Discourse particles, turn–taking, and the semantics–pragmatics interface

Kerstin Fischer
University of Hamburg

Introduction

In this paper, the semantics–pragmatics interface will be investigated by studying the properties of discourse particles with respect to the exchange of the speaking role; that is, a possible dividing line between these two linguistic disciplines will be discussed on the basis of the question what discourse particle lexemes, sequentially dependent elements which bracket units of talk (Schiffrin 1987 : 31), such as English *ah, oh, uh, well* and *yes,* contribute to the turn–taking system (Sacks, Schegloff, Jefferson 1974). In particular, it will be determined whether they are turn–taking <u>signals</u> or in what other ways they may fulfil functions with respect to taking, holding, yielding, or supporting turns, and the model resulting may shed light on a suitable distinction between semantics and pragmatics.

For no other two linguistic disciplines there are as many different proposals for distinguishing criteria as there are for semantics and pragmatics (see, for instance, Levinson 1983 and, more recently, the articles in Turner 1999, in particular, Nemo 1999). Therefore, first of all it has to be asked what the criteria could be to evaluate different proposals for the distinction; that is, what could be arguments for one dividing line rather than another.

In this investigation it will be held that distinctions in linguistic terminology such as the one under discussion should represent criteria which express in some way or other distinctions which are relevant to a researcher's interests with regard to a particular linguistic domain; that is, a classification has to be expressive regarding a particular descriptive goal. The development of a description of a particular domain is influenced by a number of assumptions the respective researcher makes; the model resulting may have consequences for the semantics–pragmatics interface such that some dividing line may support the researcher's interests which another may not. For instance, the current investigation is based on the idea that a unified model which explains the polysemy of discourse particles on the basis of a general principle is to be preferred over a mere list of possible functions the respective

items can fulfil because this general mechanism may tell us something about how language works and how we as human beings constitute meaning. This perspective is not universally held by linguists ; for instance, Raskin & Nirenburg (1996) criticise Pustejovsky's generative lexicon approach (1995) for focussing too much on generalisations and neglecting idiosyncratic information, for good reasons: In computational approaches the coverage of a description is more valuable than elegant generalisations about particularly problematic cases. The distinction between semantics and pragmatics can be influenced by the choice between these perspectives such that from the first point of view, it may not be useful to distinguish items if they can be treated unifiedly by some generalisation. This is the theory−based side of the distinction between semantics and pragmatics: We want the distinction to be in accordance with our research aims. The empirical side is constituted by the observable patterning of the data which has to be accounted for in the classification. Thus, concerning a concrete domain, the question of how to distinguish semantics and pragmatics is empirical, based on the requirements of the respective linguistic phenomenon, and theoretical, dependent on the researcher's interests.

In accordance with this view, the procedure in this paper will be the following : First of all it will be analysed which functions occurrences of discourse particles may fulfil with respect to the turn−taking system. Such an analysis seems necessary since so far the exact role of discourse particles with respect to taking, holding, and yielding the turn is all but clear. In the literature it is, for instance, proposed that the "three main strategies in the turntaking system, taking, holding and yielding the turn, would undoubtedly be much less manageable without certain 'help resources'.

Pauses and <fillers> help the speaker to play for time, <appealers> and <uptakes> help to achieve smooth turntaking; links help to connect speaker turns; [backchannels], finally, help the current speaker along while manifesting the listener's attention." (Stenström 1994 : 81).

This quote shows that discourse particles are attributed an important role in the turn−taking system, however, that the system is not regarded to be entirely signal−based. Thus they are described as 'help resources', being attributed a central, but not the only role in the turn−taking system.

Likewise, Schiffrin (1987) argues that many different factors are involved in the "exchange structure" of discourse (1987 : 117) while speaking of "turnover signals" (1987 : 25) and calling, for instance, *y'know* a "turn−transition device" (Schiffrin 1987 : 292). Finally, Sacks, Schegloff & Jefferson (1974), who present a

'simplest systematics' which functions on the basis of rules to which speakers attend, argue that "appositional beginnings," turn–entry devices such as *well, but, and*, and *so*, have "important turn–organizational uses" (1974 : 719–720). Thus, there seems to be a connection between discourse particles and the turn–taking system, yet it is not clear which one, and the question addressed in this paper is consequently what exactly it means to 'help' during turn–exchange.

After discussing different possible ways in which discourse particles may contribute to the turn–exchange system, a specific proposal will be made as to how discourse particles get their functional interpretations in conversation, and the role they may play regarding turn–taking, –yielding, and –holding will be explained on the basis of this model of functional interpretation. In a third step, the consequences of such a model of the functional polysemy of discourse particles for the relationship between semantics and pragmatics will be discussed.

1. The Turn–Taking Function of Discourse Particles : Previous Approaches

According to Levinson (1983 : 297), the phenomena to be accounted for in a model of the exchange of the speaker role in conversation are a) the precise timing and the little overlap of the transition between one speaker and another, b) that this mechanism is independent of particular circumstances such as the number of participants and varying turn length, and c) that the same system operates in face–to–face as well as in telephone conversations without visual monitoring (cf. Sacks, Schegloff, Jefferson 1974 : 700–701). Oreström (1983) provides statistical evidence for the orderliness of turn–exchange in English conversation such that usually only one speaker speaks at a time : Of the 717 turns investigated, he finds 83.4% to occur without overlap (p. 61)[1]. In general, all approaches which aim at accounting for these phenomena include some account of how possible points at which exchange of the speaker role may take place can be identified and some procedures to explain how these should be interpreted.

One possibility is that turn–shift is essentially based on the occurrence of signals which account for the identification of possible points at which exchange of the speaking role may occur. Turn–yielding signals, for instance, could be constituted by intonation, in particular, every intonation contour but "an intermediate pitch level which is sustained" may function as such a signal (Duncan 1972 : 286);

---

[1]This orderliness however may differ according to sex and social status of the participants involved (cf. Beattie 1981).

furthermore, drawl on the final syllable, termination of hand movements, stereotyped expressions, such as *but uh*, *or something*, or *you know*, drop of pitch and/or loudness, and, finally, the completion of a grammatical clause are considered turn−yielding signals (Duncan 1972 : 287). In such a conception (Duncan 1972, Duncan & Fiske 1977, 1985), the role discourse particles may play is as exchange signals. In order to determine whether this assumption is correct it has to be analysed whether a role in the turn−taking system is a property of discourse particle lexemes themselves, that is, whether there is a correlation between individual particles and a particular turn−taking, −holding, or −yielding function. If there is a direct correspondence between these lexical items and their interpretation with respect to the turn−taking system, discourse particles can be regarded to be turn−taking <u>signals</u>, *i.e.* the presentation of signs by one person to mean something for another (Clark 1996 : 160), for instance, something like : "I want to say something now." However, many discourse particles may fulfil different functions with respect to the exchange of the speaker role, for instance, English *uhm* in the appointment scheduling domain (Verbmobil Database 1995[2]) :

(1) A: I've several dates in the next <u>uhm</u> months

(2) A: but how about a date uh at the end of November?
  B: <u>uhm</u> I could do it between somewhere between November 20th and November 25th

(3) A: Shouldn't worry us! Uh no \<P> no \<1 sec> <u>uhm</u> \<P>
  B: I \<3sec> I don't have anything jotted down

Thus *uhm* may fulfil several different functions with respect to the turn−taking system, such as turn−holding in example (1), turn−taking in example (2), and turn−yielding in example (3). The same multi−functionality is displayed by the discourse particle *yes* :

(4) A: Are you here on Mondays?
  B: Uh, <u>yes</u>, theoretically <u>yes</u>.

(5) A: Quarter to ten, you mean, in English \<laughs>
  B: \<laughs> <u>yes</u>. i / i / in American quarter of ten, <u>yes</u>.

(6) A: We have lots of time.

2The corpus used here are dialogues recorded at Carnegie Melon University in the appointment scheduling domain; speakers are assigned this task and supplied with calendars etc. so that actions accompanying the dialogues are rare, as are instances in which speakers digress from the scenario. Speakers are also asked not to produce overlapping speech so that backchannelling is rare. Transliteration conventions : \<P> = short pause, \<1sec> = pause of one second, *...* = parallel speech, i/ = false start.

B: <u>yes</u>.
(7) A: they' re passing on * that * question
   B: * <u>yes</u> *
   A: and it's not a question of fifteen marks out of a hundred[3].

Yes can also be found turn–finally, yielding the turn to the other speaker (the latter two instances of examples (4) and (5)), turn–initially with turn–taking function (5), in turn–holding function (4), and even as an entire turn in example (6). Example (7) shows *yes* as a feedback signal ; it occurs as an entire utterance, yet backchannelling items are not normally regarded as entire turns but to support the speaker role of the current speaker (Schegloff 1982).

The question raised by this multifunctionality is, if discourse particles <u>signal</u> information with respect to the turn–taking system, how is it possible that they may signal three or even four incompatible types of information, and how does a speaker find out which function they fulfil in a particular utterance ?

Discourse particles are not always successful as these signals either; for instance, Schiffrin (1987 : 308) states regarding a particular example of *I mean* that it is "not particularly effective in Freda's efforts to shift her role from hearer to speaker." Oreström (1983 : 67) finds that of 100 instances of *you know* and *you see*, only fourteen are followed by a turn–shift, another fourteen are followed by feedback signals and the remaining 72 instances are not followed by any verbal reaction of the communication partner at all. Oreström (1983 : 173), contradicting Duncan (1972), therefore calls these items "signals of possible turn–yielding." However, Duncan (1972 : 288) also regards taking the turn and backchannelling as two different, "contrasting tacks an auditor, faced with a yielding signal, may take." This leaves open how, if turn–yielding signals are only signals of possible turn–yielding, the smooth turn transition can actually be achieved (see also Levinson 1983 : 302). To conclude, the functions with respect to the turn–exchange system observable do not seem to be signalled by the discourse particle lexemes themselves, that is, there is no deterministic correlation between the occurrence of a discourse particle and a turn–function.

Since, as the above examples show, the turn–taking function is not directly caused by the discourse particles themselves, the structural position in which a discourse particle lexeme occurs may be of relevance, too, since it is clear that a turn–taking signal, for instance, cannot occur at the end of a turn. It may therefore

---

3This example is from the London–Lund Corpus (Svartvik & Quirk 1980 : 1.1.1062–1065) since the Verbmobil corpus, due to recording constraints, does not contain turns with backchannelling items only.

be assumed that discourse particles and their structural positions interact in a way that causes the interpretation of a turn−exchange function ; a turn−initial occurrence of *uhm* would thus be a turn−taking device, a turn−final occurrence would constitute a turn−yielding device, and a turn−medial occurrence would be a turn−holding device. However, this leaves open how a given auditor can decide whether a discourse particle occurrence is meant to be turn−medial or turn−final, or turn−initial or an entire utterance; other types of information would be necessary in order to determine, at a given point in the dialogue, what the particular utterance is meant to be. If the most important information was the position with respect to the turn, the *gestalt* of the turn would have to be projected at the time of the occurrence of a discourse particle already. Yet, if this information is to be gained on independent grounds, the particular role of discourse particles is not evident. If turn−shift occurs also without the help of discourse particles, and, conversely, if their occurrence does not lead to a particular interpretation regarding the turn− taking system, the question remains what discourse particles are needed for.

An alternative to the signal−based "reactive" (Clark 1996 : 322) approach is a proposal for the management of the turn−taking system is an approach in which the end of turn−constructional units are not signalled but projected by the communication partners; for instance, the 'simplest systematics' by Sacks, Schegloff & Jefferson (1974) consists of two components, the turn−constructional and the turn−allocation component, and a set of rules (1974 : 702). The "rules are intended as descriptions of the practices which participants display an orientation to in actual, local, occasions of turn−taking" (Hutchby & Wooffitt 1998 : 50). Rule 1 applies at the first transition relevance place of a turn and has three parts: If the current speaker selects a next speaker, he must stop speaking and the selected speaker must speak next; if the current speaker does not select anybody, another speaker may self−select; in this case, the first self−selected speaker may speak; finally, if neither the current speaker has selected anybody nor anybody has self− selected, the current speaker may continue. Rule 2 says that if this last option applies, rule 1 applies at the next transition relevance place again (1974 : 704). This 'simplest systematics' accounts for the smooth turn transition which can be found in conversation. The question to be answered with respect to this approach is, if turn−taking is rule−based, what discourse particles are needed for.

Within this approach, a possible use of discourse particles with respect to the shift of the speaker−role could be to support the identification of turn− constructional units. That is, they could function with respect to the turn− constructional component (Sacks, Schegloff, Jefferson 1974 : 702). The

communicative problem that this component is meant to account for concerns the question how speakers manage to project the end of a turn−constructional unit, since the 'simplest systematics' presupposes that speakers are able to project the transition relevance places at which the rules apply. While incorporating the rules of the 'simplest systematics' and other conversation analytic studies (*e.g.* Schegloff & Sacks 1973), Oreström (1983), for instance, analyses which linguistic signals contribute to identifying turn constructional units. Thus, instead of challenging the rules proposed by conversation analysts, the signals Oreström considers are those by means of which the listener can possibly project transition relevance places, that is, those places at which smooth speaker−shift may occur. Likewise, Selting (1995, 1996) attempts to define turn−constructional units on syntactic and prosodic grounds, this also being fully consistent with the rule−based model proposed by Sacks et al. (1974). Finally, Local, Kelly & Wells (1986) and Local, Wells & Sebba (1985) are concerned with means of turn−delimitation in different varieties of English. Consequently, while the more recent discussion takes that the turn−taking system can be accounted for by the rules identified by Sacks, Schegloff & Jefferson (1974), the focus is on defining turn−constructional units and identifying possible transition relevance places.

Oreström (1983 : 68) proposes that the properties by means of which speakers identify transition relevance places, those places which allow a smooth speaker shift, are prosody, in particular the completion of a tone unit with a non−level nucleus ; syntax and semantics, that is, the completion of a syntactic and a semantic sequence; loudness, *i.e.* a decrease in volume; and silent pauses following immediately after the end of a tone unit. In 97.2% of the instances of smooth speaker−shift, at least three of these five features are involved (Oreström 1983 : 69). Now not every grammatical boundary (GB), marked by the prosodic, syntactic, and semantic properties described above, leads to a shift of the speaking−role; Oreström (1983 : 73) argues that it "is the complex interplay of kinesic, intonational, pausal, loudness, and topical realities around the GB that determines which GBs are selected as targets by the potential turn−taker." For instance, objections are found to occur in unsmooth speaker−shifts such as interruptions significantly more often (1983 :159), thus a discourse category related to what is talked about seems to influence the turn−exchange system. If this proposal is taken to concern only the identification of transition relevance places, it does not contradict Sacks et al. (1974) who argue in a footnote that "while an addressed question requires an answer from the addressed party, it is the turn−taking system, rather than syntactic or semantic features of the 'question', that

requires the answer to come 'next'." (1974 : 725, emphasis original).

Likewise, Ford, Fox, and Thompson (1996) who also take the question about the nature of a turn−constructional unit as a starting−point, find that a number of different practices are involved in identifying a transition relevance place. Their conclusion is that conceptualising speaker contributions as units would not do justice to the interaction of these different practices at all :

"[t]hinking 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).

If the constitution and projection of turn−constructional units can be understood as a number of 'practices', the use of discourse particles could be considered as one linguistic practice among others to negotiate interactively the status of the current turn. However, as Oreström (1983 : 67) and Schiffrin (1987 : 308) have shown, discourse particles do not always effect turn−yielding, that is, their occurrence is not a reliable indicator of the end of a turn−constructional unit. Local, Wells & Sebba's (1985) analysis of *you know* in London Jamaican shows that the discourse particle itself is not a signal for turn−delimitation; the end of a turn−constructional unit is in this variety signalled by a number of phonetic features. The discourse particle is not directly related to this : "by employing a tag such as *you know*, speaker transforms his turn into a locus of 'current speaker selects next' *after* an initial transition relevance place" (Local *et al.* 1985 : 322, emphasis original).

To postulate that discourse particles nevertheless have turn−delimitation functions, yet in interaction with the other practices described by Oreström (1983) and Ford et al. (1996), is consequently methodologically dubious. Furthermore, most discourse particles occur utterance−initially (Fischer & Johanntokrax 1995), and therefore a role in projecting the end of a turn−constructional unit would leave unexplained the role of all initial discourse particles.

Clark (1996 : 320−330) goes one step further than the approaches discussed so far by asking what communicative problems the adherence to the rules of turn− exchange is designed to solve. He argues that the turn−taking rules proposed in the 'simplest systematics' are actually procedures emerging from speakers' attempts to carry out joint projects. Thus, in his view, the rules emerge from constraints on minimal joint projects such as psycholinguistic constraints on processing : "speakers and addressees cannot co−ordinate execution and attention whenever the demands on their attention are too strong, so they generally restrict themselves to

one primary presentation at a time" (1996 : 328). The dual function of turns, presentation and acceptance, furthermore explains that speakers select next speakers and that they continue if nobody else self–selects. Conceptualising the turn–taking rules by Sacks *et al.* as procedures emerging from higher order demands does not only provide an explanatory concept for their existence, it also allows to account for those aspects of conversation which do not fit into the 'simplest systematics,' and which are therefore, circularly, defined as violations of the turn–taking system, such as the use of backchannelling items, the role of actions which can, for instance, replace contributions, and strategies like truncations, fade outs and their treatment as an interactive resource.

While Clark's proposal provides a unified account of the turn–taking rules and their violations, it remains neutral as to the role discourse particles may play within this system; within his approach there is no particular task by means of which discourse particles could support the emergent procedures, and there is also no use for them since the turn–exchange system itself is a symptom of some more general structures rather than a particular organisation to which speakers attend.

To sum up the discussion so far, discourse particles do not seem to be signals of some kind of turn–function. Furthermore, discourse particles do not seem to play a major role neither in projecting the end of a turn–constructional unit nor in selecting the transition relevance place at which a turn–shift may occur. Yet, there is a third possibility still : Discourse particles could also play a role with respect to Sacks et al.'s turn–allocation component. For instance, Local *et al.* (1985 : 322) propose that the discourse particle *you know* may fulfil a function in the turn–allocation component : "in addition to signalling to hearer that the turn is over (by delimitative signals at the first completion point), speaker adds a tag which directly selects a respondent." Similarly, Sacks *et al.* (1974) discuss the use of discourse particles under the heading of turn allocation (1974 : 718–720). They describe tag questions like *you know* as a "generally available 'exit technique' for a turn" (1974 : 718), and continue : "the effectiveness of tag questions in this regard is that they invoke rule 1a, making the start of a next speaker's turn relevant on THEIR completion" (1974 : 718, emphasis original). Thus, the so–called recompleters are taken to invoke the application of a rule by signalling the end of a turn constructional unit (in this case the tag question itself), a view which was shown to be unacceptable by the data provided by Oreström (1983 : 67) and Schiffrin (1987 : 308). To turn–initial discourse particles, Sacks et al. (1974 : 719) attribute a different role : They argue that they are turn beginnings by means of which the speaker can begin speaking, given the "pressure for early starts on self–selectors",

"without requiring that the speaker have a plan in hand as a condition for starting" (1974 : 719). Thus they occur if speakers want to make a turn claim but do not yet know what they want to say. Similarly, Clark (1999 : 5) argues that discourse particles may function as signals of the speaker's intention to initiate speaking, thus contributing to the precise timing of discourse. In this case, however, any discourse particle would do; it should not make a difference which discourse particle it is, it would just serve as a filler as long as the speaker is organising her thoughts. As regard to filled pauses, however, Lalljee & Cook (1975) have shown that there is no increase in their occurrences if speakers have to struggle for their right to speak. Thus, it is unclear whether to provide time for speech planning while securing the turn is really a function of discourse particles, and it is even more dubious whether this is all they contribute.

There are a number of observation made during this investigation which may help us to identify the contribution discourse particles make to turn−exchange ; thus, Clark (1996) has shown that the turn−exchange system is inseparable from other communicative goals to which speakers orient in discourse, and furthermore both Oreström (1983) and Ford *et al*. (1996) find that semantic and pragmatic considerations influence the points at which turn−exchange occurs. These observations may lead us to the proposal to be made here: The role discourse particles play in the turn−exchange system is as accounts for speakers' choices with respect to the turn−taking system. Thus, in this investigation it is proposed that the role of discourse particles regarding turn exchange lies in motivating the particular use made of transition relevance places. How can discourse particles have such an interpretation ? As we have seen regarding examples (1) to (7), the same discourse particle lexeme may occur in different positions and may fulfil different functions with respect to the turn−exchange system. The account proposed here consequently has to explain how the same discourse particle may motivate different uses of transition relevance places. What will be described in the next section is thus how a given discourse particle gets its functional interpretation in general ; section 4 will then address the question of how they can function as an account of turn−taking, −yielding, or −holding actions.

2. The Functional Interpretation of Discourse Particles

The model to be proposed was developed to account for the functional polysemy of discourse particles, and it builds on the interaction between the different conditioning factors which influence the interpretation of a discourse particle occurrence (Fischer 2000). This model explains not only why a given discourse

particle lexeme may fulfil a particular functional spectrum, but also why it may fulfil just these functions and not others. The different parts of the model involved in the interpretation of each occurrence are :

a) the invariant contribution of the discourse particle lexeme,

b) the structural context in which it occurs, and

c) a conceptual background structure which has been found to influence the interpretation of discourse particle occurrences such that whether a discourse particle fulfils a certain function in a particular linguistic context depends on whether the speaker attends to a certain communicative domain which is part of the conceptual background frame. These domains can be identified as speaker categories, constituting a range of tasks to which speakers attend regarding their hearers.

The interaction between these three factors explains the functional polysemy of discourse particles. For instance, every discourse particle can be shown to carry an invariant but underspecified schematic meaning. This invariant meaning is specified context–dependently by reference to an aspect of the communicative situation, i.e. one of the domains identifiable as part of the communicative frame to which speakers attend regarding their hearers.

The schematic content of each discourse particle lexeme in its reference to the communicative domain constitutes its contextual meaning ; for instance, the meaning of *oh,* which is the recognition of something one has not thought of before ("I now know something I have not thought of before and I feel something because of it", formulated in Natural Semantic Metalanguage (Wierzbicka 1986)), can be specified with respect to what is perceived, *i.e.* with respect to the recognition of what the communication partner has just said. By means of these contextual meanings, a discourse particle can fulfil a certain function; for instance, a signal that one has heard what the other has said can be used to give the other feedback, maintaining the flow of information between the speakers. Thus, in the following examples, *oh* signals "I have just heard what you have said and I feel something because of it" :

(8) A : either Tuesday afternoon or Wednesday afternoon. what do you think.
B: <u>oh</u> Wednesday afternoon sounds good.

(9) A: well , let's see. the twenty sixth, and twenty seventh are out, uhm twenty eighth, I'm available after one pm, twenty ninth, I could only meet you for an hour.
B: <u>oh</u> come on, you know we have a lot of stuff to go over, and an hour just is not gonna cut it.

Accordingly, if *uhm*, meaning "I am thinking" (cf. Fischer 1999), refers to this

communicative domain, the contextual meaning resulting is "I am thinking about what I have heard that you have said," as it is shown in the next example :

(10)A : can I meet with you sometime in the next two weeks. what days are good for you.
B : <u>uhm</u> well I have some, free time on <pause> almost every day. uhm except for Fridays, Fridays are bad.

The validity of the analyses of the schematic meanings of discourse particles, as well as of the contextual meanings resulting from the reference of the invariant component to the communicative domain, here the transfer of information, *i.e.* the perception of what is being said, can be demonstrated by means of semantic tests, as outlined in Fischer (1998).

Methodologically, the identification of the communicative domains which together constitute the conceptual background frame against which discourse particles are interpreted can be carried out by comparative analyses of human–human versus human–computer interaction since speakers put different weight on certain communicative tasks depending on whether their communication partner is another human being or an automatic speech processing system. In comparing to what speakers orient themselves, the communicative domains to which they attend regarding their hearers can be determined (for details see Fischer 2000). The domains identified are, besides the flow of information with its domains perception and understanding (cf. Allwood *et al.* 1992, Clark & Schaefer 1989), also speech management, i.e. the formulation and articulation of the utterance, the macro–structural, thematic, organisation of the dialogue, the actions carried out in the contextual situation, the propositional information, that is, what is talked about, and the interpersonal relationship between the speakers. For instance, if *oh* refers to aspects of the speech management system, it may function as a repair marker, signalling something like "I know now that this is not what I wanted to say and I feel something because of it" :

(11)A: Thursday is my day off, Friday, I am free from noon until the end of the day, <u>oh</u> wait.

Likewise, it may refer to the thematic, macro–structural, organisation of the dialogue, as in the following example in which it marks the beginning and end of a side sequence, that is, a thematically different utterance :

(12)A: okay, here we go, God, another of these meetings, well let's see, <u>oh</u> it looks like

I don't have any time at all in the next two weeks, <u>oh oh</u>, wait, just kidding, let's see, how 'bout Monday or Tuesday.

In the following example of *yes* from the appointment scheduling domain, its highly schematic underspecified invariant meaning of general agreement refers to the propositional domain, that is, to what is being talked about. Its function as an answer particle is therefore directly motivated by its invariant, lexical meaning in reference to the propositional domain as part of the cognitive background structure. Consequently, the accordance relation expressed by *yes* concerns here the speakers' beliefs about a certain state of affairs :

(13) A: maybe still in January as well ?
B: <u>yes</u>, and the same days of the week, too.

Thus while A suggests January, B displays her agreement by means of *yes*, as is evident from her utterance following *yes* in which she adds another aspect and then refers to both states of affairs by means of *too*. Consequently, the invariant meaning of *yes,* "I think that you and I think the same," refers here to what is being talked about.

In contrast, in the next example, the invariant meaning of *yes* refers not to the propositional domain but to the transfer of information. It thus serves in maintaining the flow of information between the speakers, signalling the communication partner that the speaker has perceived and understood what has been said and that she is going to talk about something which is related to the previous utterance. Thus, in reference to the thematic structure, for instance, the schematic meaning of *yes* which expresses a relation of accordance may result in the contextual reading of accordance with respect to the same topic :

(14) A: I have heard you are not completely satisfied with your software.
B: uh <u>yes</u> I have a problem in that my keybord is English but I actually want to be able to type in German script.

Thus, an uptaking example such as *yes* in (14) combines a signal regarding the accordance with respect to the same topic "I think that you and I talk about the same" as well as a feedback signal such that the accordance relation carried by *yes* refers to an accordance between the production and perception of utterances; thus the contextual meaning of *yes* in reference to the flow of information domain can be paraphrased as "I think that what you say and what I hear is the same," and "I think that what you mean and what I understand is the same." Another example of *yes* which combines signals of an accordance relation regarding corresponding

perception and understanding as well as a common topic is (15) :

(15)A: perhaps we should see if it is possible a week later.
   B: <u>yes</u>, fine, okay, let's see.

The following example of a summons – answer sequence shows that the accordance relation invariantly expressed by *yes* may also refer to establishing a common channel only :

(16)A: Mr Sullivan.
   B: <u>yes</u>, uhm so, in the next two weeks, when can you meet ?

Here again the communicative function is directly motivated by the reference of the invariant meaning of *yes* to the respective linguistic domains. The same mechanism is at work if *yes* is used as a repair marker, as in the following example :

(17)A: Wednesday, well, if we, if we, let us see, six, eighteen, okay, <u>yes</u>, if you can change your Thursday appointment, then, there is no need to get ugly about how early we leave in the morning on Thursday.

Here the accordance relation concerns roughly speech planning and speech production processes such that there is a correspondence between what the speaker wants to say and what she is now able to say, *i.e.* "I think what I want to say and what I am able to say is the same". Thus, invariant lexical aspects interact with a general conceptual background structure concerning the speakers' aims in discourse in creating a contextual reading of a discourse particle and a corresponding functional interpretation if the particular communicative domain is attended to by the speaker.

In a schema, the relationship between the constituting elements of the model can be expressed as a function in the following way :

(18)schematic meaning (domain) –> communicative function

Thus the schematic invariant meaning of the lexeme refers to a particular communicative domain and thereby creates a particular contextual reading which may fulfil a communicative function.

Another determinant of the functional interpretation of a discourse particle occurrence is its structural position. This relationship can be described as a linguistic construction, a form–meaning pair (Goldberg 1995, Fillmore & Kay 1995), which combines information on the structural properties of a particular instance of a discourse particle, such as its position with respect to turn and

utterance and its typical intonation contour, with the particular contextual meanings involved. The meaning side of the construction specifies to which communicative domains a discourse particle in the respective structural context may refer and which contextual meanings co−occur; for instance, feedback signals usually combine signs of perception and understanding. Thus, the constructions, which are not specific to particular discourse particles but which constitute general structural classes, impose restrictions on the possible interpretations of a discourse particle occurrence. To conclude, the model for the polysemy of discourse particles comprises three factors which condition the functional interpretation of instances of discourse particles :

  1) the schematic meaning which refers to
  2) a particular communicative domain, depending on
  3) the particular structural position and intonation contour.

  Thus a single schematic meaning for each discourse particle, a limited inventory of communicative domains and a number of linguistic constructions suffice to account for the various functions discourse particles can fulfil in a unified model (see Fischer 2000). While the functions regarding, for instance, the propositional domain, the flow of information, speech management, or the thematic structure can be described in the model proposed, it can now be asked how discourse particles may get their turn−related functions.

3. The Turn−Taking Functions of Discourse Particles

  The role of discourse particles regarding turn exchange lies in motivating the particular use the speaker makes of a transition relevance place such that she provides an account of her particular turn−taking, −holding, −yielding, or supporting action. Yet unlike the other functions discussed, functions with respect to the shift of the speaking−role are not directly motivated by the invariant meaning of the lexeme. That is, it is not possible to find an inferential relation between invariant meanings of discourse particles and a turn−taking signal, for instance, "I want to say something now." Instead, the function related to the turn−exchange system derives from the contextual, rather than the invariant, meaning of the respective discourse particle. For instance, signalling that one has heard what the other is saying and that one is just adding something to it, i.e. that one is talking about the same thing (*e.g. yes* in example (14)), may serve as a justification for taking the turn. That is, signalling "I think that you and I are talking about the same thing" presents the current utterance as non−interrupting, non−obtrusive, and as

non−initial, minimising the speaker's own contribution and providing an account for taking the turn. Likewise, a signal of immediate reaction (*e.g. oh* and *ah*) justifies taking the turn by claiming that spontaneous, immediate mental processes have made this turn−taking action relevant. Similarly, hesitation markers signal that the previous utterance, for instance, has effected some mental reaction, the result of which may entitle the speaker to take the turn. Displaying ongoing thinking may furthermore show the communication partner that one is really considering what she has said. Smith & Clark (1993 : 37), for instance, argue that hesitation markers are accounts of delayed answers. Furthermore, when a hesitation marker is used to introduce a new conversational topic or to begin the conversation, a signal "I am thinking about what to say next" can secure the communication partner's attention, and the discourse particle may therefore be strategically employed to "signal the initiation of speaking" (Clark 1999 : 5).

Likewise, asking the communication partner for an explicit response justifies yielding the floor to her. Thus, a function regarding the turn−taking system is created by inference on the basis of the contextual meaning of a discourse particle, which is in turn based on its invariant semantic features in reference to a particular communicative domain and dependent on the structural position in which it occurs. That is, while the other functions of discourse particles discussed are directly motivated by reference of their invariant, schematic properties to a communicative domain, their interpretation regarding the turn−taking system can be inferred from their contextual interpretations. By means of this procedure, the contextual readings serve as a motivation for taking, holding, yielding, or even supporting the turn.

The schema in (18) can be extended to account for the functions regarding the turn−taking system :

(19) schematic meaning (domain) –> communicative function –> motivation for taking, holding, or yielding the turn

In the light of the problem under consideration we can conclude that the turn−related function of discourse particles thus concerns the turn−allocation component (Sacks, Schegloff, Jefferson 1974 : 703) by motivating self−selection or selection of the next speaker. They are accounts of taking, holding, and yielding the floor, but they are not involved in these actions themselves. Discourse particles therefore do not affect the rule−system postulated by Sacks, Schegloff, and Jefferson (1974) but support it with respect to the justification of turn−taking, −holding and −yielding actions. The model itself is neutral to the question whether speakers

attend to the turn−taking rules themselves or whether these result from attention to some more general procedures. The role of discourse particles in the speaker−shift mechanisms is therefore to provide an account of taking, holding, or yielding the turn on the basis of their contextual meanings identified in the unified lexical model.

4. Implications for the semantics – pragmatics interface

Many criteria have been proposed for the distinction between semantics and pragmatics (see, for instance, Levinson 1983, Grewendorff, Hamm, Sternefeld 1987, Wierzbicka 1991, Mey 1993, Nemo 1999). What are then the criteria for selecting a criterion for distinguishing between semantics and pragmatics ? My suggestion would be to orient to the general criteria for classificatory systems : Classifications should be expressive such that they should not employ distinctions which do not matter to a certain research question, *i.e.* which have no theoretical consequences or no observational correlates; they should cover the domain exhaustively; and the categories employed should be sufficiently contrastive, *i.e.* there should be clear criteria for classifying an instance as a member of one class rather than another.

A common proposal for a criterion for distinguishing between semantics and pragmatics is to take the contribution to the truth−functional information of a sentence as its semantics (*e.g.* Gazdar 1979 : 2). If this was the criterion, all of the functions discourse particles fulfil would be pragmatic besides their function as answer signals, since these are the only ones which refer to propositional information and which thus contribute to the truth conditions of an utterance. With respect to the current model, the distinction regarding some of the meanings and functions of discourse particles would be quite arbitrary. It would not do justice to the fact that their functions as answer signals and all of their other functions can be accounted for in a unified model. This criterion therefore does not provide us here with a helpful, *i.e.* expressive, distinction since the borderline runs across the phenomena accounted for in the model.

The model itself however may provide us with a more suitable distinction; it builds on three different types of information: the invariant contribution signalled by a discourse particle lexeme, the contribution of the construction, especially the structural information, and the functions which are created by reference of the invariant meaning to a certain communicative domain from the conceptual background frame structure. A possible distinction which would be sufficiently contrastive, exhaustive and expressive could concern the information invariantly

signalled by a given discourse particle lexeme on the one side and the functional interpretation it may get if it occurs in a certain linguistic construction and refers to the respective communicative domain which constitutes a task to which the speaker attends on the other. This approach would separate the schematic, invariant meaning of each discourse particle lexeme both from the functions it fulfils by reference of this underspecified meaning to a number of communicative domains and from those functions which are derived from these interpretations, such as a function in the turn−taking system ; these latter functions would thus belong to the area of pragmatics.

Alternatively, another possibility for an expressive, with respect to the current model, and an exhaustive classification could be to draw the line between the contextual interpretations arrived at on the basis of reference to a particular communicative domain, and those pragmatic functions which by means of further inferential steps are motivated by these contextual interpretations ; that is, this distinction would separate, for instance, the turn−taking functions of discourse particles from functions with respect to the thematic organisation of the dialogue, the flow of information, or the management of speech. In such an approach, the exchange of the speaker role could be considered a pragmatic domain since the turn−taking interpretation can only be arrived at on the basis of the contextual meanings of a discourse particle and is thus not directly motivated by the invariant properties signalled by the underspecified meaning of the lexical item. The turn−taking function would therefore be a pragmatic feature of a discourse particle since it is inferred on the basis of other contextual readings such as information on thematic continuity, while the contextual interpretations of a discourse particle which are created by referring to a communicative domain would belong to semantics.

However, the distinction is not entirely clear−cut : The propositional information in example (13) or the function with respect to perception and understanding in example (7) are also arrived at by means of inferential processes since the contextual specification of the underspecified meaning of a discourse particle is a special case of inference, although the relationship between the information signalled and the function inferred in this case is more direct. Furthermore, every interpretation regarding discourse particles is only arrived at under the assumption that the speaker attends to the respective communicative domain ; particularly in human−computer interaction, speakers do not attend to the same tasks as in human−to−human dialogues (cf. Fischer *et al.* 1996, Fischer 2000), and discourse particles therefore fulfil different functions in such a scenario. Thus, also the

contextual interpretations of discourse particles in natural human–to–human conversation are subject to inferential processes. The distinction therefore seems to be more a matter of degree, which means that the categorisation would not be sufficiently contrastive. However, if analyses of other linguistic domains supported the existence of these two different procedures, contextual specification with respect to particular communicative domains versus other types of inferences, the distinction between semantics and pragmatics on the basis of what refers to a particular communicative domain versus what is inferred from this might prove to be the most expressive. Still, with such a criterion, the categories proposed can only be identified on the basis of a particular linguistic model. At least for the moment, the first alternative, to separate the invariant schematic information from the concrete functional interpretation, seems to be the most promising in terms of expressivity, exhaustiveness, and contrastivity.

To summarise, the criterion of signalled *vs.* inferred (by different mechanisms) information for the distinction between semantics and pragmatics seems to be a useful one regarding the model of the functional polysemy of discourse particles under consideration. It is furthermore exhaustive with respect to the phenomena to explain and it is expressive regarding the particular requirements of the model of the domain under consideration.

Conclusion

In this paper, it was argued that the role of discourse particles with respect to the turn–exchange system is to motivate the use speakers make of a particular transition relevance place such that they provide accounts of a particular turn–taking, –holding, –yielding, or –supporting action. Accordingly, a model for the relationship between discourse particle lexemes and the turn–taking system was presented which shows that their turn–taking properties are inferred on the basis of their contextual meanings; these are constituted by the reference of their invariant yet underspecified semantic contribution to a certain communicative domain which corresponds to a communicative task to which speakers attend with regard to their hearers. While the other functional interpretations of discourse particles, such as their functions in the propositional domain or regarding the flow of information, are constituted by this mechanism of contextual specification by reference to particular communicative domains, the relationship between discourse particle lexemes and turn–taking functions is not a direct relationship. Instead, the

contextual meanings of discourse particles may motivate the choice of a particular transition relevance place for a speaker shift, thus justifying one's actions regarding the exchange of the speaker role. Thus the role discourse particles does not constitute a challenge to a rule−based model of turn−taking, but it concerns the practices according to which turns are allocated in conversation.

Furthermore, for the lexical model of the functional polysemy of discourse particles presented a criterion for the semantics−pragmatics distinction which supports the researcher's interests and which consequently results in an expressive classification regarding the linguistic domain under consideration could be identified; here it was shown that to distinguish between the schematic, invariant, semantic meanings and the inferred, contextual, pragmatic readings of discourse particles provides an exhaustive, expressive, and sufficiently contrastive distinction. Whether this is a useful distinction for other domains of investigation is taken to be an empirical problem on the one hand and a question of what distinctions are expressive in a particular research context on the other.

References

Allwood, J., Nivre, J., Ahlsén, E. (1992), " On the Semantics and Pragmatics of Linguistic Feedback ", *Journal of Semantics* 9 : 1−26.

Beattie, G.W. (1981), " Interruption in conversational interaction and its relation to the sex and status of the interactants ", *Linguistics* 19 : 15−35.

Clark, H.H. (1996), *Using language*, Cambridge : Cambridge University Press.

Clark, H.H. (1999), " Speaking in time ", *Proceedings of the ESCA Workshop on Dialogue and Prosody*, De Koningshof, Veldhoven, The Netherlands, Sept. 1rst−3rd, 1999, pp. 1−6.

Clark, H.H., Schaefer, E.F. (1989), " Contributing to Discourse ", *Cognitive Science* 13 : 259−294.

Duncan, S. (1972), " Some signals and rules for taking turns in conversations ", *Journal of Personality and Social Psychology* 23, 2 : 283−292.

Duncan, S., Fiske, D. (1977), *Face−to−face interaction: Research, methods, and theory*. Hillsdale : Erlbaum.

Duncan, S., Fiske, D. (1985), *Interaction structure and strategy*. Cambridge : Cambridge University Press.

Fillmore, C.J., Kay, P. (1995), *Construction grammar*, Stanford : CSLI Lecture Notes.

Fischer, K. (1998), " Validating semantic analyses of discourse particles ", J*ournal of Pragmatics* 29 : 111−127.

Fischer, K. (1999), " Die Ikonizität der Pause: Zwischen kognitiver Last und kommunikativer Funktion, In: Wachsmuth, I. & Jung, B. (eds.) *KogWis99 − Proceedings der 4. Fachtagung der Gesellschaft für Kognitionswissenschaft*, Bielefeld 28−September

– 1.Oktober 1999, Sankt Augustin: Infix.

Fischer, K. (2000), *From Cognitive Semantics to Lexical Pragmatics: The Functional Polysemy of Discourse Particles*. Berlin, New York: Mouton de Gruyter.

Fischer, K., Johanntokrax, M. (1995), " Ein linguistisches Merkmalsmodell für die Lexikalisierung von diskurssteuernden Partikeln ", SFB 360 ''Situierte künstliche Kommunikatoren", Report No. 18.

Fischer, K., Wrede, B., Brindöpke, C., Johanntokrax, M. (1996), " Quantitative und funktionale Analysen von Diskurspartikeln im Computer Talk ", *Sprache und Datenverarbeitung* 21, 1–2, pp. 85–100.

Ford, C. E., Fox, B. A., Thompson, S.A. (1996), " Practices in the construction of turns : The "TCU" revisited ", *Pragmatics* 6, 3 : 427–454.

Gazdar, G. (1979), *Pragmatics: Implicature, presupposition, and logical form*. New York : Academic Press.

Goldberg, A. (1995), *Constructions*, Chicago : The University of Chicago Press.

Grewendorf, G., Hamm, F., Sternefeld, W. (1987) *Sprachliches Wissen*, Frankfurt a.M.: Suhrkamp Taschenbuch Wissenschaft.

Hutchby, I. & Wooffitt, R. (1998), *Conversation analysis*, Cambridge: Polity Press.

Lalljee, M., Cook, M. (1975), " Filled Pauses and Floor Holding: the Final Test ? ", *Semiotica* 12 : 219–225.

Levinson, S.C. (1983), *Pragmatics*, Cambridge : Cambridge University Press.

Local, J.K., Wells, W.H.G., Sebba, M. (1985), " Phonology for conversation. Phonetic aspects of turn delimitation in London Jamaican ", *Journal of Pragmatics* 9 : 309–330.

Local, J.K., Kelly, J., Wells, W.H.G. (1986), " Towards a phonology of conversation: Turn–taking in Tyneside English ", *Journal of Linguistics* 22: 411–437.

Mey, J.L. (1993), *Pragmatics. An introduction,* Oxford U.K., Cambridge U.S.A. : Blackwell.

Nemo, F. (1999), " The pragmatics of signs, the semantics of relevance, and the semantics/ pragmatics interface ", In: Turner, K. (ed.) *The semantics/pragmatics interface from different points of view*. CRISPI Series 1, Oxford, Amsterdam : Elsevier Science, pp. 343–417.

Raskin, V. & Nirenburg, S. (1996), " Ten choices for lexical semantics ", *NMSU CRL MCCS −96−304*.

Oreström, B. (1983), " Turn–taking in English conversation ", *Lund Studies in English* 66, Lund : Gleerup.

Pustejovsky, J. (1995), *The generative lexicon*. Cambridge, Mass. : The MIT Press.

Sacks, H., Schegloff, E. & Jefferson, G. (1974), " A simplest systematics for the organisation of turn–taking in conversation ", *Language* 50 : 696–735.

Schegloff, E. (1982), " Discourse as an interactional achievement: Some uses of 'uh huh' and other things that come between sentences ", In: Tannen, D. (ed.), : *Analysing Discourse. Text and Talk*. Washington : Georgetown University Press.

Schegloff, E., Sacks, H. (1973), " Opening up closings ", *Semiotica* 8: 289–327.

Schiffrin, D. (1987), *Discourse markers*. Studies in Interactional Sociolinguistics 5, Cambridge : Cambridge University Press.

Selting, M. (1995), " Der 'mögliche' Satz als interaktiv relevante syntaktische Kategorie ",

Linguistische Berichte 158 : 298−325.

Selting, M. (1996), " On the interplay of syntax and prosody in the constitution of turn−constructional units and turns in conversation ", *Pragmatics* 6, 3 : 371−388.

Smith, V. & Clark, H.H. (1993), " On the Course of Answering Questions ", *Journal of Memory and Language* 32 : 25−38.

Stenström, A.−B. (1994), *An introduction to spoken interaction*, London, New York : Longman.

Svartvik, J., Quirk, R. (1980), *A Corpus of English Conversation*, Lund : Gleerup.

Turner, K. (ed.), *The semantics/pragmatics interface from different points of view*, CRISPI Series 1, Oxford, Amsterdam: Elsevier Science.

Verbmobil Database (1995), *Data collection for a speech−to−speech translation system. Scheduling domain,* Carnegie Melon University, University of Hamburg.

Wierzbicka, A. (1986), " A Semantic Metalanguage for the Description and Comparison of Illocutionary Meanings ", *Journal of Pragmatics* 10 : 67−107.

Wierzbicka, A. (1991), *Cross−cultural pragmatics. The semantics of human interaction.* Berlin, New York : Mouton, De Gruyter.