

Correlates of Nonconfigurationality

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1. Introduction

Much recent work on nonconfigurationality, including Baker (2000, 2003) has noted a number of correlations in the behavior of arguments and the the Pronominal Argument Hypothesis (hereafter P.A.H.). In this paper I discuss some implications for analyses of nonconfigurationality using data from the Australian language Bardi. I show that despite some enticing correlations in many languages which appear to support the P.A.H., data from Bardi poses problems for such an analysis. I argue instead that many of these correlations arise not from properties of nonconfigurationality, but from pronominal semantics, and are thus not relevant to the P.A.H.. If my analysis is correct, many of the properties of polysynthetic languages which have been argued to be analyzed within a nonconfigurational framework would instead be due to other facts of the grammar. I do not see this necessarily as a disadvantage in the analysis, however, as it allows us to explain more languages, and to locate the ‘causes’ of nonconfigurational behavior more precisely.¹

I begin by briefly reviewing the literature on nonconfigurationality in §2, including the criteria used for the diagnosis of nonconfigurationality. I then continue with a discussion of the properties of Bardi, and why it should be considered a nonconfigurational language. In §4 I show the problem, and in §5 the solution. In presenting this work I have two aims; the first is to highlight the heterogeneity of behaviors of non-configurational languages (well beyond what Baker (2000) identified); the second is to propose a line of research which would lead to a more unified treatment of these different languages.

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2. Nonconfigurationality

Work on diverse languages from many different families, most notably Mohawk, Mayali and Warlpiri (cf. Hale (1983), Jelinek (1984), Baker (1996), Speas (1990)) has resulted in the definition of a set of properties considered diagnostic of non-configurationality. These include absence of binding effects, no weak cross-over, free argument omission, no direct evidence for a VP node (that is, no good evidence for subject-object asymmetries), and extensive discontinuous constituency. These properties have been extensively discussed in Warlpiri, and such properties are frequent in all languages of the Mohawk- and Warlpiri-type nonconfigurationality (see Baker (2000); the properties themselves are originally due to Hale (1983)). Some examples are given from Warlpiri. In (1a) there is a discontinuous constituent; in (1b) we see the second position clitic complex as sole encoder of grammatical relations.²

- (1) a. *Kuyu-rna luwa-rnu wawirri.*
 animal/meat-PERF.1SG.S shoot-PAST kangaroo.
 ‘I shot a kangaroo.’
- b. *Panu ka-rna-jana nyanyi.*
 many PRES-1SG.S-3PLO see-NON-PAST
 “I see many of them.”

(Baker 2000, 427)

In addition, various authors (particularly Baker 2000, 2003) have noted other incidental correlations which are shared by the non-configurational languages most well-known in the literature. These include³

- (2) no non-finite verbal forms
 no referentially defective nouns
 obligatory WH-fronting
 a tendency to avoid indefinite NPs in argument positions;
 a weak (or non-existent) distinction between nouns and adjectives
 no non-anaphoric agreement
 no quirky case marking

All such properties are consistent with (and indeed, expected in) a pronominal argument analysis of nonconfigurationality (first advanced in Generative Grammar to my knowledge by Metcalfe 1975; see also Jelinek 1984). Under this analysis, ‘agreement’ morphology is taken to be the exponents of arguments themselves. That is, in a sentence such as (1), the ‘agreement’ clitic complex saturates the theta-roles assigned by the verb root; full lexical noun phrases, if and when they appear, are assumed to be adjuncts of

²Note that there are many possible English translations for (1b); I have given only one.

³The first set of correlations are due to Baker (2000); the quirky case marking fact is my claim.

some kind. Importantly, if the agreement markers are pronominal and there is an anaphoric relationship between the noun and the pronoun, the noun will always bear a referential index. This should prevent such languages from having referentially defective nominals in argument positions.

The properties listed in (2) above fall out from the Pronominal Argument analysis in a number of different ways. For example, all verb forms in a nonconfigurational language should be finite, because there would otherwise be no way to license theta-roles and assign the arguments of the verb. If all argument assignment is done within the verb, any non-finite verbs would not have argument positions to saturate those roles. This thus predicts that such languages should not exhibit non-finite complementation (or non-finite structures of any kind), and in indeed that prediction seems to be largely borne out. Quirky case marking should not be allowed because of structural issues in case assignment; the quirky case marked ‘arguments’ would not be true arguments and there would therefore be no way for them to receive case from the verb. The lack of a robust distinction between nouns and adjectives follows from issues of referentiality, or so Baker argues. The lack of non-anaphoric agreement follows from the status of the verbal markers; if they are inherently pronominal, any full noun phrase coreferential with them must by definition be related anaphorically.

3. Properties of Bardi

With this background in mind, let us now consider the properties of the Australian language Bardi. Bardi is a Nyulnyulan (non-Pama-Nyungan) language from Australia’s North-West coast. There are approximately thirty fluent speakers, most of whom live at One Arm Point community. Like all Nyulnyulan (and most non-Pama-Nyungan) languages, Bardi exhibits extensive head-marking, although it is less typical in that it also has morphological case marking and several other dependent-marking characteristics. Example (3) illustrates some of these features.

- (3) *Banyjoord gorna bangalon-ngan oogool irr-jimbin=jamb aarli.*
B good reef holes-ALL/PURP scatter 3PL-die-CONT=THUS fish.
Gaanyga-yoon=amb banyjoord.
mainland-SOURCE=THUS b.

‘Banyjoord poison root is used for scattering in crevices of reefs so that the fish die. It’s from the mainland.’ (Aklif 1999, entry for *banyjoord*)

Bardi verb morphology is complex and a full explanation is beyond the scope of this paper. A schematic template of the verb is given in (4); multiple prefixes mark person, subject number, root valency, tense/modality and reflexivity; suffixes include further tense/aspect specification and applicative/reflexive marking. Subject marking is prefixal; direct and indirect object marking takes the form of clitics which appear last on the verb.⁴

⁴Due to the extreme morphophonological processes that Bardi verbs undergo it is often not possible to segment surface forms easily into morphemes. Therefore I have not marked most morpheme boundaries in examples. I have, however, marked clitic boundaries.

(4) SUBJ/TENSE/TR —**ROOT**— T/A =(other clitics) =IO =DO

Bardi exhibits all the core properties of nonconfigurational languages identified by Hale and others. It has free and extensive argument omission (to the extent that half of clauses in my narrative corpus have no argument nominals expressed, and only 3% of transitive clauses have both a full subject and object). Discontinuity in noun phrases, when they appear at all, is permitted, although it is pragmatically disfavored in many contexts. Furthermore, there appear to be no subject/object asymmetries in free nominals. Constituent order encodes no information about grammatical relations; instead we find word order encoding highly pragmatic content.

The following examples illustrate some of the previous points.⁵ (5) shows argument omission; in (5a) the ‘missing’ pro is first person, while in (5b) neither subject nor object nominals appear.

- (5) a. *Wiliwilingan arr nganjoogal arrang baawa.*
 fishing-ALL go 1-TR-do/say-REC.PST WITHOUT child
 ‘I went fishing without the kids.’
 b. *Nganyji minjalagaljiyirr?*
 INTERROG 2-TR-see-REC.PST=2IO-3AUG.DO
 ‘Did you find them?’

In (6) and (7) I give some data on binding and crossover; (6b) and (6c) should result in Condition B (and/or C) violations, yet they are grammatical. (7) illustrates weak crossover; the sentence is grammatical in Bardi.

- (6) a. *Mary_inim jina_i birrii injalagal.*
 M-ERG 3MIN.POSS’R mother 3-TR-see-REC.PST=3MDO_i.
 ‘Mary’s mother sees her.’ / ‘Mary sees her mother.’
 b. *Birriinimin_i injalagaljin_i Mary.*
 mother-ERG-3MIN.POSS’R_i 3-TR-see-REC.PST=3MIN.IO_i Mary.
 ‘Her_i mother sees Mary_i.’
 c. *Ginyingginimjin_i birrii injalagal Mary_i.*
 3MIN-ERG-3MIN.POSS mother 3-TR-see-REC.PST M.
 ‘Her_i mother sees Mary_i.’ (NI: CB/FN 12/21)
 (7) *Anggabanim injalanajin birrii?*
 who-ERG 3-TR-see-REC.PST=3MIN.IO mother
 ‘Who_i saw her_i mother?’ (NI: CB/FN 12/22)

For further data the reader is referred to Bower (2004) and Bower (in preparation). The facts here would seem to point to the pronominal arguments being the ‘arguments’ of the verb. If not, there are many issues to explain. Bardi is similar to Warlpiri in most regards here.

⁵All examples are from my field notes, unless another source is given. References in my fieldnotes are to speaker and field notebook.

4. Problems

While many non-configurational languages share the core properties discussed in the previous section, there is less unanimity in the presence of the properties listed in (2) above. While it does appear to be true that the best-studied nonconfigurational pronominal argument languages exhibit this behavior, not all such languages do. There are several cases from northern Australia. For example, Rembarrnga has infinitives (Nordlinger and Saulwick 2001), and Ngalakgan has non-anaphoric agreement (Baker 2002). Bardi is, in fact, even more problematic, in that it exhibits none of the predicted ancillary properties. A few of these properties are illustrated in this section.

Bardi allows interrogative pronouns in non-initial positions with interrogative meanings, and multiple interrogatives. An example is given in (8). The P.A.H. predicts that multiple interrogatives should not be licensed, and neither should WH-*in situ*. The equivalent sentences are impossible in languages like Mohawk. I have no data on multiple WH in Warlpiri.

(8) Multiple WH

- a. *Anggi anggabanim inarligal?*
 what who-ERG 3-TR-eat-REC.PST
 ‘Who ate what?’
- b. *Anggi inarligal anggabanim.*

A further difference between Bardi and the better-described nonconfigurational languages is the presence of infinitives. As noted above, pronominal argument languages are assumed not to have non-finite verb forms, as there would not be arguments appearing in theta positions. Examples (9) and (10) illustrate infinitives in Bardi. The infinitive is glossed GER for ‘gerund’, following previous work on Nyulnyulan languages. Infinitive marking takes the form of a circumfix *m(a)- -n*; the prefixal component of the infinitive marker replaces all tense, aspect and agreement prefixal morphology. The suffixal component is homophonous with the continuous aspect marker (and replaces all other suffixation). Subject DPs are licensed with infinitives, although they are hardly ever produced in spontaneous speech (they have been elicited).

- (9) *Irrol-ong ingoorroomoongoonoo=jin=irr arranga*
 spear-INST 3-PST-AUG-throw-APPL₂=3MIN.IO=3AUG.DO without
m-onji-n
 GER-spear-GER.

‘They ‘threw’ spears at him without hitting him.’ (Metcalf 1975, 103)

- (10) *Goord injij ooldoobalngan ma-nya-n.*
 bend down 3-tr-do-perf things-PURP GER-pick up-GER
 ‘He bent down to pick up his things.’

There are some interesting issues with clitics and infinitive marking. Note that direct object agreement clitics **do** appear, as in the following example.

- (11) *Ngamoonggoon ngannanggan ma-ma-n=irr.*
 1sg-knowledge talk-PURP GER-‘put’-GER=3PL.OBJ
 “I can talk to them.”

It remains to be seen exactly what the status of object and oblique agreement is in Bardi. There are several clear differences between verbal subject and object marking.

Bardi also has number mismatches between the free nominal and the verb marking (example 12). In my Bardi examples all of the mismatches involve number mismatches; either singular nouns with plural agreement, or vice versa.⁶ In (12), for example, the subject agreement is singular while the oblique (possessive) agreement is plural, even though both are anaphoric to *boonyjanim* (all/everyone-ERG).

- (12) *Boonyja-nim inarligal=jirr=irr* *aarli.*
 all-ERG 3SG-TRANS-eat-REC.PST=3AUG.IO=3AUG.DO fish
 “Everyone_i ate their_i fish (pl).”

5. Discussion

There has been some previous discussion regarding referentiality and pronominal argument readings. Baker (2000) implies that in all pronominal argument languages the verbal markers are referential (that is, that the anaphoric relation between the noun and the pronoun creates a referential index and thus prevents the licensing of referentially defective nouns). Mithun (2003) supports this position to a certain extent, at least for Yup’ik and Navajo. She notes that these languages strongly disfavor indefinites in argument positions, and instead employ a number of strategies to keep indefinites from occupying such positions (including noun incorporation). Evans (1999) takes a somewhat different view. He argues that the ‘pronominal’ arguments lack definiteness and referentiality features altogether. That is, the P.A.H. is inaccurately named, and it is misleading to equate the ‘pronominal’ markers on the verb with pronouns.

The starting point for my analysis is the observation that even in well-studied languages, pronouns are used in a variety of situations and are not always referential. For example, English *it* can be used as an expletive as well as an anaphor, and *you* and *they* also have generic readings, as in

- (13) a. “**You**’ve got to put rotten bananas in the freezer to make them taste ok.”
 b. “They’re out to get you.”

Moreover, we also find languages where such readings are not possible. In Bardi, for example, *joo* ‘you.SINGULAR’ can never have a generic or impersonal reading; this is true for many other languages too.

A language with the set of properties shown by Bardi (and described in §4) has not been described in the literature, to my knowledge. At first sight it would appear to be a counterexample to the P.A.H., if we take the properties described by Baker and others as

⁶Baker (2002) provides gender mismatch examples for the non-Pama-Nyungan language Ngalakgan.

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diagnostic of ‘true’ nonconfigurationality. However, there are a few other aspects of Bardi syntax which lead us to a possible solution.

One crucial difference between Bardi and nonconfigurational languages such as Warlpiri is that agreement itself may be nonreferential. In Warlpiri, for example, a null third person form is always definite (Austin and Bresnan 1996), whereas in Bardi such a form may be indefinite (specific), or in some cases nonreferential. Illustration is given in (14) below:

(14) a. Referential:

Oorany inyjiidina Broomengan.
woman 3SG-PST-go-PST Broome-ALL
“A/some/the woman went to Broome.”

b. Anaphoric (referential)

Bardi birarr injoon.
yesterday return 3SG-TR-do-PST
“She came back yesterday.”

c. Generic:

Aarl irli.
fish 3SG.PRES-eat
“People eat fish.”

d. Nonreferential:

Ool inamana.
water 3SG-TR-put-PST
“It rained.”

Suppose, then, that nonconfigurational languages differed in the extent to which they allowed non-referential (or non-anaphoric) readings of their pronominal arguments. This would not be surprising, given that configurational languages also show this type of variation in pronominal semantics. In that case, it would follow that adjuncts co-referential with indefinite readings of agreement would also be indefinite – this would be possible in a language like Bardi, but not in Yup’ik or Mohawk.

(15)	Language	status of indefinite/non-referential readings
	Navajo and Yup’ik:	strongly dispreferred or ungrammatical
	Mohawk and Warlpiri:	licit in explicit contexts (always definite when no free nominal; variable when accompanied by a nominal)
	Bininj Gun-wok:	licit in more contexts (e.g. licit when non-anaphoric too)
	Bardi:	licit everywhere.

6. Conclusions

Such an analysis does not solve all the problems associated with Bardi's nonconfigurational status. For example, there is much more work to be done on the status of free nominals (when they appear). There appears to be weak evidence for an argument/adjunct distinction, at least on the basis of facts of multiple WH. This should not be expected if all nominals are generated in A⁰ positions. The behavior of infinitives still needs an explanation.⁷

There are a number of implications for this analysis. The most important is that under this view, many of the properties which Mohawk and other language exhibit are not ultimately due to their nonconfigurational status; it is a result of the combination of the P.A.H. and the restricted semantics of the pronominal arguments. Bardi looks very different from these other nonconfigurational analyses, but by this analysis almost all the differences in behaviour are attributable to the ability of pronominal verbal material to license a wider array of referential (and nonreferential readings).

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⁷One possibility is that infinitives in Bardi have undergone valency reduction and that the subject argument is suppressed entirely. This requires further investigation.

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