# **Pragmatic Methods for Construction Grammar**

#### **Kerstin Fischer**

### 1. Introduction

According to Fillmore, Kay & O'Connor (1988), Construction Grammar aims at accounting for the following kinds of linguistic information:

- knowledge of words
- knowledge of grammatical rules
- knowledge of semantic interpretation
- pragmatic knowledge (cited after Kay (1997:3))

The idea that will be defended in this paper is that a particular pragmatic method, namely Conversation Analysis (Sacks, Schegloff, Jefferson 1974, Sacks 1992), is well suited to support Construction Grammar accounts of linguistic phenomena in a number of different ways. First of all, investigating a particular construction by means of conversation analytic methods may result in the pragmatic function of this construction, which is what we expect of a pragmatic method. Secondly, however, it may also yield a precise definition of the structural contexts in which the respective item occurs. This definition comprises a description of the semantics of the construction as a generalisation over different structural contexts and a generalisation over the surface properties of this structural context. Finally, up to a certain extent, Conversation Analysis is also suited to determine aspects of lexical meaning, for instance, for items like discourse particles (cf., for instance, Heritage 1984).

Using Conversation Analysis as a method to determine linguistic constructions as part of a Construction Grammar account has a number of

methodological advantages: First of all, Conversation Analysis uses a particular methodological principle, the so-called next-turn-proof-procedure (Sacks, Schegloff, Jefferson 1974: 729):

"But while understandings of other turns' talk are displayed to coparticipants, they are available as well to professional analysts, who are thereby afforded a proof criterion (and a search procedure) for the analysis of what a turn's talk is occupied with. Since it is the parties' understanding of prior turns' talk that is relevant to their construction of next turns, it is *their* understandings that are wanted for analysis. The display of those understandings in the talk of subsequent turns affords both a resource for the analysis of prior turns and a proof procedure for professional analyses of prior turns – resources intrinsic to the data themselves."

The structural properties that are considered in Conversation Analysis are therefore those that are emergent in the sequential organisation of the dialogue as speaker categories. This means that only those properties are taken into account of which can be shown that speakers really attend to them. The linguistic categories and distinctions made are consequently those made by the interactants themselves and thus do not rely solely on the current investigator's intuitions.

Furthermore, using a perspective which focusses on spoken interaction, it is possible to integrate phenomena in the description which could not be accounted for in a sentence–based, monological approach.

Finally, using Conversation Analysis guarantees the use of really occurring corpus data.

#### 2. Data

The data used for this investigation are 22 instruction dialogues from the toyairplane construction domain (Sagerer et al. 1994). While task-oriented data are

not typical of the data used in Conversation Analysis, the dialogues under consideration are similar to 'mundane conversation' (Hutchby & Wooffitt 1998: 47) in being free regarding turn construction and exchange, the contents of the turns, and the choice of vocabulary and grammtical resources. That the dialogues are task-oriented entails that they are cooperative, that is, the speakers share the same goal, namely interactively constructing a toy-airplane. The two speakers are seated in front of each other at a table in a normal university office. After one of the participants, the instructor, has constructed the airplane for herself, she is asked to teach how to build the airplane to her communication partner, the constructor. In most of the dialogues, they are restricted in sight such that they cannot see each others' construction, in some settings they cannot see the other person at all. Usually, the speakers are familiar with each other. All dialogues were transcribed according to the transcription conventions described in Fink et al. (1995):

marks the beginning of a feature <attrib> marks the end of a feature, here: quiet </attrib: quiet> marks the beginning of human noise <hum> </hum: breathing> marks the end of human noise, here: breathing marks an isolated breathing event <hum: breathing> marks a short pause <-> marks a longer pause <--> <sil: 2> marks a pause of two seconds mark parts of a word that are not realized () breaking off in the middle of a word ri/ mark parallel speech <par></par>

# 3. Analysis

In the following, it will be illustrated how Conversation Analysis can support a Construction Grammar account. The analysis will follow the general procedure of Conversation Analysis as described in Hutchby & Wooffitt (1998: 110). They identify the following three steps:

- 1. Identify a potential object;
- 2. produce a formal description of an empirical example;
- 3. return to the data collection to refine the description until it becomes a generalized account.

The object of study will be the German lexeme *aber*, which can function as a conjunction, an adverb, and as modal and discourse particle in German (Diewald & Fischer 1998). The first example that will be considered is the following:

08I035 jetzt nimmst du nochmal so eine Dreierleiste [now you take another three-hole bar]

08K035 ich habe noch keine genommen, **aber** ist egal. [*I have not taken any*, PTC *doesn't matter*]

08I036 doch vorhin schon mal. [yes, you have, before]

08K036 ja, stimmt < hum: lachen> [yes, true < hum: laugh>]

Here the instructor asks the constructor to repeat an action. The constructor asserts that he has not yet taken such a bar but that it does not matter. The instructor then insists that the constructor has indeed carried out the move before and the constructor agrees. *Aber* occurs here between two clauses that constitute "possible sentences" in the sense of Selting (1996): "The possible sentence or clause is a syntactic figure or gestalt or construction schema that reaches from the possible beginning of a possible sentence till a first or any further possible completion point." (Selting 1996: 367). These possible sentences are not identical with grammatical sentences; 'ist egal' is grammatically elliptical but still a possible sentence.

The two possible sentences connected by aber can also be described as being

in a particular relation to each other: The constructor's utterance 'doesn't matter' refers to a possible conclusion one could draw from his previous utterance such that one could think that the fact that he asserts that he has not taken a three-hole bar makes a difference regarding his carrying out the current instruction. The construction therefore combines by means of aber a possible conclusion q of the possible sentence A with the statement made in possible sentence B that asserts that not q. The idea is thus that aber in this structural context, occurring between two possible sentences, connects a possible conclusion of the first possible sentence with the negated contents of the second one. What constitutes such a possible conclusion can be exactly and falsifiably determined by means of what the speakers themselves display as a possible conclusion in possible sentence B. While making use of vague terms like possible conclusion often remains hypothetical or even mysterious because usually the resource for such information is not specified and the reader is referred to 'the context' to retrieve the necessary information, the current interaction-based approach allows to specify precisely what this possible conclusion is. The speakers themselves are taken to display in possible sentence B the statement as a possible conclusion. The 'story' told by the construction under consideration is thus 'one may think q but not q', displaying q as a possible conclusion of p to the communication partner as well as to the analyst, irrespective of whether q really follows from p. The analysis is schematized in the following table:

possible sentence A	aber	possible sentence B
p, it may follow: q	aber	not q
I have not taken any, it may		it doesn't matter
follow: this matters (to my		
following your instruction to		
take another bar)		

In accordance with the procedure taken in Conversation Analysis, we are now returning to the data collection for further examples in order to determine whether the structural context identified for the previous example is a typical one or rather exceptional. Consider the following example:

14I039 nehmen wir die orang/ äh die grüne <-> {die grüne}<spk: K, hm?> <--> die grüne lange Schraube. <sil: 2> das war im <-> Vorgabemodell, glaube ich, anders, **aber** das habe ich dann <--> eigenmächtig so zusammen gebaut. [we take the orange/ uh the green <-> {the green}<spk: K: huh?> <--> the long green screw <sil:2> this was different, I think, in the model I was to follow but I have built it together all by myself then]

14K038 mhm, und jetzt <par> kommt so </par: 14> [uhuh, and now <par> comes such </par: 14>]

The analysis can be carried out using the same principles and the same schema as in the previous example:

possible sentence A	aber	possible sentence B
p, it may follow: q	aber	not q
the model I was to follow		I did it all by myself
was different, it may follow: I		
followed the model and did		
not do it all by myself		

We can now begin refining the description until it becomes a generalized account. A particular property of CA is its focus on exceptions. The idea is that by accommodating seeming exceptions, the orderliness of discourse becomes

eben more obvious (Hutchby & Wooffitt 1998: 98). Accordingly, we are looking at an example in which possible sentence B is apparently missing, where the speaker yields the turn after the occurrence of *aber*. Examples like this one are actually so frequent that they are unlikely to be performance errors:

08I070 selbe Prinzip, natürlich in der Mitte, das ist fast schon anzunehmen, ne <--> haben wir vorhin nicht gesagt, <par> aber </par:16> [same principle, in the middle of course, this can almost be assumed, can't it <--> we didn't say that before <par> but </par:16>]
08K070 <par> ja, ja </par: 16> <--> nee, ist klar. [<par> yes yes </par:16> <-> no, it's clear]

Now we have the choice between either postulating another construction or refining the previous one, since, in contrast to the previous examples, it seems that no second possible sentence B is involved. However, if we look a bit closer, we can see that what actually happens is the interactive achievement of the same construction as in the previous examples. The possible conclusion of A, which was identical with the contents of possible sentence B in the previous construction, is actually uttered by the next speaker. The apparent exception is thus a further manifestation of the construction already discussed, showing that the interpretation modelled in the schema proposed is interactively attended to by the speakers. The only difference between the previous examples and the current one is that possible sentences A and B are uttered by different speakers:

A: possible sentence A	aber	B: possible sentence B
p, it may follow: q	aber	not q
we didn't say it, it may		it is clear
follow: it is not clear		

Thus the example shows the validity of the previous interpretation and demonstrates that the construction can be interactively achieved and that speakers therefore attend to it as interactionally relevant.

We now turn to an example which occurs at the very beginning of a dialogue:

- 21I005 so, <--> jetzt nimm das äh mit den fünf Löchern mal in die linke Hand [so <--> now take the one uh with the five holes into the left hand]
- 21K005 mhm. [*uhuh*]
- 21I006 das andere in die rechte <-> und leg(e) sie so übereinander, daß sich zwei Löcher überschneiden. [the other one into the right <-> and put them on top of each other so that two holes overlap]
- 21K006 also die zwei mit den fünf Löchern? <sil: 1> [so the one with the five holes?]
- 21I007 ja. [yes]
- 21K007 das sie sich wo [so that they where]
- 21I008 das kleine ist dann untendrunter so [the small one is at the bottom then]
- 21K008 hä? also das mit den drei Löchern? [huh? so that one with the three holes?]
- 21I009 ja. [yes]
- 21K009 untendrunter. [at the bottom]
- 21I010 ja. <attrib> oh, das ist **aber** schwierig </attrib: leise> <-> jetzt überschneiden sich ja zwei Löcher, ne? <sil: 2> [yes <attrib> oh this is difficult after all </attrib: quiet> <-> now two holes overlap, don't they?]

To understand this example, one needs to remember that the participants are building a toy-airplane, that is, that their task is to teach to each other how to construct a children's toy. After encountering the first problems, indicated by the many clarification questions by the constructor, the instructor concludes that this task is difficult after all.

On the form side, we can say that *aber* occurs after the finite verb (see also Abraham 1991); however, *aber* does not connect two possible sentences. This time, there is no second sentence, not even contributed by the other speaker. Instead, *aber* occurs clause–internally (the item following *aber* is actually optional, depending on the verb used). This use of *aber* is usually referred to as a modal particle use. However, regarding its interpretation, the idea is that *aber* works in the same way as the previous examples, yet that this time it connects a statement that is presented, not as a possible conclusion, but to be 'at hand':

	[] Vfin	aber	[]
	possible sentence		
at hand: not q		q	
at hand: this is not difficult	thi	s is difficult after	all

As in the previous cases, what is the statement 'at hand' is determined by the content of the possible sentence in which *aber* occurs, just with reversed polarity.

That the analysis is valid is furthermore supported by the fact that the construction identified for *aber* also holds for other particles. By comparing different particles in the same construction, it becomes clear what the individual morphemes contribute. For instance, while *aber* contributes a contrastive relationship, connecting statements of opposite polarity, *ja* contributes one of accordance, connecting statements of the same polarity (see also Fischer 2000):

09I053 ähm <--> ja, aber ähm <-> genau, <hum: stöhnen> du mußt ähm du verschraubst es zweimal, genau <sil: 2> rein wegen der Sicherheit und der Festigkeit. [uhm <--> yes, but uh <-> exactly, <hum:moan> you have to uhm you screw it two times, exactly <sil:2> only because of security and

## stability]

09K052 <hum: lachen> scheiß Flugzeug. [<hum: laugh> shit airplane]
09I054 ha, soll **ja** auch fliegen. [hey, it's supposed to fly, you know]
09K053 <hum: lachen> <attrib> also mit solch einem würde ich sowieso nicht fliegen </attrib: leise> na gut, okay. [<hum: laugh> <attrib> well with such a plane I wouldn't fly anyway </attrib: quiet> oh well, okay.]

This occurrence of *ja* can be analysed in analogy with the previous example of *aber*:

	[] Vfin	ja	
	possible sentence		
at hand: q	q		
at hand: airplanes are supposed to fly	it is supposed to fly, you know		

The construction can now be generalized to account for different particles. The information at hand will be described, in accordance with the proposal made in Diewald & Fischer (1998), as the pragmatic pretext:

	[] Vfin	particle	[]
	possible sentence		
pragmatic pretext: (not) q		q	

Thus, German *aber* and *ja* contribute the respective relation between the elements in the construction, while the semantic part of the constructions identifies the different reference elements. That is, in the constructions it is specified in which structural context a particle may occur and also which elements are connected by the respective particle morpheme. These are a

possible conclusion of the previous possible sentence for the conjunction use of *aber* discussed above, and the pragmatic pretext for the modal particle uses of *ja* and *aber*. The particle morphemes themselves contribute the relationship between these.

### 4. Conclusion

CA methods provide a useful methodology to identify construction—specific interpretative information and grammatical regularities. Making use of interactional data allows to pin down otherwise fuzzy concepts such as *pragmatic pretext* or *possible conclusion*. It can furthermore show that the constructions identified are interactively attended to and that the descriptive categories do not entirely depend on the respective researcher's intuitions. Finally, for a particular case it could be shown that by taking into account really occurring data of talk—in—interaction, a generalisation could be found that would otherwise have been neglected because of the apparently different forms. To conclude, Conversation Analysis is a useful method for supporting Construction Grammar.

### References

- Abraham, Werner. 1991. Discourse particles in German: How does their illocutionary force come about? In: Abraham, Werner (ed.) *Discourse Particles: Descriptive and Theoretical Investigations on the Logical, Syntactic, and Pragmatic Properties of Discourse Particles in German,* Amsterdam: Benjamins, pp. 203 252.
- Diewald, Gabriele & Fischer, Kerstin. 1998. Zur diskursiven und modalen Funktion der Partikeln *aber*, *auch*, *doch* und *ja* in Instruktionsdialogen. *Linguistica* 38.1, 75 99.
- Fink, Gernot A. & Johanntokrax, Michaela & Schaffraniez, Brigitte 1995. A Flexible Formal Language for the Orthographic Transcription of Spontaneous Spoken Dialogues. In: *Proceedings of the fourth European*

- *Conference on Speech Communication and Technology*, pp. 871 874.
- Fischer, Kerstin. 2000. From Cognitive Semantics to Lexical Pragmatics: The Functional Polysemy of Discourse Particles. Berlin, New York: Mouton de Gruyter.
- Fillmore, Charles & Kay, Paul & O'Connor, Catherine. 1988. Regularity and Idiomaticity in Grammatical Constructions: The Case of 'Let Alone'. *Language* 64, 501 – 538. Also in: Kay, Paul. 1997. *Words and the Grammar of Context*. Stanford: CSLI, pp. 1 – 48.
- Heritage, John. 1984. A change-of-state token and aspects of its sequential placement. In: Atkinson, J.M. & Heritage, John (eds.) *Structures of Social Action: Studies in Conversation Analysis*, pp. 299 345.
- Hutchby, Ian & Wooffitt, Robin. 1998. Conversation Analysis. Cambridge: Polity.
- Sacks, Harvey & Jefferson, Gail. 1974. A Simplest Systematics for the Organization of Turn–Taking for Conversation. *Language*, 50.4, 696 735.
- Sacks, Harvey. 1992. *Lectures on Conversation*. Jefferson, Gail (ed) Vol. I and II, Oxford: Blackwell.
- Sagerer, Gerhard & Eikmeyer, Hans-Jürgen & Rickheit, Gerd. 1994. Wir bauen jetzt ein Flugzeug. Konstruieren im Dialog. Arbeitsmaterialien. Tech. Report, SFB 360 'Situierte künstliche Kommunikatoren,' University of Bielefeld.
- Selting, Margret. 1996. On the Interplay of Syntax and Prosody in the Constitution of Turn–Constructional Units and Turns in Discourse. *Pragmatics* 3.6, 371 – 388.

Kerstin Fischer
University of Hamburg
Fachbereich Informatik

Arbeitsbereich Natürlichsprachliche Systeme

Vogt-Kölln-Str.30

22527 Hamburg

Germany

fischer@nats.informatik.uni-hamburg.de