PRELIMINARY REMARKS ON CONFIGURATIONALITY[1]

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1. Introductory remarks.

In recent years, a terminological usage has arisen according to which languages are classified as either configurational or non-configurational. I have participated sometimes in this usage, and I am very interested in the question of the position in linguistic typology of languages which might reasonably be placed somewhere near the non-configurational end of the spectrum. Naturally, this question will find its answer in linguistic theory, since "linguistic typology" makes sense, or exists meaningfully, only to the extent that it is defined by a linguistic theory. So the typological position of non-configurational languages is a theoretical question.

In these remarks, I will set forth my best guess as to how non-configurational languages are positioned within the typology defined by a somewhat modified version of the Government-and-Binding (hereinafter GB) theory of grammar (Chomsky, 1981). First, however, I indicate what I think is meant when linguists use the term "non-configurational" in reference to a language. There exist certain superficial characteristics which are often mentioned in close association with the label. Some of these are: (a) "free" word order; (b) the use of discontinuous expressions; (c) free or frequent "pronoun drop"; (d) lack of the NP-movement transformation; (e) lack of pleonastic NPs (like *it*, *there*, *il*, ...); (f) use of a rich case system; (g) complex verb words or verb-cum-AUX sys-

tems. The list goes on. I seriously doubt, however, that any of the superficial characteristics is criterial, in the sense of itself defining the type. Superficially, at least, languages of all sorts, configurational and non-configurational alike, often display some subset of these characteristics. Perhaps the most frequently mentioned of these characteristics is that of free word order. And within the GB frameworks, there is a rather natural theory of grammatical design that could accommodate observed free word order. One could say, for example, that non-configurational languages are identical to configurational languages, with the VP and all, at the level of syntax. The right (or LF) side of the grammar is also identical. The difference is in the left (or PF) side of the grammar. There, local movement rules of a particular sort -- often referred to as "scrambling rules" -- operate to derive the observed surface word orders. It could be as simple as that. This is an initially appealing proposal which has the added attraction that it is a natural extension of earlier views of transformational grammar (cf. Ross, 1967) into current conceptions of grammatical theory. I will, however, take a different tack. The scrambling theory, which I have entertained elsewhere for Warlpiri (among my very favorite non-configurational languages; cf. Hale, 1967, briefly recounted in Hale, 1981), seems to me to lose some of its theoretical interest, in the implementation, when one notices that few real predictions are made by it. Moreover, it fails to answer any questions about the typological status of non-configurational languages, since it only addresses one aspect of them, namely word order, an aspect that is probably not criterial.

2. An elementary theory of configurationality.

I strongly suspect that the germ of the correct typological perspective on configurationality is to be found in the so-called X-bar theory of the categorial component (Chomsky, 1970; Jackendoff, 1977; Hale, 1981, postscript; Stowell, 1981) which, among other things, offers up two dimensions -- category and "type" (or hierarchical depth, a more suggestive term) -- along which rules, and therefore languages, may vary. The first-mentioned of these dimensions suggests a very natural way to accommodate the phenomenon of scrambling. The superficial appearance of scrambling will follow rather automatically as a function of lexical insertion into prelexical phrase markers whose terminal and non-terminal nodes are minimally specified categorially (see Farmer, 1980; Hale, 1980, 1981; Lapointe, 1980; and Whitman, 1979, for some discussion of this and related ideas). But the second dimension, that of hierarchical depth, is probably the central one in relation to the question of configurationality, since it permits phrase markers to be relatively "flat" or relatively "hierarchical". I would like to explore the possibility here that the most interesting properties of non-configurational languages derive from an interaction between flat structure and such grammatical principles as government, abstract case-assignment, and theta-role assignment (Chomsky, 1981,

and elsewhere). I will assume general familiarity with GB and its predecessors, though I will not myself adhere closely to any particular set of ideas.

I wish to adopt an extreme, and, I hope, maximally falsifiable, position with regard to the definition of non-configurational languages. I will maintain that there are only two core linguistic types to be defined along the hierarchical dimention of X-bar theory -- namely, two-bar languages and one-bar languages. That is, there are languages whose grammars utilize the endocentric PS rule schemata (1) and (2):

(1) $X'' \longrightarrow \ldots X' \ldots$

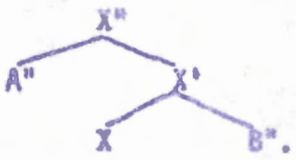
(2) $X' \longrightarrow \ldots X \ldots$

(Ellipses, as usual, represent the positions of specifiers and complements). And there are languages whose sole core endocentric rule schema is (2). Languages of the first type (i.e., those using both (1) and (2) may be termed configurational, while languages of the second type are non-configurational. This simple distinction, I will maintain (until I am persuaded otherwise), is what the typology of configurationality arises from. Of course, this is not all there is to it. There are other principles of grammar which must function, or not function, as the case may be, in concert with the syntax defined by the rules of the base. I will be concerned here with the principles of government, case assignment, and theta-role assignment. For better or for worse, and at some risk of losing explanatory force, as well as of doing violence to accepted notions, I will take certain liberties with these principles, defining them in a manner which conforms to my own current way of thinking about the issues involved in explicating non-configurational grammar.

A common characteristic of configurational languages, not a defining criterion, but a fairly consistent property nonetheless, is relative "tightness" of grammatical organization -- in particular, a relatively straightforward and consistent relationship between theta-role assignment and structural position. In short, in configurational languages, grammatical principles are typically articulated in structural terms -- thus, theta-roles are assigned to structural positions, and case is likewise assigned to structurally defined positions. In this regard, non-configurational languages are characterized by much greater "looseness" of grammatical organization. My feeling, intuitively, is that some universal principle of grammar "clicks on", so to speak, in two-bar languages; this same principle "shuts down" in one-bar languages. I do not know what this principle is, really, but I would like to suggest that it is government.

Suppose we define government as a relation which holds between the head of a category and its immediate sisters -- let us say that the head governs its sisters. In a configuration like (3) below, there are two distinct domains in which government operates:

(3)



On the one hand, the category A" is governed by X' (the head of the domain defined by X"), while on the other hand, the category B" is governed by X (the head of the domain defined by X'). An important property of configurational structures of the type represented by (3) is that they are partitioned into two domains of government. To put it another way, government can function in such a structure to distinguish among the arguments of the lexical head (X), where that is a verb, say.

By contrast, in a non-configurational language, whose phrasal structures are "flat", as depicted in (4) below, government as defined above cannot serve to partition a structure into distinct sub-phrasal domains of government -- and correspondingly, it cannot serve, in and of itself, to distinguish among the arguments of X:

(4)

One could say here that both A' and B' are governed by X. That would follow from our definition of government. An alternative, however, is to say that government simply does not operate in such structures. This seems a rather natural alternative in the conception of government briefly outlined above -- in which government, in the absence of configurational structure, cannot distinguish among nominal arguments and in which, in fact, government is entirely derivative of sisterhood. I will adopt this second alternative.

Now, in a configurational language it is possible -- and perhaps most in keeping with the nature of the type -- to say that such principles as abstract case assignment and theta-role assignment are dependent upon government. The head of a category, provided it has the ability to do so (i.e., is not exceptional in this regard), assigns case and theta-role to the nominal expression (or NP) which it governs. This provides not only for distinctive case and theta-role assignments to subject and object, but it also allows for failure of assignment in one or another of the domains

of government. Thus, for example, V', if non-finite, will fail to assign case to the subject; and V, if a past participle, will fail to assign case to its object (cf. Chomsky, 1981, and references there for the essentials of the case theory adopted here in modified form). Moreover, it is probably possible to relate configurationality as here defined to the occasional failure of theta-role assignment to the subject position. One of the variants of the passive in English, for example, employs the verb be which, we may assume, assigns only one theta-role, if any, and that to its small-clause complement headed by the past participle (see, e.g., Burzio, 1981, and Stowell, 1981, for relevant analyses of the passive). The subject position in an English-type passive construction, therefore, is not assigned a theta-role, and the NP functioning as surface subject in a passive obtains its theta-role from its original object position.

In a non-configurational language, by contrast, configuration alone cannot account for differential case and theta-role assignment. Thus, if a non-configurational language uses case, it is inherent case, not assigned case. By inherent case I mean, simply, case associated with nominal expressions by virtue of the word-formation component alone (or, perhaps, by the categorial component in languages with case-like post-positions or enclitics, such as Japanese and Navajo). And, with respect to the notion "theta position" (i.e., a position to which a theta-role is assigned), all positions are theta-positions in non-configurational languages.

From these assumptions, it seems to me, certain predictions follow. I will briefly outline some of these in the sections which follow.

3. NP-movement.

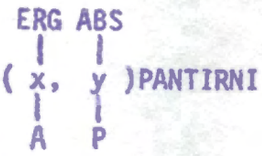
Non-configurational languages apparently lack the transformational rule of NP-movement. For example, it is difficult to show that the passive, where it exists in a given non-configurational language, involves the use of a movement transformation. Rather, what appears to be involved, typically, is a lexical passive rule of the sort proposed by Freidin (1975), Wasow (1977), and Bresnan (1980), among other people. If this is true, and I believe it is, it follows from the present conception of configurationality and from the GB view of the passive (and raising) as movement from a caseless theta-position to a cased non-theta-position. Within this framework, non-configurational languages could not have NP-movement, since it would lead to a violation of the theta-criterion -- movement from one theta-position to another would result in the assignment of two theta-roles to a single nominal expression.

4. The element PRO.

If theta-roles are not assigned structurally in non-config-

urational languages, then how does an overt nominal expression get its theta-role? This question is both important and vexed, and I am not sure that its answer will be altogether neat. I believe, however, that the answer lies (in part) in the phenomenon of inherent case and its relation to the process according to which an argument position in the lexical-functional structure of a predicate (cf. Bresnan, 1980; Marantz, 1981) is "evaluated".

Let us assume that the lexical-functional structure of a diadic Warlpiri verb, like pantirni 'to spear, stab, pierce, ...', is roughly as depicted in (5) below:

(5)


The first argument of this verb is associate with the theta-role "agent" (A), and the second argument is associated with the "patient" (P) role (using these terms without necessarily attributing a particular theoretical status to them). Each argument position is also associated with a "linking register" (using the term "linking" in roughly the sense of Carter, 1976) which signals the way in which it is to be related to the syntactic structure into which the verb is inserted. Essentially, a linking register C (C a case category) states that if an overt nominal is to evaluate the argument position bearing the register C, the nominal must itself belong to the case category C. Or, to put it another way, an overt nominal bearing case C receives its theta-role by being associated with an argument position bearing the linking register C. This association may be thought of as a special sort of "binding", which I will notate by means of a superscript "linking" index. The partially interpreted structure of the Warlpiri sentence (6) will, therefore, appear as in (6'):

(6) Ngarrka-ngku wawirri pantu-rnu.
(man-ERG kangaroo (ABS) spear-PAST)
'The man speared the kangaroo.'

(6') $\{NGARRKA^{1}, WAWIRRI^{j}, (x^{i}, y^{j})PANTIRNI\}$

Now, in many non-configurational languages, sentences without overt nominal arguments -- i.e., with one or more of the arguments "implied" by the verb missing, or at least non-overt -- are fully grammatical, as in (7) below:

(7) (a) Ngarrka-ngku pantu-rnu
'The man speared it.'

(b) Wawirri pantu-rnu.
'He speared the kangaroo.'

(c) Pantu-rnu.
'He speared it.'

The question I would like to ask now is this: What are these missing nominal arguments? Are they PRO? That is, are they simply phonologically null pronouns (cf. Chomsky, 1981, and elsewhere)?

My gut-feeling answer to this question is that these missing NPs are not PRO -- rather, they are "truly missing". What I think happens in languages like Warlpiri, characterized by free "pronoun drop", is that the (primary) argument positions of predicates are "freely" evaluated. That is to say, each argument position is assigned an "evaluation index", to be likened, I expect, to the traditional "referential index". Notationally, I will represent this, in verbal functional structure, as a parenthetic index, in place of the alphabetic variable of the lexical representation (cf. (5) above). Overt nominal argument expressions also bear this index (a parenthetic subscript, notationally). Evaluation of an argument position by an overt NP involves the "binding" alluded to above (and notated by means of the linking index). However, the free evaluation of an argument position is sufficient to satisfy that part of the theta-criterion which requires that each argument position in verbal functional structure be evaluated (or, in parlance more consistent with GB usage, "... each theta-role must be assigned ..."). Accordingly, the more fully interpreted structures of (6) and (7) are now as follows:

(6') $\{NGARRKA^{i}_{(n)}, WAWIRRI^{j}_{(m)},$
$((n)^{i}, (m)^{j})PANTIRNI\}$

(7') (a) $\{NGARRKA^{i}_{(n)}, ((n)^{i}, (m))PANTIRNI\}$

(b) $\{WAWIRRI^{j}_{(m)}, ((n), (m)^{j})PANTIRNI\}$

(c) $\{((n), (m))PANTIRNI\}$

The freely evaluated, and unlinked, argument positions are interpreted in much the way definite pronouns would be in a configurational language like English, in which evaluation must be mediated by a structural position (which latter must, in turn, be "filled" by an NP in order for evaluation to take place); thus, the Warlpiri sentences of (7) have meanings which closely correspond to the English translations provided (but with gender unspecified).

... ... In a framework of the sort being developed here, there is no need for the element PRO in non-configurational languages (though there is such a need in a configurational language in which evaluation -- i.e., theta-role assignment -- is structurally governed). The next question to ask is whether or not there might be some property of non-configurational languages which would dictate that they could not use PRO (at least not in the function described above, i.e., as phonologically null pronouns). I think that there is in fact such a property, though several alternatives suggest themselves. I will mention two. One possibility is this. Suppose PRO is simply a caseless pronoun (cf. Aoun, 1981) -- that is, a pronoun is overt if cased, non-overt otherwise. If this were correct, then Warlpiri sentences like (7a-c) could not have PROs. Since PROs lack case, they cannot be assigned theta-roles, given just the assumptions we have adopted here, and their presence in (7a-c) would therefore constitute a violation of the theta-criterion. This is one possibility. But what of a language whose grammar is organized differently, in that it utilizes free evaluation of argument positions but does not use case to assign theta-roles to overt NPs? Consider a language, if any such exists (Navajo, Winnebago, and Papago being possible candidates), in which the assignment of theta-roles to NPs is "free" (resulting, say, from the simplest of all possible rules, namely, "assume theta-role", in the spirit of Chomsky's "assume GF" (1981)). Would such a language as this be prevented -- in any principled way stemming from the theory of configurationality -- from utilizing PRO? I think so, though my reasoning will perhaps seem perverse. The concept of PRO is intimately bound up with the theory of government, within the GB framework, and it may well be that government is crucially involved in the definition of PRO. Suppose this is so. Since government is non-functional in languages of the non-configurational type, they cannot have PRO. To be sure, this line of reasoning will have to be developed in detail before it can be taken seriously. I suspect, however, that there is more than a grain of truth in it; and, for present purposes, I will assume that PRO cannot exist in non-configurational languages.

We have a view of grammar here, it seems to me, in which it makes perfect sense to say that the nominal category PRO is not utilized in non-configurational languages. We have not proved that PRO could not be utilized in such languages, of course. But for one such language, at least, namely Navajo, there does exist some evidence which comes awfully close to proof. There is a situation in which assumption of PRO forces abandonment, in the theory of Navajo grammar, of an otherwise very general principle of pronominal anaphora (namely, the (precedence and-command prohibition; cf. Lasnik, 1976, and Reinhart, 1976, on pronominal anaphora; and for brief discussions of the relevant Navajo facts, see Platero, 1978, Ch. 4; Hale, 1981, and Hale and Perkins, forthcoming).

5. Movement to non-A-positions.

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According to the view sketched above, non-configurational languages lack NP-movement. But what about Wh-movement? Could that exist in a non-configurational language?

In the GB theory of grammar, Wh-movement sets up a relation between a so-called "A-position" -- a position to which a grammatical function (e.g., subject, object) is assigned -- and a "non-A-position" (e.g., COMP position in English). Consider this property, i.e., movement from an A-position to a non-A-position, in relation to a non-configurational language having only (2) among its categorial rules and, therefore, only structures of the flat type depicted at (4). Within such structures, all positions occupied by N' (i.e., by noun phrases) are A-positions, of course. Are there any non-A-positions in such a language? I believe the answer is yes. The head-position is a non-A-position. Therefore, if a Wh-movement analogue existed in a non-configurational language of the the type just characterized, the movement would be into head-position. And this is precisely what the Navajo analogue to Wh-movment appears to involve. This rule moves the head of an enclitic-based expression (namely, the enclitic itself) rightward into a head position. Although it is cast in a different framework and adopts different assumptions from ours, Schauber's excellent and detailed analysis of Navajo spatial enclitics (Kaufman, 1974; Schauber, 1979) can be convincingly reinterpreted along the lines we suggest. And it now becomes completely comprehensible why the Navajo analogue to Wh-movement exhibits the surprising directional properties it does. The only non-A-position is head-position, and heads are rightmost in Navajo structures.

In the Navajo sentence (8) below, there is a gap (symbolized t, for "trace") preceding the embedded verb:

(8) Shizhé'é t deeyá(h)-ígóó doo shi-
bééhózin-da.
(my-father t he-has-started-to-go-ígóó
not to-me it-is-known-da)
'I do not know where my father is going.'

The trace is bound to the displaced clitic complex -ígóó -- an allative expression which strict-subcategorizes the embedded verb. An unmoved allative expression, such as kin-góó 'to town' in (9) below, precedes the verb, of course:

(9) Shizhé'é kin-góó deeyá.
(my father town-góó he-has-started-to-go)
'My father is going to town.'

The position occupied by the displaced -ígóó in (8) corresponds to the head-position in an enclitic-based expression.

FOOTNOTES

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So far as I am aware, none of the ideas I will set forth below is originally mine. I have shamelessly marauded among the works and ideas of friends and colleagues, as well as among those of my predecessors, following a pattern which is unfortunately no longer recoverable. So, if I fail to attribute ideas correctly, I hope I will be forgiven. And I hope also that I will be forgiven for any use or mixing of ideas that might, strictly speaking, be illicit from the point of view of their originators.

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