participants in the activity (individual influence) and an influence from the properties of the contributions making up the interaction (local influence). We thus have both

“collective” and “individual” influences as well as “global” and “local” influences. Collective as well as individual influences can be global and local (cf. Allwood 1984). The collective influences come from the activity parameters (global) and various features of the interaction (local), while the influence of the individual background consists of the beliefs, desires, values, emotions and attitudes that individual participants bring to bear on the interaction in the activity. In cases where the participants do not have a common background regarding culture, language, social institutions, etc., their individual background will, thus, modify the influence that the corresponding macro level factors will have, e.g. French culture rather than Norwegian etc., even if the conversation takes place in Norway.

In addition to the macro level factors, the meso level activity parameters and the individual background influence, there is a micro level type of influence, sometimes known as “reflexivity” that comes from the communicative acts and behavior which are employed in the interaction. Each act is associated with commitments and obligations which have an effect on the continued interaction in ways described below.

A natural starting point for the analysis is the individual communicator’s “contributions” (or if limited to spoken language “utterances”), i.e., what a communicator contributes to an interaction, through spoken (sometimes written) words and gestures (used in broad sense for all visible communicative body movements) at a given point in time, before being replaced by a contribution from another communicator. The contributions are the units which make up an interaction. Although they can consist of a single morpheme, they are mostly more complex and can be subdivided into smaller units like phonemes, morphemes, words, phrases (with connected prosody) or individual gestures.

The contributions can also be associated with several different types of communicative functions. Most of the functions can pertain to the contribution as a whole (if it is a short

contribution) or to a part of the contribution (if it is a longer contribution). Most of the functions can also be expressed simultaneously (multifunctionality) or sequentially depending on the length of the contribution. Compare (examples made up for the sake of pedagogical clarity and brevity) A: *it's very slippery today*, which can simultaneously be a statement and a warning, and B: *you are right watch it*, which is a statement followed by a warning/imperative. Finally, most of the functions can be explicitly expressed or implicitly expressed (through relations to the context). Thus, whether *it's very slippery today* is a warning or a congratulation depends on relations to the context.

Below, we will now consider some types of communicative function. The first kind of function related to contributions we will consider might be called “message function” and can be subdivided into main message functions and communication management functions.

- (i) Main message, and
- (ii) Communication management

The main message (MM) is related to the main communicative acts and their associated cognitive attitudes and referential content of the contribution (see below). The communication management functions are of two types

- (i) Interactive Communication Management and
- (ii) Own Communication Management

“Interactive communication management” (ICM) includes linguistic/communicative means for managing turns, feedback and sequences while “own communication management” (OCM) includes means for managing planning (and selection of expressive means) as well as means for changing what has been communicated. The following examples (again made up for the sake of pedagogical clarity and brevity) might clarify the terminology.

- (1) A: do you think it's raining
- B: mm yeah it is

In B's contribution *mm* is an OCM word that helps B to keep the turn while planning a response, *yeah* is an ICM feedback word signalling that B has heard, understood, is willing to respond and the phrase *yeah it is* is the main message – a statement about the weather. The word *yeah*, in this way, gets a double function, being both an ICM word and a main message component

Every contribution can further be associated with the following “communicative orientation functions”. The functions can be simultaneously or sequentially expressed in the contribution and cross classify with the “message functions”:

- A responsive function. Every contribution has a relation to preceding discourse, especially the immediately preceding contribution, e.g. a contribution can be an answer to a question or feedback to a statement.
- An evocative function. Every contribution also has a relation to the following discourse, especially the immediately following contribution, e.g. a contribution can evoke an answer, or evoke positive or negative feedback.

- A referential function. Many contributions refer to some entity or state of affairs and make claims which can be associated with truth conditions.
- An action function. Every contribution performs one or more communicative acts like a statement, request, offer or question.
- An expressive function. Every contribution expresses one or more attitudes and/or emotions. The attitudes and emotions in question can be cognitive/epistemic attitudes like belief, uncertainty or desire or more emotional attitudes like joy or sorrow.

In addition, to these 5 “orientation functions”, there is also an information structuring function. Every contribution structures information in a particular way in relation to preceding discourse.

The responsive and evocative functions pertain to the contribution as a whole (i.e., both to the main message and communication management parts) but often the parts of a contribution which are most evocative are found at the end of the contribution and the parts which are most responsive are found in the beginning of the contribution, like in B’s contribution in the following example, where the word *yes* is mostly responsive and the word *you* with rising intonation is mostly evocative.

- (2) A: are you ok
 B: yes and you

The referential function is usually connected with the main message of the contribution, rather than with the parts of the contribution which are connected with communication management (see example below). The action functions are usually connected with the same parts of the contribution that are connected with the main responsive and evocative functions. However, there are also communication management actions, which are connected with evocative functions like giving feedback or hesitating, etc. The expressive function connects the contribution with emotions but also with the cognitive attitudes tied to the communicative acts of the contribution. Thus, a statement expresses the cognitive attitude of belief and a request expresses the boulomaic attitude of desire, etc. (cf. Allwood 1976, 2000). Finally, the information structuring function helps to organize the information in the contribution in such a way that efficiency is increased, e.g. information which is known can be left out or expressed by pronouns. Information which is topical can be fronted etc.

In order to illustrate the various communicative functions, let us reconsider example

- (1) A. do you think it’s raining
 B: mm yeah it is

If we apply the categories above to B’s utterance, its responsive function is to be the reply to a request for information. This is done both by the positive feedback word *yeah* which answers the underlying yes/no question and by the main message *it is* which gives the desired information. The evocative function of B’s utterance is to get A to continue, hear, understand and share belief in the information given by B. The referential function is the reference to “rain” via the statement form *it is* which for its predication relies on A’s utterance and its reference to rain. There are at least three action functions in B’s utterance. The main action function is to be a responsive statement, but this is prefixed by acts of hesitation and positive

feedback. If we turn to the expressive functions of these acts, the statement *it is* expresses belief, *mm* expresses hesitation and the positive feedback word *yeah* expresses the ability and willingness to continue, hear, understand and to deal with the evocative functions of A's utterance as well as assent to the state of affairs suggested by A's yes/no question. Finally, the information structuring function has the effect of tailoring B's utterance to A's so that the two utterances can both rely on the predicate *raining* in A's utterance.

Contributions also activate communicative commitments and obligations in speaker and listener. On a general level, we may say that any contribution containing "mood markers", e.g. declarative, interrogative or imperative, unless otherwise indicated by the communicator, is associated with a commitment to have the attitude that is conventionally expressed by the "mood markers" in the contribution. It is also associated with an obligation for the recipient to evaluate whether he/she can continue to communicate, perceive and understand what is being communicated and whether (and how) he/she is able (and/or) willing to respond to the main evocative function of the contribution. Finally there is an obligation to actually respond on the basis of this evaluation.

Thus, the default assumption for a statement is that unless otherwise indicated, it can be associated with a commitment on behalf of the speaker to have the belief expressed in the statement. It is also associated with an obligation for the recipient to evaluate whether he/she can continue communicating, whether he/she can hear and understand and whether he/she can share the belief expressed in the statement (the main evocative function), and a further obligation to subsequently respond, based on the evaluation.

What primarily drives a dialog forward is, thus the relation between speaker commitments and recipient obligations or to put it differently the relation between a contribution, its reception and response. Added to this, there are the rights and obligations communicators have as human beings and through activity role, organizational and cultural positions. These are all powerful factors driving an activity in the direction of harmony with its functions and purpose. Another force comes from the individual background, which might be in harmony with the purpose of the activity or might not, leading the interaction in another direction.

4 On the relation to some other approaches

4.1 Traditional grammar

Activity based communication analysis is primarily an outgrowth of the discipline of linguistics (taken in a broad sense). Thus, many of the categories of traditional linguistics are applicable and can be used. For example, this is true of most of the concepts developed in phonetics. When it comes to phonology, morphology and lexicology, there is no particular view on concepts like "phoneme", "syllable", "morpheme" or "word". All have their problems, but may also be useful in different contexts. We may note, however, that given a crosslinguistic perspective, the notion of "syllable" and "morpheme" are perhaps less problematic than "phoneme" and "word". There is also a clear realization that some sort of prosodic notions are necessary. However, awaiting the arrival of a generally accepted framework for prosodic analysis no definite choice is made. Turning to grammar, it is difficult to escape the notion of parts of speech. The view espoused here is that all parts of speech, in principle, are functional and contextually determined, rather than inherent. This has the consequence that a particular root morpheme is determined as a particular part of speech (by

the context, mostly the morphological or syntactic context), e.g., “book” becomes a verb after “to” – “to book” and becomes a noun after “a” – “a book” or to use Swedish “bok” (book) becomes a verb with the addition of –“a” – “boka” (to book) and a noun with the addition of “en” – “bok-en” (the book). Thus, parts of speech are viewed as a functional semantic classification of words based on semantic notions like entity (noun), process verb) and property (adjective, some adverbs). The classification is not perfect and could perhaps be replaced by slightly different semantic pragmatic categories. This is not to deny that most root morphemes already have an inherent semantic orientation, e.g. toward entity (like *book*), process (like *run*) or property (like *yellow*), but to point out that these root orientations often can be changed semantically by morphological and syntactic context.

Regarding other grammatical notions like the syntactic notions subject, object and adverbial or phrase structure categories like NP or VP, these notions and categories are used with some hesitation since their status is less secure in non-Indoeuropean languages, and their application is often unclear in spoken language utterances.

4.2. Goals of linguistics and formalization

As hopefully has become clear, the focus of “Activity based Communication Analysis” is communicative interaction in social activities. This means that the analysis has a different focus than in those types of linguistics that have as a primary goal the writing of a grammar of a language. In fact, one of the claims made is that “linguistic theory” cannot and should not be equated with “grammar” or “theory of grammar”. A corollary of this claim is that it should not be equated with “finding a good formalization”, even though this may often be helpful in making a theory more specific and precise. But merely providing a way of formalizing a linguistic theory is not providing a theory. Linguistic theory should be concerned with the systematic description, understanding and explanation of all types of language use (including gestures), focussing especially on face-to-face interaction in different social activities. Writing a grammar, or theorizing about the nature of grammars or grammar writing is a more limited pursuit both in terms of the data considered (grammatical sentences according to normative judgements – based mostly on written language) and of the explanations offered (mostly some sort of rules, principles or parameters governing the selected grammatical sentences). Linguistic theory should have a wider scope than grammar and be concerned also with issues like the nature of meaning or the nature of communicative functions, both of which are concerns which fall outside of the reach of most grammatical descriptions. Linguistic theory should also be concerned with a holistic account of language production and comprehension in context. Again, this is a concern which normally would go beyond writing a grammar.

This does not mean that there are not many interests which are common to traditional as well as modern grammar as well as the approach advocated here. To some extent, what is done in grammatical theories is different but compatible with the present approach. To some extent it is also incompatible, since it filters out as ungrammatical some of the basic mechanisms of communicative interaction, such as hesitations and changes of what has been said (own communication management, cf. Allwood, Nivre and Ahlsén, 1990), and as irrelevant some of the basic interactive mechanisms such as feedback (cf. Allwood, Nivre, Ahlsén, 1992).

Another big difference lies in the focus on naturalistic data rather than on intuitions or beliefs about grammaticality. However, the goal of ACA is also similar to classical linguistic approaches in aiming at a systematic account of language and communication in different

social activities and in trying to find features of language and communication which are generic and present in all or most activities.

4.3 Speech act theory, intention, causality, rationality and ethics

Let us now briefly turn to some approaches to language originating outside of linguistics in a narrow sense. ACA originally developed as a sort of critical response to the speech act theories of Austin (1962) and Searle (1969). One of the main differences to these theories is that rather than engaging in armchair reflection on the lexical semantics of speech act terms (which often pertain to one-way rather than two-way dialogic interaction), an attempt is made at studying actual communication). There is also a critique of the assumption that all communicative acts are governed by conventions and of the assumption that they are well described using the notions of “locutionary”, “illocutionary” and “perlocutionary” act (cf Allwood 1977).

ACA also developed as a response to a Gricean rational, intentional approach to communication (cf Grice 1975) and is distinct from this approach in not relying totally on intentions and rationality. There is also room for causal explanations. In fact, intentional explanations are assumed to always presuppose causal explanations. It also differs from a Gricean approach (and for that matter, also from a Habermasian approach), in that ethics is given a main role in the analysis (cf. Allwood 1976 and 2000). In both the Gricean and Habermasian approach, ethics is smuggled in covertly as a kind of rationality. This, for example, has the consequence that it becomes difficult to understand the nature of lying,. From a common sense point of view, it seems plausible to say that lying might sometimes be rational, even if it is unethical. In the Gricean and Habermasian approach, since ethics is not part of the approach, this would not be a possible analysis, lying would instead of being rational and unethical, in a contradictory way, have to be both rational and irrational.

A consequence of the role given to ethics, in ACA, is that the Gricean maxims for rational communication are rejected in favor of other maxims that pay more full attention to human beings as motivated rational agents, where the motivation can often be ethical.

In this way, compared to many approaches to language and communication in the social sciences, ACA attempts to provide room for a wider range of explanations, i.e.:

- (i) causal explanations deriving from physical and biological constraints and enablements:
- (ii) social explanations based on social conventions and norms, and
- (iii) voluntaristic, intentional, rational and ethical explanations (often called reasons or grounds rather than causes).

The inclusion of these modes of explanation means that ACA can benefit from insights in biology or behavioristic psychology, but go beyond these approaches by allowing volition and reason to play a role. For the same reason, it can also benefit from insights in CA (Conversational Analysis) by allowing explanations based on social conventions or other social situational requirements but go beyond these explanations by being more open to the influence of physics and biology as well as to the influence of volition and reason.

4.4 Sociolinguistic approaches

A further consequence of what has been said is that ACA differs from conversation analysis (CA) (cf. Sacks 1992 and Sacks, Schegloff and Jefferson 1974) in the focus on context and background. Not everything that is relevant for describing, understanding and explaining a communicative interaction is assumed to be capturable in a transcription or even in a recording of the interaction. As has been described above, cultural institutional, organizational and individual background factors are also assumed to play an important role for the analysis. A further difference can be found in the analytical categories which are used. The notions of “turn” and “turn management” (turn taking) are given further analysis.

Alternating turns, in ACA, are seen as a result of physical and biological (psychological) constraints on the desire to give more than one person a possibility to contribute to communication. There is thus a physical-biological basis for alternating turns, but this basis is vague and connected with many other concerns. Some of these concerns are ethical (cf. Allwood 1976). It is not pleasant to not get a response (thus, it is often unethical not to give a response). It is often pleasant to be able to contribute (i.e. to talk), thus, it is unethical not to make it possible for others to contribute. Ethical concerns, in this way, support and modify the alternation of contributions to communication. Besides ethical considerations, there are also functional, rational and conventional factors that modify turn alternation. By making it possible for more persons to contribute, more efficient collective information processing and more efficient collective coordination of actions can take place. However, the conditions for what is functionally efficient and rational vary with social activity. Compare turn alternation in small talk, in a lecture, in a trial and in an auction. In addition to the functional and rational reasons for variation between such activities, there are also mere conventional differences that accrue over time. Such conventional differences can also be seen in ethnic cultural differences with regard to turn alternation. Compare north European countries with South European countries. In sum, “turn-alternation” (turn-taking) is not seen as an encapsulated module in ACA, but rather as a range of contextually conditioned solutions to the problem of how to make it possible for several participants to contribute to communication.

In line with what has been said, a vagueness in the concept of turn has been amended. In the CA framework, turns are often characterized as talk by a person holding the floor. This means that feedback utterances or other communicative contributions made by other speakers, while the floor holding speaker is speaking, are not turns. To amend this, in the ACA framework, turns are seen as a special case of contribution, i.e. the case where the contributor holds the floor. This means that, in this approach, contributions rather than turns are seen as the basic individual unit of organization.

Similarly, there is in ACA an analysis of what in CA is called “adjacency pairs” and in ACA “exchange types”, e.g. question – answer etc. Such interactive sequences are not viewed just as a result of social convention, but as a result of the interplay between evocative functions, commitments, obligations and evaluations, in the way described above. A question is connected with a commitment to a desire for information, which corresponds to an obligation for the listener to evaluate if he/she is willing and able to accept the suggested task and provide the information. Similar analyses are given for other types of exchange (cf. Allwood, Traum & Jokinen (2000).

Turning to philosophy of science, CA and ACA are similar in stressing the importance of actually ecologically valid interactive data. However, ACA does not involve belief in theory-

free empirical observation. All empirical observations are colored by background theory and other cultural assumptions. One of the tasks of theoretical analysis is to become conscious of these and to explicate them. Thus, on the ACA view, the CA concepts “turn” and “adjacency pair” are examples of such theoretical constructs (concepts) and not merely looking at the data and “telling it like it is”.

It is also possible to contrast the approach in ACA with the approaches put forward by, for example, Hymes (1972) and Gumperz (1977). Although originally inspired by the Wittgensteinian notion of a “language game”, the notion of “social activity” in ACA has features in common with the concept of “speech event” suggested by Hymes and the concept of frame (probably originally used by Minsky (1974)), suggested by Gumperz (1977) and Goffman (1974).

One difference here might be that both Hymes and Gumperz in their analysis work mainly from language to social context, rather, than from social context to language. This comes out very nicely in the notion of “contextualization cue” (i.e. linguistic features which involve cultural assumptions (frames)), suggested by Gumperz. This concept pinpoints the power of language to invoke context, rather than the power of activity to involve language. In ACA, the ambition is to include both types of perspective. Thus, the functional needs (and social conventions) of an activity are a major source of explanation for the language and communication that occurs, which is not to deny that language in itself often has an important role in creating the context.

Another difference between ACA and the frame approach lies in the distinction which in ACA is made between domain and activity. The “domain” refers to the conceptual domain that is being talked about, i.e., the topic, while the activity is what the communicators are doing. Thus, the same domain could be involved in different activities. A specific topic, like “pollution”, could be joked about, discussed, debated or negotiated. Similarly, a specific activity could involve many topics. A dinner conversation could switch from “pollution” to “the weather” or “religion”. The “frame” concept generalizes over the distinction between activity and topic, which leads to some difficulties in describing the kind of situations outlined above.

5. Examples of work using Activity based Communication Analysis

On an empirical level, perhaps the most notable result of work based on Activity based Communication Analysis is the collection and construction of an incrementally growing corpus consisting of transcriptions of about twenty-five different social activity types. cf Table 2 below. The material in the corpus spans recordings from the 1960’s until today, with the major part coming from the late 1980’s and 1990’s. The corpus today has a size of about 1.4 million words.

Table 2. Some data on the GSLC (Göteborg Spoken Language Corpus)
(The question marks mean the data have been estimated.)

Activity types	Recordings	Speakers	Sections	Tokens	Duration
Arranged discussions	2	7.5	11	9 098	0:47:15
Auction	2	6.0	103	28 079	3:14:11
Bus driver/passenger	1	33.0	21	1 348	0:13:37
Church	2	3.5	12	10 235	1:46:38?
Consultation	16	3.0	256	34 285	4:07:53?
Court	6	5.2	80	33 723	3:58:33
Dinner	5	8.0	42	30 139	2:49:54
Discussion	36	5.8	294	255 262	28:35:32?
Factory conversation	5	7.4	54	28 884	2:56:25?
Formal meeting	13	8.5	185	191 276	22:38:12?
Games & Play	2	6.0	12	10 316	1:17:01
Hotel	9	19.1	192	18 137	9:49:55
Informal conversation	19	2.6	180	87 087	8:19:39?
Interview	57	3.2	1 095	389 396	44:37:44?
Lecture	2	3.5	5	14 667	1:38:00
Market	4	24.0	42	12 175	3:55:07
Meeting	2	12.0	42	45 484	6:01:00?
Phone	32	2.2	73	14 613	2:01:48?
Retelling of article	7	2.0	14	5 291	0:42:00
Role play	3	2.3	19	8 055	0:57:16
Shop	54	7.8	231	50 497	10:34:40?
Task-oriented dialogue	26	2.3	74	15 347	2:04:07
Therapy	2	7.0	10	13 527	2:04:07
Trade fair	16	2.1	32	14 116	1:21:23?
Travel agency	40	2.7	117	39 881	6:00:10
Total	363	5.0	3 196	1 360 918	162:33:25?

The corpus has been the basis for many different investigations. Some of these are.

- (i) A frequency dictionary giving systematic word and collocation differences between spoken and written Swedish (cf. Allwood 1999/2000). We found, for example, that the most frequent words are different for spoken and written language. Thus, the word *och* (and) is most frequent in Swedish written language, while it is only number three in spoken language, where instead the word *det* (it, that, there) is the most frequent. *Det* is only number four in written language. The difference can be explained by the different pragmatic circumstances typically involved in use of spoken and written language.
- (ii) Several investigations explaining basic mechanisms of interaction such as own communication management and feedback (cf. Allwood, Nivre & Ahlsén 1990 and 1992). Investigations of this type, starting with Swedish, have later also been undertaken for several other languages, such as German or Xhosa and Sotho in South Africa.
- (iii) Investigations of multimodal features of interaction (e.g. Allwood 2001b and 2002). The results of these investigations are now being used to create animated virtual reality avatars, who communicate multimodally.
- (iv) Investigations of the linguistic and communicative characteristics of different social activities, (e.g. Allwood 2001a). Work is presently under way on a more complete study of this kind. In Allwood (forthcoming) we present some typical features of the

language of 10 activities as they can be gleaned through automatic computer based analysis.

At the side of these empirical investigations, a number of more theoretical papers have been published developing the theory itself in many different respects, some of which have been reported above.

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