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Restrictiveness in case theory. By HENRY SMITH. Cambridge, New York, Melbourne: Cambridge University Press, 1996. Pp. x, 328. $59.95.

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This book might have been subtitled 'Siddhatva meets case linking' for it explores the new application of an old idea: Rules of case assignment can apply without any explicit ordering or arbitrary constraint if we appeal to a principle familiar from Paninian grammar, namely that the more specific rule takes precedence over the more general one. This is what Smith means by the term 'restrictiveness' in the title, but he explicitly relates it to what is widely known as the 'Elsewhere Condition' (Kiparsky 1973, where it is referred back to Indian grammar).

The theory that S develops is the latest in a rather short tradition which began with the linking approach to argument assignment due to Carter (Levin and Tenny 1988). This was first applied to case-marked languages in Ostler 1979; to an ergative system in Nash 1986; and the resulting case linking was refined and improved in two papers of Kiparsky (1987, 1989), as well as in Bresnan & Kannerva 1989. In this tradition, the overt case marking of inflected languages is generated through principles which link up morphological categories (cases) of noun-phrases with the actant or participant roles (also called by Chomsky θ-roles); these roles interpret semantically the relations borne to the main predicate by the various arguments and adjuncts in the clause. These links may be established, directly through the semantic features of the case (as when ablative case marks a source role) or indirectly, by giving cases a certain status on a hierarchy of roles (as when the nominative and accusative cases mark the agent and patient roles in a simple action, but the experiencer and percept roles in a perception clause). S tends to call the cases 'linkers', allowing him to include word-order position as if it were just one more case marker. Also, he calls the roles 'NP arguments' or just 'NPs' since he tends to take a role's identity as given and attend only to its hierarchical position, hence to its identity as an 'argument' of the predicate.

Analyzing a language, one needs to associate its cases with features and/or positions in the hierarchy, thus accounting for the incidence of the full range of cases in a given language while using as few as possible an hoc specifications. The hierarchy of roles is assumed to be universal and not available for modification in the grammar of individual languages. Ideally, then, one is looking for general principles which will be fraught with consequence as they constrain the linking of cases with roles, accounting for case alternations and even diachronic change as they do so.

S's basic idea is that the idea of restrictiveness provides all the information required to account for which argument is marked with which case in hierarchical linking. S's theory proposes three original constraints:

- the applicability constraint (AC): An NP and its linker must unify.[1]
- the restrictiveness constraint (RC): If an NP is linked by a linker A, and there is a linker B

[1] This is meant in the sense used in logic programming, viz. the semantic information prespecified for each (in the grammar or the lexicon respectively) must be compatible.

that is more restrictive[2] than A and violates no other constraint, then linking the NP with A is ill-formed.

- the linking dissimilation constraint (LDC): Given two co-arguments, x and y, x higher than y, if y is linked by a linker B that has the same link value as the most restrictive linker of that type applicable by the AC to x, call it A, and there is a less restrictive linker C, applicable by the AC to y, then the linking is ill-formed.

I have quoted the constraints verbatim, but this already points to a major weakness of this book: It is awkwardly written throughout, which makes its reasoning, often necessarily tortuous, gratuitously hard to follow. I presume that the latter two constraints could be rephrased with profit as:

- RC': wherever either of two linkers might attach to an argument, the more restrictive shall prevail.
- LDC': no two arguments of the same predicate may get the same linker if there is an alternative linker compatible with the lower argument.

At all events, S does use these principles to considerable effect, generating the basic patterns of case marking in Icelandic and German including quirky case marking and the alternations known as Nominative and Dative Sickness. The LDC is the basic reason why such languages allow only one distinct nominative argument but multiple accusatives: Since nominative is specified as linking with an argument, it is more restrictive than accusative, which is available with no restriction as the default case; as a result nominative goes uniquely (by LDC) on the highest argument, and any other arguments are assigned (nondescript) accusatives. To account for another type of language such as Japanese, which allows multiple nominatives but only one accusative in a clause, only requires a small shift in specification, making accusative the more restrictive case (but specifically not compatible with the highest argument[3]) and nominative the default.

He also shifts to a higher level and 'parameterizes' his constraints on case marking languages. The working assumption is that all these languages have two basic cases used in grammatical linking (e.g. nominative and accusative or ergative and absolutive).[4]

Two binary parameters, then, define four types of case marking languages. One, the LIMITATION PARAMETER, gives languages the option of marking their default case as incompatible with highest argument. (Japanese takes up the option; Icelandic does not.) The other parameter, the PREFERENCE PARAMETER, refers to the formulation of the LDC and the limitation parameter, allowing replacement of 'high-' with 'low-'. This distinguishes ergative languages.

If the preference parameter is on, then by LDC the more restrictive case will prefer the lower argument. But if the limitation parameter is also on, that case will not be allowed to occur on the lowest argument; it (the ergative) will occur only once, on the second to lowest argument, notably the agent in transitive sentences. Meanwhile, nothing stops the default case (absolutive) from appearing multiply. This analysis is proposed for Warlpiri and other ergative languages (mostly in Australia) with the absolutive as the default case.[5] However, if the limitation parameter is off, the more restrictive case (now identified as the absolutive) will gravitate to the lowest argument (in intransitive as well as transitive sentences). If there are other arguments to link, they can take the ergative, and so we should expect multiple ergatives, often marking arguments (or adjuncts) which have nothing to do with the agent. This is precisely what we find in reports of Kabardian and other Caucasian languages, where the ergative can mark recipients and even temporal and local adjuncts.

[2] i.e. B's linking specification is properly subsumed by A's.

[3] This kind of restriction is due to Kiparsky.

[4] Although this has to be relaxed, without too much structural damage to the theory, to account for languages like Diyari, said to have three distinct basic cases (ergative, absolutive/nominative, and accusative).

[5] S is tentative about this, with reason. Multiple absolutives are not common in Warlpiri whereas ergative markings can in fact co-occur in a sentence on different phrases, marking agent and instrument. And the analysis of ergative as 'second-from-lowest argument' would lead to difficulties in analyzing apparent three-argument sentences, which show ergative, absolutive, and dative.

The mechanism is not an easy one to comprehend, working largely through indirect effects of principles which are usually stated negatively, so one feels that the theory is waiting for axiomatization on a different basis. But it is exceedingly effective in accounting for a variety of case curiosities. These include the unreasonable proliferation of accusatives in Classical Greek; BURZIO'S GENERALIZATION on passives (and antipassives) and its failure for Ukrainian; the apparent interaction of case marking with illocutionary force in Nama. S gives an extensive analysis of the phenomenon in a variety of languages (Faroese, Classical Greek, Japanese) which he calls case nonpreservation, where a specific case (often dative) governed in the active may be lost in the passive, the role being marked with a nominative like any other promoted object. S points out that languages where this applies optionally are difficult to describe in other theories which either order their case marking explicitly or (as in Chomsky's GB) assign semantic linking and grammatical linking to different levels of structure (DS and SS). He is also able to show as a predicted side effect the apparently unrelated variation of nominative with accusative in objects in dative-subject verbs in Faroese.

Diachronically, S's claim is that the restrictiveness of a linker tends to diminish over time. This often means the loss of lexical features, although in the case of 'scattered case' it means adding new ones as alternatives. He gives a schematic history of linking in Scandinavian from Old Icelandic through to modern Norwegian, but despite devoting a chapter to changes in linking, S offers no serious new insights here. He does show a now unusual familiarity with a century of Indo-European studies in this field (Gaedicke, Delbrück, Whitney, Meillet, Kuryłowicz), but not very fruitfully: it is very difficult to have a serious debate between their discursive functional analyses of phenomena across the gamut of Indo-European languages and S's focused reconstruction of rule systems for different periods of a language.

There are of course a few flies left in the ointment. Suspiciously, S abandons the analysis of Japanese before trying to account for the case marking in causative constructions; and in fact despite all the Japanese analysis (much of it about passive), he never gives a link specification for the *ni* particle that occurs in passive and causative. This points to a more general worry about the theory since it is nowhere applied to sentences in any language that have more than two arguments which are hierarchically linked. So we have no evidence that the theory is adequate for causative or applicative sentences or indeed any indirect objects.

There is no examination at all of how we know that one argument position is higher than another. How do we know which is the 'highest' argument, which the 'lowest' in predicates relating to perception (*seem/see/show*) or trade (*accrue/buy/sell*) or feeling (*rankle/grudge/embitter*)? Some clarity on this would also have been relevant to many of the Icelandic examples with idiosyncratic case. (And it might have led to some coverage of the relative status of direct and indirect objects, a major gap here; the relative positions of goal and theme may be very much an issue.[6]) Without it, there is only an incomplete analysis of all the examples and no attempt to show this theory's full pattern of linking for even one language.

From both these perspectives, then, this is not yet a theory of DIATHESIS, viz. how the case arrays governed by predicates vary systematically in response to inflexion and derivation and to the semantic changes coded by them.[7]

And from other points of view, too, the author has not fully filled out his theory.

- In the exposition of the typology created by his two parameters, there is nowhere a simple matrix summarizing which combination of values creates which type (and hence what behavior can be expected of it).
- There is no inventory of the possible content of link specifications; rather, the same central examples are visited again and again: ARG(ument), EXP(eriencer), GOAL, -H(ighest)A(rgu-

[6] So Nash 1986 and Simpson 1991 differ on precisely this point in the analysis of Warlpiri; and Simpson (1991: 350) suggests that languages may differ on this.

[7] Split ergativity coded by tense (Georgian) is one example of this, but S's response is to introduce a feature co-occurrence restriction between tenses and case arrays, a mechanism that is not otherwise a part of his theory.

ment), 2(nd argument) etc., and occasionally new ones are introduced when necessary: +DECL(arative) in Nama, PRES(ent tense) in Kartvelian. The features are to be read as abbreviations for the specifications in attribute-value matrices.

- S does in fact declare that he is most compatible with a GPSG-style grammar (Gazdar et al. 1985) but 'will not invoke one theoretical framework'. He remains agnostic on whether linking applies in argument structure or as a set of constraints on lexical insertion (116, 151). He mentions relational grammar early on (9); yet instead of arguing against this indirect approach to linking, he hints that its primitives (subject, object etc.) can be derived from the results of linking. In fact, he would have benefited from a clearer distinction of morphological and syntactic case, if only to have a better criterion for 'case homonymy', when a case morph seems to be used with an incidence that cannot be brought under a single linking principle.[8]

These are drawbacks in a generative theory. When proposing a radical improvement on a significant part of grammatical analysis, an author needs to make his ground rules explicit, sharpening and hence strengthening the theoretical claim being made. In practice, it is possible for analysts already familiar with the subject matter to gain a fair perception of S's approach, and the book is no worse than usual standards in linguistics when it comes to exposition. But this book could not be recommended as an introduction to case theory or as an example of orderly exposition of a new approach to it.

This is a pity because S evidently has a profound, scholarly, and wide-ranging grasp of many issues raised by the grammar of case marking. Furthermore, the theoretical power and elegance of what S has in mind is bracing and inspiring. One can only hope that its further elaboration will be more thoroughly founded, easier to read, and above all, make clear how the theory treats indirect objects.[9]

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An introduction to the languages of the world. By ANATOLE V. LYOVIN. New York & Oxford: Oxford University Press, 1997. Pp. xx, 491.

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First, a brief quiz. Name: (1) the homeland of the speakers of Tosk [49]; (2) the branch of Miao-Yao that has uvular stops [119]; (3) any nontonal Sino-Tibetan language [172–73]; (4)

[8] So Japanese *o* when it marks path is immune to the 'double *o* constraint'; some one-place predicates in Warlpiri require ergative marking; and in Diyari, the three-way morphological case distinctions are not in one-one correspondence with the two-way distinctions required for linking.

[9] There are points where the book would have benefited from closer proofreading. On pp. 121–22, 'ergative' is defined twice but 'intransitive subject' not at all. On p. 240, it is difficult to interpret the three options