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# **Beyond the Sentence: Constructions, Frames and Spoken Interaction**

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## ***Abstract***

Construction grammarians are still quite reluctant to extend their description to units beyond the sentence. However, the theoretical premises of construction grammar and frame semantics are particularly suited to cover spoken interaction from a cognitive perspective. Furthermore, as construction grammar is anchored in the cognitive linguistics paradigm and as such subscribes to meaning being grounded in experience, it needs to consider interaction since grammatical structures may be grounded not only in sensory-motor, but also in social-interactive experience. The example of grounded language learning experiments demonstrates the anchoring of grammatical mood in interaction. Finally, phenomena peculiar to spoken dialogue, such as pragmatic markers, may be best accounted for as constructions, drawing on frame semantics. The two cognitive linguistic notions, frames and constructions, are therefore particularly useful to account for generalisation in spoken interaction.

***Keywords:*** *Construction grammar, frame semantics, interaction, automatic language learning, grounding, pragmatic markers*

## ***1. Introduction***

A grammatical description of a language is meant to describe the sentences speakers of that language utter. Thus, it seems natural to assume that construction grammar also accounts for utterances occurring in spontaneous spoken interaction.

In earlier theories of grammar, phenomena special to spoken language interaction were discarded because they were understood to be due to performance rather than based on linguistic competence (cf. Chomsky 1965: 3). Construction grammar rejects this perspective on language use, yet also for construction grammarians the description of interaction poses some major methodological challenges. For instance, in interaction, the underlying unit is not the sentence, but the turn-constructional unit (TCU; Sacks, Schegloff and Jefferson 1974). These units may consist of a clause, but also of units of smaller size, such as feedback signals, adverbs or prepositional phrases (cf. Selting 1996, Ford, Fox and Thompson 1996). They are often co-

constructed by different speakers, their meanings are interactively construed and they are produced on-line, which renders timing crucial (cf. Auer 2005, Hopper 2008). For instance, towards the possible end of a TCU, an interval occurs in which other participants may self-select as next speakers – if that moment has passed and the other participant's response has been relevant, failure to respond 'in time' may lead to interactional consequences (see, for instance, Levinson's (1983:331) discussion of the effects of an 0.8 second pause). Turn-taking is thus a fundamental organizing principle that shapes both the gestalt of the units uttered and the production of larger units (e.g. Schegloff 1982, 1996; Ford, Fox and Thompson 1996). Larger structures, such as question-answer sequences, are organized furthermore on the basis of normative expectations rather than on the basis of rules (e.g. Schegloff 1972, 1992), which seems to resist a grammatical account, too (Levinson 2006).

Finally, language use in spoken interaction is always situated, allowing for ellipsis, deictic reference and high context dependency. To conclude, many aspects of spoken interaction resist an obvious procedure for incorporating them in a grammatical theory. However, the same reservations that grammarians may have can also be found with scholars of interaction; they hold the characteristics of interaction described above to be defining, rejecting any attempts to pin the meanings and functions of linguistic structures down in a static description (Ford 2004, Imo 2007, Hopper 2008). Thus, even the concept of a 'turn-constructual *units*' is rejected by some authors:

Thinking in terms of 'units' seemed to allow us to miss building an account of what people are doing in interaction, since these various practices that we have considered, syntactic, pragmatic, prosodic, gestural, can be drawn upon in a wide variety of ways to frame conversational actions as nearing, or not nearing, completion, and thus displaying participants' understanding of whether or not it is someone else's turn to talk. (Ford et al. 1996 : 450).

Nevertheless, a synthesis is essential. Not only is spoken interaction quantitatively more salient and grammatical description needs to be extended to spoken interaction for reasons of realistic coverage, but also are infants confronted with spoken interaction from birth while they learn to read and write only much later – if at all; there is little doubt that verbal interaction is prior to

any other form of language use in many respects (cf. Fillmore 1981; Hutchby and Wooffitt 1998). Second, as I am going to show in section 2, a construction grammatical description of interactional phenomena is in accordance with the theoretical premises of both construction grammar and frame semantics. That is, even if the focus of construction grammatical research has shifted in the past decade (as evidenced by publications entitled 'Back to the Roots' (Fried and Boas 2005), for instance), the original theoretical motivations of construction grammar invite a description of grammatical knowledge put to use in interaction. Third, I demonstrate that core grammatical structures are grounded in interaction; on the basis of experiments in automatic grammar learning I illustrate the crucial role of interaction for the understanding of grammatical constructions, such as grammatical mood. That is, I report on attempts at bootstrapping language in robotic experiments, which can only be successful in interactional scenarios even for the learning of very simple utterances. Fourth, I show that phenomena from spoken language interaction exhibit characteristics that can best be accounted for in a construction grammatical approach, and using a frame semantic meaning representation. The phenomena described do not only match the definition of grammatical constructions, but they also go far beyond constituting simple recasts of pragmatic analyses in some kind of construction grammatical representation (cf. Fried and Östman 2005). Instead, they introduce appropriate generalisations and clarify the kind of grammatical resources speakers in spoken interaction rely on. The example thus illustrates a useful role of construction grammar in the description of spoken interaction.

## ***2. Construction grammar, frame semantics and the communicative situation***

Constructions are form-meaning pairs which flexibly represent the variable characteristics of larger units with different degrees of schematization. The starting point for construction grammar, as outlined in Fillmore's early papers (e.g. 1988, 1989, Fillmore, Kay and O'Connor 1988), was the study of idiomatic expressions, which partly comply with the general grammatical structures of English and partly exhibit exceptional characteristics on principally all linguistic levels. Fillmore argues that larger structures, such as idioms, may be associated with peculiar semantic and even pragmatic properties; construction grammar must therefore also account for pragmatic information (Fillmore et al. 1988). Correspondingly, one of the first

overviews of construction grammar appeared in a handbook of pragmatics (Kay 1995, see also Kay 2003). In a recent overview, Kay and Michaelis (forthcoming) outline the types of meaning which, in their account, construction grammar should cover: literal (i.e. propositional) meaning, argument structural meaning, conventional implicatures and pragmatic presuppositions, illocutionary forces and metalinguistic comments. Most importantly, however, meaning in construction grammar is thought of in terms of frame semantics (Kay and Fillmore 1999).

Frame semantics replaces objectivist, for instance, truth-functional, accounts of meaning with a semantics that relates to the conceptual contents connected to a linguistic form (Fillmore 1975; Lakoff 1987). Fillmore outlines in various seminal papers (e.g. 1976, 1982, 1985; Fillmore and Atkins 1992) the cognitive semantic approach to meaning that he calls a *semantics of understanding*. He argues that a semantic theory should aim to account for "the relationship between linguistic texts, the context in which they are instanced, and the process and products of their interpretation" (1985: 222). That is, "in determining the situated meanings of uses of the sentence, one interprets the sentence's conventional meaning with its linguistic and extralinguistic context" (1985: 233).

At the heart of this theory lies "the concept of interpretative frame" (1985: 222). Such a frame is a "presupposed structure of relationships" (1985: 224), and alternative terms for it are, for instance, "schema, script, scenario, ideational scaffolding cognitive model, folk theory" (1982: 111). A frame is defined as "a domain of vocabulary whose elements somehow presuppose a schematization of human judgment, and behaviour, involving notions of worth, responsibility, judgment etc., such that one would want to say that nobody can really understand the meanings of words in that domain who does not understand the social institutions or the structures of experience which they presuppose" (1982: 116). Semantic knowledge is thus "what one knows by virtue of being a speaker of the language" (1985: 252). Obviously, semantic knowledge in this framework comprises much of what other semantic theories consider to be encyclopedic knowledge (e.g. Katz and Fodor 1963), but it also includes pragmatic and interactional knowledge (e.g. Fillmore and Atkins 1992).

Regarding spoken interaction, Fillmore (1982: 117) writes that an "important framing is the framing of the actual communicative situation." He continues: "knowledge of deictic categories requires an understanding of the ways in which tenses, person marking morphemes,

demonstrative categories etc. schematize the communicative situation; knowledge of illocutionary points, principles of conversational cooperation, and routinized speech events contribute to the full understanding of most conversational exchanges." Knowledge on the communication situation thus constitutes a frame that figures prominently in the construction of meaning on the basis of grammatical cues. As the quote shows, Fillmore takes this to include not only core pragmatic principles (cf. also Kay 1995, 2003; Kay and Michaelis forthcoming), such as speech acts (Searle 1969) and the cooperative principle (Grice 1975), but also sequential structures as described in conversation analysis. Our understanding of conversational exchanges constitutes an important part of "what one knows by virtue of being a speaker of the language" and as such constitutes an important framing for language use.

The perspective on interaction suggested by Fillmore (1982) implies a cognitive point of view, and Langacker's Cognitive Grammar (e.g. 1987, 1991, 2000, 2008; cf. also Croft 2009) takes a very similar approach to Fillmore's frame semantic perspective by evoking a 'current discourse space', comprising representations of the speech event, the speaker and hearer, their interaction, and the immediate circumstances (Langacker 2001: 144). Langacker makes the focus on conceptualisation explicit in his description of the two language functions: "a semiological function, allowing thoughts to be symbolized by means of sounds, gestures, or writing" and "an interactive function, embracing communication, expressiveness, manipulation, and social communion" (Langacker 1998: 1). He holds that cognitive linguistics focuses on the crucial role of conceptualization in social interaction (Langacker 1998: 1). In other words, cognitive linguistics recognizes the interactional function of language, yet views it from the perspective of the conversational participants' conceptualisations and background knowledge.

This is in contrast to most other approaches to interaction (e.g. Sacks et al. 1974; Schegloff 1992), which describe interactional phenomena from a social perspective, and which focus on interaction as a social process, with 'rules' corresponding to normative orientations of the participants (Hutchby and Wooffitt 1998). These approaches have their roots in sociology and anthropology rather than in linguistics, and the relationship between conversation and cognition constitutes an open question in the field (see, for instance, the volume edited by te Molder and Potter (2005) which especially addresses this issue). Also the relationship between grammar and interaction is controversial; one possibility is to regard grammar to supply the language-specific

resources of which context-free conversational procedures make use in ways determined by the resources provided by the language in question (cf., for instance, Lerner and Takagi 1999). Another possibility for the relationship between grammar and interaction is suggested by interactional linguists who claim that interaction shapes grammatical structures as much as grammatical structures shape interaction (e.g. Schegloff 1996; Couper-Kuhlen and Selting 2001). In this view, language structures are regarded as flexible, emergent entities which are maximally adapted to the organisation of interaction. Thirdly, the relationship between grammar and interaction can be described by means of common general principles, in particular, a “homologous mechanism of projection” in interaction and in grammar (Auer 2002:1). That is, Auer argues that both grammar and interaction are characterized by mechanisms that allow maximal projectability, and thus predictability, of future events.

In contrast to these considerations, cognitive linguistics, and especially the frame semantic approach described above, represents the language-specific resources, the context-free processes speakers make use of, and general interactional principles in terms of the knowledge resources speakers may bring into the interaction, focusing on, as Langacker (1998: 1) puts it, the role of conceptualization in interaction (cf. also Deppermann 2006: 61). The cognitive linguistic perspective is very well suited to account for features socially oriented approaches to interaction tend to neglect, grounding and generalisation, and thus to complement pragmatic analyses of spoken interaction.

In the following sections I illustrate how grammar is grounded in interaction and how a construction grammatical account can express generalisations that tend to be overlooked in pragmatic analyses. First, interaction may directly contribute to the meaning of grammatical constructions (Section 3). That is, a study of grounded language learning shows that a grammatical theory that takes a grounded, embodied perspective has to account for interaction since grammatical structures may be grounded in social-interactive experience. Second, interactional phenomena themselves can best be described in terms of constructions with a frame semantic representation in the background (Section 4). A grammatical approach to spoken interaction from a cognitive linguistic perspective thus allows accounting for generalisations pragmatic approaches tend to overlook. I conclude that construction grammar can and should extend to the description of social interaction.

### ***3. Grammatical structures are grounded in interaction: Evidence from grammar learning***

In this section, I argue that interaction is not something that employs or stages grammatical sentences that have been created by independent mechanism, but that the meanings of at least some grammatical structures are grounded in interaction. Langacker addresses this by introducing speaker and hearer in the representation of the clause (Langacker 2008: 261); another possibility is a frame semantic approach: Just as the understanding of *Sunday* presupposes a broad spectrum of socio-cultural background knowledge (cf. Fillmore and Atkins 1992), the understanding of core grammatical constructions presupposes some kind of understanding of social interaction. The communicative situation thus provides the necessary background for the understanding of grammatical structure, in accordance with the frame semantic approach proposed by Fillmore (e.g. 1976, 1982). In order to illustrate how deeply language structure is rooted in social interaction, I will make a brief excursion into grounded language learning. By investigating the efforts being made by grounding a robot's learning of natural language utterances in its own perception, it becomes clear that interaction is not just an add-on that one can take into account once 'grammar' is in place. Instead, understanding core grammatical constructions can be demonstrated to be learnable only against the background of social interaction.

Until recently, research in automatic grammar learning, i.e. language learning by artificial systems, has focused on distributional learning, using statistical or connectionist methods. This is in line with numerous findings showing that children are able to extract distributional information from the speech signal from a very early age on (cf. Gómez 2007). The results from learning the distributional properties of language, such as co-occurrence relationships or the distribution of words in word classes connected to certain syntactic positions, are very good indeed (e.g. Mintz 2002; Alishahi and Stevenson 2008), especially if learning is carried out on corpora of child-directed speech (Cartwright and Brent 1997). However, even though central properties of natural language can be learned this way, there are intrinsic limits to learning language from its distribution only, which are due to the fact that such learning is semantically



blind. Although semantic categories may emerge (cf. Elman 2006; Borovsky and Elman 2006; Borensztajn et al. 2009), unlike the child, the system does not have its own representations of the respective situation and thus does not 'understand' what it hears or produces.

A more recent approach holds therefore that language has to be grounded in perception to be meaningful for the learner. This is in line with cognitive linguistic assumptions; in cognitive linguistics, grammatical structure is taken to reflect cognitive categorization, and grammar and cognition are taken to co-develop in the child during language acquisition (e.g. Langacker 1987, 2008; Lakoff 1987; Tomasello 2003). Langacker defines conceptualization in the following way:

The term conceptualization is interpreted broadly as embracing any kind of mental experience. It subsumes (a) both established and novel conceptions; (b) not only abstract or intellectual 'concepts' but also sensory, motor, and emotive experience; (c) conceptions that are not instantaneous but change or unfold through processing time; and (d) full apprehension of the physical, social, cultural, and linguistic context. Thus, far from being either static or solipsistic, conceptualization is viewed as the dynamic activity of embodied minds interacting with their environments. (Langacker 1998: 3)

These assumptions are taken as the theoretical basis for a recent trend in cognitive science (e.g. Steels 2004, 2005, 2008, Steels and Kaplan 2002; Dominey 2006, Dominey and Dodane 2004, Dominey and Boucher 2005; Feldman 2006; Chang 2008); in these approaches to automatic language learning, researchers use robots since, unlike disembodied computers, robots, i.e. embodied artificial systems, interact with their environment. In language learning scenarios, the robot does not learn large amounts of linguistic data, but pairs of utterances and scenes (Steels 2005, Sugita and Tani 2005, 2008). Pioneer in this kind of approach is Luc Steels who demonstrated in various language emergence experiments that robots may negotiate linguistic descriptions of perceived scenes, developing a set of intersubjectively shared conventions, and that linguistic structure emerges from such interactions. That is, linguistic structures, such as the ditransitive construction, may be developed by interactants as a result of communication pressure only, rendering the assumption of innate linguistic categories superfluous.

In the language learning paradigm, Sugita and Tani (2005, 2008) have shown that the system can learn to break down holophrases into parts and recombine them to understand new sentences if presented with pairs of actions and holophrases. The short-cut to meaning used by Sugita and Tani consists in remote-controlling the robot's behaviour, so that the robot can build up the meaning of an action like *push*, *point* or *hit* from generalising over the sensory input it receives from its own (remote-controlled) actions. This paradigm is called learning by demonstration. Compared to human learning, it would mean that we know how to push something because we remember what it felt like when someone took our hand and showed us how to push something. Similarly, in addition to the learning of actions, the robot gets to know objects by means of their tactile, perceptual and manipulative properties. The effect is that the robot builds up an internal representation of linguistic categories consisting of generalisations over vectors of sensory data. This learning paradigm has been very successful for investigating how the learning of linguistic labels and perception co-determine each other (Cangelosi 2007; Cangelosi et al. 2007; Marocco et al. in press).

In current experiments in the framework of the ITALK project,<sup>1</sup> we are extending this framework to increasing linguistic complexity, aiming at demonstrating the learning of several different argument structure constructions and of more naturalistic verb-construction pairings (Zeschel and Fischer 2009). The spectrum of constructions targeted comprises the intransitive, the intransitive-resultative, the transitive, the transitive-resultative and the ditransitive construction (cf. Goldberg 1995). The learning stimuli consist of holophrastic imperative clauses, such as *push-the-block*. The robot learns to analyse the linguistic parts of the holophrases and to carry out actions corresponding to novel combinations of these component parts. Thus, asked to "push-the-block-to-the-left", the robot will push the block to the left, even if it has not seen this utterance before but has only been familiarized with utterances such as "push-the-cup-to-the-left" and "pull-the-block". It has its own, grounded, representations of cups and blocks as well as of pushing and pulling. This corresponds to the grounding of objects and events as suggested by, for instance, Langacker (2008: ch. 9). However, although the robot possesses grounded representations of the action, the object and the caused-motion construction, it has not fully learned the meaning of the utterance. In particular, it does not understand the

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<sup>1</sup> [www.italkproject.org](http://www.italkproject.org)

pragmatic meaning of the utterance as a whole, which includes an understanding of the imperative, whose meaning involves two parties, one asking the other to do something (cf. Wierzbicka 1988). Since argument structure constructions are underspecified for grammatical mood, they have to be learned independently of their realization on the surface. The choice of imperative mood provides plausible results in the scenario chosen, but its meaning is not understood by the robot in a learning by demonstration scenario. An understanding of the imperative construction involves at least an understanding of the difference between self and other, volition and request-comply sequences – socio-cognitive prerequisites even very young children bring into interactions with their caretakers (Tomasello 2003).

Other grounded learning scenarios are based on learning by observation (cf. Steels and Loetzsch 2008). Here, the robot's utterances correspond to declarative sentences describing the scene perceived. For instance, one robot will suggest to the other how to describe a certain scene, such as Ken giving a book to Barbie. The other robot will either accept the description or propose another one, until the robots have jointly negotiated the linguistic representation of the perceived scene.

However, since a robot in these experiments has no choice but to produce structures corresponding to declarative sentences which are the indirect result of the in-built language game the robot is designed to play, it does not understand the meaning of the declarative mood either, i.e. that it is describing a scene to someone, communicating a certain state of affairs. Thus, in both scenarios the robots ground actions, objects and argument structure constructions in their perception, yet they do not possess a grounded understanding of the pragmatics of the utterances as a whole.

This is particularly obvious for the interrogative – asking a question makes an answer by another person conditionally relevant (Schegloff 1972). The understanding of grammatical mood does not only concern an interrogative clause (the question) which is in some sequential relationship to a declarative clause (the answer), but it involves a complex system of different interaction partners who have both a sense of self and an understanding of the turn-taking system. In particular, a grounded understanding of the meaning of a question presupposes an understanding the notion of a turn and its projections beyond it. That is, understanding the meaning of an imperative, interrogative or declarative clause presupposes an understanding of

its role in interaction. The meanings of the sentence types would have to be grounded in interaction.<sup>2</sup>

While the fact that grammatical mood presupposes some understanding of interaction<sup>3</sup> is trivial, it is noteworthy that we cannot produce utterances without making a choice for the one or the other sentence type. The only way for a robot to learn natural language utterances in a grounded manner is therefore from interaction.

This excursion into automatic language learning has thus shown that interaction is a pervasive aspect of even core grammatical constructions.<sup>4</sup> Interaction has an impact on the symbolic structures of language, and to assume that grammar describes language resources which may or may not be applied in interaction ignores a central aspect of the nature of language.

#### ***4. Spoken language phenomena as constructions: Evidence from turn-initial pragmatic markers***

In the two sections above I have argued that construction grammar is theoretically well suited to allow an integration of interactional phenomena and thus that it *can* account for knowledge on conversation. Moreover, I have shown that grammatical structure may be grounded in interaction, and thus that interaction *should* be integrated. In this section, I argue that it is even *profitable* to do so.

Construction grammar holds that grammatical knowledge consists of a structured inventory of form-meaning pairs, the so-called constructions, and that both form and meaning sides of these pairs may be schematic and entrenched to varying degrees. Constructions are defined either by non-compositional components (cf. Fillmore et al. 1988; Goldberg 1995: 4; Kay and Fillmore

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<sup>2</sup> This discussion even ignores the fact that while the imperative, declarative and interrogative mood are prototypically associated with certain speech acts, there is no one-to-one correspondence. In order to learn to account for such a variability, far more complicated interactional knowledge would be required (Fischer forthcoming).

<sup>3</sup> See also Halliday (e.g. 1985) who places sentence types, i.e. the mood system, within the interpersonal realm of meaning.

<sup>4</sup> Cf. also Givón's (2005) argument that core grammatical constructions, such as epistemic and deontic modality, tense, aspect, and evidentiality, reflect the interlocutor's mental states.

1999), i.e. aspects that cannot be derived from their parts, or by routinization and entrenchment (cf. Langacker 2006: 140; Goldberg 2006; Bybee 2007). That is, constructions describe combinations of formal and semantic features of varying degrees of schematicity and with idiomatic properties that suggest that the whole structure need to be stored as a unit. In the following, I argue that typical phenomena of spoken language interaction can fulfil the defining criteria of grammatical constructions; integrating them into a construction grammatical description then has the advantage that generalizations can be expressed that would otherwise, i.e. from a purely pragmatic perspective, remain unnoticed.

Pragmatic markers, also called discourse particles, discourse markers or discourse connectives, for example, constitute a special phenomenon of spoken interaction, being, for instance, about ten times more frequent in spoken interaction than in written discourse (e.g. Louwse and Mitchell 2003). They fulfill a broad functional spectrum with respect to different ‘planes of discourse’ (Schiffrin 1987); that is, they contribute to various different functional domains of discourse, and each pragmatic marker is highly polyfunctional. Moreover, most pragmatic markers occur in different positions with respect to the clause, yet usually they occur outside the sentence structure, constituting utterances by themselves or attaching to clause boundaries.

Yet, in spite of this functional and positional variability, the usage of pragmatic markers is learnable, and individual utterances are interpretable. Thus, their usage has to follow general principles or other regularities at least to some extent. My proposal is that much of the polyfunctionality and positional variability of pragmatic markers can be accounted for in reference to two explanatory concepts: constructions and the communicative situation frame. In particular, the structural positions in which pragmatic markers occur carry meanings themselves that are not derivable from the items in those positions, i.e. that are not derivable from the parts. Thus, I argue, the structural positions pragmatic markers occur in constitute *constructions* in the sense outlined in, for instance, Fillmore (1988), Fillmore et al. (1988) and Kay and Fillmore (1999). Taking a construction-based approach thus allows us to state generalisations across different discourse markers that would not be visible in a pragmatic description only.

Consider the following example from a math tutoring interaction:<sup>5</sup>

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<sup>5</sup>All examples are from the British National Corpus (BNC).

- (1) <PS1SD>: put the K down right away so we'll keep that there. Now we're only bothered about the X. I differentiated something and I finished up with X what did I start from? What would you differentiate that would give you X? ...
- <PS1SE>: Erm ... X squared.
- <PS1SD>: *Okay* but that will give us too much

Here, the pragmatic marker *okay* takes up what the communication partner has just said, relating the current utterance, the *but*-clause, to the partner's utterance, indicating that it continues on the same topic. Moreover, the speaker signals availability of the channel, i.e. contact (Allwood et al. 1993, 2007), that s/he perceived the partner's utterance successfully and that the utterance was understood, accepted and added to the common ground (Clark and Schaefer 1989). The utterance containing *okay* can also be argued to fulfil a politeness function because it is used to acknowledge the student's answer even though it is not the correct answer, thus saving the student's face (Brown and Levinson 1987). This is particularly relevant since the following utterance reveals the incorrectness of the student's answer.

The following example of *okay* before a *but*-clause from a public debate illustrates a very similar function of *okay*: even though the speaker provides challenging information to the communication partner, by using *okay* in turn-initial position s/he initially acknowledges the successful perception and understanding of the partner's utterance and signals that her or his utterance is oriented towards the previous. Thus *okay* serves here also to signal contact, perception, understanding, and topic continuity and furthermore fulfils a face-saving function as well:

- (2) <D91PS000>: And cos the the studio is also used regularly for rehearsals for example or as you know if er local amateur company is putting on a show in the studio they're given the use of the studio a week before the week of the show.
- <D91PS008>: *Yeah* but.
- <D91PS000>: Cos that is an advantage of it.
- <D91PS008>: *Okay* but you've

<D91PS000>: Your point sorry yes.

<D91PS008>: Got local advantage to them but that never used to happen okay so  
why is it happening now?

It is noteworthy about the previous example that the speaker uses *okay+but*-clause and *yeah+but*-clause interchangeably; that is, the *okay+but*-clause constitutes a reformulation of the previous (unsuccessful) *yeah+but*-clause, which means that the *yeah+but*-clause fulfils a similar function. Thus, while in our previous analysis all of the functions observed might have been attributed to *okay*, the pragmatic marker *yeah* in this turn-initial position followed by a *but*-clause seems to serve very similar functions; this hypothesis is verified in the next example of *yeah* below, which also signals topic continuity, contact, perception, understanding (Allwood et al. 1993, 2007), as well as the acceptance of the previous contribution:

(3) <PS0K9>: I said Look, this bloody thing is five years old now,

<PS0JX>: Mhm.

<PS0K9>: so anything little something like changing the pump, you know I pay about two hundred pound plus his fucking labour. ... Is not worth it. I can buy a brand new one. [ ... ] er I want to [ ... ] want to buy er er [cough] another German one, and then the poxy er spare part [ ... ]

<PS0JX>: *Yeah* but they're er so well made you sh shouldn't really need to have to change it very often.

Also in this example, speaker PS0JX acknowledges the partner's reasoning for simply buying a new device by means of *yeah*, before bringing forth his or her argument that even though buying a new one may be cheap, one shouldn't be forced to. Thus, *yeah* serves here to take up, and relate to, the partner's utterances, signalling successful perception and understanding, topic continuity and also mitigating a possible face-threat and thus contributing to politeness.

Besides the pragmatic markers *yeah* and *okay*, examples of *but*-clauses can be found involving interjections, such as *oh* and *ah*, which occur in the same positions as the adverb *okay* and the

response token *yeah* in the examples above, that is, as a turn-initial pragmatic marker, followed by a *but*-clause:

(4) <PS0JJ>: Yeah but what could he do? I mean what's he gonna be like in a ... couple of years time? ... He might say oh he

<PS0JL>: Don't know. But he's not bad at spraying. He's a good sprayer.

<PS0JJ>: *Oh* but that's the whole reason he stopped, because he couldn't

In this example, the speaker objects to the previous utterance with a *but*-clause, yet s/he introduces this objection using turn-initial *oh*. Still, the functions of *oh* are very similar to the ones exhibited by *okay* and *yeah* in this position: it serves as a signal of successful perception and understanding of the partner's utterance, in this case signalling a change of state, i.e. the receipt of new information (Heritage 1984), rather than agreement with the other's contribution. *Oh* thus demonstrates an orientation to the partner's turn, a continuation of the current topic and the successful uptake of the previous utterance.<sup>6</sup> Thus, in spite of the subtle meaning differences between the different pragmatic markers, there are functional similarities between their occurrences due to the same structural contexts, i.e. their occurrence turn-initially before *but*-clauses.

Similarly, in a discussion about foreigners' right to vote, a *but*-clause is introduced using the interjection *ah*:

(5) <PS1EM>: Well no, not necessary. You're classed as a foreigner. As an Englishman.

<PS1EP>: So all these Pakistanis and [ ... ] they can't vote?

<PS1EM>: They're re once ... no. If they [ ... ] but they come to live here don't they?

<PS1EP>: Well that's what I mean, if I went to live in Gambia. And I bought a house [ ... ]

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<sup>6</sup> Heritage (2002) has shown that *oh* may already preshadow a re-orientation in the current line of argumentation. This is the case if the speaker is not orienting towards the newness of the information of the previous utterance itself, but to the unexpected fact that the other speaker is not aware of the evidence to the contrary.



<PS1EM>: *Ah* but you've got a British passport.

Also in this example, *ah* relates the current utterance to the partner's turn's topic and content, signalling successful perception and understanding before continuing with the possibly face-threatening *but*-clause.

Finally, the answer particle *yes* can be used in this position and thus in this function:

(6) <PS5MU>: You know at the top it was like sloping down here and the car's like this and I'm having to try and get the car back down without it toppling over and it was an abs

<PS5N0>: Where were you?

<PS5MU>: I was on the erm [ ... ] bypass at this point [clears throat] about erm ... less than an hour from home

<PS5N0>: *Yes* but that's when your concentration flags.

Thus, even though the pragmatic markers under consideration are quite different in nature, spanning from interjections (*ah* and *oh*) to full-fledged answer particles (*yeah* and *yes*) and even adverbs (*okay*), they are similar in function because of their similar structural positions; their interpretation therefore depends on the structural position in which they occur. The whole sequential structure thus consists of a turn-initial pragmatic marker plus a *but*-clause in response to a communication partner's turn, where the meaning of the sequence is to provide evidence of successful perception and understanding, to signal topic continuity, to acknowledge the partner's contribution (in the grounding sense, cf. Clark and Schaefer 1989), and to mitigate a possible face-threat related to the content of the following *but*-clause. Because of its identifiable form-meaning association, the structural context can be understood as a grammatical construction in the sense proposed by Fillmore et al. (1988), Kay and Fillmore (1999) and Goldberg (1995, 2006).

Evidence in support of the current pragmatic analysis comes from the lack of the functions proposed in instances of *but*-clauses without an uptaking particle. In the spoken part of the BNC queried, all instances of turn-initial *but*-clauses are examples in which the speaker either does

not object to the communication partner's utterance but rather to something he or she was just outlining him- or herself, as in (7), or in which the contradicting information of the *but*-clause constitutes a polite or flattering rejection of a humble self-presentation by the communication partner, as in (8).

(7) <PS5M2>: What time of year do you cut the peats?

<K6NPS001>: Well er the best time is the month of May.

<PS5M2>: Aha.

<K6NPS001>: But this year you couldn't, the weather was so

In this example, the contradiction is not directed at the communication partner's turn, which consists of a feedback signal only, but concerns a qualification of the speaker's own earlier claim. There is no evidence for any of the functional meanings proposed above: the *but*-clause does not show any orientation toward the partner's turn, thus not providing evidence of successful perception and understanding of the utterance nor relating the current utterance to the previous topic brought forward by the partner. Thus, turn-initial *but*-clauses not preceded by a pragmatic marker do not exhibit the meaning components suggested. In the next example, the *but*-clause is directed at the communication partner's turn, yet the information presented is rather flattering, rejecting the partner's self-presentation as a 'geriatric performer':

(8) <PS000>: I didn't ever relish the thought of becoming a sort of geriatric performer, going around clubs and summer seasons. Er I'd always wanted to act even as a kid of fifteen sixteen er and I got into singing before I went into acting and so acting s see that seemed to be a good period to break my life and start again. [ ... ]

<PS38F>: But you must you must have been asked dozens of times to go back into the pop concert field?

Thus, in this example, the interviewer PS38F does not signal successful perception, understanding and topic continuity because it is polite to reject the communication partner's self-demolishing statements (cf. Brown and Levinson 1987). Thus, the apparent lack of

pragmatic functions identified for turn-initial pragmatic marker – *but*-clause constructions serves a politeness function here, comparable to the use of imperative clauses in offers and invitations (ibid.).

To conclude, pragmatic markers in turn-initial position before *but*-clauses carry a certain pragmatic meaning which is independent of the respective particle. Instead, the meaning, comprising information regarding topic management, successful perception and understanding and the grounding of the information conveyed<sup>7</sup> is encoded in the sequential position of the pragmatic marker. That is, there is nothing in the meaning of *ah* that suggests an interpretation with respect to the acceptance of the communication partner's contribution, topic continuity, nor a solidary interpersonal (politeness) function. These meaning aspects are rather connected to the structure as a whole. Since these meaning aspects are unpredictable from the lexical items involved, the structural context may be best described as a grammatical construction, a form – meaning pair.<sup>8</sup>

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<sup>7</sup>Also a turn-taking function may be suggested; turn-initial pragmatic markers usually provide an account for the self-selection, see Fischer (2000b).

<sup>8</sup>Self-evidently, each marker furthermore contributes additional meaning components; the constructional meaning concerns only those meanings that are shared by all pragmatic markers in this construction.

form:<sup>9</sup>

communication partner: turn (TRP)      speaker: PM *but*-clause

meaning:

topic continuity

successful contact, perception, understanding

acceptance of contribution

solidary interpersonal function

The functional spectrum of the pragmatic markers in the uptaking construction described, as well as of pragmatic markers in general, is not accidental. Instead, their functions correspond to communicative tasks to which speakers can be shown to attend (Fischer 2000a: 178-193) and which are determined by the affordances of the communication situation. Therefore, many approaches to pragmatic markers assume a model of discourse that serves as the background for the description of pragmatic markers (cf. Schiffrin 1987, 2001; Redeker 1990; Frank-Job 2006; Pons Bordería 2006; Roulet 2006). These may be represented as the semantic frame on the basis of which pragmatic markers are understood and produced (Fischer 2000a, 2006a). In particular, the functional domains proposed, such as perception, understanding or topic continuity, can be demonstrated to be membership categories in the sense suggested by, for example, Sacks (1972) or Schegloff (1997, 2007). For instance, ensuring successful perception and understanding constitutes a task to which participants in discourse attend not only by means of pragmatic markers, but with a variety of other resources as well, such as tag questions, reformulation and repair. Thus, securing perception and understanding constitutes one domain of discourse in a set of domains which together form the background frame with respect to which the functional spectrum of verbal interaction can be explained.

Similar analyses involving sequential contexts as constructions and a communicative situation frame are presented in Deppermann (2008) for constructions of understanding and in Fischer (forthcoming) for grammatical mood. Thus, the model presented is general enough to account for various interactional phenomena. The construction grammatical perspective thus introduces

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<sup>9</sup>Given the as yet unsolved problems regarding the representation of the notions of turn, transition relevance place (TRP) and features like turn-initial occurrence, I refrain from any attempts at formalization here, but see, for instance, Fischer (2000a), Fried & Östman (2005), Lindström & Londen (2008) and Wide (2009). The figure thus shows simply the pairing of an informal description of the structural context with the meaning components identified in the linguistic analysis. PM is short for 'pragmatic marker'.

an explanatory perspective that exceeds by far the simple recast of pragmatic analyses in construction grammatical terms by providing a generalisation across different pragmatic markers. While pragmatic analyses usually focus on subtle differences in the uses of particular markers (see, for instance, Schiffrin 1987, Jucker and Ziv 1998 or Aijmer and Simon-Vandenberg 2006), a construction grammatical perspective can shed light on the commonalities between different markers and on the contribution of their uses in certain structural contexts, i.e. in certain constructions, on the resulting interpretation. The construction grammatical perspective on interaction can thus provide accounts of the learnability of the use of pragmatic markers as well as shed light on their interpretability in novel occurrences.

## 5. Conclusion

To conclude, I have shown that

- a) construction grammar and frame semantics, like cognitive grammar (e.g. Langacker 2001, 2008), provide a theoretical framework for the grounding of language in discourse and social interaction; especially the early papers in construction grammar invite an extension of construction grammatical description to cover spoken interaction, including units beyond the clause. That is, construction grammar *allows* the integration of units of spoken interaction beyond the clause;
- b) every clause exhibits grammatical properties that are grounded in interaction itself – there is no way these interactional meaning aspects can be left out in a grounded account of language. That is, our excursion into automatic language learning has shown that there is no natural language utterance without meaning components that are grounded in social interaction. These meaning components evokes an interactional frame that constitutes an essential part of a semantics of understanding; therefore, construction grammar *should* integrate units of spoken interaction;
- c) the description of many interactional phenomena can *profit* from a grammatical representation because their regularities can be accounted for on a constructional level, accounting also for their learnability and interpretability.

Construction grammar, as a cognitive linguistic grammar theory paired with a semantics of understanding, thus has to take steps to incorporate interactional notions like the turn, the turn-constructional unit and the turn-taking system in the description, even if that means to desert the playgrounds of formal grammarians, and even if this means not always to have an appropriate reply to 'mainstream' syntacticians (see Michaelis forthcoming). This loss however pays off with respect to naturalistic coverage and more realistic grounding of grammar in social interaction. If we consider the flourishing literature on interaction in construction grammar produced by interactional linguists, conversation analysts or pragmaticians (for instance, Fried and Östman

2005; Fischer 2006b; Deppermann 2006, 2007; Imo 2007; Imo and Günthner 2007; Brône and Zima in preparation, and the contributions to this special issue), it becomes clear that this paradigm shift, rooted in its founders' own writings (e.g. Fillmore 1975, 1976, 1982, 1988; Kay 1995, 2003), is already happening.

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