

Recent Developments in Discourse-and-Grammar^{**}

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Abstract

Discourse-and-grammar is a branch of functional linguistics that takes the position that the internal structures can be shaped by forces arising out of discourse. Cognitive and communicative factors motivate and/or constrain the way speech patterns are used in verbal interaction. Grammar is but a set of entrenched speech patterns due to frequent use in daily talk. This paper discusses the main concepts proposed by scholars working in discourse-and-grammar, surveys recent studies of Chinese that take this approach, and briefly mentions a number of promising directions for future research.

Key Words: discourse, grammar, cognition, communication, grammaticalization

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1. Introduction

Discourse-and-grammar as an approach to the study of language was developed as a branch of the functionalist tradition in linguistics, which takes the position that language is primarily a tool for human communication and linguistic forms should be accounted for in terms of this communicative function (Thompson 1992). The discourse-and-grammar approach further emphasizes the importance of examining discourse data, especially naturally occurring conversational data, for understanding why grammar behaves the way it does in mundane speech, where the majority of verbal communication takes place (Hopper 1992). When the spontaneous but interactional nature of human communication and the fragmentary but patterned characteristic of conversational speech are taken into consideration side by side, we have to acknowledge that speech is a contingent and concerted accomplishment reflecting the social settings in which it is situated. Furthermore, those frequently repeated, thus regularized, patterns used in speech would eventually turn into what we call the grammatical structures of the language.

This paper attempts to offer first an introduction to discourse-and-grammar as a functionalist approach to linguistics and then a survey of the recent studies of Chinese that take this approach. Section 2 is a discussion of a number of concepts and notions central to the approach. Section 3 presents the review of Chinese studies. Section 4 concludes the paper with a brief discussion of several promising directions for Chinese discourse-and-grammar research.

2. Major Concepts and Contentions

Discourse-and-grammar as a branch of functional linguistics took shape in the 1970s when some scholars began to take actual discourse as data and then

recognized the relationship between the structure of grammar and the structure of discourse (e.g., Chafe 1980; Halliday 1985; Sankoff & Brown 1976). In the 1980s, various claims were made to account for this relationship (e.g., Givon 1979a, 1979b, 1984, 1990; Haiman 1980, 1983; Haiman & Thompson 1988; Hopper & Thompson 1980, 1984; Pawley & Syder 1983; Tomlin 1987; see also literature referred to in the following discussion). The often-quoted slogan from Du Bois 1985 summarizes the view generally held among researchers in the field: 'Grammars code best what speakers do most' (p. 363). This view also foreshadowed the directions of the quest for the relationship between discourse and grammar in the 1990s. Efforts have been made to answer the question, 'what is it that speakers do most?', and the discoveries are certainly fruitful. Before we come to the recent developments made in the 1990s, we need to briefly review some earlier studies that have become milestones in the development of the field. In this survey, I will go over the achievements made by several scholars who I consider have contributed most significantly to the advancement of the field, although it is obvious that the field would not be as mature and lively as it is today without the research done by many other scholars, before and after them.

W. Chafe has significantly influenced the development of discourse-and-grammar, as he directs our attention to the relationship between memory, consciousness and speech production (Chafe 1987, 1994). He proposes the notion of 'intonation unit' (IU) as the basic unit of spoken (conversational) language, each of which expresses a single focus of consciousness. Related to the notion of IU is his theory of information flow. In addition to old and new information, he proposes the notion of accessible information, which refers to ideas (or concepts) that were mentioned a while ago or ideas that are not mentioned but can be inferred from the overall discourse topic/frame. His "one new idea constraint" limits an IU to no more than one idea that contains new information, although such a unit may at the same time express additional ideas that contain either given or accessible information. His "light starting point con-

straint ” further hypothesizes that the most effective way to communicate is to start with what is shared knowledge between the speaker and the hearer. For example, old information typically occupies the sentence-initial position in English. The IU approach has been widely adopted by linguists working in the field in the 1990s because it captures the fact that the syntax of (spontaneous) spoken language as used in interaction is very different from that of typical written language (Chafe & Danielewicz 1987).¹

The relationship between information, discourse, and grammar is further explicated by J. Du Bois’ studies on the Mayan Sacapultec language (Du Bois 1985, 1987). His “Preferred Argument Structure” (PAS) hypothesizes that each clause contains no more than one lexical argument (the “one lexical argument constraint”), and the lexical argument does not appear in the A role (the “non-lexical A constraint”—A being the subject of a transitive verb). Since new information is conveyed by lexical noun phrases, the new information will be introduced into discourse through the non-A roles, i.e., O (the object of a transitive verb) or S (the subject of an intransitive verb). The A role, on the other hand, typically carries old information, and the old information is realized with pronouns or zero anaphora. Du Bois also proposes the notion of competing motivation, which refers to the two opposite pressures arising from discourse: the pressure to contrast old and new information, and the pressure to maintain topic continuity. Du Bois points out that the grammatical relations in a language, a language-internal matter, are shaped by the competition of these two language-external forces. The ergative-absolutive languages with S/O alignment are those in which the pressure for old/new information outweighs the pressure for topic continuity, whereas the nominative-accusative languages with A/S alignment are those in which the pressure for topic continuity outweighs the pressure for old/new information. However, the workings of both forces are seen in all languages. For example, in nominative-accusative languages we also see structural alternatives (postposed S, thus creating S/O

¹ See Du Bois et al. (1993) for technical details of the IU methodology.

alignment) that would meet the demand for old/new information distinction.

P. Hopper is another linguist who has significantly contributed to the development of discourse-and-grammar. Hopper raises the notion of “ emergent grammar,” which views grammar as a set of “ sedimented (i.e., grammaticized) recurrent partials whose status is constantly being renegotiated in speech and which cannot be distinguished in principle from strategies for building discourses ” (Hopper 1988:118; see also Hopper 1987, 1998). Contrary to the a priori view of grammar, which holds that grammar is a discrete set of rules and logically and mentally precedes discourse, the emergent view motivates that grammar is primarily shaped by the speech patterns speakers form in their actual use of language, which are constantly regulated and reformulated by factors arising from human cognition and communication. Related to the emergent nature of grammar are the notions of frequency and grammaticalization. Over time, a frequently repeated practice in discourse gives rise to the transformation of that pattern into a permanent, “ grammatical ” feature in the language. The inception of grammaticalization, i.e., how grammaticalization takes place, has thus found an account in this approach, in which “ real ” speech data is taken seriously.²

S. Thompson ’s decades of work on the relationship between discourse and grammar is characterized by her numerous collaborations with scholars of diverse specialties, which have certainly contributed to the promotion of dialogue and interaction among various functionalist perspectives. Below, we survey several of her collaborative works published in the 1990s, which all put forward theoretical inquiries that have shaped the trends of research in the field in recent years.

In the tradition of conversation analysis, the “ transition relevance place ” (TRP) has been recognized as the critical site for the split-second precision of

² Major monographs and anthologies on grammaticalization published in the 1980s and 1990s include the following: Heine et al. 1991; Hopper & Traugott 1993; Pagliuca 1994; Traugott & Heine 1991.

the turn-taking system and the sequential organization of talk (Sacks et al. 1974). However, how TRPs are constructed and recognized by speakers and hearers, and what constitutes the related notion of “turn-construction unit” (TCU), have been repeatedly questioned and discussed. Conversation analysts generally take TCUs as syntactic units. That is, the end of a syntactic unit is a possible completion of a turn, at which potential next speakers may start the next turn. Ford et al. (1996) argues, however, that intonation and gesture are just as important to the projection of the TRP. Ford & Thompson (1996) point out further that syntax alone is in fact not the best predictor of turn completion. The authors propose the notion of “complex transition relevance place” (CTRP), at which intonation, syntactic, and pragmatic completions co-occur and next speakers consider the most appropriate place to start a turn. On the other hand, exceptions to this overall turn transition principle, i.e., speaker change occurring at points other than CTRPs, or CTRPs without speaker change taking place, can systematically be accounted for by taking into consideration the local, interactional work that needs to be accomplished at that moment of talk.

Syntax in actual language use is often perceived as fragmentary, incomplete, and disorderly. Ono and Thompson’s investigations of English grammatical constructions in conversation show that the explanation for why syntax looks the way it is in actual language use lies in the operation of the cognitive constraints on information flow and the operation of the interactional constraints on how conversation participants listen and respond to their interlocutor (Ono & Thompson 1995, 1996). Examining how interlocutors collaborate, overlap, and “mess up” with each other’s speech, the authors show that speech patterns can be completed across intervening, irrelevant materials at talk, and can be completed by multiple speakers across turns. Completed talk can also be expanded across speakers.³ Ono and Thompson further adopt Langacker’s notion of schematic language patterns (Langacker 1987, 1991)

³ See Lerner (1991, 1993) for more discussion of speaker collaboration.

and propose to view syntax in practice as a dynamic, negotiating process in which schematic language patterns are subject to constant reshaping.

Extending the emergent view of grammar to the study of the transitivity of verbs, Thompson and Hopper (to appear) criticize the “ argument structure ” approach as being too narrow to account for what is really happening in language use. The argument structure approach contends that verbs provide, on the basis of their meanings, ‘ frames ’ specifying the semantic roles of the obligatory and optional ‘ arguments ’ (e.g., agent and patient) that can occur with them. The semantic roles are then linked to various grammatical relations (e.g., agent to subject, patient to object). However, Thompson and Hopper maintain that in conversational data the majority of the predicates are “ dispersed verbal expressions ” with no fixed argument structure (see also Hopper & Thompson 1980; Hopper 1991). The indeterminacy in argument structure and grammatical relation is best accounted for by the emergent view of grammar: Grammar is a constantly evolving, dynamic, and open-ended set of small sub-systems. Grammatical regularities are simply the entrenchment of certain frequently used patterns (see also Bybee & Scheibman 1999; Bybee & Thompson 1997; Hopper 1997).

Finally, we come to the scholarship produced in conversation analysis, which is also influential to the development of discourse-and-grammar. In the 1960s and 1970s linguists, anthropologists, and sociologists conducted numerous studies of language use as situated action (e.g., Brown & Levinson 1987; Garfinkel 1967; Goffman 1974; Gumperz & Hymes 1964; Sacks 1992; Sacks et al. 1974; Schegloff et al. 1977; Schegloff & Sacks 1973). Aiming to examine how language is used and organized in interaction, the ethnomethodological approach to conversation analysis established the importance of turn-taking and other notions essential to the management of turn structure (e.g., Akinson & Heritage 1984; Goodwin 1981; Schenkein 1978). Some of these notions are particularly important to the development of discourse-and-grammar in the 1990s, e.g., sequentiality, repair, overlap, pause and turn completion signals.

Schegloff is probably the scholar in language and social interaction whose works have brought most inspiration and challenge to linguists who examine naturally occurring conversation for their quest of ‘ What is it that speakers do most? ’ (e.g., Schegloff 1979, 1982, 1987, 1988, 1996). Schegloff’s plea to linguists to look seriously at the adaptive nature of language with respect to the interactional contingencies is best stated in the following passage, which has become a frequent quote:

“ If the conduct of language as a domain of behavior is biological in character, then we should expect it (like other biological entities) to be adapted to its natural environment.... Transparently, the natural environment of language use is talk-in-interaction, and originally ordinary conversation. The natural home environment of clauses and sentences is turns-at-talk. Must we not understand the structures of grammar to be in important respects adaptations to the turn-at-talk in a conversational turn-taking system with its interactional contingencies? ” (Schegloff 1989: 143)

One of the representative accomplishments arising from the dialogues and interactions among linguistic anthropology, functional grammar, and conversation analysis in recent years is Ochs et al. (1996). In this anthology, the idea of discourse-and-grammar is further expanded into that of interaction-and-grammar. The editors note, “ Real-time data have inspired a radical shift in the kind of question being asked...in what ways an understanding of the profoundly interactional nature of spoken language can be brought to bear on our understanding of what we take grammar to *be*...categories of grammatical description need to be made responsible to the categories appropriate to describing communicative interaction ” (p. 11). Contributors to this volume all promote the idea that grammar and social interaction organize one another. Specifically, grammar, as a resource, organizes social interaction. For example, interlocutors use prosodic, syntactic, and lexical clues to project and/or anticipate possible turn endings. On the other hand, social interaction organizes grammar, and grammar is an outcome of lived sociality. For example, English tag question as a grammatical device is used as a turn extension to fulfill the interactionally motivated need for speaker transition. Finally, grammar

is itself a mode of social interaction. The editors of the volume write, " ...the linguistic shaping of an utterance is intertwined with changing relationships among participants over interactional time. As an utterance proceeds, its lexical and grammatical structuring may open up, narrow down, or otherwise transform the roles of different participants to the interaction.... The unfolding structuring of a single utterance shifts the statuses of participants as speakers and recipients " (p. 39).

After the brief survey of the field, we turn to studies focusing on Chinese in the next section.

3. Recent Studies of Chinese

Due to space limitations I am constrained to focus the discussion on discourse-and-grammar studies that both address Mandarin or (Taiwanese) Min and are published in the 1990s, especially those too late to be covered in Biq et al. (1996), a review article that examines functionalist linguistic studies of Chinese from the 1970s to early 1990s.⁴

3.1. Authentic discourse data and the study of grammar

One of the prime issues that has concerned Chinese functional linguists is the search and characterization of the level at which words are strung together to form what we habitually call a sentence. The notion of sentence in the sense of a formal schema strictly defined in terms of grammatical relations, however, has long been considered problematic due to some structural characteristics of Chinese, such as that the grammatical subject of a clause does not need to be overtly expressed. On the other hand, it is strongly felt that " along the hierar-

⁴ Publications considered in the present review refer to books, doctoral dissertations, and papers published (or in press) in major journals, anthologies, and refereed post-conference proceedings/monographs. MA theses and papers included in pre-conference-printed proceedings are not considered because it is felt that the materials reviewed should be generally accessible. I apologize in advance to any scholars whose work has either been inadvertently overlooked or appeared too late to be incorporated here.

chy” there is indeed a distinct level between a clause and what we call a paragraph in written language. The question is, if the traditional definition of a sentence fails to characterize this structural level, is there a more adequate alternative? Is this alternative account established purely on grammatical terms, or on discourse terms, or on a combination of the two? In the decades before the 1990s, numerous proposals were made to deal with this issue, and the most influential among all was probably the notion of “topic chain” offered in Tsao (1979, 1990) (see also Cumming 1984; Li & Thompson 1975, 1976, 1981, 1982; Tai 1985). In the 1990s we continue to see more discussions addressing this important issue. Most noticeably, in the 1990s the data that scholars examine and base their arguments on are generally authentic discourses, written or spoken, which have certainly inspired new perspectives on the old issue.

Chu (1998) is a functionalist treatment of the relationship between Chinese discourse and grammar based on written texts. The author points to the limitations of the traditional adherence to sentence grammar and suggests the indispensability of discourse in the accounting of Chinese syntactic structure. The study culminates in the author’s conceptualization of the Chinese sentence, which is defined as consisting of one or more clauses that are related by formal devices identifiable by overt signals such as zero anaphora, conjunctions, adverbs, verbal affix, type of verb, unmarked clause order, and sentence-final particles. Subordination and topic chain are notions critical to the establishment of this structural unit. Sentences are then combined to form larger discourse units (i.e., paragraphs) in terms of lexical cohesion and rhetorical relations.

Ho (1993) is another book on Chinese discourse based on data consisting of spontaneous but primarily monologic speech collected from interviews where native speaker informants were asked to engage in narrating, explaining, and describing activities. The author proposes “utterance cluster,” a notion similar to Tsao’s topic chain and Chu’s sentence, as the basic unit of Chinese

discourse.⁵ Based on his spoken data, the author also offers some observations regarding Chinese thematic structure and information structure. For example, disfluencies typically concentrate at the theme/rheme juncture.

張 & 方 (Zhang & Fang) (1996) is probably the most insightful functionalist study of (Mandarin) Chinese published in Mainland China in recent years. Topics covered in the book include the thematic structure, the focus structure, grammaticalization, and parts-of-speech and their syntactic functions. The authors examine both written and spoken data. Their spoken data consist of recordings of both TV dramas and naturally occurring narratives and conversations in Beijing Mandarin collected in the 1980s. The significance of studying the spoken vernacular for the understanding of grammar is readily seen in the authors' various arguments throughout the book. For example, the authors demonstrate that some utterance-middle particles (e.g., *a* and *ba*) appearing in speech, especially in (monologic) narratives, are indicators of the speaker's division of primary information (or focus, which follows the particle) and secondary information (or theme, which precedes the particle), although the break in the utterance unit created by the occurrence of the particle may not correspond precisely to any syntactic or semantic configurational point. In the discussion of the on-going grammaticalization of the proximal and distal demonstratives in contemporary Beijing Mandarin, the authors also point out the tendency of associating each alternative pronunciation with a distinct grammaticalized use (e.g., unstressed proximal *zhe* before nominal for generic reference; stressed *zhe/na* before stative verbs for intensity).

Tao (1996) is an exemplary study that focuses on the relationship between conversation and grammatical regularities in Chinese. In this book, conversational data is first given a prosodic analysis in terms of intonation units (IU). Next, a prosodic-syntactic comparison is offered to examine the correspondence between the various types of IUs and the grammatical structures that are displayed in these IUs. The kinds of grammatical structures actually used in

5 See similar arguments for a "larger-than-sentence" discourse unit in Su (1998a).

native speakers' speech are drastically different from those derived from analyses based on isolated, out-of-context sentences. For example, Tao discovers that the three major syntactic types that would appear in a Mandarin IU are, with descending frequency, elliptical clauses, NPs, and full clauses.⁶ Moreover, a verb clause with at most one lexical argument is the favored form in spoken Chinese (see also Tao & Thompson 1994). This observation is in agreement with those offered by Chafe and Du Bois reviewed in Section 2. Tao argues, therefore, for a phrase-centered (as opposed to clause-centered) framework to characterize Chinese syntax as it is used in speech.

After reviewing studies that call our attention to discourse data, especially spoken discourse data, we will turn to scholarship focusing on the spontaneous and interactive aspects of conversation.

3.2. Spontaneity and interaction in spoken discourse

How conversation participants negotiate speakership is an important issue in conversation analysis. Schegloff (1982) distinguishes primary speakership from non-primary speakership in conversation, and points to the interactional function of backchannels (which is also known as a type of reactive token in later literature) used by the non-primary speaker. Clancy et al. (1996) is a cross-linguistic study of how the non-primary speaker's reactive tokens (RTs) are used in English, Japanese, and Mandarin. They find that the three languages differ in terms of the types of RTs favored, the frequency with which RTs are used, and the way in which speakers distribute their RTs across conversational units. For our purpose here, the study shows that among the three groups, Mandarin speakers have the strongest tendency to place their RTs at the Complex Transition Relevance Places (CTRPs), a notion we introduced in Section 2.⁷ Chen & Lee (1998) is a study of the use of RTs in Taiwanese conversation.

⁶ See also Tao (1992) and Ono & Thompson (1994) for related discussions of noun phrase IUs in English.

⁷ See also Tao & Thompson (1991) for a related discussion on backchannels.

Hesitation phenomena reflect the psychological reality of on-line encoding in language production. Linguists in the 1990s ask further if disfluency in language production would in any way reflect the grammatical complexity of the unit to be encoded. Huang (1993) and Yang (1997) both find no significant correlation between pause and syntactic complexity in Chinese speech production. Liu (1998) suggests that pauses are sensitive to the activation status of the subsequent lexical nominal referents. New referents are more likely to be verbalized with disfluency than given referents. In addition, the codability of a referent also affects the difficulty in lexical search. Finally, different pausing devices are associated with referents of different information status. For example, lengthening tends to mark difficulty in introducing new referents, whereas demonstratives tend to retrieve referents that convey given information.

Fox & Jaspersen (1995) suggest that syntax affects how English speakers repair their own speech in talk. For example, notions such as clause or phrase do constrain how English speakers recycle part of his utterance in self-repair. The general claim that syntactic practices of a language shape the organization of repair is maintained in Fox et al. (1996), a cross-linguistic study of self-repair in English and Japanese. Chui (1996), however, argues that the scope of self-repair recycle in Mandarin conversation is not syntax-oriented but is instead subject to the quantity of words preceding the repair source and the lexical-form complexity of the preceding words. L. Tao et al. (1999) discuss another type of same-turn self-repair unique to tone languages: tone-choice repairs. Typically, Mandarin speakers do repair on a tone to match the tone sandhi rules without a pause for mental search for the appropriate tone. However, tone repair triggered by the distortion of tone manifestation during syllable lengthening, which itself is for hesitation or mental search, is often accompanied by pauses.

Overlap in conversation is an important phenomenon reflecting the organization of turn structure. Numerous studies have treated the issue in the tradition of conversation analysis (e.g., Jefferson 1973, 1986, 1993). Biq (1998)

examines overlap in Mandarin conversation in terms of its placement in turn structure and its function in speaker negotiation. The findings suggest that even in overlap, a presumable “ anomaly ” given the usual smooth speaker transition which dominates conversation, prosodic and syntactic (in-)completion are still critical turn projection cues which constrain when and how speakerhip can be negotiated. On the other hand, pragmatic considerations may override syntactic and prosodic cues and strategically motivate overlapping speech.

We now turn to investigations that focus on the relationship between cognition, information status, and linguistic sequencing in Chinese discourse.

3.3. Cognition, information status, and linguistic sequencing

Given the spontaneous nature of speech, the next question to be asked is how information is processed in interaction. Thus, how information flow is handled in Chinese is an important research topic. Taking Du Bois’ notion of “ Preferred Argument Structure ” (PAS) as point of departure, Chui (1994) studies the relationship between information flow and Mandarin grammar as displayed in conversation. The findings suggest that the given-new information distribution is tied to word order rather than syntactic roles in Chinese speech: given information tends to appear before the verb, while new information after the verb. In Huang & Chui (1997) the S and A alignment is argued based on the fact that anaphoric links across successive clauses show S-A links much more than S-O links. S and A form a category (nominative) that marks topical information while O forms a category (accusative) that marks new information.⁸

Another issue regarding Chinese word order that attracts functionalists’ attention is right-dislocation, also known as the afterthought form or the inverted sentence. The traditional, “ afterthought ” treatment takes right-dislocation as a result of the speaker’s repair or reorganization of his prior speech (Chao

⁸ See also Chen (1998) for a relevant S/A/O discussion from the analysis of Chinese relative clauses.

1968). A more popular alternative takes the whole phenomenon as a left-dislocation process to thematize certain sentence constituents (Packard 1986). The so-called right-dislocated part is, in this view, the part that remains in its original position. Tai and Hu (1991) further identify thematization, repair, and afterthought appendage as discourse factors that motivate right-dislocation utterances. Focusing on the right-dislocation of pronouns and noun phrases in activity-oriented interactive discourse by 7-year-old children, Guo (1999) points out the inadequacies of the left-dislocation analysis, which can explain cases in which the co-referent (in the main clause) of the right-dislocated NP is a zero, but cannot explain cases in which the co-referent is overtly expressed. Guo argues, instead, for a social-interactional approach, in which right-dislocation is analyzed as a grammaticalized device that occupies the utterance-final position, a slot typically reserved for the expression of the speaker's affect. Guo claims that the emphatic function of the right-dislocated pronoun or NP expresses the speaker's negative evaluation toward certain person or object, especially when they occupy the topic or subject position in the main clause.

Following the study on conversation in Tao (1996) discussed earlier, Tao (1998) and 陳&陶 (Tan & Tao) (1998) continue to examine the relationship between IU and syntactic regularities in Mandarin monologic narratives. In Tao (1998), the cognitive effort required in activating and verbalizing new information is suggested as the major factor that causes the delay of the production of speech and the resulting split of a syntactic unit (e.g., the A/S arguments from VP) across IUs. In addition to the cognitive constraints on information flow, 陳&陶 (Tan & Tao) (1998) suggests the degree of structural integration between syntactic constituents as another factor. For example, the prevalence of elliptical clausal IUs in speech seems connected to the less integrated constituent relation in the subject-predicate structure (as compared to that in the VO structure).⁹

The evidence that Tan and Tao (1999) gather from their examination of

⁹ See Croft (1995) for discussion of similar issues in English.

the coordination construction in Mandarin conversation further convinces the authors to advocate for the notion of syntax-for-interaction, in which syntactic patterns are fluid, flexible, and interaction-oriented. For example, the conjuncts in coordination construction can be syntactically flexible (e.g., a V conjoined with a relative clause). The distribution of conjuncts across IUs is also variable and subject to a number of factors. However, the flexible system is not disorderly but rather regularized as a result of the cognitive and social interactional constraints imposed on speakers in conversational interaction.

Clause combining is another important topic for both word order and discourse organization. Chinese speakers are generally believed to prefer to present supporting materials before they deliver their main point in making exposition, elaboration, or argumentation. Biq (1995), however, finds that in cause-consequence clause ordering, the *yinwei* clause, if present at all, is typically postposed in Mandarin conversation. Even in conservative genres such as written press reportage, the postposed *yinwei* clause is still the preferred pattern. This fact is motivated by the speaker's (or news reporter's) desire to present critical information in the first (the "left-most") position, which echoes the left-dislocation account offered for the inverted sentences in interactive discourse discussed above. Following the analytic model in Ford (1993), Wang (1999) examines the clause ordering for temporal, conditional, and causal clauses in Mandarin conversation. Again, while temporal and conditional clauses occur before the main clause as expected, causal clauses prefer occurring after. Since the preceding main clause typically completes with an ending intonation, the following causal clause is viewed as a clause independent of the main clause. The causal connectives can thus be taken as markers of coordinate conjunction.¹⁰

3.4. Indexicality

Indexicality is the area where linguistic signs best display the interaction

¹⁰ For more discussion on Chinese clause combining and information sequencing, see Su (1998a), Wang (1997, 1998a, 1998b).

of the workings of syntax, semantics, textual organization, communicative pragmatics, and culture. Li & Thompson (1979), Li (1985), and Chen (1986) are probably the first studies focused on anaphora and referent tracking in Chinese with the discourse approach. Subsequent studies on how zero anaphora, pronouns, and demonstratives fulfill the indexing functions flourished in the 1990s. Y. Huang (1991, 1994, 2000) examines anaphora from the neo-Gricean pragmatic approach. L. Tao (1993) focuses on the cognitive aspect of zero anaphora. Xu (1995) continues to examine the accessibility of anaphora. Lee (1995) examines referent recovery in the great Chinese novel, *紅樓夢* (*Dream of The Red Chamber*). Su (1998a) studies Chinese NP grounding in discourse not only in zero anaphora but also in referential choice, relative clauses, and adverbial clauses.¹¹ One of her observations is the drastic difference between spoken and written discourse with respect to how NP grounding operates in the two text types. 陶 (Tao) (to appear) examines the relative clause (RC) constructions in Mandarin narratives and suggests taking RCs as a grounding device for salient referents in discourse. The author points out that the distribution of the five semantic categories of the head nouns in the RC construction is skewed. That is, the temporal and the human types make up the majority. Moreover, temporal RCs are best characterized as devices indicating episode boundaries rather than expressing temporality, and human-noun-headed RCs are mostly used for referent tracking and seldom for referent introducing.¹²

The versatility in the way Chinese pronouns and demonstratives are used to index different relationships at different discourse dimensions has certainly caught linguists' attention in the 1990s. Biq (1990a, 1991) studies the multiple functions that both the second- and third-person pronouns manifest in Mandarin conversation.¹³ In both cases the pronouns are found not only operating at the propositional dimension as indexicals but are also grammaticalized as devices

¹¹ Also see Su (1996) for more discussion on anaphora by the same author.

¹² See Fox & Thompson (1990) for a related discussion of relative clauses in English conversation.

¹³ See also 張&方 (Zhang & Fang) (1996), ch. 12, for similar observations on this topic.

indicating affect for the coherence of discourse at the interactional dimension. Regarding the demonstratives *zhe* and *na*, Tao (1999) proposes to adopt the non-concrete dimensions of indexical ground to account for how they are used in non-spatial senses in interactive discourse.¹⁴ Huang (1999a) further declares the emergence of a new grammatical category, definite article, in spoken Chinese through the frequent use of the distal demonstrative *nage* at non-subject position, where the introduction of new objects of topical significance into the discourse typically occurs. The emergence of *nage* as a grammaticalized definite article—signaling identifiability—has probably originated from its function of introducing familiar but new objects into conversation, which, from the speaker's viewpoint, is identifiable to the addressee. The author also touches on the path of grammaticalization: from demonstratives to boundary marking, clausal conjunction marking, and finally pause marking signaling various cognitive plannings at the discourse level.

3.5. Discourse markers and grammaticalization

Among all topics that are treated in conversation analysis, the study of discourse markers—or more specifically, how grammatical words, especially connectives and modal verbs and adverbs, are used to connect stretches of talk and convey affect—is probably the most extensively cultivated with naturally occurring spoken data in Chinese. While discourse markers in Mandarin continue to be a favorite focus of study throughout the 1990s (e.g., Biq 1990b, 1990c; Chu 1998; Hsu 1998; Liu 1994; Miracle 1991; Su 1998b; Wang 1996), discourse markers in Taiwanese Min have certainly received their due attention in the mid-to-late 1990s (e.g., Li 1997, 1999, in addition to those to be discussed in relation to grammaticalization below). For our purpose here, it is even more exciting to see studies on grammaticalization, i.e., how certain lexical or grammatical items, through repeated use, become (more) grammatical. Grammaticalization can be approached diachronically and synchronically. The

¹⁴ See also 張&方 (Zhang & Fang) (1996), chs. 11 & 12, for similar observations on this topic.

synchronic approach studies the fluid patterns in which the lexical/grammatical form is used in discourse, especially in spoken discourse. Most of the following studies postulate the path of grammaticalization for a certain lexical/grammatical item. They also point out that (1) pragmatics is a trigger for the emergence of discourse functions, and (2) frequency of use is the force behind the routinization of the discourse meanings and semantic weakening of the original meaning. In addition to the studies that touch on grammaticalization mentioned in the various earlier sections of this article, more are as follows.

With respect to grammaticalization manifested in Taiwanese Min, Li & Liu (1995) shows that the person deixis *lang* in Taiwanese, denoting contrary reference, has been grammaticalized as a discourse marker signaling contrastive relation between what is to be said next and what is said before or is assumed given the context. 李 (Li) et al. (1998) suggest that *a*, the general connector marking global boundaries in Taiwanese discourse, manifests an ongoing grammaticalized use as a “starter” of a discourse unit. Chang (1996) argues that the proximative meaning of Taiwanese *beh* is derived from its volition/desire modal meaning, and its conditional meaning is related to its future meaning as the result of a universal development of modality from deontic to epistemic use. Chang (1998) identifies the derivation of the complementizing function, the reportative/hearsay use, and the counter-expectation marking (at both the predicate-initial position and sentence-final position) of Taiwanese *kong* from its original meaning as a verb of saying. Huang (1998a) investigates turn-initial and turn-final discourse markers, including the grammaticalization of Taiwanese negatives *bo* and *m* into, respectively, turn-initial marker and turn-final marker in spoken discourse. For example, *bo* as a discourse marker can signal several sequential relations: negative conditionality, alternative choice, preclosing statement, avoidance, and puzzlement.¹⁵

With respect to grammaticalization manifested in Mandarin, 張&方 (Zhang & Fang) (1996) offers a comprehensive discussion of the grammatical-

¹⁵ See Chang (1997) for more discussion on the same topic.

ization of pronouns and demonstratives in Beijing Mandarin in the 20th century. Lin (1999) discusses the grammaticalization of the Mandarin speech act expression *wo shuo* “I say” into a device for getting the hearer’s attention, and that of *ni shuo* “you say” into a device for seeking coauthorship. In like fashion, reported thought expressions such as *wo juede* “I feel/think” and *wo xiang* “I think” have grammaticalized into a discourse framer marking the beginning of a discourse unit, usually a turn.¹⁶ Finally, Huang (1999b) observes that the nominalizing morpheme *de* in the *shi...de* construction (and its variant forms) has evolved into an evidential marker, indicating affective and epistemic meanings.

3.6. Emergence of grammar and lexicon

The emergent nature of grammar and lexicon is one of the core concepts shared by scholars who take the stance that grammar is the result of the routinization of what speakers do most in communication. Huang (1998b) discusses the negotiability of lexical meanings in discourse. Huang (1998a), introduced in Section 3.5, is a further examination of the relationship between discourse sequentiality and the negotiation of lexical meaning. The position at which a lexical item is used in the discourse (e.g., turn-initial position vs. turn-ending position) critically determines how that lexical item is interpreted.¹⁷ Thus, not only that the meaning/form correspondence is not one-to-one (i.e., polysemous), but the meaning of a lexical item (and its grammatical category) is also dynamic (i.e., emergent), subject to the impact of the workings of the co-occurring elements. On the other hand, Huang (1999b), also introduced in Section 3.5, discusses the emergent nature of syntax. The author takes a number of Chinese cases to explicate that discourse function is the only motivation

¹⁶ See Thompson & Mulac (1991) for the development of the epistemic meaning of the combination of the first- and second-person pronouns with private verbs (e.g., think, feel) through reanalysis.

¹⁷ See Biq (1999) for a related discussion on the relationship between meaning negotiation and discourse sequentiality from the pragmatics perspective.

that can grammaticalize linguistic form. For example, topic continuity motivates the preverbal A/S word order in Chinese, but the demand for indicating the given/new contrast motivates the “fluid-S” phenomenon, i.e., the postverbal O/S word order.

4. Directions for Future Research

Although the above review is inevitably neither exhaustive nor comprehensive, we can still see that the discourse-and-grammar approach has been applied to the study of the Chinese language extensively in recent years. The approach has offered new perspectives on some old problems in Chinese linguistics, and has also directed our attention to some phenomena in the language that were not attended to before. We expect that this approach will continue to shed new light on both the old and new issues in the years to come. In the following, several directions for future research are briefly discussed, as they are deemed, in the author's opinion, the most promising for reaching our goal of better understanding the relationship between language, cognition, and communication.

4.1. Collaboration with corpus linguistics

The discourse-and-grammar approach needs to work hand-in-hand with corpus linguistics, not only because large language databases are a necessity for this approach, but more importantly because the methodology of corpus linguistics can provide invaluable quantitative analyses that will help us arrive at a realistic picture of the linguistic regularities in the actual use of language (cf. Halliday 1991, 1992). Biber et al. (1998) is one of the recent introductory volumes demonstrating the positive results of the collaboration between corpus, textual, and discourse linguistics.

4.2. Collaboration with cognitive linguistics, linguistic pragmatics and interactional sociolinguistics

Practically all the literature reviewed above took the cognitive, pragmatic,

and/or sociolinguistic perspective in their discussions. However, the investigation of the relationship between grammar, cognition, and communication has just begun, and efforts in these directions ought to be continued to answer further questions. One of the many issues that are worthy of our pursuit is, for example, the degrees of grammaticalization. Why are certain constructions more stabilized (or less flexible) than others? Could the continuum in the degree of grammaticalization, a language-internal phenomenon, be related to language-external factors such as modes of communication, processing, literacy, and education?¹⁸

Some of the studies reviewed above have already pointed out that the investigation of the emergent nature of grammar would benefit from research of the moment-by-moment, sequential workings in linguistic discourse. Equally important but relatively less cultivated in Chinese is research on the interaction between language use and concurrent non-linguistic communicative behavior such as laughter, gaze, and gesture. Whereas studies based on data from English speaking communities abound and have certainly drawn our attention to this area of research (Ford 1999; Goodwin 1981, 1995; Heath 1986, 1992; Kendon 1977, 1992; Schegloff 1984), some of H. Tao's most recent studies are probably the first to touch on this area with data drawn from Chinese discourse. Tao (2000a) shows that gaze direction is used by Chinese interlocutors to signal group membership dynamics in conversational interaction. Tan and Tao (1999), reviewed earlier in Section 3.3 for their discussion of coordination construction in Chinese conversation, also examine the concurrence of hand gestures with linguistic signs, such as continuing intonation and extenders and particles, when the speaker is making a list construction.

4.3. Collaboration with historical linguistics, cross-dialectal studies, and linguistic typology

¹⁸ This point was brought up at the conference and was commented on by Professors James Tai and Feng-fu Tsao. See Pawley & Syder (1983) for an early discussion of the phenomenon in English.

There is definitely a great deal more to be pursued than what has been done in regard to the emergent nature of grammar as displayed in synchronic data. In the case of Chinese linguistics, a natural next step of research is seeking larger (but more complicated) patterns across dialects, and seeking historical evidences of grammaticalization through diachronic studies (e.g., Liu 1993, 1997). Results from both inquiries would constitute bases for further typological studies. Tao's recent investigation (2000b) of the evolution of the argument structure of the Chinese verb *chi* 'eat' in Chinese vernacular writings from early Modern Chinese to contemporary Mandarin is an exemplary work that combines the historical and the corpus linguistic analytical techniques.

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「言談與語法」研究的近況

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摘 要

言談與語法是功能學派語言學的一支，主張語言內部結構會受言談層次的因素影響。一般言談中所使用的語言形式會受到認知及交際因素的鼓勵或牽制，而語法就是日常言談中那些一再被重複使用的語言形式而已。本文討論一些言談與語法學者所提出的觀念，回顧最近以此學說的理念處理漢語的一些研究，並簡略提出幾條未來研究的可行路線。

關鍵詞：言談、語法、認知、交際、語法化