

Introduction to the Special Issue on Discourse and Cognition

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This special issue with a focus on the connection between language, discourse and cognition is the result of the Ninth International Symposium on Chinese Language and Linguistics (IsCLL-9) held on November 19-21, 2004 on the campus of National Taiwan University. The aim of IsCLL-9 was to bring together researchers from various perspectives that emphasize the shared notions that properties of language crucially involve how language is used in communication and how these properties relate to cognition more generally. These cognitive and functional approaches have profound consequences for the questions we ask, the data we consider, and the patterns we seek to uncover. The articles in this issue have thus brought together research from both cognitive and functional approaches to language and are driven by the same fundamental belief that discourse and conceptual properties are fundamental to an understanding of language and are inspired by the same fundamental question: To what extent is the structure of language affected by language use and human conceptual structures. The articles collected here present a glimpse into the rich, interesting lines of research represented at IsCLL-9. For those unfamiliar with the cognitive-functional approaches to language, they represent a vibrant introduction to some of the research currently being pursued within this framework. For those working within the models, they are a rich sampling of interesting data, innovative methods and fresh research questions undertaken by some of the researchers in the cognitive-functional traditions. Among the main research themes represented here are conversational practice and social action, grammar and interaction, repair, gesture, mental space, blending, categorization, conditional constructions, ditransitive constructions and Formosan linguistics.

In recent years there has been growing awareness of the importance of studying language and cognition in its context of use. Researchers who identify themselves as taking a cognitive approach and those who take various discourse perspectives have sounded the theme that a deeper understanding of the properties of language requires an understanding of how language is used to create meaning. On this view, the mind is not a formal system, but is an embodied system, and language is not independent of the rest of cognition. Thought is not transcendent, but depends on the body and the brain. In the biological view espoused by Edelman (1992), symbols don't get assigned meaning by formal means. Symbolic structures are meaningful to begin with. This is so because

categories are determined by bodily structures and by adaptive use as a result of evolution and behavior.

Similarly, functional linguistics has shown that language must be understood as it is embedded in communication. Grammar cannot be thought of pure abstract structure that underlies language use. Grammar is built up from specific instances of use which marry lexical items with grammatical constructions. It is routinized and entrenched by repetition and schematized by the categorization of exemplars. A conceptualization of grammar as abstract structure fails to provide us with explanations for the nature of grammar. A theory based on usage, on the other hand, which takes grammar to be cognitive organization of language experience, can reference general cognitive abilities: the importance of repetition in the entrenchment of neuromotor patterns, the use of similarity in categorization and the construction of generalization across similar patterns. These processes explain grammar as the ritualization of frequently repeated routines (Bybee 2005).

Research in cognitive semantic has been motivated by the idea that complex high level cognitive structures lie behind our everyday use of language, and such structures can be uncovered by using the evidence provided by grammar. The mainstream approach in linguistics seeks to use a priori theoretical assumptions about formal nature of grammar to uncover the structure of mind, eschewing interest in how language functions in actual discourse. As a result, its power to reveal the working of the human mind is sharply curtailed. Some of the papers in this issue reassess these limitations by examining naturally occurring data, not simplified theoretical examples. The cognitive and functional arguments made here start from psychologically realistic principles and arrive at properties of language that unveil mechanisms of the mind.

Simpler syntax with complex conceptual structures for meaning construction has emerged as one of the fundamental inquiries in linguistics and in cognitive sciences in recent years. Culicover and Jackendoff (2005) have advocated the simpler syntax hypothesis: the most explanatory syntactic theory is one that imputes the minimum structure necessary to mediate between form and meaning. A consequence of this hypothesis is a richer mapping between syntax and semantics than is generally assumed. They develop an alternative that is responsive to cognitive, computational and biological concerns. A converging development in cognitive linguistics has been motivated by the idea that complex high level cognitive structures lie behind our everyday use of language, and such structures can be uncovered by using the evidence provided by grammar. Such cognitive structures include metaphoric projection, frame organization, viewpoints, figure-ground configurations, metonymic inference, mental space links, cognitive schemas and cultural models. Mental spaces are small conceptual structures we construct as we think and talk, for purposes of local understanding and action. Con-

ceptual blending is a general cognitive process that operates over mental spaces as inputs. In blending, structures from two input spaces are projected and a separate space, a novel blended space is created, which then develops emergent structure. Blending leads to new meaning and conceptual compressions useful for memory and manipulation of diffuse ranges of meaning. The capacity for conceptual blending is the capacity needed for language and thought. Many areas of human endeavor are known to give rise to conceptual blending with emergent structure: actions, analogy, dramatic performance, counterfactuals, integrated meanings and grammatical constructions (Fauconnier and Turner 2002).

In the opening article, “Compression and Emergent Structure”, Fauconnier gives an overview of the issues and results of this research program. In blending, a vital relation across inputs is said to be compressed into a vital relation within the blended space. As it turns out, blending is an instrument of compression. Some interesting cases of compression are analyzed in Fauconnier and Turner (2002) and in this paper, including the Bypass and the Titanic. In all cases of blending there will be emergent structure in the overall integration network, but simpler, readily accessible structure in the blended space. The point of the paper is to show that the complexity of emergent structure does not reside primarily in blended spaces, but in linking such simple structures to the mental spaces in the entire integration network.

In his paper “Conceptual Structure and Conceptualization in Chinese” Tai tackles the important, issue of language and conceptual structure, in particular, the interface between linguistic structure and conceptual structure. If we take semantic structure to correspond to meanings assigned to words and other linguistic units, and conceptual structure to correspond to mental representations for things, events, etc. in the world, the dominant position within cognitive sciences for the last few decades has been one in which the conceptual structure of humans is relatively constant in its core features across cultures, and conceptual structure and semantic structure are closely coupled. On this view, linguistic categories are a direct projection of universal concepts that are native to human species. The universality of conceptual structures is also represented in neuroscience, where we find hypotheses in which conceptual and semantic structures are not distinguished. It is also represented in cognitive linguistics where the coupling between language and cognition has been taken to be close enough to allow semantic structure to serve as a window into conceptual structure. It is now abundantly clear that languages map conceptual domains into linguistic domains in different manners. If people have different semantic structures in their languages, they also have different conceptual structures.

Jackendoff’s conceptual structures are represented in terms of primitive properties that are assumed to be universal among human beings, but this assumed universality of

primitives has been controversial, as Tai has shown, since they do not and can not provide us with a universal conceptual system. First, the quest for the universal primitives has so far been unsuccessful; second, primitives are often defined and thus biased in terms of properties derived from a specific language (English in the case of Jackendoff). Thus the primitives are not independent of language, and this, given the non-universality of semantic structures, raises issues concerning the universality of conceptual structure. Third, there are various properties of linguistic meaning like deixis, anaphora, very limited lexica (as opposed to infinitely possible conceptualizations), linearization etc., which are clearly not properties of conceptual representations. Tai argues against a close coupling between semantic and conceptual structures and acknowledges the non-universality of semantic structures. But there are quite strong arguments that though semantic and conceptual structures must be decoupled, there must be at least one level of conceptual representation that is closely aligned to a semantic level, otherwise we couldn't transform the one into the other with the ease we have, as shown by the speed of language encoding and comprehension. So that level of conceptual representation (CR) is close to a level of semantic representation (SR). But since SR cannot be universal, this CR, which is closely aligned to SR, cannot be universal either.

One can also mount a similar argument, based on lexical structure, and arrive at the conclusion that the CR that is closest to SR cannot be universal. We know languages vary in their lexico-semantic structure. The fact is that there are few if any lexical concepts which universally occur in all languages. Although most of the linguists, including Jackendoff, are lexical decompositionists, psychological evidence shows that when words are activated, the concept as a whole is activated. We do not think at the atomic level, but at the level of conceptual wholes, the level reflected in lexical concepts. This means that the level in which we reason and compute are heavily culture-specific.

Huang and Tanangkingsing in their paper "Repair in Verb-initial Languages" investigate the interesting relationship between repair and syntactic structure in two verb-initial languages, a relatively underdeveloped research topic in discourse studies. Past research has shown that languages with different syntactic structures organize repair in different ways and that repair and projectability are constrained by the rigidity/looseness of the constituent/word order of a language. When constituent order is fixed, speakers are found to recycle to the beginning of a clause utterance, which can also be considered a delay strategy; when constituent order is variable or when the frequency of null arguments is high, recycling is often only made locally at a constituent-initial position or at the trouble source. Thus in English, which has a rigid constituent/word order, the projectability is high. In other words, the morphosyntactic form of possible later portions of constituent and the token of a particular morphosyntactic type

or set of types to be produced next are constrained. However, in head-final languages like Japanese, projectability is made more difficult by the looseness/inconsistency of its constituent order. The authors show, based on an analysis of natural conversational data, that although Tsou is a language with a rigid constituent order (V-O-S), its repair behavior differs significantly from that in English. Repair in Tsou involves mostly local recycling or replacement. When the trouble site is at the predicate, the repairing site mostly starts at predicate-initial position; when it is at the noun, the repairing site often starts at the case marker in NP-initial position. Even with rigid word order, Tsou does not initiate repair by recycling back to clause-initial position, but by recycling back to constituent-initial position. As for Cebuano, it is not at all surprising that it resembles Bikol, another Predicate-initial Meso-Philippine language, in its organization of repair. More importantly, it is similar to Tsou in that it manages repair in terms of “constituents.” The authors conclude that constituent structure is largely responsible for the organization of repair in both languages, and that rigidity/variability of word order alone does not figure importantly in the organization of repair in these two languages.

Recent research in interactional linguistics and in conversational analysis has shown that what needs to be incorporated into the analysis of discourse for its optimum further development is an orientation to social action and interaction (Schegloff 1996a, 1996b, Ford et al. 2002, Thompson, this volume). Hsieh and Huang “Grammar, Construction, and Social Action: A Study of the *Qishi* Construction” explore the roles of social action in the deployment of grammatical constructions and thus in the emergence of grammar. An investigation of naturally spoken data suggests that conversations are rich in constructions, i.e. symbolically complex schematic representations of recurrent grammatical patterns. Constructions often occur in specific social action formats. In this paper we focus on specifying the social action format for a disalignment schema, the *qishi* construction. We will show that this construction is always produced in the second move of a three-part sequence and that it is usually deployed to do the following social actions: (1) to do disalignment and sometimes alignment, with the hearer’s or a third party’s stance; (2) to do A-event disclosing or confession; and (3) to create humorous effect. By examining how the conversation participants use various constructions to accomplish social actions, we arrive at a better understanding of how grammatical constructions emerge from social action within interaction.

Gestures are part of a discourse. Studying gesture in spontaneous conversation can track the changes in a speaker’s ongoing contextual thinking throughout a discourse, and is crucial to understanding the complex relationship between gesture, language and the cognitive unity of speech and gesture. Recent research suggests that speaking and gesture are different manifestations of a single underlying process of utterance production (McNeill 1992). In a series of papers, Chui has produced a much-awaited analysis

of the basic elements in the constitution of gesture in Chinese conversation. Interested researchers can now begin to build on her work and a number of further research questions can now be pursued. One question that seems to me of particular interest is how, given that gesture epitomizes embodied cognition, gestures affect ongoing interactions and how interactions shape gestures. In this issue, Chui “Topicality and Gesture in Chinese Conversational Discourse” investigates the relationship between topicality of utterances and the use of gesture in Chinese conversation. Topicality is a universal property of discourse organization. The questions addressed are: Do the speakers gesture for topical or non-topical information. Is there a distinction between topical gestures and non-topical gestures? Are topical and non-topical gestures related to the information state of referents? Chui finds that gesture types per se do not distinguish topical and non-topical clauses, since their distribution patterns in topical and non-topical contexts are similar. However, speakers rarely use gestures while conveying given information whether it is in topical or non-topical clauses. Iconic gestures are found to be strongly associated with new information in topical clauses, while other types of gesture do not show any correlation with the information state of associated referents. In short, the answer to her research question of whether there are topical gestures is positive. Topical gestures in Chinese conversation refer to iconic gestures that accompany new referents in topical clauses.

Su “Conditional Reasoning as a Reflection of Mind” investigates conditional constructions as used in conversation and seeks to modify and extend Sweetser’s (1990) three-way classification of conditionals based on her Chinese data. Su was able to uncover a fourth type of conditional, the Chain type conditional. The Chain type conditional starts out as a content-type conditional, with the possibility of entering further into the epistemic domain, and possibly still further into the speech act domain, depending on discourse contexts. This new typology gives an unexpected twist to the distribution patterns of the conditionals: the most prevalent type of conditional is not the content-type conditional, as one might be led to believe, rather the epistemic type is, a result in basic accord with Fillmore’s (1990) proposal that a basic element of conditional meaning is epistemic stance. Su suggests that this must be so, since in human discourse we often seek to convey our subjective opinions, and are less interested in presenting purely content type conditionals.

The Chain type conditional suggests to Su that linguistic forms often act as cues that prompt frames and activate our knowledge about the concept coded and that our understanding of a sentence is the product of conceptual blending processes emerging from such an interaction between what is evoked by the form and what the context gives us. Su finally notes that, echoing Brown and Levinson (1987), speech act conditionals are often used as a politeness strategy to avoid coercion. Thus it is the speaker’s frequent attention

to the ‘self’ of the addressee that partly motivates the emergence of the speech act conditional.

Another application of the mental space theory is the paper, “Mental Spaces Theory and Metaphors in *Butterfly Lovers*”, by Chang and Hwang. In this paper, they discuss the language of metaphors used in the movie *Butterfly Lovers* within the framework of mental spaces theory (Fauconnier and Turner 2002). They show that contexts in discourse play an important role in the interpretation of metaphors and propose that rich metaphorical interpretations found in *Butterfly Lovers* result from conceptual blending. However, they also show, on the one hand, how the optimization of presupposition, namely downward spread of an initial generalizing presupposition to subsequent discourse contexts may effectively bar the possibility of metaphorical interpretation in certain segments of discourse and, on the other hand, how the upward floating of presupposition, reinterprets the same discourse segments from literal meaning into metaphorical meaning.

In “Families of Ditransitive Constructions in *Li Jing Ji*”: A construction-based account, Lien surveys a wide range of ditransitive constructions, including what is termed extended ditransitive constructions, as found used in *Li Jing Ji*, a sixteenth century playscript written in Southern Min. Two types of ditransitive constructions are distinguished. Inherent ditransitives are those that embrace verbs with a built-in feature of ditransitivity, and non-inherent ditransitives in which the main verbs are not inherent ditransitives by themselves, and have to be induced by the (inherent) ditransitive construction to become ditransitive. The extended ditransitive construction, a typologically unique construction, is a grammatical blend of a (non-inherent)ditransitive construction and a pivotal construction, and is comprised of two events, an event of object transfer and a follow-up event specifying the immediate purpose of object transfer. As pointed by Lien, the extended ditransitive construction with a purpose-indicating pivot clause is typologically quite unusual in comparison with a western language like English where a ditransitive clause cannot be followed by a purpose clause.

Ross and Teng “Formosan Languages and Linguistic Typology” provide a thoughtful presentation of Puyuma data and an innovative attempt to reframe the description of Puyuma and Philippine-type languages in general in terms ‘which are more familiar to typologists and to linguists working in other parts of the world.’ A primary strategy for them is to recast the focus system of verbal constructions in terms of voice in a framework derived from Croft (2001), and to set up a scheme of dividing clauses into one intransitive clause and three transitive clause types where the Philippinist approach misses this insight because it places the ‘actor focus’ in a paradigm with the transitive ‘focuses’ and separates it from the intransitive construction. The authors hope

that a re-framing of this kind should thereby lead to an increased comprehensibility, and a more insightful description, of Puyuma and other Formosan languages.

A persistent question for the grammarians of Formosan as well as Philippine languages, to which there is in the authors' minds yet no clear answer is whether there is a distinction between 'actor focus' clause and an intransitive clause. There is no such a distinction in Puyuma, but available evidence suggests that other Formosan languages like Seediq, Squliq Atayal and Kavalan do make such a distinction. This means that the so-called extended intransitive construction in these languages is a different construction and may have to be entertained as a type of transitive construction. The authors suggest that explicit accounts of the differences between the functions of the 'focuses' in various Formosan and Philippine languages would be a welcome step away from Philippinist practice, which has hitherto concentrated on the morphosyntax of the focuses and ignored their discourse pragmatics.

The penultimate paper by Huang "Split O in Formosan Languages—A Localist Interpretation" proposes that the non-agent focus construction can be fruitfully interpreted as a species of the applicative construction, which functions to derive transitive clauses from intransitive or transitive clauses. The O argument NPs in these transitive clauses are shown to exhibit a split O phenomenon based principally on the nature of verbal semantics and secondarily on discourse-pragmatic considerations. In particular, Tsou is shown to be a nearly perfect split O language. This paper treads new ground by integrating the semantics of focus into cognitive grammar and typological approaches. All of the coding patterns for the O arguments together are shown to form a semantic space, which then constrains possible coding patterns for language-specific constructions, and allows for predictions about the interaction of these applicative clauses.

The final paper by Thompson and Couper-Kuhlen "The Clause as a Locus of Grammar and Interaction" appears as a supplement to the present volume. We are grateful to the authors and the publisher of *Discourse Studies* for permission to reprint the article, although an earlier version of their paper was also presented at IsCLL-9 by the first author. The paper examines English and Japanese conversational data to demonstrate how the clause, the most prominent of the grammatical format types, affords variable projectability in different languages. The variably projecting clausal formats are shown to be the ones speakers operate with in three interactional situations: next-turn onset, co-construction and turn-unit extension. The authors' message is stated unequivocally toward the end of their paper: grammar is distributed and emergent; clauses are interactionally warranted units and grammatical formats are crystallizations of common solutions to communicative problems and interactional tasks.

This special issue on discourse and cognition represents a contribution to the development of both cognitive and discourse-functional linguistics. The individual contri-

butions deal with a wide range of data from several languages and focus on the motivations for language patterning in social and cognitive experience, on the dynamic properties of language construal and on how these relate to cognition more generally. Language can only be studied with the help of discourse and cognition. A great challenge for cognitive and discourse-functional linguistics is the study of meaning, grammar and mind by examining a large sample of discourse data in response to cognitive, computational and biological concerns. Future research will no doubt continue to shed light on the intricate connections between language, discourse and cognition.

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