ON THE CONTEXTUAL DETERMINATION OF COMMUNICATIVE FUNCTIONS

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Abstract: This paper analyzes different types of contextual influence on linguistic communication. The analysis is primarily concerned with communicative function but also includes a consideration of parts of speech, functional syntactic classification and lexical meaning. The paper concludes with a classification of different linguistically relevant types of context.

1.   Purpose

The aim of this paper is to provide a tentative typology of context influences on language and linguistic communication especially with regard to the determination of communicative functions.

2.   Background

Many, perhaps most, linguistic features are contextual in nature, i.e. they depend for their identity and identification on relations to various factors in their context. The role of context influence has accordingly been discussed in many linguistic subdisciplines, especially those of semantics and pragmatics, cf. Leech (1983)

Below I will now mention a few examples of contextual influence outside of the area of com rn to this area in section 3.

Example 1. **Coarticulation:** In phonetics, cf. for example Ladefoged (1975), it has long been recognized that sounds change their characteristics according to what context they occur in. Well known examples are assimilation, dissimilation, vowel harmony etc. Not surprisingly already this type of example raises one of the difficult questions related to contextual influence. Are there abstract types (in this case sound types) which are instantiated in slightly different ways in different contexts (this is what is assumed above). Or are there just sets of similar sound variants which get realized in different contexts?

Example 2. **Handwriting:** In studies of how to automatically recognize handwriting, the problem reappears. It seems that similar graphical characteristics can realize different graphemes depending on what their surrounding context is.

Example 3. **Parts of Speech:** In morphology a long standing debate concerns whether parts of speech are inherent to words or are something words acquire in context. In favor of the influence of context speaks examples of the following type. The word **book** can be seen as a noun when placed after **a** - **a book** and as a verb when placed after **to** - **to book.** Similarly **running** in the construction **I'm running** can be seen as a verb, in the construction **a running man** it can be seen as an adjective and in **the running was impressive** as a noun, cf. also Ellegàrd (1984).

Example 4. **Syntactic classification:** In fact, the constructions just discussed can also be used to exemplify contextual influence on syntactic classification. In **I'm running**, **running** is part of a predicate. In **the running man** it is part of an attribute and in **the running was impressive** it is the subject. As we see the syntactic classification of the word **running**, as should be expected, is a function of its position in the sentence and its semantic relations to other constituents.

Example 5. **Lexical semantics:** Also lexical semantics is affected by context. If we compare the following uses of the word **heavy**, we see that it's meaning varies with context.

heavy stone
heavy name
heavy water
heavy book

In some cases like **heavy book,** we might even be uncertain as to which sense of **heavy** we are supposed to activate. Is it physically heavy or mentally heavy, (i.e. serious)?

I will make no attempt here to give a closer analysis of the above examples, they are only given to underscore that concern with context is much needed in linguistics.

Let me, however, use the examples to suggest that a distinction with regard to contextual influence be drawn between the contextual factors which are the source of the influence and the linguistic features which are affected by the influence. The examples given above can then be classified as follows with regard to contextual influence:

	contextual source	affected linguistic feature
1. Coarticulation	sound	sound
2. Handwriting	letter	letter
3. Parts of speech	semantics/syntax	morphological classification
4. Syntactic classification	semantics/word order	syntactic classification
5. Lexical semantics	semantics/syntax	meaning of word

Figure 1. Contextual influence: Source and affected linguistic feature

3. Communicative function and context

I will now discuss 4 types of contextual influence on communicative function, where communicative function is to be taken in a relatively broad sense, including mainly phenomena which are denoted by speech act labels but also phenomena like polarity properties of utterances.

3.1 Influence of the polarity of the preceding utterance
The polarity of the preceding utterance has an influence on the interpretation of feedback words like **yes** and **no** in a following utterance (cf. also Allwood, Nivre & Ahlsén 1992). Compare the following examples.

1) A: It is raining
   B: Yes it is   agreement

2) A: It isn't raining
   B: Yes it is   objection

3) A: It isn't raining
   B: No it isn't   affirmation

4) A: It is raining
   B: No it isn't   rejection

The examples show how the communicative function of the phrases **no it isn't** and **yes it is** is influenced by the polarity of the preceding utterance.

If **yes** follows a positive statement it functions to mark agreement which is perhaps what one would expect a priori. However, if it is used in response to a negative statement it will signal an objection. In some languages like Swedish or German this function is even lexicalized with a special word **jo** (Swedish) or **doch** (German). Similarly when **no** follows a negative statement it can be used for agreement through a kind of negative concord but when it follows a positive statement it is used to express a rejection of, or an objection to, a preceding positive statement.

3.2   Influence of the main evocative function of the preceding utterance
In accordance with the analysis of communicative function presented in several papers from Allwood 1976 to Allwood 1995, every utterance in a dialog is said to have 2 main communicative functions, an (i) expressive and an (ii) evocative. The expressive function is to express an attitude of some sort, for example, a statement typically expresses a belief and a request typically expresses a desire. The evocative function is connected with the reaction the speaker hopes to evoke in a listener, for example, in the case of a statement, the speaker, typically wants to evoke a belief in whatever proposition the statement expresses and in the case of a request, the speaker typically wants to evoke an action which would satisfy the desire expressed by the request, etc.
To illustrate the influence of the evocative function of the preceding utterance now compare the examples below.

5)   A: It's raining
      B: Yes   agreement

6)   A: Can you come to the party
      B: Yes   acceptance of offer

7)   A: Close the door
      B: Yes   acceptance of order

Again I have chosen the feedback word **yes** since it very neatly illustrates how the main evocative function of the preceding can have an influence. In (5) the main evocative function is assumed to be getting the listener to believe that it is raining. The answer **yes** now signifies that the listener is prepared to do this i.e. to share the speaker's belief, or in other words agree. In (6) the **yes** again signals willingness to go along with the speaker's main evocative intention but since the character of this intention is different in (6) than in (5) and now is an attempt to evoke information concerning an invitation rather than an attempt to evoke a belief, the **yes** is now taken to provide this information and by implication (generated by indication of ability implying indication of willingness) becomes an acceptance of the offered invitation. In example (7) the evocative intention of the speaker can be assumed to be an attempt to get the listener to perform an action and the **yes,** by signifying willingness to go along with this intention, signifies willingness to carry out the order or request.

*3.3   Influence of activity and activity role on the interpretation of the main
         evocative function*
The third kind of influence on communicative function which I want to discuss is the influence of activity and the activity role of the speaker on what is taken to be the main evocative intention of the speaker's utterance. Consider the following examples.

8)	salesman:	ice cream	offer to sell
9)	customer:	ice cream	order
10)	mother:	what do I have in the bag	question (inviting a guess)
	child:	ice cream	guess

In example (8) the expression **ice cream** is an utterance made by an ice cream salesman and can in virtue of what we normally assume about the activity of selling ice cream and the role of being a salesman be taken as an offer to sell ice cream (or possibly as the acknowledgement of an order for ice cream). If we instead turn to (9), the role of being a customer in a sales transaction is very naturally associated with the ordering of a product. The expression **ice cream** uttered by a customer therefore can easily be taken as an order of ice cream. Linguistic utterances are interpreted as actions typically associated with a specific role in a particular activity.

In example (10) the activity is what might be called a guessing game, the roles of the game being the person who guesses (the child) and the person who invites the guess and determines the correctness of the guess (the mother). In such a context the utterance of **ice cream** can now function as a guess.

What the three examples have in common is a reference to ice cream, but the particular activity and role of the speaker determine in the service of what action (communicative function) this reference is made.

Let us now consider two further examples

11)	Teacher in classroom:	what are you laughing at	request to stop laughing
	Student in schoolyard:	what are you laughing at	request for information
12)	Student:	what is the square root of nine	request for information about the square root of nine
	Teacher:	what is the square root of nine	attempt to evaluate the student' s knowledge

In both examples we are dealing with school like institutions which have student and teacher roles. These roles are typically associated with specific competencies, duties and privileges which give rise to expectations about actions typically associated with these roles. In example (11) the role

designation "teacher in classroom" is used to invoke the activity of teacher controlled instruction in which the teacher role traditionally implies stopping all activity which the teacher has not initiated. The question **what are you laughing at** implies that the person who asks it is not aware of the reason (object) for (of) the addressee's laughter. If a teacher asks the question, this implies that the laughter is not teacher initiated and therefore not legitimate, i.e., should stop. If a student asks the question, it could, if asked in the classroom, have the same effect by acting as a reminder of the fact that the activity is not initiated by the teacher and should therefore not take place. But more likely, it would just function as a request for information since the commitment of students to the teacher controlled parts of education is usually low. This would be even more clear if the question were asked in the school yard outside the bounds of teaching and teacher control.

The question and the lack of information implied by the asking of the question, thus, becomes embedded in the different motivational backgrounds assumed to be connected with participation in an activity in a specific role. The action status (communicative function) we assign to the question will depend on what motives (e.g. rights, duties) typically go with the role of the person who asks the question.

In example (12) another aspect of the difference between a teacher role and a student role is highlighted. The student's question is once more typically interpreted as a request for information. Students are often thought of as information seeking persons. The teacher's question which we can assume takes place during a lesson can, however, be given another interpretation. Typically, a teacher knows the answer to his/her own questions. A teacher is supposed to provide but not seek information about the topic which is taught. The teacher therefore needs to know whether the information has been provided, i.e., whether the students know the answer. The asking of direct questions to which one knows the answer is a more efficient way to get this information than, for example, by asking the students whether they know the answer by **yes/no** questions such as "**Do you know...**", since the latter leave the possibility open that the student is mistaken or is lying. Thus, an assumption about the competence and job of a teacher, in combination with the fact that an answer implies knowledge of the answer, lets us assign the function "evaluation of student's knowledge" to the teacher's question. Cf. also Beun (1989) for an attempt to capture facts such as these with the help of epistemic logic.

On a more general level, interpretations of communicative function based on activity and role can be said to be a special case of interpretation of communicative function based on assumptions of motivated rational agenthood (cf. Allwood, 1976). This means that, unless we have reasons to do otherwise, we attempt to connect communicative behavior with the intentions and purposes typically associated with the activity and the role of the agent we are concerned with.

4.   Some interaction data

To further illustrate the points made above, I will now present and analyze an initial excerpt from an arranged student discussion which has been recorded and transcribed.

The recorded material exemplifies a research activity in the form of an arranged student discussion. This means that we have one activity embedded in another. The purpose of the research activity is to gather material for an investigation of how conflict is handled in a discussion setting.

The purpose of the discussion, on the other hand, is to discuss whatever topic is distributed by the researcher M. The roles of the research activity are the researcher (M) and the subjects A and D. The environment is a university studio with camera and microphones present.

As for roles in the discussion, A and D, but not M are participants.

The aspects of the environment which are relevant to the two activities are similar. Possibly, one could say that in the discussion it is relevant not merely to mention that we have a university studio but also that the participants are four students who are all friends and class mates.

The transcription is arranged in the following way: In the first column, the identity of the speaker is indicated by a capital letter followed by a numeral indicating the utterance order for that particular speaker. Angular brackets indicate that some comment about the stretch of speech indicated by the brackets will follow, e.g. in A1, the words *kan vi inte få* are spoken by A while laughing. Two slashes // indicate a pause and square brackets indicate that the words within the brackets overlap. Dots ... indicate uncertainty about the correctness of the transcription. Each utterance is followed by an English translation.

In the second column, an interpretation of the communicative function and the relata of salient contextual relations of the utterance is made. The following codes for relata of contextual relations are used: RA = research activity, DA = discussion activity, A1, A2, M1, M2, D1 = relevant related utterances.

In the third column, first a code is given for the mood(s) of the utterance. The following codes are used: D = declarative, I = interrogative, and FBP = feedback phrase. the mood is followed by an interpretation of the evocative function, i.e., what the speaker hopes to evoke in, or from, the hearer(s). The identity of the addressee of a particular utterance is indicated by this person's identifying capital letter or when an utterance is adressed to everyone by (All). When everybody is addressed but one person seems extra relevant, two adressees are indicated, eg (A & All).

Initiating Student Discussion

	Utterance	Communicative function and contextual relation	Mood and evocative function
M1:	jag skall bara kolla om allting e påsatt (I will just check if everything is turned on)	Initial preparatory statement (RA) Explanation of action (RA)	D -> accept info (All) -> wait (All)

	Utterance	Communicative function and contextual relation	Mood and evocative function
D1:	jo de skulle väl se ut de (well that would look good)	Ridicule (A1) Implicit rejection (A1)	D -> accept info (A & All) -> reject A's idea (A & All)
A2:	//mats// kan vi inte få olika ämnen [allihopa] (mats can't we have different topics all of us)	Repetition (A1) Rejection (D1)	I -> give relevant info (M) -> act accordingly (M)
M2:	M2: [olika] ämnen allihopa // de e svårt å diskutera gemensamt då (different topics all of you // it is difficult to discuss then)	Repetition (A2) Implicit rejection (A2) Explanation of rejection (RA, DA)	FBP-> confirm understandint (A) D -> accept info (All) -> reject A's idea (A and All) -> wait (All)
A3:	nä (..de e de..) som e de rolia (no (..that's what..) is fun)	Joking insistence (A1, A2) Joking objection (M2)	D -> accept info (M & All) -> relax (All)
M3:	ni får de ämnet (you will get this topic)	Ignoring objection (A3) Initiating discussion (RA, DA)	D -> accept info (All) -> behave accordingly (All)
A4:	// m (m)	Acceptance (M3)	FBP -> continue (M)
M4:	så sätte ja på kameran efter en liten stund (so I will put on the camera after a short while)	Preparatory statement (RA)	D -> accept info (All) -> wait (All)

I will now briefly comment on the contextual nature of the interpretations. M's first utterance *I'll just check if everything is turned on* is classified as "initial" and "preparatory" since it occurs at the beginning of an activity which is about to start. It is more related to the research activity of recording than to the discussion as such. Since M is walking about looking at a recorder it also serves to explain his actions in a manner which relates them to the research activity. M uses a declarative sentence, the default function of which is to express a statement. The reaction he wants to evoke through his statement is the standard reaction connected with a statement – acceptance of information. Given the activity and the phase of the activity, he also wants the students to wait until he is finished.

Let us now, in some more detail, examine in what sense the communicative function labels, just used, are contextual. Labels like *initial*, *preparatory* and *explanation* all place conditions or requirements on the events and situations they can be used to describe. To be "initial" something must be at the beginning of a sequence, to be "preparatory" it must facilitate or at least influence action intended to follow and to be an "explanation", it must make available a reason or a cause for some event. These conditions are all things that can be gleaned from the lexical semantics of the three words.

Now, I think it is relatively clear that the utterance *I'll just check if everything is turned on* does not in itself need to be *initial*, *preparatory* or *explanatory*. It is not too hard to imagine a situation in which it is instead *final*, *conclusive* and merely *descriptive*.

The application of the communicative function words *initial*, *preparatory* and *explanation* to the utterance therefore does not depend on properties of the utterance alone but on properties it has acquired by being uttered by a particular person in a particular role, in a particular phase of a particular activity, in other words, it depends on contextually given properties.

When we turn to the evocative functions of the first utterance, what has just been said applies with equal force to the evocative function of "getting the students to wait". This is obviously a function which is very particular to the situation at hand. The situation is a little different with regard to the evocative function of getting the students to accept the speaker's expressed belief since, disregarding the particular adressees, this could be said to be the conventional default evocative function of a declarative sentence. Thus, this function can be associated with the linguistic form of the utterance but only on a default basis (cf. Allwood 1994 and Beun 1989).

5.   Concluding words

In this paper, I have attempted to analyze, illustrate and support the claim that many, if not most, features of language are contextual and relational in nature. My illustrations have included parts of speech, functional syntactic classification, lexical meaning and different types of communicative functions. I would now like to conclude the paper by suggesting a typology

for different kinds of context and contextual influence. Figure 2 gives an overview.

	Cotext	Other co-situation
Perceptual		
Activity		
Other activated background information		

Figure 2. Types of context.

The figure has two dimensions. The horizontal dimension concerns whether the context is of a linguistic (communicative behavioral) – cotextual - or of a nonlinguistic – other co-situational - kind. The term "context", of course, originally focussed only on the linguistic surroundings, but has, over time, acquired a much more generic sense.

The vertical dimension distinguishes between perceptual context, activity context and other activated background information. The perceptual context is available to the participants in a communicative situation through immediate perception and short term memory. This kind of context is very important for the understanding of all forms of deixis (Lyons 1977) but also for an understanding of the importance of the immediately preceding utterance in a dialog.

The activity context is constituted by the participants' expectations, beliefs and intentions concerning the activity and the actions they are pursuing. It is this kind of context which provides most of the factors (activity purpose, roles, phase of activity etc.) which can be used by the participants in a dialog to interpret communicative function. Like perceptual context, activity context can be both of a linguistic and an non-linguistic kind. Preceding communicative acts and discourse provide the linguistic or contextual activity context while non-linguistic behavior, artefacts and physical environment provide the non-linguistic activity context.

The third category is a kind of "garbage" category, which we can not do without, since language allows us to communicate about many things which are not part of what is given by perception or surrounding activity. Wherever we are in the world we can suddenly start to talk about Beijing, China and our interpretation, in order to be adequate, very soon will have to make use of whatever stored information we have about Beijing.

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