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Social Interaction and Grammar

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In this chapter we share some of what we find valuable about the study of grammar as sets of practices adapted to social interaction. Clearly, we are not able to cover all the fascinating and fruitful research that has appeared in this area in recent years, but we hope, through several examples from our own work and through references to other research, to spark further interest in the reader. To begin with, let us consider how we conceive of grammar and then how that relates to the centrality of social interaction as a major habitat to which grammar is adapted.

In interactional settings, we can see grammar "at work." By studying people talking, we can gain a deeper appreciation of what grammar must be understood to be. Three major contributions to our understanding of grammar have arisen from this focus on grammar at work.

The first of these is, in our opinion, one of the most significant contributions to recent linguistic scholarship: a view of linguistic structure itself as rooted in, and shaped by, everyday language use (Bybee, 1995, 1998, 2001, in press; Hopper, 1987; Langacker, 1987). This process of "grammaticization" is an ongoing one. Thus grammar cannot be a fixed property of the human brains, but is emergent, constantly undergoing revision as it is deployed and redesigned in everyday talk.

The second is a recognition that if linguistics is to include an accounting for language in everyday use, then its perspective on the nature of grammar must be both cognitively realistic as well as interactionally sensible. Conversational data support the position that grammar is a rather loosely organ-

ized set of sorted and categorized memories we have of how speakers have resolved recurrent communicative problems (Hopper, 1987, 1988; Weber, 1997). Edelman (1992) suggested that the human brain is exquisitely adapted to be very good at remembering, storing, categorizing, and using routines that have proven useful for solving everyday problems; with frequent repetition, as synapses become strengthened, these routines become crystallized as habits. Grammar can thus be seen as a collection of crystallizations of linguistic routines (Bybee, 1998, 2001, in press; Bybee, Perkins, & Pagliuca, 1994; Haiman, 1994, 1998; Langacker, 1987).

A third contribution to our understanding of grammar at work is the discovery that grammar is tightly intertwined with the interactional activities that people are engaged in (Auer, 1992, 1996; Clark, 1996a, 1996b; Goodwin & Goodwin, 1987, 1992a, 1992b; Schegloff, 1995, 1996a, 1996b). One way in which these activities implicate the nature of grammar is that certain kinds of activities precipitate certain recurrent kinds of grammar. For example, the activities motivating posing questions and giving answers have a number of grammatical consequences (Heritage & Roth, 1995; Schegloff, 1996b; Weber, 1993). But activities can be seen to implicate grammar at more subtle levels as well. There is evidence in favor of a view of the "clause" as being closely related with the way in which people manage the give-and-take of their linguistic interaction, in other words, with the way they negotiate turns, with the business of who will talk when in the service of larger activities. What activities they are engaged in has been shown to have much to do with the grammatical shape that turns take.

Among the far-reaching implications of this approach to grammar is a focus on local, often collocational, rather than global, patterns (Bybee, 1985, 1989, 1995, 2001, in press). To take just one example, let us consider what the data tell us about systematic local patterns in usage that suggest that speakers store and retrieve individual verbs as such rather than as members of "classes." The English verb *remember* is typically considered to be a member of the class of transitive verbs that can take two types of "direct object": it can take an ordinary noun phrase as a direct object, as in:

(1) *She remembered **her keys***[1]

and it can occur as a "complement-taking predicate" (Noonan, 1985), meaning that it can occur with a "complement" clause as its direct object, such as *that I had locked the door* in a sentence like:

(2) *I remembered **that I had locked the door***

[1]Our examples have been taken from a number of sources. We have not attempted to retranscribe them, but have left them as the authors whose works we are citing have them. A transcription summary is provided in the Appendix. Examples in italics are constructed.

In particular *remember* is considered to be a complement-taking predicate in the class of "private verbs" (Biber, 1988; Quirk, Greenbaum, Leech, & Svartvik, 1985) or "verbs of cognition" (Givón, 1980; Noonan, 1985). The construction of such classes of verbs is based on sets of imagined sentences whereby *remember* can be viewed as behaving like other verbs that take similar complements and have similar meanings involving cognition, such as:

(3) *I thought that I had locked the door*
I said that I had locked the door
I discovered that I had locked the door
I hoped that I had locked the door
I forgot that I had locked the door
I realized that I had locked the door

Grounded in idealized data of this type, the class of transitive, complement-taking verbs of cognition, with *remember* as a prototypical exemplar, seems robust. However, Tao (2001), in an extensive corpus study of the actual everyday usage of the verb *remember*, drew some surprising conclusions, which seriously challenge this view of classes of verbs as falling into neat categories based on imagined similarities in syntactic behavior and meaning.

Among a number of valuable results, of particular relevance to our point here is Tao's (2001) finding that (a) *remember* rarely takes a complement clause, and (b) the environments in which *remember* occurs are unlike those in which other members of the illusory class of cognitive verbs occur. Here is a typical environment for *remember*, from a conversation between a pair of fiancés:

(4) JEFF: **remember,**
JILL: . . @@@
JEFF: . . you're gonna spend the rest of your life with me.

Tao noted that in this example, the verb *remember* is used (in the present tense) without any subject, occurs as an imperative, forms an intonation phrase of its own, and is followed by a pause. Syntactically, it is possible to analyze this example as either a verb *remember* followed by a complement clause or as a discourse particle followed by a main clause. Tao suggested that the prosody, rhythm, and pausing all support the second analysis. Here is another typical environment for *remember*:

(5) LOIS: she probably **remembers**].
JANICE: [uh Ev] John.
EVELYN: [I don't **remember.**

In (5), the verb *remember* occurs twice. In the first instance, it also has no direct object (either a noun phrase or a complement clause), occurs in the

present tense, and finishes a turn. In the second instance, it occurs with the pronoun *I* again has no direct object (either a noun phrase or a complement clause), occurs in the negative in the present tense, and finishes a turn. Tao's quantitative analysis revealed that these are among the highly recurrent properties of instances of *remember* in the data.

Tao concluded that "the entire notion of *remember* as a complement-taking cognitive verb should be called into question," arguing that his findings strongly supported an analysis in which *remember* is seen as an interactional marker of epistemic stance, rather than as a member of a class of transitive cognitive verbs. That is, from an interactional point of view, *remember* is best understood as a marker that indexes the speaker's stance toward a state of affairs. In the case of an example like (4), it also invites the listener's affiliation with this stance, and in the case of an example like (5), it indexes the speaker's uncertainty toward the state of affairs as a response to a previous speaker's invitation to provide information.

We find Tao's study compellingly revealing in showing some of the ways in which an analysis of actual language use in ordinary interactional contexts suggests a very different picture of the storage and retrieval of grammatical patterns than what we would imagine from working with idealized data. In particular, we see patterns emerging at a very local collocational level (what some linguists have referred to as "syntagmatic") rather than at a more global level of stored classes of types of words and morphemes (what some linguists have referred to as "paradigmatic").

Such findings reinforce the view that grammar is a set of local regularities; they further show us that the discovery of these regularities depends on a study of interactional talk engaged in by people going about their everyday activities. Thus we understand grammar as a minimally sorted and organized set of memories of what people have heard and repeated over a lifetime of language use, a set of forms, patterns, and practices that have arisen to serve the most recurrent functions that speakers find need to fulfill.

Considering language from this perspective, conversational interaction is the ontogenetically and phylogenetically first habitat for language development and use, and that it is the arena of language use from which other uses derive (Chafe, 1994; Fillmore, 1981; Schegloff, 1993, 1996b, *inter alia*). Any adequate account of grammar, what has been taken to be linguistic **structure**, must, then, include attention to the functions of language in face-to-face interaction.

Much fruitful research in discourse linguistics over the past several decades has been concentrated on cognitive processing and information packaging as the functional bases for linguistic structure, and work on grammar in interaction certainly maintains and builds on that understanding. However, in the "primordial" (Schegloff, 1993, 1996a, 1996b) site of language use, such processing and packaging functions are always intertwined with, and in simultaneous service of, social interactional functions.

In the following section, we present five examples, from our work and from that of colleagues, of the close fit between grammar and social interaction. We have chosen these examples because they display a wide range of ways in which grammar has been shown to be intimately related to the social actions that people are involved in when they talk. We start with showing how grammar is related to the way people construct turns, then move to a discussion of grammar and sequences of turns. Next we talk about the intimate ways in which grammar is involved in the way people repair utterances. We conclude with two specific and much-discussed areas of grammar that recent research has shown to also be intimately intertwined with, and ultimately explainable in terms of, social interaction.

THE SOCIAL RELEVANCE OF GRAMMAR: CASES IN POINT

Coparticipation and the Construction of Turns

The fact that talk in interaction is produced in the presence of active coparticipants brings into play the constant relevance of how and when addressees produce responsive behaviors. There are at least two far-reaching implications of the socially distributed nature of talk-in-interaction: The first has to do with the grammar of turn construction as a resource for the prediction of upcoming points for speaker change. The second involves the input of addressees and how a speaker can use that input as a source for revision and extension in the production of a single turn.

With respect to the units of turn building, it is clear that interactants both build their own turns and closely monitor their interlocutors' turns with special attention to recurrent grammatical and prosodic trajectories. If this were not true, pauses would not have the clear meanings that they evidently do have in interaction. A pause, from a cognitive perspective, is regularly taken to reflect processing time. However, in real time, on-line interaction, one's verbalizations and one's "lapse time" is always given a social meaning. Research on interaction demonstrates unequivocally that split seconds of silence in talk are points of heightened social significance, points where who will speak next and how they will speak are at issue. A pause, though having no verbal reality from a traditional linguistic point of view, can be interpreted in very precise ways by interlocutors. In an oft-cited case from a lecture by Harvey Sacks (1987), we find a speaker responding to a pause by revising a question to what is essentially its opposite:

(6) A: They have a good cook there?
           ((pause))

A: Nothing special?
B: No, everybody takes their turns.

As can be seen from this example, meaning is attached to emergent pauses after grammatically and prosodically complete turns. Thus, prosody and grammar facilitate a critical practice for meaning making in interaction, the practice of either initiating a next turn right at the predictable point of a previous turn's completion or, alternatively, allowing a pause or starting early, both options carrying social meaning. In real-time interaction, grammar and prosody are not only produced with reference to the encoding of information, they are also crucially deployed and monitored in order for speakers to achieve turn transfer. Analysts working closely with conversational data have termed this property of turn construction "projectability" (Sacks, Schegloff, & Jefferson, 1974), and grammar has been implicated as a central resource for the projection of turn trajectories.

The evident attention that speakers give to the projection of turn trajectories.

The evident attention that speakers give to smooth turn transfer has significant consequences for the ways in which grammar has arisen within the massively recurrent functional environment of turn construction (Sacks et al., 1974, p. 721; Schegloff, 1988, 1996a, 1996b). The work of Lerner (1991, 1996) and of Jefferson (1973, 1983) has, in particular, demonstrated the social meanings that are produced through the close monitoring of a turn's trajectory. Lerner's work has concentrated on the collaborative production of grammatical units and Jefferson has shown how transition spaces are treated with heightened salience, with early starts of next turns being deployed as a means for emphasizing prior knowledge of what is encoded in the overlapped turn. Neither the collaborative production of turns nor the strategic deployment of uptake timing is possible in the absence of the projectability of the unit in progress. This constant need for managing turn projection has clear implications for an account of the psycholinguistic processes of language production in interaction. We see the exploration of projectability as an area in which much research is needed and to which the attention of psychologists could be of great value.

A second consequence of the dynamic social context of language use in interaction relates to the manner in which grammatical units can be revised and expanded during their production, allowing a speaker to be responsive to his or her interlocutor even if that addressee has not yet produced a verbal response. Although sentences have traditionally been analyzed as finished units and as products of single speakers, in language in interaction, empirical evidence implicates the moment-by-moment monitoring of addressee verbal and nonverbal responses in the production of what may appear to be a single authored turn (Goodwin, 1979; Schegloff, 1987).

The work of Charles Goodwin has been essential in demonstrating the interrelatedness of clause grammar and the real time construction of turns,

especially as concerns the extension of clauses to meet interactional demands. Goodwin (1979, 1981, 1989) has argued that in building single clauses a speaker may change the course of, add to, or extend, a clause-in-progress in direct and documentable response to interactional considerations, considerations that emerge as the turn itself is being developed. One case that Goodwin has extensively examined involves a turn that is produced by a single speaker, but that in its incremental extensions is addressed to several different speakers until adequate uptake is offered. We reproduce this sentence here, with each extension past a point of possible grammatical completion given a separate line:

(7) 1   I gave. I gave up smoking cigarettes:.
    2   I:uh: one-one week ago
    3   today.
    4   actually.

What Goodwin showed is that each of these additions comes as a result of problems with the response of a potential addressee, as visible from the gaze of the speaker. Goodwin further accounted for the manner in which each added unit is built not only to extend the grammar of the previous one but to provide information that is of particular relevance for a new addressee. Note for example that the unit in lines 1 and 2 would not be "news" for the speaker's wife, but the units added at 3 and 4 would recontextualize the turn as being a realization that the speaker could be sharing with his wife, toward whom the speaker gazes during lines 2 and 3. What is striking about this case and Goodwin's analysis of it is that this utterance could be viewed as a single sentence, that is, as having been planned as such from the very beginning. This may, in fact, be just what the speaker tries to pull off by adding the specific increments he does. However, if we look at the utterance in real time, and in visual and embodied space, we can see the way it unfolds through an interactional give and take.

Building on research with turn projection and turn extension, Ford (1993) examined the particular work of adverbial clauses in interaction. Significantly, adverbial clauses may be placed either before or after the material they modify. In naturally occurring interaction, the use of such clauses in initial position can be a resource for constructing longer turns. This works because initial placement of the adverbial clause projects at least one more clause before a point of completion is reached. A speaker can exploit this projection and, after using the adverbial clause, he or she can parenthetically add more material before coming to the projected completion point: this strategy successfully manages the constantly present pressure of completion (recall that pauses when uptake is expected will have social interpretations).

In the following example, note the way that V interrupts the progress of her turn to introduce a conditional clause, at the arrow. In so doing, she is able to produce a rather long utterance before she comes to a point of possible turn completion.

(8) V: So the doctors said, that they would- (0.3)
→   If he: (0.5) didn't wanna keep being active,
        an' do sports n' things, right now, at his age,
        an' with the bad condition of his knee,
        they normally put in a plastic knee.

Had V completed the turn as she began it, that is, with the main clause first, she would have reached a possible point of grammatical completion before she had added the crucial conditions on this case, as illustrated in (9):

(9) Constructed alternative

V: So the doctors said that they would normally put in a plastic knee.

From a purely cognitive processing perspective, this choice of presentation format could be explained in terms of information structuring of a different sort (see Chafe, 1984; Ford & Thompson, 1986), but given what we know about the contingencies of turn projection and turn transfer, it would make the most sense to consider *both* information flow and social interactional exigencies in accounting for the ways that speakers deploy such grammatical options in conversation.

In line with Goodwin's observations regarding turn extension in the face of problems with addressee uptake, Ford (1993) also found recurrent patterns in the use of added adverbial clauses after possibly complete turns. In the following example, an adverbial clause is added after no immediate uptake from an addressee.

(10) Discussing R's back pain
A: .hhh Well do you think it's: umm (0.2) ahm (0.2) stress?
    (.)
→   'Cause a lot of back- I know back pain, (0.2) comes with stress.
R: .hhh we:ll I'm thinking it might be uh (0.2) I um: (0.5) I haven't ever had- ahh directly related physical symptoms of stress before, and it could easily be that.

The addressee, finally does provide some form of uptake after the added clause, but it is worth noting that the uptake is not demonstrative of a

strong agreement. The format of R's response shows many of the prototypical signs of what might best be termed weak agreement. In fact, the particle *Well* is a regular preface to fully disagreeing turns; R's agreement is far from a wholehearted one.

The English adverbial clause represents a traditional grammatical category, one that has a long history in the sentence-level description of clause combining and also has a history of semantic analysis in terms of such categories of conditionality and causality. Recent discourse analytic research has shown the significance of adverbial clause placement in relation to information structuring (Chafe, 1984; Thompson, 1987), and pragmatic analysis has led to our understanding of the different levels at which such clause connections can be operating (Sweetser, 1990). What we would submit, however, is that in addition to these information and semantic processes that a speaker must attend to, in naturally occurring conversation, a speaker must crucially and continuously attend to the contingencies of turn construction and turn transfer. In real interaction, individual speakers are always accountable to these interactional exigencies, and there is never a lapse in which they are off the hook, so to speak. For a complete functional account of traditional grammatical categories, we need to look beyond isolated sentences, and we also need to look beyond monologic conceptions of the natural conditions of language production and processing demands. In the case of adverbial clauses, usage is responsive to moment-to-moment interactional contingencies, whether the need to project further talk beyond a single clause, or the interactional problem of lack of immediate uptake from the addressee. Thus, in order for psychological accounts of language to come to terms with the ubiquitous use of language in interaction, pause time, for example, needs to be considered as an interactional resource rather than only a reflection of lapsed time with respect to cognitive processing.

Grammar and Interactional Sequences

The production of a turn involves an ordered progression through a verbally structured action, and the operation of turn taking depends on an ordering of speaking opportunities. Looking at yet another kind of conversational structure, we observe that interactants organize their talk into unfolding activities—predictable, yet collaboratively and contingently constructed, sequences. Sequences, thus, involve the temporal and progressive ordering of actions in interaction. Certain actions are expectable or relevant after certain other actions. This observation has led to the documentation of specific sequence types. Sequence structure has been demonstrated by research on paired utterances ("adjacency pairs"), preferred response types and shapes (Pomerantz, 1984; Sacks, 1987), and the interactional emer-

gence of special speaking roles such as those manifested in story sequences (Jefferson, 1978; Sacks, 1972, 1974).

Grammar, viewed as an interactional resource, is also adapted to structured sequences of turns that form bounded activities within conversations. This can be seen in another traditional area of grammar that has been described at both sentence and discourse levels, but that has been further shown to be tightly intertwined with interactional practices as well. The study of alternations between full nouns and pronouns comes under the linguistic heading of anaphora. In a variety of ways, the choice of a full Noun Phrase (NP) or a pronoun in English conversation is bound up with the display of the structure of conversational sequences.

Through attention to the structure of conversational sequences, Fox's research provided a more complex picture than one that attends mainly to issues of continuity of reference, as put forth by Givón (1983). Givón held that the choice of anaphoric device was correlated with the distance to the last mention of that referent, with consideration of intervening referents as well. In conversational sequences, Fox (1987) found that in choosing a full NP or a pronoun, a speaker can also be proposing that a sequence has either ended or is continuing. Thus, in the following example, although a common information management-based explanation would predict that the referent first indexed as "Hillary" would, in this continuous environment, be referred to with pronouns, note the reference at line 11:

```
(11)  1  M:    Well  (anyway listen) I gotta (go), I gotta(-) do
      2           a lotta studying
      3           (0.3)
      4  M:    Oh and Hillary said she'd call me if- she was
      5           gonna go to the library with me
      6           (0.9)
      7  M:    But- (0.1) I don't think she will
      8  M:    So anyway (0.2) tch, I'm gonna go have these
      9           xeroxed
                 and I'll come back in a little bit.
     10  (M):   (hhhh)(hh)
     11  R:    (Okay, Say]) hi to Hillary for me.
     12  S:              [Okay]
     13  M:    Okay I will.
```

Lines 1 to 7 involve a sequence that is treated as closed by M's *So anyway* at line 8, which moves into a new sequence, the closing of the conversation (Schegloff & Sacks, 1973). Thus when the person referred to in lines 1 to 7 is again referred to at line 11, the reference is part of a new sequence; a clos-

ing sequence, and is done with a full NP. It is the interactional structuring that produces an environment in which the re-referencing would be done in this uneconomical form, a discovery that follows only from a close interactional analysis.

In what might be considered as an opposite strategy to that in (11), in the telephone conversation in (12), a sequence that has been closed is subsequently reopened with the help of a pronoun:

```
(12)  1  A:    Hello
      2  B:    Is Jessie there?
      3  A:    (No) Jessie's over at her gramma's for a couple days.
      4  B:    Alright thank you.
      5  A:    You're welcome?
      6  B:    Bye.
      7  A:    Dianne?
      8  B:    Yeah.
      9  A:    OH I THOUGHT that was you.
  →  10  A:    Uh-she's over at Gramma Lizie's for a couple of days.
     11  B:    Oh okay.
```

Note that "grammar" is referred to in line 3, after which prototypical conversational closing turns follow (lines 4–6) (Schegloff & Sacks, 1973, p. 317). It takes special work by A, at line 7, for the conversation to reopen. A, apparently having just now recognized to whom she is speaking, uses a summons, *Dianne?* What follows, in line 10, is a re-referencing of *Jessie* through the use of a pronoun, even though the last mention of *Jessie* is many lines earlier and in what was then treated as a closed sequence. Speaker A effectively accomplishes a continuation of that earlier sequence with the aid of this artful choice of NP form.

Although there is much to say about the complexities of interactional sequences, for now, let us observe that speakers work on a turn-by-turn basis to show each other what sort of sequence they are co-constructing, where it begins, how it continues, and how they might close it and move to another sequence or end the interaction. Grammatical structures are prime resources for working out where one is sequentially, as illustrated in Fox's work with reference formulation.

Grammar and Repair

Fox, Hayashi, and Jasperson (1996) explored the ways in which same-turn self-repair, whose operation is rooted in various interactional pressures, is managed in languages with vastly different syntactic practices to meet these pressures. To this end, they discussed ways in which the organization of re-

pair differs across two languages, English and Japanese, and argued that these differences in repair organization—and possibly even differences in the mechanisms of turn-taking—correlate, at least in part, with larger differences in the syntactic practices employed by speakers of these two languages. Here we present two of their findings regarding the differences between repair organization and syntactic organization between Japanese and English. Before turning to the differences in repair between Japanese and English, a brief sketch of the grammatical organization of each language is in order.

Syntax in Conversational Japanese

Japanese is often described as an SOV, or verb-final, language (where S stands for subject, O for direct object, and V for verb). In conversational data, many utterances are verb-final:

(13) H: tashoo   maketoku.
         and more-or-less discount
         "and (we) discount more or less."

However, certain elements can occur after the predicate (e.g., so-called final particles). Moreover, it is commonly known that S and O are often not expressed in conversational Japanese (Hinds, 1982; Kuno, 1973; Maynard, 1989; Ono & Thompson, 1997; Tanaka, 1999). Consider the following examples (nouns that are not expressed in Japanese are given in parentheses in the English translations):

(14) H: hajimete   mita kedo.
         for-the-first time saw   but
         "(I) saw (her) for the first time."

In (14) neither the subject nor the object is expressed. Even verbs can remain unexpressed.

The result of these patterns is that clauses in conversational Japanese often show one or more overt nouns that are not S or O but are rather nouns describing locations, times, and other settings; these are then followed by a verb in some utterances, though not in all; final particles often follow the verb. The order of nouns that do occur in an utterance is flexible, responding to the interactional needs of the moment of utterance.

Referring nouns in Japanese conversation can be followed by case particles, or postpositions, which indicate the role of the noun in the clause (e.g., subject, direct object, locative). These particles function somewhat like case marking systems in languages like German and Russian (but see Shibatani, 1990, ch. 11, for a discussion of the complexity of Japanese case

particles, and Fujii & Ono, 2000; Matsuda, 1996; Ono, Thompson, & Suzuki, 2000; and Tanaka, 1999, for discussions of the use of case particles in Japanese conversation).

Syntax in Conversational English

English is usually described as a rigid SVO language. Although there is some word order variation in our conversational data, in fact most utterances do tend to be SV(O), with prepositional phrases coming after the direct object, if one is present. Subjects in English conversation are overwhelmingly human and pronominal (Dahl, 1997; Scheibman, 2001, in press).

It is important to point out here that English is somewhat odd cross-linguistically in requiring the presence of a subject in nearly all utterances; it is rare, even in fast conversation, for speakers to produce a main clause without explicit mention of the subject.

Organization of Repair

What Fox, Hayashi, and Jasperson (1996) found is a number of ways in which repair is organized differently across the two languages in question. We discuss two of these first, and then present their argument that these differences in repair organization arise, at least in part, from more general syntactic differences exhibited across the two languages (the findings reported here were first noted in Hayashi, 1994).

Procedures for Delaying Next Noun Due.

The first type of difference in repair has to do with the general function of delaying the production of a next item due. Fox, Hayashi, and Jasperson (1996) focused on delays involved in the production of lexical parts of noun phrases—in particular, nouns. Syntactic differences between the two languages may be implicated in a different set of repair procedures for delaying the production of a noun. Consider first the following examples from English (in this discussion of repair, an asterisk indicates the site at which repair is initiated, and brackets indicate the "repairable" material):

(15) M: on the back of his pickup truck [with a.*] (0.4) with a jack.
(16) B: We're gonna take it [through the*] through the mill so to speak.

In these examples, the speakers have begun a prepositional phrase, initiated repair, and then recycled the preposition and a possible article before progressing with the rest of the phrase. In each of these cases, recycling constitutes a procedure for delaying the production of a next item due.

This procedure could, for example, be part of a word search, a request for recipient-gaze, management of overlapping talk, and/or production of a dispreferred.

Japanese speakers, it turns out, do not use recycling to delay the production of nouns. The reason for this seems to be that whereas prepositions and articles in English precede their nouns, postpositions, such as case particles, in Japanese follow their nouns. It is clear that English speakers make use of the fact that prepositions and articles precede their nouns; prepositions and articles provide material to be recycled before the speaker must produce a noun. Japanese speakers, on the other hand, do not have available to them non-lexical material to recycle before a noun, as case particles follow their nouns (and Japanese has no articles).

Because of the syntactic organizations of the two languages, then, English speakers can make use of preposition and article recycling as part of a delay strategy, whereas Japanese speakers cannot. The data indicate that Japanese speakers make use of other practices for delaying the production of a next item due.

From these facts we can see how it is possible that the syntactic practices employed by speakers shape the organization of the repair strategies that are used.

The Scope of Recycling.   The second type of difference in repair also involves recycling. In this case the difference suggests the possibility of very basic differences in the turn-taking mechanisms of the two languages. Consider the following examples from our English data:

(17) B: in this building- we finally got [a-*] .hhh a room today in- in
           the lch- a lecture hall.

(18) k: Plus once [he got- (0.8) some*] um (1.3) he got some battery
           acid on: (0.2) on his trunk or something.

In (17), repair is initiated after a noun phrase (defined as a noun plus any modifier that might occur) has been started. In recycling, the speaker only repeats the part of the noun phrase that has been produced so far—the indefinite article. The speaker does not recycle "back to" anything earlier in the utterance. In Example (18), the speaker also initiates repair after starting a noun phrase; in this case, however, the speaker repeats the whole clause (excluding *plus once*) rather than just the part of the noun phrase produced so far.

One way of stating the pattern in English is to say that the domain of recycling can either be the local constituent under construction at the time repair is initiated (e.g., noun phrase), or it can be the clause. This pattern holds for all constituents, including verbs and prepositional phrases.

In comparison to this pattern, the Japanese data show only constituent-internal recycling; that is, at least in these data, Japanese speakers do not make use of clausal recycling. This means that if a speaker initiates repair after starting a noun phrase, he or she will recycle back to the beginning of that noun phrase but not further back; repair initiated during the construction of the verb usually is handled by recycling just the verb, not other elements that might have preceded the verb (except in one case the direct object of the verb, which makes a local constituent—a verb phrase). So one does not find counterparts in the Japanese data to Example (18). Here we give examples of recycling in Japanese:

(19) M: trevunka koko denwa   [kaket-*] kakete kite   sa.
           Imean here telephone   ca-   call   come FP
           "I mean, (they) ca-called us here."

(20) T: . . . mukoo   no   [suubhu-*] suubhu no   sa: vuushuu.
           the.other-party   GEN   staff   staff   also FP excellent
           ". . . their staff- staff is also excellent."

We thus seem to have a systematic difference in the possible domains of recycling between the two languages. The reason for this difference, it seems, lies in the different syntactic practices employed in managing local interactional needs.

The syntactic practices that seem to be at the heart of this difference in repair are the following. As mentioned earlier, all referring nouns in Japanese can be marked for case, and the order of nouns before the verb is flexible. In addition, subjects and objects in Japanese, particularly subjects, are often not explicitly realized (as seen in (11)). The verb in Japanese comes at or near the end of the clause.

The kind of turn structure these facts lead to typically, although of course not always, starts with some kind of discourse marker (e.g., *ano, nanka*), followed by adverbials, or nouns either not marked to show any relationship with other parts of the clause or indicating setting of some kind, followed by the verb, and possibly followed by so-called final particles. So what occurs early in the turn-constructional unit (or "TCU"; see Sacks, Schegloff, & Jefferson, 1974) is often only loosely associated structurally with what is to follow. Conversational utterances in Japanese thus seem not to show tight syntactic organization (for similar findings and further discussion of their implications, see Hayashi, 2000; Iwasaki, 1993; Iwasaki & Tao, 1993; Tanaka, 1999).

English, on the other hand, requires the presence of an overt subject and is fairly rigidly SV(O). This leads to turns that may begin with a discourse marker (e.g., *well, so*) and then continue with a subject, then a verb, and then a direct object, or prepositional phrase, or adverbial, if these are

appropriate. Conversational utterances in English thus could be said to exhibit a higher degree of syntactic coherence.

From a syntactic perspective, then, we can say that in English the subject begins a tightly knit clause structure and hence syntactically is the "beginning" of the clause, whereas in Japanese there is no consistent element that serves as the beginning of a tightly knit syntactic unit—in fact, there is no such tightly knit unit. In Japanese, elements in an utterance seem to be more independent from one another than are elements in an English utterance; we believe that the difference in the organization of recycling across the two languages reflects this difference.

Fox, Hayashi, and Jasperson (1996) suggested that these syntactic facts affect repair because they affect a crucial aspect of the turn-taking mechanisms of these two languages, namely projection. That is, they argued that the beginnings of TCUs in Japanese do not tend to have elements that syntactically project the possible organization of what is to follow. For example, from the presence of an adverbial or a location-indicating noun, a recipient cannot necessarily predict what kind of syntactic element will come next. It seems, however, that the beginnings of TCUs in English do project possible organizations for what is to follow; for example, often in English as soon as one hears the subject, one knows (in a practical sense) that a verb is coming; and as soon as one hears the verb, one knows what is likely to come after the verb. That is, the beginning of the clause in English is rich with information about how the clause is likely to continue. The beginning of the clause in English projects its likely continuation.

So Fox, Hayashi, and Jasperson (1996) argued that English speakers and recipients are able to use an "early projection" strategy because of the syntactic practices they employ; Japanese speakers and recipients, on the other hand, engage in syntactic practices that do not make easy "early projection" strategies; from their data, they suggested that it is possible that Japanese speakers make use of "wait and see" strategies that are enabled by the syntactic practices available to them. At any rate, they suggested that syntactic projection can take place earlier in an utterance in English than in Japanese. Obviously, neither set of strategies is in any way better than the other; they simply provide different resources for accomplishing transition to a next speaker.

We have seen so far that the beginning of a TCU carries with it different interactional possibilities in English than in Japanese. In fact, it is possible that TCU beginning, or "turn beginning," is not an interactional object in Japanese the way it is in English. This fact suggests a possible motivation for English speakers' return to the subject in some cases of recycling, whereas Japanese speakers stay within local constituents for recycling. In English, the beginning of the clause is a coherent syntactic and interactional object from which a re-projection for the entire clause can be made, whereas in

Japanese the beginning of the clause may not be syntactically knit to what follows in the clause, and would not be the site of re-projection. In Japanese, projection may be done much more bit-by-bit than it typically is in English, and the organization of recycling reflects this fact. These hypotheses have been supported by further research (see, e.g., Hayashi, 2000; Tanaka, 1999).

So far we have considered some of the activities speakers engage in, and the bearing they have on the timing and grammatical shape of the turns they take. In addition to the implications of turn-organization for the shape of grammar, we can point to other areas of grammar where the activities in which coparticipants are engaged play a role in the way grammatical regularities emerge. In the following sections we examine some of these, and conclude with suggestions of further areas in which similar discoveries might be made.

Grammar and Assessments

Research has revealed a major activity that adjectives are used for in informal conversation, namely offering *assessments*, whereby coparticipants interactively evaluate persons and situations (Goodwin, 1980; Goodwin & Goodwin, 1987, 1992a, 1992b; Pomerantz, 1984; Strauss & Kawanishi, 1996; Uhmann, 1996).

Grammatically, it turns out that the primary way assessments are done is with adjectives.[2] Here is an example from our conversational data (adjectives bolded):

(21) K: it's **incredible** how they live.
     C: it **IS incredible**.

Linguists generally accept the idea that many languages can be shown to have a category of "adjective." English is one such language, where we can find distributional evidence of an "adjective" category that is distinct from other lexical categories such as "noun," "verb," and "adverb" (Ferris, 1993; Quirk et al. 1985).[3] Most linguists agree with Quirk et al., who argued that

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[2] As the examples discussed in this research make clear, using predicative adjectives is not the only way in which assessments are done; other grammatical forms, such as the use of expressions like *I like*, intensifiers such as *really*, and prosody can also be used to convey evaluations. A valuable study would consider the active-coordinating role of various recurrent grammatical schemas; in the absence of such a study we content ourselves here with the observation that a high proportion of the assessment sequences in our data and described in the literature invoke predicative adjectives.

[3] However, many languages cannot be so easily argued to have a class of adjectives; for relevant discussion, see Croft, 1991; Dixon, 1977; Schachter, 1985; Thompson, 1988; and Wetzer, 1996.

membership in the category "adjective" should be considered to be gradient.

The use of adjectives has traditionally been described for English in terms of a broad distinction between "predicative" and "attributive" uses. A "predicative" use is an adjective in the role of the predicate of a clause, as in (21) and (22), all taken from our database:

(22) they weren't that **good**
they're really **expensive**
it's **wrenching**

An "attributive" use is an adjective in the role of a modifier of a noun within the same Noun Phrase (NP), as in:

(23) I would go to an **Italian** opera
it's a **nice** place to doze
it's a very **bleak** story
that's a **big** hunk of fish

These traditional distinctions come alive when we consider how adjectives are manifested in everyday English conversation. Two interesting recent discoveries are relevant.

First, Englebretson (1997) has shown that the distinction between predicative and attributive adjectives is strikingly related to the type of interaction that participants are engaged in. For informal conversational English, where much background, and especially knowledge of the referents, is shared, the predicative use of adjectives is much more frequent than the attributive use. For more formal situations and for telling stories, where less background and less knowledge of referents is shared, attributive adjectives tend to be more frequent.

We can relate this finding to the argument that these two uses of adjectives, and their concomitant structural schemas, serve the participants in very different ways. Thompson (1988) argued that attributive adjectives play a major role in the way speakers introduce new referents into the conversation, whereas predicative adjectives evaluate or comment on a referent that is already shared knowledge between the participants. To illustrate, consider Example (24), as analyzed in Englebretson (1997):

(24) (h)h h he had on a **white** suit, Liza had on a um, (.)
a **black** suit, and then he stand there and tells her how it's
not - (.) it needs to be **baggier** here, and they're analyz -
they are so **superficial**,

Here we can see the use of the attributive adjectives *white* and *black* to introduce the referents of the two suits into the conversation. Then the predicative adjective *baggier* is used to evaluate or comment on the just-introduced referent of *suit*, and the predicative adjective *superficial* is used to evaluate the referent of *they*, which refers to "he" and Liza, the people introduced at the beginning of the excerpt.

In other words, the predicative adjectives are involved in doing assessments, whereas by and large the attributive adjectives are not. That is, there seems to be a relatively clear functional distinction between attributive uses and predicative uses of adjectives. What we have, then, is a traditionally identified distinction between attributive and predicative adjectives correlating to a significant degree with a distinction between two recurrent interactional activities, that of introducing referents for further discussion and that of assessing already-introduced referents. These correlations provide a compelling case for our argument that certain recurrent kinds of interactional activities precipitate certain recurrent kinds of grammar, and that important cues to an understanding of what grammar is can be found in considering how grammar works in everyday social interactions.

Grammar and the Interactional Negotiation of Referents

In referring to people or objects, people often find it useful to check, or confirm, that the listener(s) are thinking of the same referent before they go on to give a predicate associated with it. We can think of this activity as negotiating a referent. Here are some conversational examples, with the referent being introduced in boldface and the later mentions of that referent underlined:

(25) A: now um, **the last paragraph** -
B: yes
A: um I seem to remember it, being different from what's printed

(26) and so **my red sweater**, I haven't seen it since I got it.

(27) A: and **this la:dy**, (.) nobody knows yet why,
and most of us think, she probably fainted.
(.)
but she fell.

(28) A: **this party I went to Friday night**, where Jane was jamming
on that harmonica? that was absolute - well first of all
it's paddlers.

(29) and **this guy**, (.) he went, (.) and he knew (.)Smokey,
(.)

and you know <u>he</u> knew what was going on.

(.)

and <u>he</u> worked around there in the yard.

It turns out that the grammatical consequences of negotiating referents in English are quite systematic—and quite social. As suggested by the bold-facing and underlining in these examples, we can describe the grammar of this activity in terms of a schema in which the referent is introduced with a characteristic prosody, followed by a pause, and then the same referent is referred to by a pronoun as one or more predicates are uttered. As several researchers have pointed out (Ashby, 1988; Clark & Wilkes-Gibbs, 1986; Geluykens, 1992; Ochs, 1983; Ochs & Schieffelin, 1983; Tao, 1992, 1996), this grammatical schema can be seen to be highly interactional. Geluykens (1992, ch. 2) showed that these referent-negotiating turns are built in such a way that after the mention of the referent, there tends to be a noticeable slowing and pausing so that, if the listener has any reaction, verbal or otherwise, there will be room for it, as shown in the following schema:

(30) *Referent-negotiating schema*
  A: NP + pause
  B: (acknowledgement of NP)
  A: clause with NP as participant

According to his analysis, most (81%) of the referent-negotiating interactions in his database are of this form, with either a pause (52%), as in (26) through (29), or a pause plus an actual turn (29%) in the second position, as in (25).[1]

We thus see that the design of a very recognizable grammatical schema, referred to as "left-dislocation" in grammatical studies, is closely correlated with the interactional function it has emerged to serve. One very useful resource that speakers of English have access to is what we can think of as the referent-negotiating schema, where a referent is mentioned with a short pause, allowing the addressee to intervene if there is trouble identifying that referent, and then a clause follows with a pronoun referring to that referent and a predicate about that referent.

CONCLUSION

In this chapter, we hope to have suggested some of the benefits of approaching grammar from an interactional point of view. We have shown that perhaps the primary benefit is that we come to a clearer understand-

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[1]In fact, although we do not pause this here, Geluykens showed that the apparent counterexamples also provide support for this analysis.

ing of just what grammar is all about. The interactional data support a view of grammar as a set of complex routines that emerge as people devise recurrent ways of resolving communicative problems. The very basic nuts and bolts of grammar, such as clauses, pronouns, verb forms, and "parts of speech" like adjectives, can be seen to fit into a picture of grammar as an adaptive resource in which the most useful routines are selected and strengthened by daily use.

Another benefit of this approach is that it keeps its realistic in our claims about what grammar is. The interactional data make it clear that grammar is part of a larger set of concerns in human communication, concerns that include body position, eye gaze, head and arm movements, as well as relationships and social organization. Clauses are related to the emergence of complex management of turns in talking, which is further related to the emergence of complex organizations in groups of people. To be adaptive to ever-changing social needs, grammar has to be flexible, probabilistic, and more loosely structured than has been assumed.

Our experience is that a social approach to grammar pays off handsomely in new discoveries about what grammar must be understood to be. Every aspect of grammar can be profitably seen in terms of what people are doing when they talk.

APPENDIX

.	period indicates final intonation
,	comma indicates continuing intonation
?	question mark indicates rising intonation
sh-	hyphen indicates a cut-off sound
(0.3)	a timed pause
(anyway)	parentheses indicate uncertain hearing

(specific to the Du Bois, Schuetze-Coburn, Paolino, & Cumming, 1993 system)

@	laughter
[]	overlapping speech
=	length

(specific to the Sacks et al., 1974 system)

:	length
<u>she</u>	stressed syllable
<u>SHE</u>	greater volume than surrounding talk

()   a short beat of silence
(h)   breathiness in a word
hh   exhalation
.hh   inhalation

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