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CLAUSE STRUCTURE IN SOUTH ASIAN LANGUAGES: GENERAL INTRODUCTION

1. SOUTH ASIAN LANGUAGES IN GENERATIVE GRAMMAR

"There is a tension between the demands of descriptive and explanatory adequacy. To achieve the latter, it is necessary to restrict available descriptive mechanisms so that few languages are accessible…To achieve descriptive adequacy, however, the available devices must be rich and diverse enough to deal with the phenomena exhibited in the possible human languages. We therefore face conflicting requirements. We might identify the field of generative grammar, as an area of research, with the domain in which this tension remains unresolved" (Chomsky 1986).

Chomsky's characterization of the role of empirical work in theoretical linguistics provides a good introduction to this volume of papers on the clause structure of South Asian languages. The search for principles to account for universal properties of language and the identification of parameters along which variation may occur, at the heart of the generative enterprise, cannot be carried out without balancing the twin requirements of descriptive and explanatory adequacy. Insights from various languages and language families have thus informed the generative research program since its inception approximately fifty years ago. South Asian languages have been studied within the generative paradigm since the sixties but it was in the eighties and nineties that they began to have a critical impact on the development of grammatical theory. Research by a number of scholars including K.P. Mohanan (1982), Gurtu (1985), Mahajan (1990), Srivastav (1991), Davison (1992), T. Mohanan (1994), Dwivedi (1994), Butt (1995), Dayal (1996), Lidz, (1997), Rakesh Bhatt (1999) and Kidwai (2000) took on the challenge posed by "exotic language" phenomena to linguistic theory, refining our understanding of the nature of Universal Grammar and simultaneously making accessible to the general linguistic audience special properties of the languages of South Asia.

Among the domains in which the impact of South Asian languages has been most notable are word order, wh questions, relative clauses, binding theory, complex predicate formation and the oblique subject phenomena. To take a couple of examples, the work on word order phenomena as exemplified in the works of Mohanan (1982), Gurtu (1985), and Mahajan (1990) raised a number of issues concerning the proper treatment of the so-called "scrambling" phenomena.

Similarly, work on question formation discussed by Mahajan (1990), Srivastav (1991) and Dayal (1996) has substantively modified our understanding of the nature of Logical Form and the syntax-semantics interface.

As is well known, most South Asian languages have relatively free word order and therefore they provide a fertile ground for exploring issues concerning word order variation. Mohanan (1982) in a detailed study of Malayalam word order argued that a proper treatment of word order flexibility in Malayalam was not possible in configurational terms. In particular, he argued that Malayalam clause structure lacks a VP node and therefore the arguments of a (verbal) predicate in Malayalam were hierachically in a symmetrical relationship. Scrambling could then simply be different linear arrangements of hierarchically symmetrical arguments. Jayaseelan (1988) argues against this treatment of scrambling in Malayalam suggesting that scrambling is a result of argument movement into SPEC Focus and SPEC Topic positions. Gurtu (1985) and Mahajan (1990) developed extensive arguments using Hindi-Urdu data to build proposals that scrambling indeed involved a movement operation leading to a change in the hierarchical structure. These works, along with earlier work from Japanese (Saito 1985, Hoji and Saito 1985), led to a lot of activity in the field of word order variation where data and argumentation based on South Asian languages have played a major role. Recent work by Kidwai (2000) continues this tradition of addressing major descriptive and formal issues in the area of word order based on facts from South Asian languages.

In the case of wh-movement, the languages of South Asia provide a crucial piece of the puzzle. Although these languages have wh in-situ, they differ from the languages of East Asia in not allowing wh expressions to take scope outside finite complements. This descriptive fact shows quite clearly that the theoretical claim based on languages like Chinese (Huang 1982) that wh movement at S-structure is constrained by Subjacency and the ECP while such movement at LF is subject only to the ECP cannot be maintained as a universal principle without some modification. A consideration of this phenomenon led to two refinements of the standard approach. According to one, wh expressions may be interpreted as quantifiers which are expected to take local scope via Quantifier Raising (Mahajan 1990). According to the other, the South Asian facts are indicative of a more general tendency for wh expressions to take local scope at Logical Form, with apparent wide scope effects being derived from higher order semantic operations (Dayal 1996). An auxiliary effect of the investigation into the absence of wide scope interpretation for wh expressions led to a serious exploration of the construction available in these languages for questioning out of finite complements. Insights from Hindi-Urdu Scope Marking or Partial Wh Movement have consequently helped shape the leading questions driving research on this topic (Davison 1988, Dayal 1994, 1996, 1998, Mahajan 1996, Fanselow and Mahajan 1996).

Such studies, along with many others that we do not mention here, have established the significance of research in South Asian linguistics to the development of a theory of Universal Grammar. In light of this substantial body of knowledge, we felt that the momentum built up in these individual studies should be consolidated further. We therefore decided to try to bring together recent and previously unpublished work of many of the active researchers in the field of South

Asian syntax. The papers in this volume combine description and explanation, using empirical arguments to probe and refine our understanding of theoretical questions. By focusing on languages from a single area, they are able to paint a representative picture of what the syntactic patterns of South Asian languages look like, and show at the same time what the explanatory mechanisms have to do to deal with them. The framework of discussion adopted by all the papers in the book is that of transformational generative grammar. They therefore share the goal of taking apparently unexpected properties of particular languages as a challenge rather than an argument against a theory of Universal Grammar. While most of the papers fall roughly within the Principles and Parameters approach to syntax and its later developments, the key insights are easily transportable to other frameworks that share the same explanatory goals.

2. CLAUSE STRUCTURE IN SOUTH ASIAN LANGUAGES

The contributions in this volume explicate various aspects of clause structure in several South Asian languages. The ten papers contained in this volume can be seen as elaborating on four distinct aspects of clause structure. The papers by Amritavalli and Ramchand probe the nature of clausal structure above VP. The second set of papers by Jayaseelan, Lidz and Madhavan can be characterized as focusing on argument structure and its clausal projection. The third set of papers by Butt and King and by Davison deal with issues of case realization. Finally, the fourth set of papers, by Hagstrom, Kidwai and McCawley, deal with properties of movement derivable from the properties of clausal structure.

Despite the fact that there is reasonable variation in the syntax of the languages dealt with in this selection, there are also many structural similarities among them. Not surprisingly, then, almost any investigation into a particular syntactic phenomenon in a particular language easily turns into an exercise in comparative syntax. Many of the papers contained in this volume have therefore this flavor of comparative syntax. As the reader will be able to see, even in the brief summaries of individual contributions given below, the papers are rich in their empirical coverage and also provide fairly detailed theoretical treatment of the domains investigated.

2.1. Functional Projections

The first set of papers (Amritavalli and Ramchand) is concerned with the structure of the clause above the VP. Since the seminal works of Pollock (1989) and its incorporation into the early minimalist developments (cf. Chomsky 1989), this is a topic that has been at the center of syntactic research. The two papers here adopt the view that the arguments of the verb are generated within the VP but move to specifiers of functional projections dominating VP in the course of derivation. Each of these papers uses evidence from a South Asian language to articulate issues relevant to the functional structure of the clause. They can be seen as contributions

to much recent work that is aimed towards discovering the fundamental organization of clause structure in terms of how much and what kind of functional projection is needed to properly describe and explain the behavior of various clausal elements.

Amritavalli in her paper "Some Developments in the Functional Architecture of Kannada Clauses" explores the details of the Kannada clause structure from a synchronic as well as a diachronic perspective. She suggests that the Kannada clausal structure lacks the category of T(ense) and that modern Kannada clauses are actually Mood Phrases. She proposes that what looks like tense in Kannada is actually a (temporal) aspect projection that is somewhat recent in origin in the development of Kannada clause structure. This, she suggests, may be a step towards the development of a category such as TP (tense phrase) in Kannada. The paper sheds light on the question of how aspectual features are differentiated and projected in the syntax. Drawing on the theory of extended projections, it suggests that functional elements in the extended projection of a lexical element actually originate in the lexical category at the functional level zero. The theoretical claims are grounded in a detailed discussion of morphological, syntactic and semantic properties of Kannada clause structure.

Ramchand in her paper "Two Types of Negation in Bengali" explores the relationship between the syntactic positions of two negation morphemes and their semantic interpretation. The starting point of her investigation is the different sensitivity to aspectual specification manifested by the two negation markers. While /na/ occurs in the simple and progressive present, simple past, and the future tenses, /ni/ occurs in the perfect tense. Adopting a neo-Davidsonian framework of semantic representation, Ramchand argues that /na/ is a negation of events while /ni/ is a negation of the time variable associated with the event. The observed correlation between aspect and negation markers, she demonstrates, is a consequence of the semantics of aspect interacting with the type of negation involved. Ramchand also extends her analysis to the differential behavior of the two negation morphemes with respect to discourse felicity, NPI licensing and interaction with time adverbials. Ramchand's detailed scrutiny of the two negation strategies highlights the importance of drawing upon fine semantic distinctions between structures that might appear to be free variants in morphosyntactic analyses of negation across languages.

2.2. Argument Structure

The next set of papers (Jayaseelan, Lidz and Madhavan) is concerned with the interaction between lexical semantics, argument structure and syntactic projection.

Jayaseelan in his paper "The Serial Verb Construction in Malayalam" explicates the details of Malayalam clauses containing serial verbs. Malayalam, like many other Indian languages, has a range of serial verb constructions that look somewhat similar to serial verbs in SVO South East Asian languages. These serial verb constructions in most Indian languages are complex predicates. Jayaseelan suggests that the serial verb complex in Malayalam is not a syntactic constituent. This is a somewhat surprising departure from the traditional Indic view that the members of the serial (compound) verb construction form a constituent. Jayaseelan

in his paper suggests that each verb of the serial verb construction heads a clause and the serial verb constructions therefore involve clausal complementation whereby the subject of the embedded clauses, non-final members of the serial verb construction, is a PRO obligatorily controlled by the matrix subject. This would explain the ability of the individual verbs in the serial verb construction in Malayalam to take overt arguments and modifiers of their own. The paper thus provides empirical arguments for an articulated structure of serial verb constructions in Malayalam and helps explicate the nature of serial verb constructions in Universal Grammar.

Lidz's paper "Causation and Reflexivity in Kannada" explores the interactions between causative and anticausative/reflexive morphology in the language. He notes that reflexive morphology is equally compatible with lexically non-causative verbs, those that cannot take a causative morpheme in the transitive, and lexically causative verbs, those that require the causative morpheme to form the transitive. This poses a problem for a uniform characterization of the reflexive morpheme as altering the valency of the verb if the two verb classes are lexically distinguished as underlyingly transtive and intransitive. Lidz's solution to the puzzle is to locate causativity/transitivity in the syntax, adopting the [v [VP]] articulated structure of Chomsky 1995. In particular, he treats the causative morpheme as the spell-out of v and explains the morphological patterns on the basis of lexical insertion rules, constrained by the Elsewhere Condition (Kiparsky 1973). The paper thus argues for a postsyntactic morphological component in which the environment for lexical insertion is created after syntactic operations have had a chance to apply.

Madhavan in his paper "Light Verb Raising, Empty Preposition, and Zero Derivation" argues that the absence of a range of constructions in Malayalam may be linked to the lack of null prepositions and verbs in this language. The general idea is that while one finds alternations such as *The professor put the book on the shelf/ The professor shelved the books* in English, these alternations are largely missing in Malayalam. If one follows Hale and Keyser (1993) in assuming that these alternations involve the noun *shelf* incorporating into an empty V to yield *shelve*, the absence of such alternations in Malayalam would follow from the fact that Malayalam, as a parametric property, lacks empty verbs (along with empty prepositions). Madhavan relates a large number of apparently unrelated facts to this feature of the language. The paper thus demonstrates how a parametric choice barring null [-N] categories in a language can lead to wide-ranging differences in the syntactic constructions observable in the language.

2.3. Case Theory

The next two papers (Butt and King, Davison) focus on issues concerning Case theory in South Asian languages. The major question driving this investigation is whether case can be determined on structural grounds alone. That is, whether a proper treatment of Case alternations on arguments can be developed on the basis of the structural positions that these arguments occupy, or pass through. In recent years, it has been pointed out that apart from the notion of structural Case, syntactic

theory may also need other case constructs such as inherent case and default case (see Marantz1991, for example). However, a proper characterization of such additional notions is still not available. The papers by Butt and King and Davison in this volume bring together a range of facts and arguments indicating that the notion of structural Case by itself is not adequate in accounting for various types of case alternations found in South Asian languages. While most of the arguments in these papers come from Hindi-Urdu, these arguments do carry over to many other similar South Asian languages.

Butt and King in their paper "The Status of Case" focus on the phenomena of case alternations in Hindi-Urdu. They examine synchronic as well diachronic data pertaining to the status of case morphemes in Hindi-Urdu and propose that the determination of case morphology in Hindi-Urdu cannot be based entirely on structural factors. They suggest that UG uses four types of mechanisms for the determination of case. Thus along with the structural position, one needs to appeal to the notions of semantic case, quirky case and default case, in order to account for the full range of case alternations found in Hindi-Urdu. This paper, along with the paper by Davison, contributes to the general understanding of the case marking patterns in Indian languages, since many of the facts covered here, and in Davison's paper, carry over to some extent, to other Indian languages.

Davison's paper "Structural Case, Lexical Case and the Verbal Projection" explores the variation in case marking on subject terms in Hindi-Urdu. She argues that a systematic account of case alternation can be given on the basis of differentiating four classes of verbs and relating them to distinct verbal projections. In doing so, she brings together a large range of data relevant to case alternation phenomenon. The issue of differences in case marking of subjects has fascinated syntacticians working on South Asian languages for many years. Given its significance for the overall theory of case and the status of oblique subjects in clausal architecture, Davison's paper places the phenomenon within current theories of case.

These two papers on Hindi case provide a very detailed account of morphophonological, syntactic and semantic properties of Hindi case system. These contributions should be of use to typological as well formal linguists who are interested in natural language case systems.

2.4. Movement Phenomena

The next set of papers (Hagstrom, Kidwai and McCawley) are all concerned with movement phenomena in South Asian languages. These papers each deal with some property of a South Asian language that does not immediately fit in with known principles governing movement. The proposed explanations rest on properties of clause structure that differentiate them along parametric lines.

Hagstrom's paper "Particle Movement in Sinhala and Japanese" examines the details of question formation in Sinhala and compares it with the nature of questions in Japanese. He argues that the question particle in Sinhala undergoes movement to a scope position and thus comes to occupy a position overtly occupied by the Japanese question particle. The analysis is based on a comparative study of

island effects, intervention effects and multiple questions in Sinhala and Japanese. This paper reduces the distinction between question particle movements to a parametric choice between overt and covert movement, reminiscent of Huang's characterization of English-Chinese wh-movement asymmetries.

Kidwai in her paper "The Topic Interpretation in Universal grammar: Evidence from Kashmiri and German" argues for a distinction between discourse topics and sentence topics. She suggests that sentence topics are licensed via an EPP feature, a feature that encodes a universal thematization requirement while discourse topics are interpreted without reference to a syntactically encoded semantic feature. The data that motivates such a distinction comes from Kashmiri, a V2 Indo-Aryan language, Hindi-Urdu, German and English. The paper also sheds light on the relation between syntactic displacement and discourse, adopting ideas from the literature on Information Structure (Vallduvi 1992, Vallduvi and Engdahl 1996).

McCawley in his paper "Remarks on Adsentential, Adnominal, and Extraposed Relative Clauses in Hindi" considers the full range of relative clause constructions.[1] He adopts the view in Srivastav (1991) (see also Dayal 1996) that relativization strategies in Hindi-Urdu cannot be uniformly characterized under the umbrella of the *Correlative Construction*. Among the issues he explores is the absence of Right Roof effects in extraposed relative clauses. He argues, on the one hand, that this is expected if extraposition is semantic rather than syntactic, a position in keeping with the spirit of Srivastav's account. On the other, he makes an observation that has not received sufficient attention in the literature, namely that the acceptability of long distance extraposition correlates with non-finiteness of the host clause. In discussing adsentential (left adjoined) relatives, adnominal (embedded) relatives and non-restrictive relatives, he makes similar contributions, bringing subtle facts into the domain of discussion. Relativization can, perhaps, be characterized as one of the best-known contributions of South Asian linguistics to typological studies. This paper shows that it remains a fertile ground for theoretical debate.

2.5. Concluding Comments

As these brief summaries make clear, the papers individually and jointly highlight features of the clause structure of South Asian languages that pose interesting challenges for a theory of Universal Grammar. The solutions proposed are within the generative grammar paradigm but the crucial insights can be incorporated into other frameworks. The papers, because they aim at a balance between description and explanation, should be of interest to typologists interested in studying language variation, linguists interested in detailed treatments of particular phenomena, as well as to theoreticians in search of fresh arguments from a language area that is still largely untapped for specific claims about the nature of human languages.

3. A NOTE ON THE LINGUISTIC AREA

We would like to end this introduction with a brief discussion of South Asia as a *linguistic area*, a term due to Emeneau (1956). South Asia can be defined in geographical terms as the sub-continent to the south of the Himalayas. Politically, it includes the countries of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.[2] This area has such a rich and varied linguistic character that its classification as a linguistic entity perhaps calls for some justification. A large number of languages, belonging to at least four major language families (Indo-Aryan, Dravidian, Sino-Tibetan and Austro-Asiatic) are spoken in this region. In spite of this typological diversity there is a substantial body of research (most notably by Emeneau 1956 and Masica 1976, 1999) establishing certain features common to the languages of the region. SOV word order, dative subjects, and morphologically marked causativization are among the linguistic features that hold overwhelmingly for South Asian languages, regardless of their genetic affiliation.[3] Such features, which have to be treated as areal and attributed to contact between languages over an extended period of time, form the basis for the characterization of the region in linguistic terms.

The articles in this volume cover six languages of South Asia, namely Bangla (or Bengali), Hindi-Urdu, Kannada, Kashmiri, Malayalam and Sinhala. These fall into two language families, Indo-Aryan and Dravidian. Among the Indo-Aryan languages, there are three papers exclusively on Hindi-Urdu (Butt and King, Davison and McCawley) and one on Bangla (Ramchand). Among the Dravidian languages there are two papers on Malayalam (Jayseelan and Madhavan) and two on Kannada (Amritavalli and Lidz). While all the papers adopt a comparative perspective, two papers explicitly connect the languages of South Asia with those outside its boundaries, one comparing Kashmiri with German (Kidwai), the other comparing Sinhala with Japanese (Hagstrom).

It may be worthwhile to add a brief clarification about the relationship between Hindi and Urdu. Hindi and Urdu may be considered distinct languages from a political and sociological point of view, and indeed, they are officially recognized as such. However, there are no sound linguistic criteria for separating them. As Masica (1991) puts it "they are different *literary styles* based on the *same* linguistically defined subdialect". They share a common colloquial vocabulary and usage but differ in literary and formal vocabulary as well as in script. Hindi draws on Sanskrit and uses the Devanagiri script while Urdu draws on Arabic and Persian and uses a Perso-Arabic script. The colloquial language cannot be identified as exclusively Hindi or Urdu, but the split in literary styles can lead to mutual unintelligibility at higher registers. Our choice of the term Hindi-Urdu is intended to reflect our view that Hindi and Urdu form a single linguistic entity. We have left it up to individual authors to use Hindi, Urdu or Hindi-Urdu in their discussions of the language but it should be kept in mind that any generalizations and conclusions based on one most likely also apply to the other.

We chose to organize this volume around the theme of clause structure in South Asian languages rather than attempting to cover the whole typological terrain. This was motivated by our desire to bring together a set of papers with a unifying thematic focus. Nevertheless, we feel that the papers in this volume illustrate the

value of investigating theoretical issues concentrating on languages within a linguistic region.

Finally, we would like to thank the authors for stimulating ideas, clear exposition and willingness to critique each other's work. We are also indebted to Tista Bagchi, Rajesh Bhatt, Probal Das Gupta and two anonymous reviewers for detailed comments. We think these efforts have resulted in a volume that will spark interest in what is clearly a dynamic and vibrant area of research in comparative syntax.

NOTES

[1] Jim McCawley, unfortunately, passed away before the paper could be reviewed for publication. It is published here essentially in the form in which it was submitted to us.

[2] Afghanistan and Myanmar are also sometimes thought to be part of South Asia, though they are also classified as Central and Southeast Asian countries, respectively.

[3] The list of areal features is, obviously, not meant to be exhaustive. With respect to word order, Masica lists only two languages as not having SOV order. One is Khasi, an SVO Austro-Asiatic language spoken in the state of Meghalaya. The other is Kashmiri, a language that displays V2 in matrix as well as embedded clauses but is otherwise an OV language.

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