Warlpiri: Theoretical Implications

by

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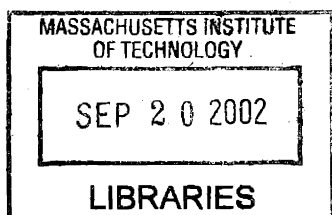
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Abstract

The issue of non-configurationality is fundamental in determining the possible range of variation in Universal Grammar. This dissertation investigates this issue in the context of Warlpiri, the prototypical non-configurational language. I argue that positing a macroparameter, a single parameter that distinguishes configurational languages from non-configurational, requires variation on a magnitude not permitted by Universal Grammar. After refuting in detail previous macroparametric approaches, I propose a microparametric analysis: non-configurational languages are fully configurational and analysed through fine-grained parameters with independent motivation. I develop this approach for Warlpiri, partially on the basis of new data collected through work with Warlpiri consultants and analysis of Warlpiri texts.

Beginning with A-syntax, I show that Warlpiri exhibits short-distance A-scrambling through binding and WCO data. I present an analysis of split ergativity in Warlpiri (ergative-/absolutive case-marking, nominative/accusative agreement), deriving the split from a dissociation of case and agreement, and the inherent nature of ergative case, rather than from non-configurationality. Extending the analysis to applicative constructions in Warlpiri, I identify both symmetric and asymmetric applicatives. I argue that the principled distinctions between them are explained structurally rather than lexically; therefore the applicative data provide evidence for a hierarchical verb phrase in Warlpiri. The analysis reveals the first reported distinction between unaccusative and unergative verbs in the language.

Turning to A'-syntax, I argue that word order is not free in Warlpiri; rather Warlpiri displays an articulated left peripheral structure. Thus, word order variations are largely determined by positioning of elements in ordered functional projections based on their status in

the discourse. Furthermore, I present evidence from WCO and island effects that elements appear in these projections through movement. Finally, I investigate the wh-scope marking construction, arguing for an indirect dependency approach. In developing the analysis, I argue, contrary to standard assumptions, that the dependent clauses related with verbs of saying in Warlpiri are embedded rather than adjoined. On the basis of a poverty of the stimulus argument, I conclude the construction must follow from independent properties of the language. I propose that it follows from the discontinuous constituent construction, which I equate with split DPs/PPs in Germanic and Slavic languages.

The syntactic structure of Warlpiri that emerges from the dissertation strongly supports a configurational analysis of the language, and thereby the microparameter approach to nonconfigurationality.

Thesis Supervisor: Noam Chomsky
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Thesis Supervisor: Sabine Iatridou
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To Kenneth Locke Hale

Acknowledgements

Hmm, well, I guess I'll just start at the beginning.

I was introduced to generative linguistics by Philippe Bourdin, a wonderful man who taught me Chomskyan syntax in a college dominated by functionalists and whose enthusiasm for affix-hopping contributed greatly to my choice of paths in life. Thank you.

At the University of Toronto I learned the joy of syntax. Diane Massam's introduction to syntax at UofT was what made me choose syntax as my area of specialization. The final take home exam lead us to "discover" that Chinese covert movement of wh-phrases was constrained by Subjacency–a thrilling discovery for me, convincing me that syntax was really and truly right. (I was terribly diappointed years later when this discovery was brought into question, but by that time I was hooked on syntax.) My first introduction to the Minimalist Program was through Carolyn Smallwood, who has probably contributed more than anyone to my development as a syntactician. While I was at UofT, we had a wonderful year as roommates, making a biblical study of Chapter 4. Our excitment and energy level then was unsurpased–the whole world of syntax seemed ready for the explaining, we had syntactic trees up on our apartment walls, and we'd each frequently come out of our bedroom at 12am with a new idea to try out on the other. My first real conference paper and introduction to the world of linguistics at large was with Carolyn, and it was an abrupt awakening to find out that Chapter 4 was yesterday's news to the rest of the world. Since that year, Carolyn has been the best of friends, always ready to talk syntax, or provide distractions from syntax, as needed. Thanks for everything, Car! My advisor at UofT, Elizabeth Cowper, was always extremely supportive, and ready to listen to my random ideas for hours at a time. Thank you, Elizabeth, I've missed that ever since. Thanks also to Alana Johns, Elan Dresher, Karen Rice, and my classmates.

At MIT I learned the complexities and hard work of syntax. I'll never forget at my first syntax class at MIT, Alec Marantz told us, you're in the big leagues now. No more blindly

citing authority. Nor will I forget my first day in Noam's class, when he was still a legend to me and I couldn't believe I'd actually see him in real life.

As my advisor, Noam Chomsky helped mould me into a better academic by offering a different perspective on an issue, or challenging my assumptions. He has also been kind and helpful to me, commenting on papers and writing last minute reference letters, and grandfatherly to my son Russell. Above all, Noam took me seriously, which I consider a great gift. Thank you.

My advisor, Sabine Iatridou, always shared with me sound advice for life, believed in me even when I didn't, and was completely unfased by Russell crawling all over her office floor playing loudly with her son's trucks during our meetings. Academia isn't easy for mothers, and her understanding helped tremendously. Thank you.

Thank you to my other committee members, Mary Laughren and Irene Heim. Mary was meticulous with her comments on the Warlpiri data, and Irene's insightful comments lead to improvements throughout.

(In warning to Warlpiri speakers—I'm about to use the name of a deceased friend and relative. I will again at a number of points throughout the dissertation.) During my second year, as I was searching for a generals paper topic, I sat in on a guest lecture on nonconfigurationality and Warlpiri by Ken Hale. I was so intrigued I decided I had to work on this language. Not knowing Ken at the time, I broached the subject of me working on Warlpiri gingerly, afraid that he would perceive me as intruding on his territory. Of course nothing was farther from the truth. He was thrilled, and over the next two and a half years helped me patiently and tirelessly as I stumbled through trying to understand the complexities of Warlpiri. He introduced me to the Warlpiri people and gave me my skin name, *Nungarrayi*, making me his grandaughter. I wish that he could have seen this dissertation; I wish that I had had more of it ready to tell him about when last I talked with him. I feel honoured to have known Ken, and to have had the chance to work with him. To him I can only say from the bottom of my heart thank you and I'm sorry, ngaju karna jaruku kapakapa-jarrimi.

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Contents

Chapter 1

Introduction

This dissertation has two central concerns: the analysis of nonconfigurationality, and the syntactic structure of Warlpiri, a Pama-Nyungan language spoken in the Northern Territory, Australia, by over 3000 people. The two concerns are intertwined in that Warlpiri is standardly considered the nonconfigurational language par excellence.

In Chapter two, I begin with some basic properties of Warlpiri syntax that made it appear typologically interesting. Next, I review and evaluate previous analyses of the phenomenon of nonconfigurationality. The dual structure approach (Hale 1983, Simpson 1991, Austin & Bresnan 1996, Bresnan 2000) posits two separate structures, one hierarchical and one flat, to account for the mix between properties in Warlpiri that seem to show asymmetry between and among aruguments and ajuncts, and those that seem to show symmetry. The pronominal argument hypothesis (Jelinek 1983, Baker 1996), proposes that the argument positions are filled by pronominals, while the overt DPs are adjoined to the clause. Finally, the secondary predicate approach (Speas 1990, Baker 2001), while adopting the idea that argument positions are filled by pronominals, claims that the overt DPs are secondary predicates generated low in the verb phrase. I show that all three of these approaches face significant difficulties when applied to Warlpiri. I propose an alternative analysis of

nonconfigurationality, the *microparameter* approach. According to this approach, nonconfigurational languages are not distinguished from configurational languages by a single parameter relating to configurationality. Indeed, I claim that nonconfigurational languages do not exist as a typological class. Instead, languages that have been called nonconfigurational exhibit a collection of parameter settings that make them appear unusual, although these parameters are also required for configurational languages. Finally, I outline a microparameter analysis for the basic nonconfigurational properties of Warlpiri.

The remainder of the dissertation furthers the microparameter analysis of Warlpiri, by analysing a number of issues of A and A'-syntax, returning to the issue of nonconfigurationality when appropriate.

Chapter three examines A-syntax in Warlpiri. First, I develop an analysis of split ergativity in the language. Next, I provide evidence for a hierarchical verb phrase in Warlpiri through applicative constructions. I demonstrate the existence of two types of applicative constructions in Warlpiri, and show how these are problematic for lexical analyses of applicatives (for example that of Lexical Functional Grammar), which do not require a hierarchical verb phrase. Finally, I present a structural analysis of these applicative constructions which crucially requires a hierarchical verb phrase. I end with some support for this analysis, which also provides the first evidence for a distinction between unergative and unaccusative intransitive verbs in Warlpiri.

Chapter four turns to A'-syntax in Warlpiri. First, I argue for an articulated structure on the left periphery of the clause consisting of projections specialized according to discourse function: I demonstrate the existence of two topic projections dominating a focus projection, in turn dominating a projection specialized for wh-phrases. Next, I provide evidence from island phenomena and Weak Crossover effects that at least wh-phrases undergo movement to these left-peripheral projections, rather than being base-generated in their surface positions. I consider the interpretation of the focus position in Warlpiri, which does not seem to fit neatly into Kiss' (1998) typology of identificational versus informational focus.

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Finally, I develop an indirect dependency analysis of the scope-marking construction in Warlpiri, arguing in the process that (contra standard assumptions) Warlpiri does indeed have finite embedded clauses.

Chapter five concludes.

Chapter 2

Nonconfigurationality

2.1   Introduction

In this chapter I examine the issue of nonconfigurationality, as it applies to Warlpiri. I begin
in section 2.2 by presenting some basic properties of Warlpiri that made it appear typolog-
ically interesting, and motivated the positing of a distinct typological class of nonconfigu-
rational lanaguages. In section 2.3, I examine three approaches that take the existence of
nonconfigurational languages as a given, and propose theoretical analyses to account for
such languages: (i) the "dual-structure" approach, which posits two level of representa-
tions, a lexical representation that is universally hierarchical, and a syntactic representation
that is flat in nonconfigurational languages (e.g. Hale 1983, Mohanan 1983, Simpson 1991,
Austin & Bresnan 1996, Bresnan 2000); (ii) the "pronominal argument" approach, which
claims that all overt nominals in nonconfigurational languages are base-generated as ad-
juncts to the clause, with hierarchical argument positions being filled either by agreement
or by pronominal clitics (e.g. Jelinek 1984, Baker 1996); (iii) the "secondary predicate"
approach, which shares with the pronominal argument approach the idea that the argument
positions of the clause are filled by pronominal clitics or agreement, but differs in that it

claims that all overt nominals in nonconfigurational languages are base-generated as secondary predicates low in the verb phrase (e.g. Speas 1990, Baker 2002).

Next, in section 2.4, I discuss a variety of phenomena that allow us to evalutate these different approaches. Finally, in section 2.5 I sketch an alternative "microparameter" account of nonconfigurationality, which will be adopted in the subsequent chapters of the disseratation. I claim that nonconfigurational languages do not differ from configurational by a single parameter; instead all languages differ according to more fine-grained parameters ("microparameters"), and it is the combination of parameter choices that give the appearance of nonconfigurationality. In that the analyses of various phenomena in the remainder of the disseration are successful, they thus serve as support for the microparametric approach to nonconfigurationality.

2.2 Basic Properties

A number of properties of Warlpiri that made it appear typologically unusual were revealed through work by Kenneth Hale and collegues beginning in the late 1950s. Hale's (1983) seminal paper identified three properties that subsequently became the hallmarks of nonconfigurational languages: (i) free word order, (ii) possible *pro*-drop of all arguments, and (iii) the existence of discontinuous constituents. Examples of each are provided below:

(1) *Free word order in Warlpiri*

    a. Ngarrka-ngku ka   wawirri panti-rni

       man-Erg   PresImpf kangaroo spear-Npst

       "The man is spearing the kangaroo"

    b. Wawirri ka pantirni ngarrkangku

       Pantirni ka ngarrkangku wawirri

Ngarrkangku ka pantirni wawirri

Pantirni ka wawirri ngarrkangku

Wawirri ka ngarrkangku pantirni (Hale 1983:3)

(2) *Discontinuous expressions in Warlpiri*

Maliki-rli-ji   yarlku-rnu **wiri-ngki**

dog-Erg-1sgObj bite-Pst   **big-Erg**

"A big dog bit me." (Hale et al 1995:1434)

(3) *Null anaphora in Warlpiri*

Purra-nja-rla   nga-rnu

cook-Inf-PriorC eat-Pst

"Having cooked (it), (he/she/it) ate (it)." (Laughren 1989:326)

Looking beyond these core characteristics, we find that the analysis of Warlpiri is complex in that certain aspects of the syntax exhibit asymmetries among and between arguments and adjuncts, while others systematically fail to. As mentioned above, word order and the ability for noun phrases to appear discontinuously grant the same freedom to all arguments and adjuncts, and pro-drop is possible for all arguments. Nor can asymmetries between arguments be found in Weak Crossover effects, or in Condition C effects with possessives: WCO effects do not appear in object wh-questions, (4),[1] and Condition C behaves in sentences with possessives as though subjects and objects stand in a relationship of mutual c-command, (5).[2]

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[1]Although in section 4.2 I will present new data demonstrating the existence of WCO effects in long distance questions.

[2]These data will be considered in more detail in section 2.4.1 and section 2.5, where it will be shown that this evidence for mutual c-command collapses under further scrutiny.

(4) *WCO*

    a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?

      who-Erg   child 3-Poss   hit-Npst

      "Who$_i$ hit his$_i$ child?"

    b. Ngana ka   nyanungu-nyangu maliki-rli wajili-pi-nyi?

      who   PresImpf he-Poss   dog-Erg chase-Npst

      "Who$_i$ is his$_i$ dog chasing?" (Hale et al 1995:1447)

(5) *Condition C*

    a. Nyanungu-rlu$_{*i/j}$ maliki Jakamarra$_i$-kurlangu paka-rnu

      3-Erg   dog   Jakamarra-Poss   hit-Pst

      "He$_{*i/j}$ hit Jakamarra$_i$'s dog"

    b. Jakamarra$_i$-kurlangu maliki-rli nyanungu$_{*i/j}$ paju-rnu

      Jakamarra-Poss   dog-Erg 3   bite-Pst

      "Jakamarra$_i$'s dog bit him$_{*i/j}$" (Laughren 1991:14)

In contrast, Condition A behaves as though the subject asymmetrically c-commands the object,[3] and Condition B distinguishes objects from adjuncts.

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[3] (6b) is an attempt to have a subject anaphor bound by the object in which the anaphoric clitic appears in the position for subject clitics, and the overt DP bears the unmarked absolutive case as an object. Mary Laughren (pc) suggests the alternative attempt in (1), since the anaphoric clitic may never appear in the position for subject clitics (as predicted by the inability of a subject anaphor to be bound by the object). In this attempt, the anaphoric clitic appears in the slot for object clitics, while again the overt DP bears the unmarked absolutive case as an object. The anaphoric interpretation is also unavailable in this example; rather the overt DP is interpreted as a secondary predicate.

(1) Purlka-jarra   ka-pala-nyanu   nya-nyi

      old.man-Dual PresImpf-2Dual-Reflex see-Npst

      "They see each other as old men."

      "*The two old men are looking at each other/*Each other are looking at the two old men."

(6) *Condition A*

    a. Purlka-jarra-rlu   ka-pala-nyanu   nya-nyi

        old.man-Dual-Erg PresImpf-3Dual-Reflex see-Npst

        "The two old men are looking at each other" (Simpson 1991:163)

    b. * Purlka-jarra   ka-nyanu-palangu   nya-nyi

          old.man-Dual PresImpf-Reflex-3DualObj see-Npst

          Lit: Each other are looking at the old men.

(7) *Condition B*

    a. * Jakamarra-rlu ka-(nyanu)   *nyanungu* paka-rni

          Jakamarra-Erg PresImpf-(Reflex) 3   hit-Npst

          "Jakamarra$_i$ is hitting him$_i$" (Simpson 1991:170)

    b. Japanangka-rlu-nyanu yirra-rnu mulukunpa *nyanungu-wana*

        Japanangka-Erg-Reflex put-Npst bottle   3-Perl

        "Japanangka$_i$ set the bottle down beside him$_i$." (Simpson 1991:171)

Furthermore, Warlpiri displays a switch reference system in non-finite clauses that is sensitive to grammatical function. Non-finite complementizers supplete according to the grammatical function of the controller of their PRO subject. Thus, the non-finite complementizer -*karra* indicates control by the matrix subject, -*kurra* indicates control by the matrix object, and -*rlarni* is the default, used for control by a matrix adjunct or when the non-finite clause has an overt subject.[4]

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[4]-*karra* has an additional use whereby it co-occurs with -*rlarni*, to mark the non-finite clause as contemporaneous with the matrix clause. This use is illustrated in (1):

(1) Manu yangka wurna-rlangu yinga-lu ya-ni   munga-puru-**rlarni-karra**-ju.

    or   go-Npst that.one   travel-also RelC-3pl night-during-**ObvC-while**-Top

    "Or like when people travel to another place while it's still dark."

(8) *Embedded complementizers*

    a. Karnta ka-ju   wangka-mi   [yarla karla-nja-**karra**]

        woman PresImpf-1sg speak-Nonpst [yam dig-Inf-**SubjC**]

        "The woman is speaking to me while digging yams"

        (Hale 1983:21)

    b. Purda-nya-nyi   ka-rna-ngku   [wangka-nja-**kurra**]

        aural-perceive-Nonpst PresImpf-1sg-2sgObj [speak-Inf-**ObjC**]

        "I hear you speaking" (Hale 1983:20)

    c. Wati-rla   jurnta-ya-nu karnta-ku   [jarda-nguna-nja-**rlarni**]

        man-3Dat away-go-Pst woman-Dat [sleep-lie-Inf-**ObvC**]

        "The man went away from the woman while she was sleeping" (Hale et al

        1995:1442)

Thus, Warlpiri shows evidence for both symmetry and asymmetry between and among arguments and adjuncts. Such a bifurcation of behaviours is not unique to Warlpiri, but is attested in a number of "nonconfigurational" languages (see, for example, the papers in Marácz & Muysken 1989).

This suggests an alternative analysis whereby the subject control complementizer is phonologically null, *-karra* being used to signal contemporaneity in subject control environments as well. The object control complementizer *-kurra* thus would be a portemanteau morpheme signaling both contemporaneity and object control. This more precise picture does not affect the argument in the text, in that we still find a morphological disinction between subject control, (-∅), object control, (*-kurra*), and the default (*-rlarni*) for adjunct control or no control. For simplicity's sake, I will continue to refer to *-karra* as the subject control complementizer. I would like to thank Mary Laughren for pointing out this additional use of *-karra*.

2.3 Analyses

In this section, I introduce three previous approaches to nonconfigurationality: the dual structure approach, the pronominal argument approach, and the secondary predicate approach. I consider how they deal with the three hallmark properties of nonconfigurational languages–free word order, pro-drop of all arguments, and discontinuous constituents. In the following section, section 2.4, we consider a wider range of data to more fully evaluate the analyses.

2.3.1 Dual Structure

One approach to Warlpiri nonconfigurationality, which I will term the "dual-structure" approach, has its roots in Hale's original (1983) proposal, and is expanded in the LFG approaches of Simpson (1991), Austin & Bresnan (1996), and Bresnan (2000). The intuition behind this approach is as follows. Warlpiri exhibits a dichotomy of behaviours–in some respects it exhibits clearly hierarchical behaviour, whereas in other respects it does not. Thus, we may hypothesise that the two classes of behaviours may be attributed to two separate levels of representation–one hierarchical and one flat (i.e. n-ary branching).

Hale 1983

The first instantiation of the "dual-structure" approach to Warlpiri was presented in Hale (1983).

Hale distinguishes two levels of representation: *lexical structure* (LS) and *phrase structure* (PS). The lexical structure of a predicate is included in its lexical entry, along with information about its categorial designation, its phonological form, and its dictionary definition. The information contained in the lexical structure consists of the arguments associated with the variable in the dictionary definition, the cases associated with these arguments, and

the hierarchical structure of these arguments, thus defining their grammatical relations. An example of the dictionary definition and lexical structure is given for *pantirni* "pierce, poke, jab, spear":

(9) *Dictionary Definition*

   panti-rni: 'x produce indentation or puncture in the surface of y, by point coming into contact with said surface'

(10) *Lexical Structure*

   $[_{V'}erg[_V abs, pantirni]]$

The lexical structure of a verb is related to the phrase structure of a sentence through a linking rule, requiring identity between the case of an argument position in the lexical structure and the case of the associated nominal in the phrase structure:

(11) *Linking Rule (Hale 183:14)*

   Co-index N' in PS with arg in LS, provided the case category of N' is identical to that of arg (assigning a distinct index to each arg in LS)

In order to achieve the desired freedom in the phrase structure of Warlpiri, while still allowing for a tightly constrained phrase structure in other languages, Hale revises the Projection Principle as follows:

(12) *Revised Projection Principle (Hale 1983:25)*

   If *verb* selects *arg* at L_i, then *verb* selects *arg* at L_j (where L_i, L_j range over the 'levels' LF, D-structure, S-structure in the syntactic representations of clauses).

This revision allows him to parametrize the Projection Principle, in his *Configurationality Parameter*:

(13) *The Configurationality Parameter (Hale 1983:26)*

a. In configurational languages, the projection principle holds of the pair (LS, PS).

b. In non-configurational languages, the projection principle holds of LS alone.

Thus, in configurational languages the argument structure of a verb must be satisfied both in the lexical structure and the phrase structure. While, in nonconfigurational languages, the argument structure of a verb need only be satisfied in the lexical structure.

Thus the phrase structure of nonconfigurational languages, in contrast to configurational languages, may be freely ordered, the phrase structure need not have an noun phrase linked to each argument position (=null anaphora), and the phrase structure may have more than one NP linked to a single argument position (=discontinuous expressions).

In addition, Hale posits phrase structure rules for Warlpiri that create a flat syntactic structure:

(14) *Phrase Structure Rules for Warlpiri (Hale 1983:7)*

a. X' → X'* X

b. V' → AUX X'* V X'*

(14a) expresses the fact that Warlpiri is head final within noun phrases and infinitivals. (14b) expresses the need for an auxiliary in finite clauses headed by a verb (he assumes the clitic ends up in second position by phonological rule), and allows free ordering of expressions in the finite clause.

(15) *The Phrase Structure of Warlpiri (Hale 1983)*
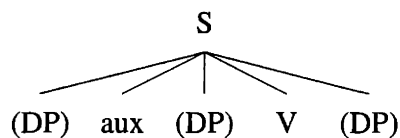
The core nonconfigurational properties of Warlpiri under this theory thus follow from a setting of the Configurationality Parameter for the Projection Principle to hold only at lexical structure, and from the phrase structure rules posited for Warlpiri.

This basic system is augmented in Mohanan (1983), who posits an analysis essentially identical to that of Hale (1983), with one extension. He claims that subcomponents of the grammar universally refer to either lexical structure or phrase structure, as summarized in the following table.

Lexical Structure	Phrase Structure
(universally configurational)	(flat in nonconfigurational languages)
passivization	wh-movement
raising to subject	clefting
reflexive binding	scrambling
disjoint reference	pronominal coreference
control	
abstract case assignment	

This addition makes for a stronger claim, and is thus more easily falsified in that it restricts the possible variation allowed in nonconfigurational languages. I consider the heterogeneity of the nonconfigurational class in 2.5 below.

LFG

The "dual-structure" approach to Warlpiri nonconfigurationality was adopted and expanded in a number of analyses couched in the framework of Lexical Functional Grammar (LFG) (see Simpson 1991, Austin & Bresnan 1996, Bresnan 2000). LFG is particularily suited to such an approach in that the framework posits multiple levels of representation. Indeed, Bresnan (2000) begins with Warlpiri nonconfigurationality as the primary motivation for the multi-level framework of LFG.

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LFG allows for multiple levels of representation, including: a(rgument)-structure, which encodes theta roles, f(untional)-structure, which encodes grammatical relations, c(onstituent)-structure, which consists of the surface syntactic tree, as well as the prosodic structures of phrasal phonology. These structures are linked by correspondence principles.

Under the LFG approach, the nonconfigurational characteristics of Warlpiri stem from three hypotheses. First, as in Hale (1983), the linking between grammatical functions in the functional structure and nominals in the c-structure (syntax) is determined by identity of case morphology rather than constituent structure, thus allowing free word order. Second, default f-structure pronominal arguments are posited; this eliminates the need for an element in the c-structure linked to each grammatical function in the functional structure. Therefore, as in Hale (1983), no null elements are posited in the syntax. If there is no phonological representation of a noun phrase in the syntax, it is simply absent from the c-structure. Finally, regarding discontinuous constituents, LFG cannot simply allow more than one noun phrase linked to a single grammatical function, as did Hale (1983), since that would violate *Function-Argument Bi-uniqueness*:[5]

(16) *Function-Argument Bi-uniqueness Principle (Simpson 1991:28)*

Each argument must be assigned a unique grammatical function, and no grammatical function can be assigned to more than one argument.

Therefore, one part of the discontinuous constituent is linked with the head of the grammatical function, while the remainder are linked as adjuncts within the grammatical function. This is claimed to be a result of the freedom with which nominals in Warlpiri may be used as predicates.

The structures posited for Warlpiri in LFG are illustrated below.

(17) *Structures of Warlpiri–Austin & Bresnan 1996*

---

[5]Simpson cites Bresnan 1980 for a more formal definition.

a-structure:

chase $<$ ag th $>$

        $[-o]$ $[-r]$

f-structure:

$$\begin{bmatrix} \text{PRED} & \text{'verb} < (f \text{ SUBJ})(f \text{ OBJ}) >' \\ \text{SUBJ} & [\text{``DP''}] \\ \text{OBJ} & [\text{``DP''}] \end{bmatrix}$$

c-structure:

```
                IP
              /    \
          (DP)      I'
          Focus    /  \
                  I    S
              C+aux   /|\
                   (DP) V (DP)
```
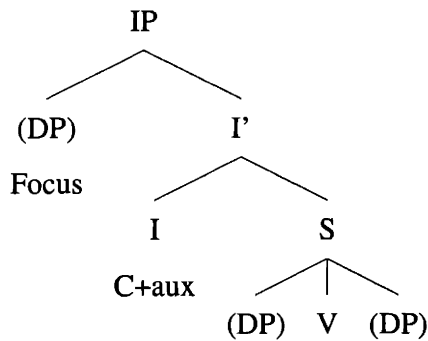
In the next section I turn to an alternative analysis of nonconfigurationality in Warlpiri, the pronominal argument hypothesis.

2.3.2 Pronominal Argument Hypothesis

In response to Hale (1983), Jelinek (1984) presented an alternative approach to nonconfigurationality in Warlpiri. Her influential "Pronominal Argument Hypothesis" (PAH) has some appeal in that it does not require adopting an LFG-style multi-level framework, and imposes limits on the possible variation allowed by Universal Grammar, while accounting for the properties of nonconfigurational languages. Thus, n-ary branching syntactic trees are not employed, nor may arguments simply be absent from the syntactic structure. Jelinek's hypothesis is that the agreement clitics in Warlpiri fill the argument positions of a

hierarchical phrase structure, the overt DPs being adjuncts to the clause. The distinction between configurational and nonconfigurational languages, then, is that nonconfigurational languages allow only pronominals to appear in argument positions. A variant of this approach is developed in detail in Baker (1996), according to which the argument positions are filled by null *pro*'s identified by agreement morphology, the overt DPs appearing in a clitic left dislocation structure. Baker explicitly limited the scope of his work to a restricted class of *polysynthetic* languages, those which exhibit productive noun incorporation and full obligatory agreement morphology for both subjects and objects. The languages he cites as members of this class are: Mohawk and other Northern Iroquoian languages, Tuscarora, Wichita, Kiowa, Southern Tiwa, Nahuatl, the Gunwinjguan languages of Nothern Australia, Chukchee, and perhaps Classical Ainu (Baker 1996:19), of which he focuses on Mohawk. Warlpiri is not included in this class. However, subsequent researchers have extended Baker's analysis to "nonconfigurational" languages, and therefore the theory will be considered for Warlpiri here.

In the next section, I begin by examining Jelinek's proposal in more detail.

Jelinek 1984

Jelinek's proposal is formulated with an eye to the split ergative nature of Warlpiri, whereby DPs show ergative-absolutive case marking, while agreement clitics follow a nominative-accusative pattern:

(18) *Ergative-Absolutive Case Marking*

    a. **Ngajulu-rlu**-rna-ngku   **nyuntu** nya-ngu

        1-ERG-1SGSUBJ-2SGOBJ **2.ABS** see-NPAST

        "I saw you"

    b. **Ngajulu**-rna   parnka-ja

        1.ABS-1SGSUBJ run-PAST

"I ran"

c. **Nyuntu-rlu**-npa-ju   **ngajulu** nya-ngu

   2-ERG-1SGSUBJ-2SGOBJ 1.ABS   see-NPAST

   "You saw me")

(19) *Nominative-Accusative Agreement Clitics*

a. Nya-ngu-**rna-ngku**

    see-PAST-**1SGSUBJ-2SGOBJ**

    "I saw you"

b. Parnka-ja-**rna**

    run-PAST-**1SGSUBJ**

    "I am running"

c. Nya-ngu-**npa-ju**

    see-PAST-**2SGSUBJ-1SGOBJ**

    "You saw me"

She proposes that the nominative-accusative agreement clitics fill the argument positions in a hierarchical verb phrase, while the ergative-absolutive noun phrases are adjoined at the clause level. The ergative-abolutive noun phrases are linked to the nominative-accusative arguments through a set of language-specific case compatibility rules. The rules she posits for Warlpiri are as follows:

(20) *Jelinek's Case Compatibility Rules for Warlpiri*

a. NOM is compatible with ABS in an intransitive sentence, and with ERG in a transitive sentence.

b. ACC is compatible with ABS in a transitive sentence, and with DAT in a ditransitive sentence (for first and second person clitics).

c. DAT is compatible with DAT (for third person clitics).

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Returning to Hale's (1983) core properties of nonconfigurational languages, we note that free word order under Jelinek's analysis is claimed to follow from free ordering of adjunction of overt DPs, and the possibility for both left and right adjunction. Since adjuncts are optional, there need not be an overt DP present for each argument in the clause. Calling the phenomenon null anaphora under this analysis is a misnomer, however, in that the argument positions are always overtly filled by the agreement clitics. Finally, discontinuous constituents are analysed as more than one adjunct being associated with a single argument position; a phenomenon that Jelinek assumes is universally available.

Baker 1996

Baker (1996) presents a more sophisticated version of Jelinek's hypothesis. His basic claim is that all arguments are clitic left dislocated.

To achieve this result, he adopts an analysis of structural case whereby only phonologically overt DPs require case:

(21) *The Case Filter* (Rouveret & Vergnaud 1980, Chomsky 1980)
     *NP without Case if NP has phonetic features and is in an argument position.
     (Baker 1996:84)

Furthermore, he claims that agreement morphology that licenses *pro*-drop requires structural case:

(22) An agreement morpheme adjoined to a head X receives that head's Case at S-structure/PF (Baker 1996:86)

This is true crosslinguistically. What differentiates Polysynthetic languages from other languages is the Morphological Visibility Condition:

(23) *The Morphological Visibility Condition* A phrase X is visible for θ-role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y

via:

(i) an agreement relationship, or (ii) a movement relationship (Baker 1996:17)

This condition is held to be active in Polysynthetic languages, but not in other languages. It states that in order to receive a θ-role, every noun phrase must be related to an agreement morpheme or an incorporated root. Since the agreement morphology absorbs case, the only way for the noun phrase to avoid violating the case filter is to not appear in an argument position. Thus, all noun phrases in Polysynthetic languages are clitic left dislocated, whereby Baker intends base generated in an adjoined position and related to the argument positions through a chain (see section 2.4.2 for more details and discussion).

This requires that multiple clitic left dislocation be a possible operation, and Baker notes (Baker 1996:100) that this is indeed the case in languages like Italian:

(24)   *Mulitple Clitic Left Dislocation in Italian*

Di vestiti, a me, Gianni, in quel negozio, non mi   ce   ne   ha mai

clothes   to me Gianni in that shop   not to-me there of-them has ever

comprati

bought

"Gianni has never bought me any clothes in that shop." (Cinque 1990:58)

Let us consider now how Hale's (1983) core properties of nonconfigurational languages would be derived in this framework. First, free word order must follow from freedom of ordering of adjunction for multiple clitic left dislocation. Word orders with DPs appearing to the right of the verb require allowing right adjunction. Baker notes that this is possible in Romance languages, citing (25),

(25)   Il est parti, Jean.
       "He is gone, Jean." (Baker 1996:114)

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but remarks that this type of dislocation may be marked or unavailable in some languages, accounting for certain word order restrictions in Polysynthetic languages. Thus, Ainu (one of his Polysynthetic languages) allows only SOV and OSV orders (Baker 1996:117 citing Shibatani 1990:23).

Given the possibility for right adjunction, the basic clause structure posited by Baker's analysis is:

(26)   *Syntactic structure*

```
                    IP
                  /    \
              IP          (DP)
            /    \
       (DP)        IP
                 /    \
                I       VP
                      /    \
                   pro      V'
                          /    \
                         V      pro
```
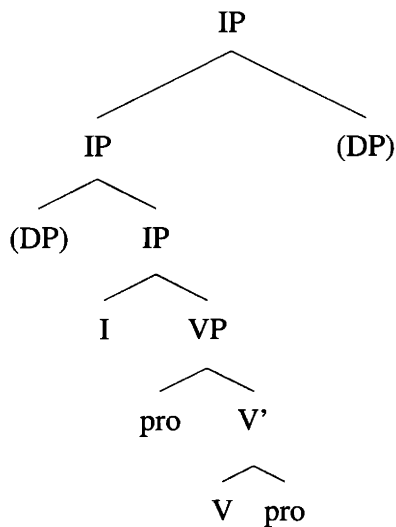
Turning to null anaphora, in Baker's version of the PAH, it is allowed by the optionality of clitic left dislocated nominals related to the null *pro*'s in argument position.

Discontinuous constituents, on the other hand, are not predicted by Baker's analysis. Multiple dislocated nominals linked to a single clause are not permited, as illustrated by the following examples from Spanish:

(27)   a. Este hombre, lo vì en la fiesta.

            'That man, I saw him at the party.'

        b. Lo vì en la fiesta, este hombre.

            'I saw him at the party, that man.'

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c. * Este, lo vì en la fiesta, (el) hombre.

      'That, I saw him at the party, (the) man' (Baker 1996:139)

Baker maintains that in fact this is a good result, since discontinuous constituents are quite limited in Mohawk. Thus, he concludes that they are not generally available in Polysynthetic languages, and provides distinct explanations for each type of discontinuous constituent construction allowed in Mohawk, which are independent of the PAH.[6]

2.3.3   Secondary Predicate

One approach, which to my knowledge has not been proposed for nonconfigurational languages other than Warlpiri, I will call the *Secondary Predicate* approach. The Secondary Predicate approach was proposed by Speas (1990) and revived in Baker (2001). It shares with the pronominal argument approach the claim that all argument positions are filled by pronominals. It differs from the PA, however, in claiming that all overt noun phrases are secondary predicates merged low in the verb phrase. According to Speas (1990), they are merged below the merged position of all the arguments; they are non-referential, but *contain* a referential DP (M. Speas, pc). This DP is not coindexed with the corresponding pronoun in argument position. Rather the secondary predicate undergoes Theta Identification (see Higginbotham 1985) with the appropriate position in the verb's θ-grid, and the θ-role is assigned to the pronominal in argument position.

(28)

---

[6] See Baker 1996:138-185 for details

```
            I
           / \
              I
             / \
            I   V
                / \
          PRON_i   V
          (NOM)   / \
              PRON_j   V
              (ACC)   / \
                     K      V
                    / \    / \
                  N_k  K  K    V
                      ERG  / \
                         N_m  K
                             ABS
```
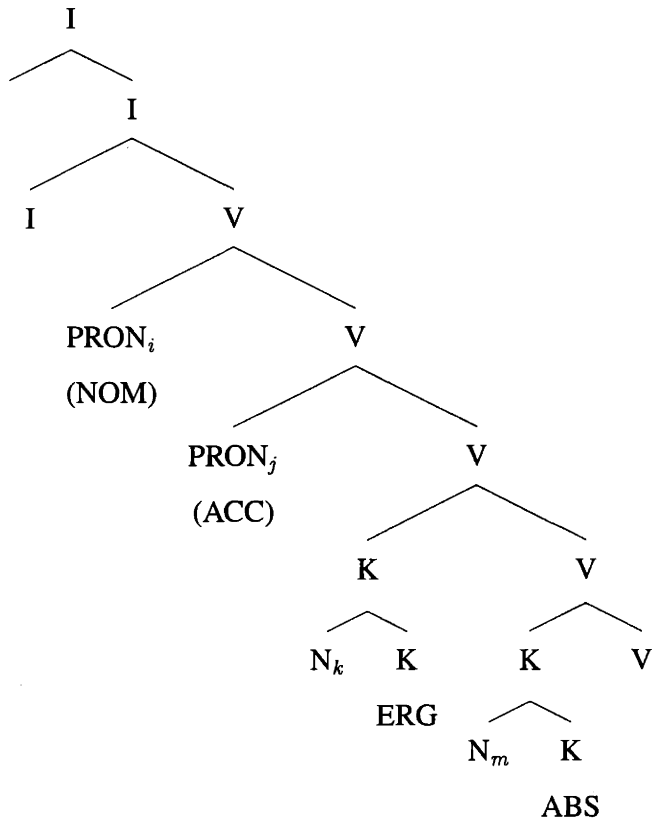
Baker posits a slightly different structure, in which the secondary predicates are merged more locally to the arguments they modify, and contain a PRO controlled by the arguments. The structure he proposes is the following:

(29)

TP

DP   T'

pro$_i$

      T   AspP

           DP   Asp'

           pro$_k$

                 Asp   VP

                       DP   V'

                       t_i

                             NP   V'

                       PRO$_i$ child

                                    V'   NP

                                              PRO$_k$ me

                                V   DP

                               see t_k
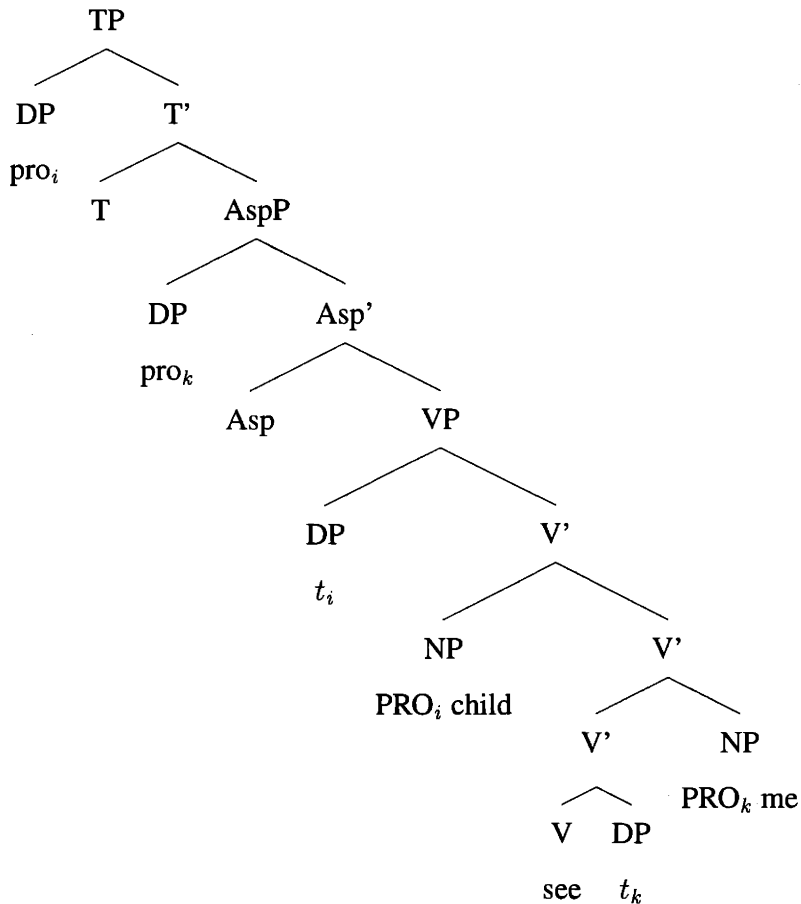
Returning to the core properties of nonconfigurational languages, null anaphora is accounted for through the use of *pro*'s in argument position and the optionality of secondary predicates. Discontinuous constituents are claimed to follow from the possibility for more than one secondary predicate linked to a single argument position. He gives the following examples, while admitting that they require specific discourse context to be acceptable:

(30)   a.   I only eat fish raw fresh.

      b.   I often send Mary home drunk, and she gets there just fine. The problem is that on Tuesday *I sent her home drunk exhausted.* (Baker 2001:431)

Although this potentially allows for more than one secondary predicate linked to a single argument position, it does not derive the possibility for discontinuous expressions, as the secondary predicates appear adjacent to each other in these examples. This issue is linked to the derivation of free word order under this system, which Baker admits is problematic. As he notes, depictive secondary predicates, at least in English, can only be adjoined to the right of the verb phrase, and object oriented secondary predicates must precede subject oriented. He gives the following examples:

(31)   a. I only eat fish raw drunk.

        b. * I raw eat fish drunk.

        c. * I only eat fish drunk raw.

To which I would add the following attempts at "discontinuity":

(32)   a. * I only eat fish raw drunk fresh.

        b. * I only eat fish drunk raw exhausted.

Thus, although null anaphora is explained under this analysis, free word order and discontinuous constituents are not.

2.3.4 Conclusion

In this section, I have introduced three previous analyses of nonconfigurationality: the dual-structure approach, the pronominal argument hypothesis, and the secondary predicate hypothesis. I considered how each deals with the three hallmark properties of nonconfigurationality: null anaphora, free word order, and discontinuous constituents. In the following section, we enlist additional data and arguments to evaluate these approaches.

2.4 Issues and Arguments

2.4.1 The Dual-Structure Account

In this section, I consider the dual-structure account of Warlpiri nonconfigurationality, focusing on the LFG instantiation of this approach. I leave aside the conceptual issues involved in the choice between an LFG and Minimalist framework, and concentrate on empirical issues. I argue that the LFG account of Warlpiri syntax faces a number of empirical challenges.

Recall the c-structure for Warlpiri posited by Austin & Bresnan (1996):

(33) *c-structure:*

```
              IP
            /    \
          DP      I'
        Focus    /  \
               I      S
            C+aux   / | \
                  DP  V  DP
```
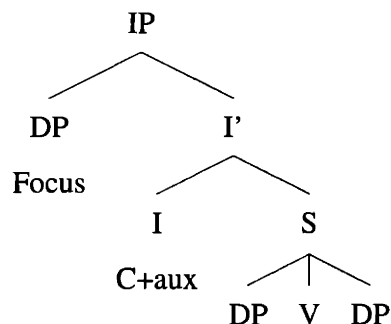
The first crucial characteristic of this structure is that it does not posit a verb phrase, nor any hierarchical structure below the second position auxiliary. One argument against this position is presented in Chapter 3, section 3.3. In this section, I demonstrate that Warlpiri has two applicative constructions, and show how the properties of these two constructions are inherently problematic for a lexical-based theory of argument relations. The core of the problem is that a lexical-based theory takes grammatical functions as primitives and requires the definition of one participant as bearing the object function to the exclusion of all others. In a structural approach, on the other hand, grammatical functions are not primitive notions, and so the various properties that trigger behaviour associated with objects may be

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dissociated from each other, and shared by more than one noun phrase in the clause.

One piece of data that has often been taken as evidence for the lack of a verb phrase in Warlpiri is the lack of Weak Crossover effects in short distance questions:

(34) *WCO*

    a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?

       who-Erg   child 3-Poss   hit-Npst

       "Who$_i$ hit his$_i$ child?"

    b. Ngana ka   nyanungu-nyangu maliki-rli wajili-pi-nyi?

       who   PresImpf he-Poss   dog-Erg chase-Npst

       "Who$_i$ is his$_i$ dog chasing?" (Hale et al 1995:1447)

Presenting the data in (34b), Farmer, Hale, & Tsujimura conclude: "thus, either there is no trace in syntax, or there is no VP, or both (and, of course, other possibilities exist, though the contast with English remains clear)." (Farmer, Hale, & Tsujimura 1986:33).

Another possibility that exists, of course, is that Warlpiri belongs to the class of languages that exhibit A-scrambling of the subject over the object, fixing Weak Crossover violations. Examples from Japanese and Hungarian follow:

(35) *Japanese*

    a. *? Soitu$_i$-no hahaoya-ga   dare$_i$-o   aisiteiru no?

         guy-GEN mother-NOM who-ACC loves   Q

         "Who does his mother love?"

    b. ? Dare$_i$-o   soitu$_i$-no hahaoya-ga   aisiteiru no?

        who-ACC guy-GEN mother-NOM loves   Q

        "Who does his mother love? (Saito 1992:73)

(36) *Hungarian*

a. * Nem szeret az pro$_i$ anyja   mindenkit$_i$

   not loves the   mother.his everybody.ACC

   "His mother does not love everybody"

b. Nem szeret mindenkit$_i$ az pro$_i$ anyja

   not loves everybody.ACC the   mother.his

   "His mother does not love everybody." (Kiss 1994:22)

In section 2.5 and section 4.3, I argue that Warlpiri does indeed allow for A-scrambling of this type.

Simpson (1991:182-183) presents an argument for a flat c-structure in Warlpiri, based on the following data:

(37) a. Nyanungu-rlu ka   Jakamarra-kurlangu maliki wajili-pi-nyi

       3-Erg   PresImpf Japanangka-Poss   dog   chase-Npst

       "He$_{*i/j}$ is chasing Jakamarra$_i$'s dog"

   b. Jakamarra-kurlangu maliki-rli ka   nyanungu wajili-pi-nyi

      Jakamarra-Poss   dog-Erg PresImpf 3   chase-Npst

      "Jakamarra$_i$'s dog is chasing him$_{*i/j}$" (Simpson 1991:179)

Compare:[7]

(38) a. Jakamarra-rlu ka   wajirli-pi-nyi maliki nyanungu-nyangu

       Jakamarra-Erg PresImpf chase-Npst   dog   3-Poss

---

[7]Note that the positioning of the object after the verb is not the crucial factor in (38a). Other examples with the object before the verb exhibit the same judgements:

(1) Jakamarra-rlu maliki nyanungu-nyangu paka-rnu

    Jakamarra-Erg dog   3-Poss   hit-Pst

    "Jakamarra$_i$ hit his$_{i/j}$ dog." (Laughren 1991:14[15a])

"Jakamarra$_i$ is chasing his$_{i/j}$ dog."

b. Maliki nyanungu-nyangu-rlu ka   Jakamarra wajili-pi-nyi

dog   3-Poss-Erg   PresImpf Jakamarra chase-Pst

"His$_{i/j}$ dog is chasing Jakamarra$_i$." (Simpson 1991:180-1)

Notice that word order does not affect the judgements:

(39) a. Jakamarra-kurlangu maliki ka   nyanungu-rlu wajili-pi-nyi

Jakamarra-Poss   dog   PresImpf 3   chase-Npst

"He$_{*i/j}$ is chasing Jakamarra$_i$'s dog"

b. Nyanungu ka   Jakamarra-kurlangu maliki-rli wajili-pi-nyi

3   PresImpf Jakamarra-Poss   dog-Erg chase-Npst

"Jakamarra$_i$'s dog is chasing him$_{*i/j}$" (Simpson 1991:179-180)

(40) a. Nyanungu-nyangu ka   wajirli-pi-nyi maliki Jakamarra-rlu

3-Poss   PresImpf chase-Npst   dog   Jakamarra-Erg

"Jakamarra$_i$ is chasing his$_{i/j}$ dog."

b. Jakamarra ka   nyanungu-nyangu-rlu maliki-rli wajili-pi-nyi

Jakamarra PresImpf 3-Poss-Erg   dog   chase-Pst

"His$_{i/j}$ dog is chasing Jakamarra$_i$." (Simpson 1991:180-1)

Since English and Warlpiri do not differ in the f-structure relationships between subjects and objects in these examples, Simpson argues that the difference between the grammaticality patterns of the Warlpiri sentences and those of their English translations must follow from a distinction in c-structure. She proposes that a pronoun must not c-command its antecedent at c-structure, from which the patterns in each language follow, if we assume that English has a hierarchical verb phrase in which subjects asymmetrically c-command their antecedents, and whereas Warlpiri has an n-ary branching S in which subjects and objects stand in a relationship of mutual c-command.

These data constitute the strongest argument for flat structure in Warlpiri, in that it shows objects and subjects must be in a relationship of mutual c-command, rather than the object optionally c-command the subject. Consider why this is so. Assuming a hierarchical structure for Warlpiri, whereby subjects asymmetrically c-command objects, (37a) is predicted to be ungrammatical under a coreferent reading as a Condition C violation. The pronominal subject c-commands the possessor R-expression within the object; thus under a coreferent reading, the R-expression is bound and the sentence is ungrammatical. The ungrammaticality of (37b) under a coreferent reading, on the other hand, is a mystery. The possessor R-expression is contained in the subject, and the pronominal is the object, thus no Condition C violation is predicted. Furthermore, since the antecedent of the pronoun is an R-expression rather than a quantifier, c-command of the pronoun by its antecedent should not be required (compare the English translation, which is grammatical on a coreferent reading). The R-expression and the pronoun should be able to independently refer to the same individual, as they do in (38b). Simpson (1991:182) concludes that in Warlpiri "there is no VP, and therefore subjects and objects are mutually c-commanding".

The first point to note about this argument is that it is incompatible with the structure posited for Warlpiri by Austin & Bresnan, shown in (33) above. In this structure, the element in the pre-auxiliary focus position asymmetrically c-commands the remainder of the sentence. Therefore, they predict that (39a) should be grammatical on the coreferent reading, in contrast to (37a), since the pronoun c-commands the R-expression in the latter but not the former. The alternative for them is to adopt the structure posited by Simpson (1991), which is entirely flat branching, in which case they must stipulate the intital focus position and positioning of the auxiliary.

In fact, futher data involving R-expression possessors demonstrate that the LFG analysis of Warlpiri is inadequate even positing an entirely flat c-structure. To account for the freedom of null anaphora in Warlpiri, Simpson (1991) and Austin & Bresnan (1996) propose that Warlpiri allows null pronominals as default arguments in the f-structure rep-

resentation. Therefore, no expression of the argument in the c-structure representation is necessary. This is comparable to Hale's (1983) parametrization of the Projection Principle, whereby the argument structure of a predicate need not be satisfied at phrase structure in Warlpiri. In this way, Hale's analysis also accounts for pro-drop in Warlpiri as the absence of expression of an argument in the syntax.

Therefore, the LFG analysis of the Condition C data in (37) predicts that if the pronoun is eliminated, the sentences will be grammatical. No expression of the pronominal argument will be present in the c-structure, the structure will trivially not contain a pronoun that c-commands its antecedent, and the sentence should be grammatical. The data in (41) indicate that this prediction is not borne out. Without the offending pronoun, the sentences remain ungrammatical.[8]

(41)   a.   Maliki Jakamarra-kurlangu paka-rnu

dog   Jakamarra-POSS   hit-PAST

"He$_{*i/j}$ hit Jakamarra$_i$'s dog"

b.   Jakamarra-kurlangu maliki-rli paji-rni

Jakamarra-POSS   dog-ERG bite-PAST

"Jakamarra$_i$'s dog bit him$_{*i/j}$"

Finally, possessors in Warlpiri may also appear with the dative case suffix rather than the possessive suffix *-kurlangu*. When this suffix is used, the flat Condition C effect predicted by a flat syntactic structure in Warlpiri disappears. The sentences are in fact grammatical, whether the pronoun is in object position or subject position:

(42)   a.   Karnta-ku   jaja-ngku-lpa   nyanungu jakuru-pu-ngu

woman-Dat grandmother-Erg-PstImpf 3   goodbye-VF-Pst

---

[8]Incidentally, the ungrammaticality of the sentences in (41) also argue against an analysis based on the *Avoid Pronoun Principle* (Chomsky 1981). Thus, the sentences in (37) are not ungrammatical because the use of an overt pronoun should have been avoided in favour of a null pronoun.

"The woman$_i$'s grandmother was announcing her leave to her$_i$"

b. Karnta-ku   jaja-lpa   nyanungu-rlu jakuru-pu-ngu

woman-Dat grandmother-PstImpf 3-Erg   goodbye-VF-Pst

"She$_i$ was announcing her leave to the woman$_i$'s grandmother"

I conclude that the Condition C data with R-expression possessors does not demonstrate the existence of a flat syntactic structure in Warlpiri. Indeed, the data raise difficulties for the LFG dual-structure approach. In section 2.5, I present an alternative analyses of these data. Previewing, I argue that an R-expression marked with the possessive suffix -*kurlangu* is not available as a referent in the discourse, thus Condition C is not relevant for data in (37) and (41). The data in (42), I analyse as the result of optional scrambling of the object over the subject.

A second characteristic of the structure in (33) above is that it posits only a single projection above S, IP, which is headed by both the complementizer and the auxiliary, and hosts focus phrases in its specifier. They assert that "[t]here is simply no evidence for a separate CP category that stacks on top of IP in Warlpiri" (Austin & Bresnan 1996:228). However, in Chapter 4, section 4.2, I demonstrate the existence of a number of additional functional projections on the left periphery of the clause in Warlpiri: a projection that hosts hanging topic dislocated phrases, a topic projection, a focus projection, a projection hosting wh-phrases, a projection that turns a declarative clause into a question, and a projection which is headed by the complementizer particles in Warlpiri. These are in addition to the aspect projection headed by the auxiliary. Therefore, in addition to being hierarchical structure within the verb phrase in Warlpiri, there is hierarchical structure above the verb phrase, contrary to the LFG claim.

A final characteristic of the dual-structure approach to Warlpiri, both Hale's original (1983) approach and the subsequent LFG instantiations, is that the word order variations in the clause are base-generated. In Hale (1983), free base generation of various word

orders is permitted by the hypothesis that the Projection Principle does not hold of phrase structure in Warlpiri, hence the arguments of a predicate need not be base generated locally to the predicate. Furthermore, the phrase structure rules posited do not impose any limits on word order. The elements in the phrase structure are linked to the arguments in the lexical structure through identity of case marking. Likewise in LFG: "case morphology replaces phrase structure configuration in the specification of syntactic functions" (Austin & Bresnan 1996:229). Indeed, Hale (1994) reports that "no truly convincing case has been made for a basic order of constituents, nor has any convincing evidence been forthcoming in favor of a movement analysis" (Hale 1994:185). In Chapter 4 section 4.3, I present evidence from island constraints and Weak Crossover effects demonstrating that at least the placement of wh-phrases in Warlpiri is accomplished through movement rather than base generation.

I conclude that the dual-structure approach to Warlpiri nonconfigurationality is problematic.

2.4.2 The Pronominal Argument Hypothesis

In this section I evaluate the pronominal argument hypothesis (PAH) for Warlpiri. I begin in the next section with a series of arguments for the PAH presented in Baker (1996). Subsequently, I present a series of arguments against the PAH, collected from the literature and new. I conclude that there are no strong arguments for the PAH and a few clear arguments against it.

Claimed Consequences of the PAH

This section examines six characteristics of Polysynthetic languages that Baker (1996) presents as arguments in favour of his PAH: selective absence of Condition C effects, lack of DP anaphors, lack of non-referential quantifier phrases, obligatory movement of

wh-phrases in questions, CED effects, and the absence of Weak Crossover effects.

Condition C

In considering Condition C effects in Polysynthetic languages, Baker begins by demonstrating that Condition C is operative in Mohawk. He shows that a matrix object *pro* can be coindexed with an R-expression embedded within an adjunct, but not one embedded within a complement clause:

(43) a. Wá'-k-ko-'   ne tsi   yo-[a]h-á-hri   ne sewahyówane
         FACT-1SS-pick-PUNC because NSO-fruit-be.ripe NE apple
         "I picked it because the apple was ripe." (coreference OK) (Baker 1996:43)

     b. Wa-hi-hróri-'   tsi   Sak ruwa-núhwe'-s
         FACT-1SS/MSO-tell-PUNC that Sak FSS/MSO-like-HAB
         "I told him that she likes Sak" (disjoint only) (Baker 1996:44)

Then he shows that Condition C effects do not appear in matrix clauses when the R-expression is embedded:

(44) a. Wa'-te-huwa-noru'kwányu-'   ne Uwári akó-skare'.
         FACT-DUP-FSS/MSO-kiss-PUNC NE Mary FSP-friend
         "*She* kissed *Mary's* boyfriend." (coreference OK)

     b. Wa'-te-shako-noru'kwányu-'   ne Uwári akó-skare'.
         FACT-DUP-MSS/FSO-kiss-PUNC NE Mary FSP-friend
         "*Mary's* boyfriend kissed *her.*" (coreference possible) (Baker 1996:45)

Condition C is not violated in his structures for these sentences: since "Mary's boyfriend" in both examples is adjoined to IP, the coreferent pronominal doesn't c-command it no matter if the pronominal is in subject or object position.

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However, the discussion does not end there. It is well known that clitic left dislocation exhibits a variety of "connectivity" effects whereby the dislocated DP behaves as though it is in the position of the pronoun, and Baker argues that this is true of Mohawk clitic left dislocation as well (Baker 1996:105-110). These connectivity effects include the dislocated DP behaving as though it occupies the position of the pronoun for the purposes of Condition C, as illustrated for Spanish in the following:

(45)   El libro de Juan, lo perdío.

      "Juan's book, he lost it." (disjoint only) (Baker 1996:267)

Thus, Baker argues that possessive constructions in Mohawk are actually relative clauses, which do not reconstruct for Condition C (see Lebeaux 1989):

(46)   El hecho que Juan descubrío, nunca me lo dijo.

      "The fact that Juan$_i$ discovered, he$_i$ never told me it." (Baker 1996:268)

Therefore, the behaviour of Condition C in Mohawk does not in fact follow from the PAH, but rather an independent fact about the language–that possessive constructions are relative clauses. As such, it does not provide an argument for the PAH.

Turning to Warlpiri, as discussed above, the Warlpiri literature standardly claims that Condition C effects are found in matrix clauses when an R-expression is embedded in the subject or in the object:

(47)   a.   Nyanungu-rlu ka   Jakamarra-kurlangu maliki wajili-pi-nyi

          3-Erg   PresImpf Japanangka-Poss   dog   chase-Npst

          "He$_{*i/j}$ is chasing Jakamarra$_i$'s dog"

    b.   Jakamarra-kurlangu maliki-rli ka   nyanungu wajili-pi-nyi

          Jakamarra-Poss   dog-Erg   PresImpf 3   chase-Npst

          "Jakamarra$_i$'s dog is chasing him$_{*i/j}$" (Simpson 1991:179)

However, I have found that the Mohawk pattern appears when the R-expression is a dative possessor:

(48) a. Karnta-ku   jaja-ngku-lpa   nyanungu jakuru-pu-ngu
         woman-Dat grandmother-Erg-PstImpf 3   goodbye-VF-Pst
         "The woman$_i$'s grandmother was announcing her leave to her$_i$"

    b. Karnta-ku   jaja-lpa   nyanungu-rlu jakuru-pu-ngu
         woman-Dat grandmother-PstImpf 3-Erg   goodbye-VF-Pst
         "She$_i$ was announcing her leave to the woman$_i$'s grandmother"

The Warlpiri data in (48) show the same pattern as that in Mohawk, however they cannot fall under the same analysis. These possessor constructions cannot plausibly be analysed as relative clauses. The possessor constructions consist solely of a head noun and a possessor bearing dative case. They bear no resemblence to relative clauses, which consist of a full clause with the head noun initial followed by the complementizer *kuja*. Dative possessors, on the other hand, obligatorily precede the head noun, the opposite pattern to that expected by a relative clause analysis. Of course, possessor constructions also lack the complementizer *kuja*. Furthermore, Warlpiri relative clauses are adjoined to the clause in Warlpiri and typically associated with the resumptive element *ngula* in the main clause, this element is absent in sentences with possessed DPs:

(49) a. *Dative possessor*

         Karnta-ku   jaja-ngku   yunpa-rnu.
         woman-DAT maternal.grandmother-ERG sing-PAST
         "The woman's grandmother sang (it)."

    b. * Jaja-ngku   karnta-ku(-rlu)   yunpa-rnu.
         maternal.grandmother-ERG woman-DAT(-ERG) sing-PAST
         "The woman's grandmother sang (it)." (Laughren 2001:29)

46

c. *Relative clause*

Karli-ngki kuja-npa yankirri luwa-rnu ngula-ju rdilyki-ya-nu

boomerang-Erg FactC-2sg emu hit-Pst that-Top broken-go-Pst

"The boomerang you hit the emu with broke." (Hale et al. 1995:1447)

Therefore, Baker's PAH analysis predicts standard asymmetric Condition C patterns for Warlpiri, contrary to fact.

I conclude that the Condition C data is in fact problematic for a PAH-based analysis of Warlpiri.

No DP Anaphors

Next, Baker shows that reflexive or reciprocal DP anaphors are absent from Mohawk:

(50) # Sak ro-núhwe'-s ra-úha

Sak MSS/MSO-like-HAB MSO-self

"Sak likes himself" (OK as "Sak_i likes him_k") (Baker 1996:49)

Instead, a morphological detransitivization strategy is used:[9]

(51) Sak ra-[a]tate-núhwe'-s

Sak MSS-REFL-like-HAB

"Sak likes himself" (Baker 1996:50)

Consider why the impossibility of DP anaphors follows from his proposal:

(52) *Structure for "Sak likes himself"*

---

[9]Baker argues for a passive-like analysis of reflexive verbs whereby the reflexive morpheme absorbs the subject θ-role and the overt DP is related to the object position (Baker 1996:200-201).
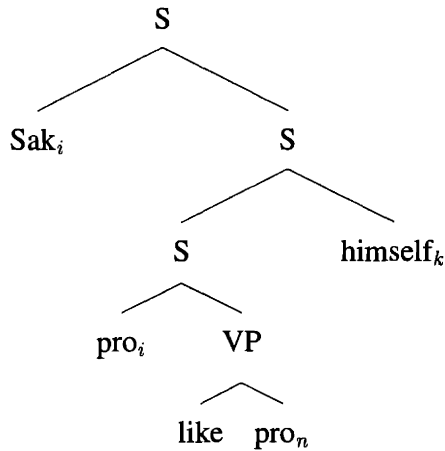
In this structure, to satisfy Condition A, k must equal i, and to satisfy Condition B, n must not equal i. However, since "himself" is an adjunct expressing the object pro, n must equal k. Therefore, there's no grammatical pattern of coindexation for this sentence.[10]

---

[10]Faced with the presence of a DP anaphor in Chuckchee, Baker weakens his position to the prediction that Polysynthetic languages will lack *morphologically simplex* DP anaphors. For the Chuckchee case, Baker adopts an analysis for Chuckchee like that proposed by Iatridou (1988) for Greek. According to this analysis, the apparent anaphor is actually a noun phrase consisting of a possessive anaphor and a noun, i.e "himself" is literally "his self". The possessive anaphor is coindexed with the subject, but the DP as a whole is not, resulting in a grammatical structure:

(1) *Structure for "Sak likes himself" in Chuckchee (Baker 1996:53)*

48
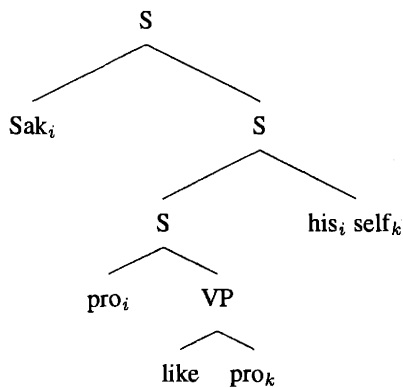
However, as discussed below, CLLD shows a range of connectivity effects, which include the dislocated element behaving for the purposes of Condition A and Condition B as though it occupies the associated argument position. Thus, a dislocated reflexive associated with the object may be bound by the subject, and a dislocated pronoun associated with the object may not be bound by the subject:

(53) A ?*lei/se stessa, Maria non ci pensa.

of ?*her/herself Maria not-there-thinks (Baker 1996:105)

Therefore, the PAH in fact does not predict the absence of DP reflexives in Polysynthetic languages.

The point may also be made by considering reflexives in Warlpiri. Warlpiri also lacks (phonologically overt) DP anaphors. Instead, the position for object agreement morphology in the second position clitic cluster is filled by a reflexive/reciprocal marker:

(54) a. Kala-ka-rlipa-**nyanu**   mata-rra-ma-ni?

PotC-PresImpf-1plIncl-**Reflex** tired-thither-Caus-Npst

"But aren't we liable to tire ourselves?"

b. Purlka-jarra-rlu   ka-pala-**nyanu**   nya-nyi

old.man-Dual-Erg PresImpf-3Dual-**Reflex** see-Npst

"The two old men are looking at each other." (Simpson 1991:163)

However, reflexive (or reciprocal) sentences in Warlpiri are not intransitive, as has been known since Hale (1983:24 ftn 10, 1983:43). The subject of a reflexive sentence receives ergative case indicating a transtive sentence, the object switch reference marker -*kurra* may be used indicating the existence of a controller in object position, and, finally, an overt body-part noun related to the object can be present, again indicating the existence of an object:

(55) Wati-**ngki**-nyanu paka-rnu **jurru**

man-**ERG**-REFL hit-PAST **head**

"The man hit himself (on) the head" (Hale et al: 1995))

Therefore, there must be an anaphor in object position of reflexive sentences in Warlpiri that is phonologically null.

Once we admit the possibility of a phonologically null anaphor, the impossibility of overt DP anaphors again no longer follows from the PAH. The key problem was that the *pro* in object position, as a pronominal, was subject to Condition B and so could not be coindexed with the *pro* in subject position. However, if the object *pro* can be an anaphor rather than a pronoun, as required for Warlpiri, then the structure with an overt anaphor becomes unproblematic:

(56) *Structure for "Sak likes himself"*
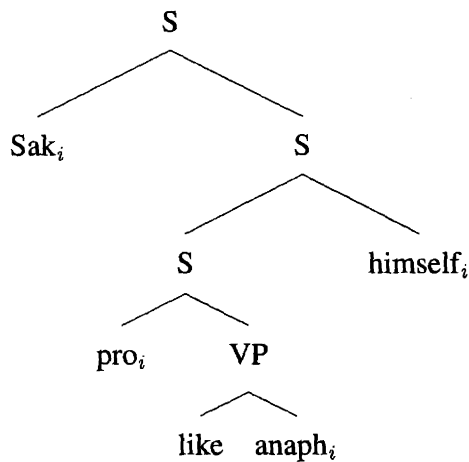
I conclude that the PAH does not predict the absence of phonologically overt DP anaphors in Polysynthetic languages, and so this absence cannot serve as support for the theory.

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The Absence of Nonreferential Quantified NPs

As additional support for his version of the PAH, Baker turns to quantifier phrases. He adopts the following condition from Rizzi (1986):

(57) A pronoun cannot be locally [A-bar] bound by a quantifier.

Given his hypothesis that all overt nominals in Polysynthetic languages appear in a clitic left dislocated, hence A-bar, position, Baker predicts that quantifier phrases will be absent from these languages. Indeed, Baker cites Rizzi (1986) and Cinque (1990) for the observation that quantifier phrases cannot undergo clitic left dislocation in Italian:

(58) * Tutto, lo diro' alla polizia.
"Everything, I will say to the police."

Baker presents this as a welcome prediction, in that he argues Mohawk does lack true quantifiers equivalent to *everything* and *nothing*. Instead of *everything*, Mohawk uses a "referential" quantifier comparable to English *all*. Note the plural agreement in (59)

(59) Akwéku wa-hoti-yéshu-' (*wa-ho-yéshu-')

all FACT-MPO-laugh-PUNC (*FACT-MSO-laugh-PUNC)

"Everybody laughed" (Baker 1996:55)

Vendler (1967) shows that *all* differs from *every* in requiring plural agreement. Reinhart (1983, 1987) argues that the relationship between *all* and the plural pronoun may be one of coreference rather than binding, in contrast to the relationship between *every* and a singular pronoun, which must be binding.[11] The plural pronoun may appear outside the scope of *all*:

---

[11]*Every* may also appear with a plural pronoun, in which case it takes on the properties of *all*. Notice that Reinhart argues that a pronoun has the option of coreference with *all*; when the structural requirements are met, binding is also available. This point will become important below.

(60) a. *All the boys* came into the room. Then *they* sat down.

  b. **Every boy* came into the room. Then *he* sat down.

all need not c-command the pronoun:

(61) a. The guy who read all the books in the library says that they are boring.

  b. * The guy who read every book in the library says that it is boring.

and the relationship between *all* and the pronoun does not exhibit WCO effects:

(62) a. Their readers expect all books to be boring.

  b. * Its reader expects every book to be boring.

Baker concludes: "[i]n the spirit of Reinhart (1983a, 1987), I interpret these differences between *all* and *every* as showing that *every* is a true quantifier but *all* is not" (Baker 1996:58). Therefore, *all* (and its Mohawk equivalents) corefer with pronouns rather than binding them.[12] This absence of true non-referential quantifiers in Mohawk, and other Polysynthetic languages is thus predicted by Baker's theory. Indeed, Bittner & Hale (1995) argue that Warlpiri lacks true quantifier phrases as well.[13]

---

[12]As for quantifier phrases that cannot refer, such as negative quantifier phrases like "nobody", Baker argues that these are instead decomposed into a quantificational adverb and an indefinite in Mohawk, e.g. "not someone". He follows Reinhart (1987) for an analysis whereby pronouns apparently bound by such indefinites are instead bound by the quantificational adverb.

(1) Niyesorek uhkák   yuk-yenawá's-e'
     rarely   someone FSS/1SO-help-HAB
     "Rarely does someone help me." (Baker 1996:61)

[13]There are a few candidates for DP quantifiers in Warlpiri not considered by Bittner & Hale that don't have the indefinite versus definite ambiguity they used to diagnose nouns as opposed to quantifier phrases, for example complex nouns based on *jinta* "one", including *jintaku-marrarni* "all", *jinta-warlayi* "all, every". Further research is needed to determine if these will allow bound variable readings.

However, we cannot conclude so quickly. Baker admits that "many, perhaps most, *non*polysynthetic languages also do not have equivalents to English *everyone* and *nobody*. This does not make the prediction vacuous, but it does make it less striking than it would otherwise be" (Baker 1996:91 ftn20). Furthermore, Macswan (2001) demonstrates that the prediction is in fact not borne out for the Polysynthetic language Nahuatl; this language does have a quantifier phrase with the properties of *every* rather than *all*, contrary to Baker's prediction.

More crucially, the claim that even some Polysynthetic languages lack quantifier phrases cannot be maintained. As Irene Heim points out (pc to Bruening 2001), binding of a variable and coreference result in different meanings: only binding allows the pronoun to vary with the antecedent. And "all" clearly can receive bound variable readings:

(63)   All the candidates$_1$ thought that they$_1$ would be elected. (Heim pc to Bruening 2001:102)

The salient reading of (63) the sentence is a bound variable one: not that the candidates thought that all the candidates would be elected, but rather that each candidate thought that he or she would be elected.

In fact, Bruening (2001:103) points out that "all" in Mohawk also seems to allow bound variable readings, based on Baker's examples:

(64)   a.   Akwéku wa'-ti-shakoti-norukwányu-'   ne raotíi-skare'
            all   FACT-DUP-MPI/3II-kiss-PUNC NE MPP-friend
            "All of them kissed their girlfriends"

       b.   Skátshu ne ron-úkwe' ne raotíi-'sere' wa-hati-'sereht-óhare-'
            each   NE MP-person NE MPP-car   FACT-MPI-car-wash-PUNC
            "Each of the men washed their car." (Baker 1996:55)

It seems that true quantifier phrases may indeed be possible in Mohawk. Therefore, the purported lack of true quantifier phrases cannot be an argument for the PAH.

However, the presence of quantifier phrases in Polysynthetic languages may not be an argument against the PAH either. Baker notes that "[b]oth Rizzi (1986b) and Cinque (1990) mention that there is improvement if the quantifier appears with a lexical N'. This effect does not seem to carry over to Mohawk" (Baker 1996:90, ftn9). Furthermore, Iatridou (1995) points out that the quantifier "each" may be clitic left dislocated in Modern Greek (although not "every"):

(65)   kathe pedhi i mitera tu to agapa

       each child mother its it loves (Iatridou 1995:13)

Therefore, a lack of quantifier phrases is not clearly predicted by the PAH.

I conclude that quantifier phrases do not constitute an argument for or against the PAH.

Obligatory movement of wh-phrases in questions

The consideration of quantifier phrases leads naturally to the issue of wh-phrases. Mohawk does indeed have wh-phrases:

(66)   a.   Úhka t-á'-y∧-[e]-'?

            who   CIS-FACT-FSS-go-PUNC

            "Who is coming?"

       b.   Nahót∧ wa-hs-hníinu-'?

            what   FACT-2SS-buy-PUNC

            "What did you buy?" (Baker 1996:67)

Baker analyses these as follows. Recall that clitic left dislocation of DPs in Polysynthetic languages is forced by the Case Filter, combined with the claim that agreement morphology absorbs case. Since the Case Filter applies only to DPs with phonological content, *pro* may appear in argument position without violating the filter. Another possibility exists. A DP trace will also avoid violating the Case Filter by lacking phonological expression.

54

Therefore, a DP may be merged in argument position, on the condition that it A'-movement overtly (that is before S-structure/PF where the Case Filter applies). Thus, Baker predicts, Polysynthetic languages will require overt movement of all wh-phrases. He demonstrates that this is true of Mohawk, both that wh-phrases may not appear in situ after the verb, even in multiple wh-questions, and that wh-phrases show evidence of movement (obeying certain islands and creating islands for further wh-extraction) (see Baker 1996:66-73).

Indeed, wh-phrases in Warlpiri also must appear in a left-peripheral position, and I argue in Chapter 4, section 4.3 that wh-phrases move to this position.

(67) **Nyiya** ngapa-ngka nyampirl-wanti-ja?

what water-Loc splash-fall?

"What fell with a splash into the water?" (Warlpiri Dictionary Project 1993)

Furthermore, multiple wh-questions are ruled out in Warlpiri since only one wh-phrase may move to the left periphery and wh-phrases lower in the clause are interpreted as indefinites:

(68) Kula-ka-rna   nyarrpara-kurra ya-ni

Neg-PresImpf-1sg where-All   go-Npst

"I'm not going anywhere" (Laughren 2002:[33b])

*"Where am I not going?"

However, if this strategy is permitted for wh-phrases, we may ask why other DPs do not follow this pattern, being merged in situ and undergoing overt A'-movement. Baker addresses this issue as follows:

> Questions, in particular, will have a +*wh* feature on C ... This feature will then draw a +*wh* phrase into the specifier of C in many languages, so that a legitimate agreement relationship is established between the two +*wh* elements. ... However, there is no reason to think that C will ever have a special [+ every] feature, since the illocutionary force of universal statements is not significantly

different from that of other statements. Therefore, there will not be anything to draw universally quantified phrases to the specifier of CP. The economy prinicples of Chomsky 1992 imply that overt movement never happens unless it is triggered by the morphosyntactic features of some morpheme. Hence it is impossible for most quantified phrases to move to the specifier of CP in the syntax." (Baker 1996:67-68)

This turned out to simply be empirically incorrect. Since Rizzi (1997), an extensive literature has developed on the left periphery of the clause structure (within the "CP-layer") in a variety of languages. A number of functional projections have been identified motivating movement of topics and focused phrases in addition to wh-phrases. Furthermore Kiss (1998) and Puskas (2000) demonstrate the existence of a projection that hosts moved universal quantifiers, "also"-phrases, and "even"-phrases.

This development significantly reduces the scope Baker's version of the PAH. It reduces to the claim that structurally case marked DPs *must* move overtly to A-bar positions in Polysynthetic languages, as opposed to *may* move overtly, as predicted if the Polysynthetic languages do not form a typological class identified by a single macroparameter. Other predictions claimed to follow from the Polysynthesis parameter are thus eliminated as well– the lack of DP anaphors (which may be bound in their A-trace positions), the (purported) lack of quantifier phrases (which may bind in their A-trace positions), and the Condition on Extraction Domain effects, considered in the following section.

Proving this alternative claim, that structurally case marked DPs may be merged into argument positions but may not appear in argument positions at S-structure, is much more difficult. For Warlpiri, a possible argument lies in the fact that a verb and its arguments may not appear before the second position clitic, as illustrated for the object in (69).

(69)   a.   * Wawirri   nya-nyi   ka-rna
             kangaroo see-Npst PresImpf-1sg

56

"I see a kangaroo."

b.   * Nya-nyi wawirri   ka-rna

see-Npst kangaroo PresImpf-1sg

"I see a kangaroo" (Hale et al 1995:1434

The ability to appear before the second position clitic is a test for constituency in Warlpiri. The data in (69) have thus been used to argue against the existence of a verb phrase in Warlpiri, in that they show that the verb and its object do not form a constituent.[14] An alternative explanation relevant here may be that the object obligatorily undergoes A'-movement out of the verb phrase. However, this test does not make the required distinction between structurally case marked DPs and others (locatives, adjuncts, ...), which also may not appear with the verb in the initial position. Therefore, the data in fact do not argue for the revised hypothesis. Below, and in Chapter 4, section 4.2, I argue that Warlpiri does indeed have an articulated left periphery and that this is responsible for much of the observed word order variations. However, I know of no evidence that DPs may not optionally remain in A-positions.

CED Effects

Next, Baker turns to Condition on Extraction Domain effects:

(70)   *Condition on Extraction Domains (CED) (Huang 1982:505)*

A phrase A may be extracted out of a domain B only if B is properly governed.

Therefore, the claim that all DPs are adjoined in Polysynthetic languages predicts that extraction from overt DPs should be ungrammatical, regardless of grammatical function. In confirmation of this prediction Baker cites:

---

[14]Although verb raising is sufficient to capture the data.

57

(71) a. *? Úhka we-sa-tsitúni-'   ne ako-kára'?

          who FACT-2SO-make.cry-PUNC NE FSP-story

          "Whose story made you cry?"

      b. *? Úhka wa-hse-tshV́ri-'   ako-hwíista'

          who FACT-2SS-find-PUNC FSP-money

          "Whose money did you find?" (Baker 1996:74-75)

Furthermore, he argues that this is a weaker (and thus different) fact than the English equiv-alents (*Whose made you cry story? *Whose did you find money?). This is supported by the observation that increasing the distance between the wh-phrase and the NP improves the example,

(72) ? Úhka íi-hs-ehr-e'   wa-ha-tshV́ri-'   ako-hwíista'

      who ∅-2SS-think-IMPF FACT-NSS/2SO-find-PUNC FSP-money

      "Whose money do you think he found?" (Baker 1996:76)

as it improves certain CED cases of extraction from a subject in Italian (Rizzi 1982).

(73) a. ?? L'uomo di cui la sorella maggiore è innamaorata di te è Gianni.

          'The man of whom the elder sister is in love with you is Gianni'

      b. L'uomo di cui ritengo che la sorella maggiore sia innamaorata di te è Gianni.

          'The man of whom I believe the elder sister is in love with you is Gianni'

The ungrammatical structure he assigns to (71b) is as follows (Baker 1996:75):

(74)

```
                    S'
             _____/_____
            /              \
         Who_i             S
                      _____/\_____
                     /            \
                    S            NP_k
                 __/\__        __/\__
                /      \      /      \
              NP       VP    NP      N
              you    __/\__  t_i    money
                    V    NP
                  find  it_k
```
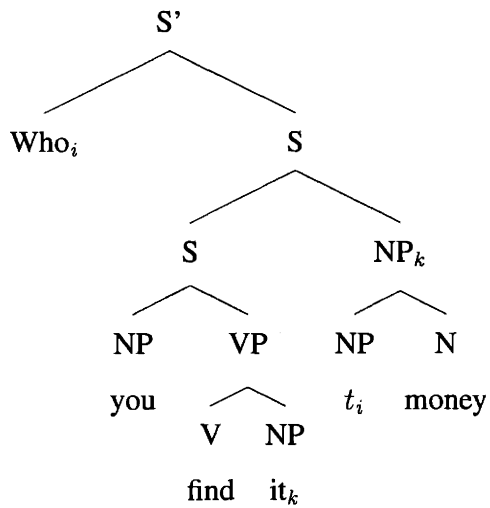
However, later in the book he discusses cases in which wh-phrases can be split:

(75)   Ka nikáyʌ wa-há-kʌ-'   (ne) kwéskwes?

     which   FACT-MASS/ZSO-see-PUNC NE pig

     "Which pig did he see?" (Baker 1996:158)

proposing the following structure:[15]

(76)

---

[15]Baker makes no theoretical claim by the use of S and S', versus IP and CP.

59

CP
NP_i   C'
which
            C   IP
                    IP   NP_i
                                  pig
                NP   I'
                pro(he)
                        Infl   VP
                                V   NP
                                see
                                    t_i NP
                                            pro_i
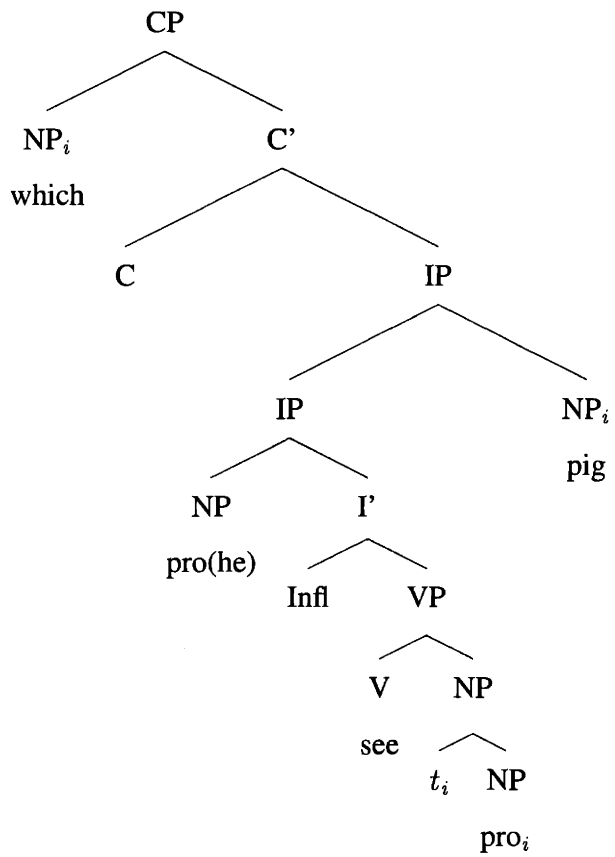
This opens the possibility for a similar structure for cases like (71b):

```
                    CP
                  /    \
             Who_i      C'
                      /    \
                    C        IP
                           /    \
                        IP        NP_k
                      /    \      money
                    NP      I'
                    you   /    \
                       Infl     VP
                              /    \
                             V      NP_k
                            find   /    \
                                  t_i    N
                                        pro_k
```
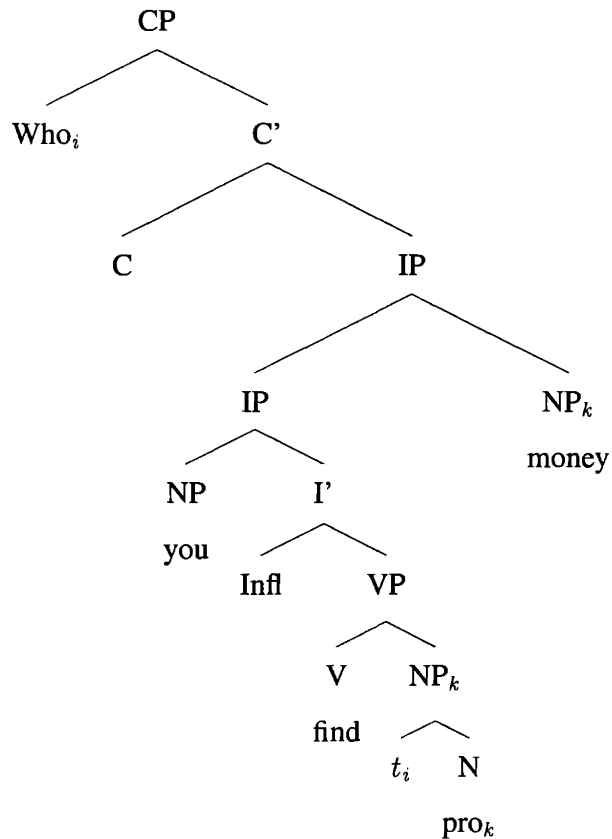
More crucially, Baker (1996:266) argues that possessor constructions are disguised relative clauses. Thus, under his analysis, (71b) is equivalent to "who$_i$ did you find the money that is to t_i". As Baker demonstrates (1996:70), wh-movement from within a relative clause is ungrammatical in Mohawk:

(77) * Nahót∧ wa'-hse-ríiyo-'   ne érhar ne wa'-ka-n∧sko-'?

      what   FACT-2SS/ZSO-kill-PUNC NE dog   NE FACT-2SS-steal-PUNC

      "What did you kill the dog that stole?" (Baker 1996:70)

Therefore, on Baker's account, the data in (71) are not CED effects but Complex NP Constraint violations, and thus CED effects do not constitute support for his PAH.

WCO

Finally, Baker discusses Weak Crossover effects in support of his PAH. WCO is absent in short distance questions in Mohawk:

(78) a. Úhka wa'-te-shako-noru'kwány-'   raó-skare'?

        who FACT-DUP-MSS/FSO-kiss-PUNC MSP-friend

        "Who kissed his girlfriend?" (bound OK)

    b. Úhka wa'-te-shako-noru'kwány-'   akó-skare'?

        who FACT-DUP-MSS/FSO-kiss-PUNC FSP-friend

        "Who did her boyfriend kiss (her)?" (bound OK) (Baker 1996:80)

The PAH prima face predicts the opposite–that WCO effects would be found with both subject and object questions, since the trace of wh-movement inside VP does not c-command the pronoun in a DP adjoined to IP.

However, Baker claims that these are grammatical as parasitic gap constructions, an analysis which is made possible by the absence of an overt possessive pronoun in these examples.[16]

(79) *Structure of (78b)*

---

[16]Baker shows that if an overt pronoun is present, the examples are ungrammatical, as predicted on a parasitic gap analysis. However, the contrast is not so clearly evidence for the parasitic gap analysis. First, Baker notes that overt pronouns in Mohawk "are most readily interpreted as disjoint from another NPs in the same clause, regardless of grammatical functions and c-command relationships. ... Presumably, this is a result of the emphatic, contrastive nature of these pronouns." (Baker 1996:90,ftn4). Furthermore, Baker explicitly allows adjunction of clitic left dislocated phrases to VP in Mohawk (1996:120) (although in a footnote (1996:136,ftn20) he does note that it is difficult to find cases in Mohawk in which VP adjunction may be distinguished from IP adjunction). Therefore, he actually predicts an asymmetric pattern: the A-trace of a wh-subject in IP will c-command a possessive pronoun in a DP adjoined to VP, which should result in no WCO violation; on the other hand, the A-trace of a wh-object in VP will not c-command a possessive pronoun in a DP adjoined to VP, and a WCO violation will result. As he shows, this pattern is not borne out.

```
                    S'
              _____|_____
             /             \
         who₁              S
                      _____|_____
                     /             \
                    S              |
                 ___|___        ___|___
                /       \      /       \
            pro_k      VP    OP_i     NP_k
                      __|__          __|__
                     /     \        /     \
                  kiss    t_i      e_i   boyfriend
```
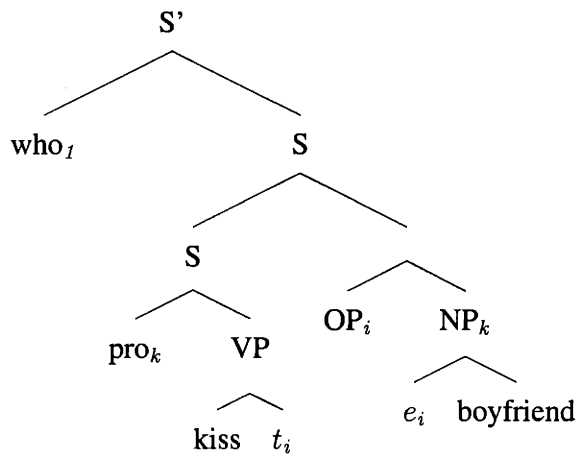
As already mentioned, in Warlpiri, as well, WCO effects are absent in short distance questions:

(80) *WCO*

    a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?

       who-Erg   child 3-Poss   hit-Npst

       "Who$_i$ hit his$_i$ child?"

    b. Ngana ka   nyanungu-nyangu maliki-rli wajili-pi-nyi?

       who   PresImpf he-Poss   dog-Erg chase-Npst

       "Who$_i$ is his$_i$ dog chasing?" (Hale et al 1995:1447)

However, the Warlpiri examples do contain an overt possessive pronoun. Therefore, the parasitic gap analysis is not available for the Warlpiri case, and Baker's account predicts that both sentences should be ungrammatical as WCO violations in Warlpiri, contrary to fact.

I conclude that, at least for Warlpiri, the WCO data constitute an argument against the PAH, rather than for it.

Summary

In this section, we have considered six arguments presented by Baker in support of his pronominal argument approach. Two of them have been revealed to actually constitute arguments against application of the PAH to Warlpiri: Condition C data and Weak Crossover effects;[17] while three were shown to not constitute arguments for or against the PAH: the lack of overt DP anaphors, the (purported) absence of quantifier phrases, and CED effects. Finally, consideration of obligatory movement of wh-phrases threatens to undermine the hypothesis completely, in allowing for all DPs to be merged in argument position, provided that they undergo A'-movement overtly.

In the next section, I examine a number of arguments against the pronominal argument approach.

Arguments against the PAH

In this section, I present a number of possible arguments against the PAH, beginning with those from Austin & Bresnan (1996), which focused on the version presented in Jelinek (1984), and then considering additional arguments arising from Baker (1996).

The Indefinite Interpretation

Austin & Bresnan (1996) present a series of arguments against Jelinek (1984)'s version of the pronominal argument hypothesis, whereby overt DPs are adjuncts linked through case compatibility rules to agreement clitics in argument position. Their first argument concerns a distinction in interpretation between the agreement clitics and overt DPs, which is unexpected if DPs are simply optional adjuncts. A clitic on its own is necessarily interpreted as definite:

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[17]Recall that Baker limited his analysis to Polysynthetic languages, which do not include Warlpiri, however subsequent researchers have applied the analysis to nonconfigurational languages in general.

(81) Panti-rni   ka

spear-NPST PRESIMPF

"He/she is spearing him/her/it." (Simpson 1991:153)

Whereas overt DPs may receive a nonspecific indefinite interpretation:

(82) Ngarrka-ngku ka   wawirri panti-rni

man-ERG   PRESIMPF kangaroo spear-NPST

"The/a man is spearing the/a kangaroo." (Simpson 1991:153)

(83) Kardiya   yurrkunyu-rlu   manu yapa-ngku   turaka-rlu

white.person police.officer-ERG and   Aboriginal-ERG tracker-ERG

kala-ka-ngku-pala   muru-pi-nyi.

POTC-PRESIMPF-2SGOBJ-3DUALSUBJ arrest-NPST

"A white police officer and an Aboriginal tracker (police aide) can arrest you."
(Simpson 1991:130)

Their choice of examples is perhaps not ideal, in that out of context (82) shows very little,
and the DPs in (83) receive a generic interpretation. As generics, these indefinites should
indeed be interpreted high in the structure, in the specifier of IP (Diesing 1992). However,
clearer examples can be found:

(84) a. **Karli**-ji   paka-ka   – nyina-nja-rlarni,

boomerang-1SGOBJ chop-IMPERATIVE   sit-INFIN-OBVC,

kaji-rna   yama-ngka nyina.

NFACTC-1SGSUBJ shade-LOC sit.NPAST

"Chop me **a boomerang** while I sit here, while I sit in the shade."

b. Nyina-ka-ju-lu   nyampu-rla ngapa-ngka, ngaju

wait-IMPERATIVE-1SGOBJ-3PLSUBJ here-LOC   water-LOC, 1SG

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ka-rna	ya-ni	**kuyu** panti-rninja-kurra.

PRESIMPF-1SGSUBJ go-NPAST **meat** spear-INFIN-SEQC

"You wait here for me at the water-hole. I am going to spear **some meat**."

c. Balgo Mission-rla   ka-lu   nyina   **Warlpiri-ji.**

Balgo Mission-LOC PRESIMPF-3PLSUBJ live.NPAST **Warlpiri-TOP**

"At Balgo Mission there are **Warlpiri people** living." (Warlpiri Dictionary Project 1993)

Thus, in (84a) "a boomerang" is the object of a verb of creation, in (84b) the speaker does not yet know which animal will be speared, and (84c) is an existential sentence.

Jelinek (1993) proposes a solution to this problem. She claims that the pronominal arguments in nonconfigurational languages[18] may either receive a semantic interpretation as a definite pronoun, when the adjoined DP is definite, or a semantic interpretation as a variable when the adjoined DP is an indefinite. To allow a DP at the IP level to receive an indefinite interpretation, she proposes that the domain of existential closure is IP in nonconfigurational languages (rather than VP, see Diesing 1992). Unfortunately, she gives no additional evidence for this difference in the domain of existential closure between the two language types.

Baker also raises the issue of the indefinite interpretation as a potential problem for his version of the PAH (Baker 1996:125). In languages with CLLD, indefinites may be clitic left dislocated, but only if the indefinite receives a specific interpretation, as it does in the following Italian example:

(85)   **Speaker A:**   Li conosci, quelli?

'Do you know them, those people?'

---

[18]She is concerned in this paper with Lummi (Straits Salish).

Speaker B: Sì, qualcuno, l'o già conosciuto.

yes someone him I already know (adapted from Cinque 1990:75)

In Polysynthetic languages, however, like in Warlpiri, overt DPs may receive a non-specific indefinite interpretation. Baker gives the following example from Mohawk:

(86) Ne ónʌ érhar ʌ-hó-kʌ-'   ʌ-ho-tewékwʌ-'

When dog FUT-MSS/MSO-see-PUNC FUT-MSL/MSO-pet-PUNC

"Whenever he sees a dog he pets it" (Baker 1996:125)

Part of the difficulty in evaluating the contrast between languages with CLLD, which do not allow non-specific indefinites to undergo CLLD, and Polysynthetic or nonconfigurational languages, which do have non-specific indefinites, is that it is not yet clear *why* languages with CLLD do not allow non-specific indefinites to undergo CLLD. For example, if the indefinite must be inside the verb phrase to receive a non-specific interpretation (Diesing 1992), it should be able to reconstruct into this position (see below for a discussion of reconstruction or "connectivity" effects in CLLD).

Baker proposes that the phenomenon is morphological. Thus, in his analysis, the clitic and the dislocated DP form a chain, this chain formation being subject to a nondistinctness condition:

(87) *The Chain Condition (Baker 1996:112)*

X and Y may constitute a chain only if:

(i) X c-commands Y.

(ii) X and Y are coindexed.

(iii) There is no barrier containing Y but not X.

(iv) X and Y are nondistinct in morphosyntactic features (i.e. category, person, number, gender, Case, etc)

In Romance languages, nouns are explicitly marked for definiteness, showing that [± definite] is a morphosyntactic feature in the language. Therefore a non-specific indefinite forming a chain with a [+specific] pronoun constitutes a violation of the nondistinctness condition. In Polysynthetic languages, on the other hand, DPs are not marked for definiteness (this is also true of Warlpiri). Therefore, Baker concludes, a non-specific indefinite may form a chain with a pronoun without violating the nondistinctness condition.[19]

Baker (2001) takes a different approach, writing in the context of the secondary predicate analysis; the issue also arises for the secondary predicate analysis, since it shares with the PAH the idea that all argument positions are filled by pronominals.

> the lesson of all this might simply be that pragmatics is patently *not* universal. More specifically, if these analyses of nonconfigurational languages are on the right track, Universal Grammar must consist primarily of substantive conditions on syntactic structure, and secondarily of a set of constructions that are consistent with those conditions. However, Universal Grammar must *not* asociate a unique pragmatic value to the licit constructions. Rather, the pragmatic values of the particular constructions probably emerge from a variety of considerations. Natural form/function correspondences are presumably one, but

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[19]In support of his morphological analysis, Baker cites Chichewa, which has optional object clitics and lacks morphological marking for definiteness on the noun. In line with Baker's predictions, Chichewa allows an indefinite interpretation for dislocated DPs:

(1) Mw-a-lí-bwérerts-a   bûku?
     2SS-PERF-OM-bring-IND book
     "Have you brought it, the book?" or "Have you brought one, a book?"

However, Baker does not provide data illustrating the possible interpretations of the sentence without the overt DP. This is crucial; if the sentence still allows for an indefinite interpretation, then the datum in (1) is irrelevant, at least for the analysis of Warlpiri. The availability of an indefinite interpretation would indicate that Chichewa allows for a phonologically null indefinite, which Warlpiri clearly lacks, see (88) below.

another that is likely to be important is some notion of contrast. ... English has
a choice between saying "I ate a raw one" and "I ate one raw", so these assume
different pragmatic values with regard to definiteness, contrast, and old versus
new information structure. Warlpiri, however, has no true nouns, so there is
nothing to contrast with the secondary predication structure, and it is used in a
wider range of situations. (Baker 2001:433)

Thus his idea is that secondary predication (and clitic left dislocation) have a certain prag-
matic function in configurational languages, which is the source of the restriction to def-
inite and specific indefinite nominals. This pragmatic function is not shared by the same
constructions in nonconfigurational languages. With regards to the secondary predicate
hypothesis, the position seems hard to maintain. Null pronominals in the absence of a
secondary predicate are necessarily interpreted as definite in Warlpiri:

(88) Panti-rni   ka

      spear-NPST PRESIMPF

      "He/she is spearing him/her/it."

      NOT: "Someone is spearing something."

The addition of a secondary predicate should not alter the interpretation of the associated
pronominal.

      Regarding the PAH, on the other hand, the position seems more plausible. For example,
we may reject Baker's position that the dislocated DP is adjoined, and instead maintain that
it is in the A'-specifier of a projection with a designated discourse interpretation (perhaps
a contrastive topic, see Rizzi (1997) on Italian and Arregi (to appear) on Spanish). Thus,
CLLD in nonconfigurational languages may target a different A'-specifier, and thus be as-
sociated with a different interpretation. This position would be strengthed by the discovery
of a configurational language in which CLLD has the discourse properties (or lack thereof)
of that in nonconfigurational languages.

An additional point of consideration (mentioned by Baker (1996:127))is that Cinque (1990:74-75) argues that CLLD of an indefinite is in fact possible, but precludes the presence of a clitic doubling the indefinite (making CLLD a misnomer):

(89)

(90) Qualcuno, toverò di sicuro per questo compio.

someone (or other) I will find surely for this task (Cinque 1990:74)

In contrast, CLLD of a definite or specific indefinite requires the presence of the clitic:

(91) **Speaker A:** Li conosci, quelli?

'Do you know them, those people?'

Speaker B: Sì, qualcuno, *(l')o già conosciuto.

yes someone (him) I already know (Cinque 1990:75)

In this light, it is perhaps not the indefinite interpretation of DPs in nonconfigurational languages that merits comment, but rather the definite interpretation of DPs in absence of a clitic (assuming, with Baker (1996:86) that the morphology observed is the agreement licensing pro-drop rather than a clitic).

In sum, we observe a distinction between overt DPs in nonconfigurational languages, for which a full range of interpretations are possible, and DPs which have undergone CLLD in configurational languages, which may only receive a definite or specific indefinite interpretation (in the presence of a clitc, or an indefinite interpretation in the absence of a clitic). The ultimate explanation and implications of this distinction, however, remain a matter of debate.

Merged versus Unmerged Interpretations

The second argument that Austin & Bresnan give against the PAH is that DP constituents have only a merged (or restrictive) interpretation whereas discontinuous constituents can

have either a restrictive or non-restrictive/appositional interpretation.[20]

(92) a. Kurdu-jarra-rlu-ka-pala   maliki wajili-pi-nyi wita-jarra-rlu

      child-Dual-Erg-PresImpf-3Dual dog   chase-Npst small-Dual-Erg

      "Two small children are chasing the dog." OR "Two children are chasing the

      dog and they are small."

    b. Kurdu wita-jarra-rlu-ka-pala   maliki wajili-pi-nyi

      child small-Dual-Erg-Pres-Impf dog   chase-Npst

      "The two small children are chasing the dog." (Simpson 1991:257-258)

They conclude that "[i]f all NPs are appositional or secondary predicates, as on the pronominal argument hypothesis, this contrast has no clear explanation" (Austin & Bresnan 1996:236). Clarifying the issue a bit, the difficulty here seems to be how the restrictive interpretation of discontinuous constituents is derived under a PAH approach. To my knowledge, this issue has not been addressed.

This is related to the difficulty discussed in section 2.3.2 above, that the PAH in fact does not account for the existence of discontinuous constituents in pronominal argument languages to begin with.

Inadequacy of Linking Rules

Next, Austin & Bresnan present difficulties with Jelinek's case compatibility rules for Warlpiri. The rules were intended to explain the split ergative nature of Warlpiri whereby the overt DPs inflect for ergative-absolutive case whereas the agreement clitics follow a nominative-accusative pattern.

(93)   *Jelinek's (1984) Case Compatibility Rules for Warlpiri*

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[20]The observation and examples are due to Hale (1981); unfortunately, the two readings are truth conditionally equivalent in (92).

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a. NOM is compatible with ABS in an intransitive sentence, and with ERG in a transitive sentence.

b. ACC is compatible with ABS in a transitive sentence, and with DAT in a ditransitive sentence (for first and second person clitics).

c. DAT is compatible with DAT (for third person clitics).

The essential difficulty they reveal is that the rules are too coarse-grained in that they refer to transitive and intransitive *sentences*, which they claim "obscure[s] the fact that the choice of L-cases appearing on NPs depends on the lexical type of the *verb*" (Austin & Bresnan 1996:240). A more fine-grained analysis would indeed be required.

A related problem is the restrictiveness of the linking rules proposed by Jelinek, in that they are language specific, and, as observed by Baker (1996:96), "can refer to word order (Navajo), inverse morphology on the verb (Algonquian), switch reference morphology (Choctaw), and so on (Jelinek 1988)."

As for Baker's version of the PAH, Baker argues that Polysynthetic languages must have no case marking on the overt DPs, since the dislocated DPs form a chain with the *pro*'s in argument position and therefore must be non-distinct from them. Indeed, he considers the overt case marking on the Polysynthetic languages Chuckchee and Ngandi to be problematic and argues that they are semantic rather than structural cases. The data are not so clearly problematic in that the agreement morphology receives structural case, not the *pro*'s that form the chain with the clitic left dislocated DPs. However, the source of the case morphology on the dislocated DPs would be a mystery.

Issues relating to agreement morphology

Austin & Bresnan then consider the role of agreement morphology. Jelinek and Baker both make crucial use of agreement in their analyses: for Jelinek, the agreement clitics are the arguments of the verb, for Baker agreement licenses the θ-role assignment to the

pronominal arguments and forces CLLD by absorbing case. Thus, in both analyses, the availability of null anaphora is directly linked to agreement morphology.

Thus, Austin & Bresnan rightly present as a problem the fact that in infinitivals, null pronominals appear without agreement clitics:

(94)   a. Purra-nja-rla   nga-rnu

           cook-INF-PRIORC eat-PST

           "Having cooked (it), (he/she/it) ate (it)." (Laughren 1989:326)

       b. Pingka-rlipa   mata-ma-ninja-kujaku   ya-ni

           slow-1PLINCLSUBJ tired-CAUS-INFIN-NEGPURPC go-NPAST

           "We'll go slowly lest (we) tire (ourselves)." (Simpson 1991:141)

Furthermore, they demonstrate that not all arguments are crossreferenced by agreement clitics. On Baker's version of the PAH, such arguments should not be visible for θ-role assignment. On Jelinek's version, the associated argument position would be empty. In either case, we would at least expect different behaviour between overt DPs with associated agreement morphology and those without.

The examples Austin & Bresnan cite include the verb *wangka-mi* "to speak", which has an allative complement that is unregistered in the auxiliary:

(95)   yaany-pardi-mi kaji-ka-npa   nyuntu ngula-ji   ngari

         shame-NPST   POTC-PRESIMPF-2SGSUBJ you   that-TOP JUST

         ka-rna   wangka-mi yapa   panu-kurra

         PRESIMPF-1SGSUBJ talk-NPST person many-ALL

         "You're taking it personally, but I'm just talking to everyone." (simpson 1991:324)

Note, however, that this argument is optional, and in the absence of an overt DP is simply absent from the interpretation. Moreover, it is unclear that this should be treated as an argument or rather an adjunct. Furthermore, the presence of allative case here is marked; normally this DP would bear dative case and appear registered in the auxiliary.

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Another example they present is the absolutive object of ditransitive verbs, which is not associated with agreement morphology. Jelinek (1984:56) attempts to explain this fact away by claiming that the absolutive does trigger agreement, but is phonologically null since the third singular agreement morphology is null. However, third person dual and plural agreement are not null and these do not appear appear with associated agreement morphology either.[21]

(96) Ngajulu-rlu kapi-rna-ngku   **karli-patu**   yi-nyi
      I-ERG   FUTC-1SGSUBJ-2SGOBJ **boomerang-PAUC** give-NPAST
      nyuntu-ku
      you-DAT
      "I will give you (the) (several) boomerangs" (Hale et al 1995:1432)

Austin & Bresnan state that "[n]one of the works we have consulted on the syntax of Warlpiri reports any difference in word order, null anaphora, or discontinuous NP phenomena for unregistered NPs" (1996:243), however the issue has simply not been investigated.

Baker (1996) encounters the identical difficulty for ditransitives in Mohawk by positing a dummy theme that undergoes noun incorporation (recall that noun incorporation is available as an alternative to agreement to allow a nominal to be visible for θ-role assignment).[22]

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[21]In Chapter 3, section 3.3, I present an analysis of ditransitives in Warlpiri whereby the absolutive is an argument of a prepositional applicative morpheme rather than the verb, therefore accounting for the lack of agreement patterns. There I assume a fully configurational syntax for Warlpiri with DPs appearing in argument position, see section 2.5 below.

[22]Although he identifies a morpheme found in some verb roots with this incorporated noun,

(1) a. Wa'-ke-n-óhare-'   (ne ó-wis-e')
         FACT-1SA-??-wash-PUNC NE NSO-glass-NSF
         "I washed it (the glass)"

     b. Wa'-ke-**wis**-óhare-'
         FACT-1SA-**glass**-wash-PUNC

This analysis is not available to Warlpiri in which does not exhibit productive noun incorporation.

Therefore, we conclude that there are difficulties with the centrality of agreement morphology in the two versions of the PAH. However, the PAH consists of a number of separate claims, each of which may potentially be dissociated from the others. Thus, Austin & Bresnan's arguments in this section have revealed difficulties not with the claim that argument positions must be filled by (null) pronominals, but rather with the claim that this may be explained through agreement morphology. In evaluating the theory, we admit for the possibility that the former claim is correct but not the latter.[23]

Beyond Warlpiri

Austin & Bresnan's final argument deals with the macroparametric nature of the PAH. Thus, the hypothesis that argument positions may only be filled by pronominals in nonconfigurational languages is intended to provide a single explanation for free word order, null anaphora, and discontinuous DPs in these languages. Austin & Bresnan examine eight Australian languages related to Warlpiri and demonstrate that these nonconfigurational proper-

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"I washed the glass" (Baker 1996:206)

unfortunately, judging from his examples ditransitives do not exhibit such a morpheme (at least not overtly):

(2) a. T-a-hííy-u-'

CIS-FACT-1SA/MSO-give-PUNC

"I gave it to him (e.g. a specific knife)

b. Wa-hiy-a'shár-u-'

FACT-1SA/MSO-knife-give-PUNC

"I gave a/the knife to him" (Baker 1996:204-205)

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[23]Although we have seen independent difficulties with the former claim as well in previous sections.

ties found in Warlpiri do not consistently co-occur, nor do they consistently co-occur with agreement morphology, as required by the PAH.[24]

(97)

Language	Agreement	Free Word Order	Null Anaphora	Discontinuous DPs
1. Warlpiri	yes	yes	yes	yes
2. Western Desert	yes	yes	yes	yes
3. Jiwalrli	no	yes	yes	yes
4. Mparntwe Arrente	no	yes	yes	yes
5. Martuthunira	no	no	yes	no
6. Yidiny	no	yes	yes	yes
7. Dyirbal	no	yes	(A only)	yes
8. Diyari	no	no	yes	yes

Therefore, these "nonconfigurational" properties found in Walrpiri must receive alternative explanations in other, related languages. Such explanations could potentially carry over to Warlpiri.

Word order

Further potential difficulties with the PAH were considered by Baker (1996) in his book. One such potential difficulty he notes is the positioning of the left dislocated element in the clause. Clitic left dislocated phrases must appear to the right of an embedded complementizer in Spanish, while Mohawk allows either ordering:

(98) a. Juan piensa que a Mariá, la verá en la fiesta.

"Juan thinks that Mary, he will see her at the party."

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[24]Although see the discussion at the end of the previous section.

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b. * Juan piensa a Mariá, que la verá en la fiesta.

"Juan thinks Mary, that he will see her at the party." (Baker 1996:119)

(99) a. Wa'-uk-hróri-'   ne Sak tsi wa-hr∧-[i]hey-e'

FACT-FSS/1SO-tell-PUNC NE Sak that FACT-MSS-die-PUNC

"She told me that Sak died."

b. Í-k-ehr-e'   ne Sak tsi ∧-ho-nuhwákt∧-'

∅-1SS-think-IMPF NE Sak that FUT-MSO-get.sick-PUNC

"I think of Sak that he will get sick." (Baker 1996:118)

Baker proposes that this difference be attributed to an independent parameter of possible adjunction sites, relevant also for differences in scrambling possibilities between languages. Thus, Spanish (and German) allow adjunction to IP (and VP), whereas Mohawk (and Russian) allow for a wider range of adjunction sites: VP, IP, CP, NP.[25]

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[25]Allowing adjunction to VP would also be required for Warlpiri. Adverbial placement in Warlpiri can be used to locate DPs in positions lower than IP. Adverbs in Warlpiri may be classed into those that appear neutrally in the CP domain, above topicalized and focused phrases, those that appear neutrally in the IP domain, between focused phrases and the second position clitic (resulting in clitic third order), and those that appear neutrally below IP, below the second position clitic cluster. (In addition to the neutral placement adverbs generated below the focus position may, of course, be focused and so occupy the focus position.) Furthermore, these classes correspond to the appropriate subsections of Cinque's (1999) hierarchy of functional projections introducing adverbs into the discourse. Thus the CP class includes evidentials (for example, *kari* "asserted fact based on personal experience"), the IP class includes adverbs of irrealis mood (for example, *marda* "perhaps"), and the IP to VP class includes adverbs of celerative aspect and anterior tense (for example, *yaruju* "quickly") (see Legate, to appear for details).

(1) **Kari-nganta** miyi-wangu ka-rnalu-jana   yarnunjuku nyina

    fact   food-without PresImpf-1plExcl-3plObj hungry   sit.Npst

    "Isn't it obvious that we are waiting for them (here) hungry without any food." (Laughren 2002:[29d])

This predicts that wh-phrases (in the specifier of CP) should appear on either side of non-wh DPs in Polysynthetic languages, which Baker shows is correct for Mohawk:[26]

(100) a. Oh nahót∧ Sak wa-ha-n∧sko-'?

           what   Sak FACT-MSS-steal-PUNC

           "What did Sak steal?"

       b. Sak oh nahót∧ wa-ha-n∧sko-'?

           Sak what   FACT-MSS-steal-PUNC

---

(2) Nyuntu-ku **marda** kapu-ngku turaki-ji yi-nyi.
     you-Dat   **perhaps** FutC-2sgO car-Top give
     "To you perhaps he will give the car." (Warlpiri Dictionary Project 1993)

(3) Ngula-lu **yaruju** karri-nja-pardi-ja   yarnka-ja.
     that-3pl **quickly** stand-Inf-rise.up-Pst depart-Pst
     Then they got up straightaway and set off. (Warlpiri Dictionary Project 1993)

With this background, consider (4).

(4) Yaruju, ngulaji yangka kujaka   yani   **yapa** kapanku manu kilji   ngurra
     quickly, that-top like   FACTC-PRESIMPF go-NPAST **person** rapidly and quickly camp
     nyanungu-nyangu-kurra
     3-POSS-ALL
     "*Yaruju* is like when a person goes along rapidly and quickly to his place" (Warlpiri Dictionary Project
     1993)

This example includes two adverbs of celerative aspect *kapanku* and *kilji*, which occur between IP and VP. The verb also appears below IP, since the auxiliary clitic is generated in IP, and the verb is not focused and so has not moved above IP. The DP *yapa* "person" appears between the verb and the adverbs, indicating that it is between IP and *v*P.

[26]Bruening (2001:36) claims "[a]s reported by Baker (1996), wh-phrases are obligatorily initial in Mohawk, coming *before* non-wh NPs" (emphasis in original). However, this is factually incorrect. The discussion in Baker (1996) on page 118, from which the examples cited in the main text are taken, clearly states that both orders are possible.

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"What did Sak steal?" (Baker 1996:118)

Non-wh DPs appear on either side of wh-phrases in Warlpiri as well:

(101) a. **Nyangurla-warnu**-rlu-ngku **maliki-rli** paju-rnu?

       when-after-Erg-2sgObj   **dog-Erg** bite-Pst

       "After what (happening, event) did the dog bite you?" (Warlpiri Dictionary Project 1993)

       Kuturu-ju   ka-npa-nyanu   **nyarrpara**-wiyi marda-rni?

       nullanulla-Top PresImpf-2sg-Reflex **where**-first   have-Npst

       "Where do you have this nullanulla of yours?" (Hale 1960:7.20-7.21)

However, we should not conclude too hastily that Baker's analysis is thereby supported for Warlpiri. Appearance of a DP before a wh-phrase is a marked situation in Warlpiri, in which the intial DP is necessarily interpreted as a topic.[27] DPs following a wh-phrase, on the other hand, receive a neutral interpretation.[28] Therefore, the Warlpiri data are not explained as simply as freedom of adjunction sites. See Chapter 4, section 4.2 for discussion of positioning of topics, focused phrases, and wh-phrases in Warlpiri.

Intonation

A second potential difficulty noted by Baker is that phrases that are clitic left dislocated in Romance are intonationally separate from the remainder of the clause. In Polysynthetic languages (and Warlpiri), on the other hand, overt DPs need not be intonationally dislocated.

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[27]The facts are slightly more complicated. In Chapter 4, section 4.2, I provide elicited data demonstrating that focused elements may also appear preceding a wh-phrase, although the example involves a focused verb rather than a DP. See that section for details. What is crucial to the discussion here, is that a DP preceding a wh-phrase cannot receive a neutral interpretation.

[28]or a backgrounded interpretation, if they are also post-verbal.

Baker does not have a clear solution to this objection, suggesting only that the distinction may be tied to the different uses of clitic left dislocation in the two types of languages. In non-Polysynthetic languages, clitic left dislocation has a particular discourse interpretation; Baker relates this to the fact that clitic left dislocation alternaties with a DP in argument position strategy in these languages, and thus the speaker chooses to use a clitic left dislocation construction. In Polysynthetic languages, on the other hand, clitic left dislocation is the only grammatical option for (non-wh) DPs, and does not have a particular discourse interpretation. Thus, Baker suggests that the intonation pattern may be related to the usage rather than the structure.

Reconstruction Effects

An additional issue regarding the PAH that must be considered is that whereas the PAH claims that all overt DPs are merged in an adjoined position, overt DPs in Polysynthetic languages, and Warlpiri, behave as though they occupy an argument position for a number of phenomena. I present two such examples here.

In Mohawk, strict versus sloppy identity in VP ellipsis behaves as though subjects asymmetrically c-command their objects, identically to English:

(102)   a.   Sak rao-nekóta' wa-ha-kushráhrho-'   tánu Tyer óni

          Jim MSP-ladder FACT-MSS/NSO-paint-PUNC and Peter too

          "Jim$_i$ painted his$_i$ ladder and Peter did too"

          OK: < painted Jim's ladder > (accidental coreference)

          OK: < painted Peter's ladder > (bound variable)

       b.   Sak rao-nekóta' wa'-t-ho-ya'tórarak-e'   tánu' Tyer óni

          Jim MSP-ladder FACT-DUP-NSS/MSO-hit-PUNC and Peter too

          "His$_i$ ladder fell on Jim$_i$ ladder and Peter too"

          OK: Jim's ladder fell on Peter (accidental coreference)

?/*: Peter's ladder fell on Peter (bound variable) (Baker 1996:106)

In Warlpiri, such effects may be found in reconstruction of a DP into the scope of a quantificational preverb. Thus, quantification in Warlpiri is accomplished through quantificational preverbs:

(103) Milpirri ka-jana   payi-ngki **muku**-rra   ka-nyi.

    cloud PRESIMPF-3PLOBJ wind-ERG **all**-THITHER carry-NPAST

    "The wind is blowing away all the rain-clouds."

An indefinite the appears outside the scope of the preverb on the surface, may optionally be interpreted inside the scope of the preverb:

(104) **Kurdu jinta** ka   **yarda**-yula-mi

    child one PRESIMPF **again**-cry-NPAST

    "Again, some child is crying" OR "There is some child who is again crying" (Bittner & Hale 1996b:567)

For Jelinek (1984), such reconstruction effects are quite problematic. Baker (1996), on the other hand, presents such facts as support of his theory. Consider why.

Clitic left dislocated phrases in fact behave as though they occupy an argument position for a range of phenomena; these have been refered to as "connectivity" effects:

(105) ● Idiom chunks can undergo CLLD

    ● CLLD-ed elements can contain a bound anaphor

    ● CLLD-ed elements can contain bound (pronominal) variables

    ● CLLD-ed elements show case connectivity

    ● CLLD is unbounded

    ● CLLD is sensitive to islands (although not to wh-islands)

These properties are illustrated for Greek in (106).

(106) *CLLD in Greek*

    a. Tin tixi   tu   kathe ftoxos tin   ekane pigenontas stin

        the luck.ACC his.GEN every poor CL.ACC made going   to.the

        Ameriki

        States

        "The poor made their luck/fortune by going to the States."

    b. Ton eafto   tu   o Jannis   den ton   frontizi

        the self.ACC his.GEN the John.NOM not CL.ACC take.care.3SG

        "John doesn't take care of himself"

    c. Tin mitera $tu_{i/j}$ $kathenas_j$ tin   agapai

        the mother.ACC his.GEN everyone CL.ACC love.3SG

        "Everyone loves his mother"

    d. Ipe   oti *i Maria   / tin Maria   tin   emathe   kala

        said.3SG that *the Mary.NOM the Mary.ACC CL.ACC knew.3SG good

        tosa xronia

        so many years

        "He said that he had figured out Mary after so many years."

    e. * Tin Maria gnorisa [ton andra [pu tin pantreftike]]

        the Mary met.1SG [the man [that CL married]]

        "Mary, I met the man that married her." (Anagnostopoulou 1997)

In spite of these data, which are standardly used as tests for movement, clitic left dislocation has been analysed as involving base-generation rather than movement. This is largely due to the fact that CLLD fails two other standard tests for movement, in that it does not show WCO effects, nor does it license parasitic gaps:

(107) a. kathe pedhi i   mitera tu to agapa

each child the mother its it loves

b. * Afto to   arthro i   Maria arxiothetise xoris na dhiavasi

this the article the Mary filed   without reading

(Iatridou 1995:14-15)

Instead, these connectivity effects have been attributed to a theory of chains; Baker (1996:109) proposes the following:

(108) Replace a pronoun or anaphor α with a variable associated with NP β only if there exists a series of nodes $(\gamma_1, \dots , \gamma_n)$ such that:

(i) $\alpha = \gamma_1$

(ii) γ_n immediately dominates β

(iii) for $1 < i < n$, either γ_{i+1} immediately dominates γ_i OR (γ_i, γ_{i+1}) is a link of a well-formed chain.

The effect of this condition is to turn a base-generation structure into a movement structure. This operation alone thus cannot account for the reconstruction effects; a separate mechanism of reconstruction down a movement chain will be required. By allowing a base-generation chain to be effectively turned into a movement chain, Baker risks rendering his claim that DPs in Polysynthetic are base-generated in an adjoined position rather than moved to such a position vacuous. In any case, this operation certainly renders it difficult to formulate arguments for or against the proposal, in that it significantly blurs the distinction between movement and base-generation.

Summary

This section has evaluated a number of arguments for and against the pronominal argument hypothesis. No arguments for an analysis based on the PAH for Warlpiri were found. A

number of phenomena were shown to be problematic for the PAH as applied to Warlpiri: Condition C data (involving R-expressions as possessors), the lack of Weak Crossover effects, the restrictive interpretation of discontinuous constituents, indeed the very possibility for discontinuous constituents, and potentially: the lack of a dislocated intonation pattern, and the apparent lack of freedom of adjunction. Furthermore, we saw that in order to accommodate certain agreement patterns in Warlpiri the central role accorded to agreement in both versions of the PAH must be set aside.

The absence of DP anaphors, the absence of quantifier phrases, the existence of CED effects in Mohawk, and the indefinite interpretation of overt DPs, on the other hand, were shown to be inconclusive.

In addition, the failure of core nonconfigurational properties in languages related to Warlpiri to consistently co-occur suggested that alternative explanations for these properties need to be available and could be extended to Warlpiri.[29]

Finally, we saw that Baker's analysis of obligatory wh-movement severely weakens the empirical scope of his proposal, and the operation he proposes to account for reconstruction effects threatens to render the proposal vaccuous.

I conclude that the pronominal argument hypothesis is problematic as an analysis of nonconfigurationality in Warlpiri.

2.4.3 Secondary Predicate Hypothesis

In this section, I evaluate the final analysis of nonconfigurationality in Warlpiri: the secondary predicate approach. This approach has not been nearly as influential in the literature as the previous two considered, and we have already seen in section 2.3.3 that it fails to account for two out of the three core properties: free word order and discontinuous constituents. Furthermore, in section 2.4.2, I argued that the indefinite interpretation of

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[29]We will consider this point in more detail in section 2.5 below.

overt DPs is problematic for the secondary predicate hypothesis. Without an overt DP, the pronominals in argument position may only have a definite interpretation, whereas with an overt DP a true indefinite interpretation is available. If the overt DPs are simply secondary predicates, they should not have such an effect on the interpretation of the pronominals. The examples are repeated in (109) and (110) below.

(109) Panti-rni   ka

spear-NPST PRESIMPF

"He/she is spearing him/her/it."

NOT: "Someone is spearing something."

(110) a. **Karli**-ji   paka-ka   – nyina-nja-rlarni,

boomerang-1SGOBJ chop-IMPERATIVE   sit-INFIN-OBVC,

kaji-rna   yama-ngka nyina.

NFACTC-1SGSUBJ shade-LOC sit.NPAST

"Chop me **a boomerang** while I sit here, while I sit in the shade."

b. Nyina-ka-ju-lu   nyampu-rla ngapa-ngka, ngaju

wait-IMPERATIVE-1SGOBJ-3PLSUBJ here-LOC   water-LOC, 1SG

ka-rna   ya-ni   **kuyu** panti-rninja-kurra.

PRESIMPF-1SGSUBJ go-NPAST **meat** spear-INFIN-SEQC

"You wait here for me at the water-hole. I am going to spear **some meat**."

c. Balgo Mission-rla   ka-lu   nyina   **Warlpiri-ji.**

Balgo Mission-LOC PRESIMPF-3PLSUBJ live.NPAST **Warlpiri-TOP**

"At Balgo Mission there are **Warlpiri people** living." (Warlpiri Dictionary Project 1993)

Given these difficulties, I limit myself to two additional arguments against the secondary predicate hypothesis based on Condition B and Condition C effects in Warlpiri.

On Speas' (1990) version of the approach, overt DPs in a sentence should have no consequences for binding theory. The overt DPs are not coindexed with the associated pronominals (crucially so—otherwise all overt R-expressions would violate Condition C, since they are c-commanded by the associated pronominals). Therefore, they will not interact with the pronominals for binding purposes. Furthermore, the overt DPs will not interact with each other for binding purposes, both because they are embedded inside the secondary predicates and so should not c-command out, and because there is no requirement that would force them to bear the same index, even when they are interpreted as coreferential. Recall that their interpretation is accomplished through Theta Identification of the secondary predicate with the appropriate position in the θ-grid of the verb, rather than coindexing. Therefore, she predicts that overt DPs should not cause binding condition violations.

This is manifestly wrong for Warlpiri. For example, consider (111).

(111)   a.   * Jakamarra-rlu   ka-nyanu   **nyanungu** paka-rni

                 Jakamarra-Erg PresImpf-Reflex **3**   hit-Npst

                 "Jakamarra$_i$ is hitting him(self)$_i$"

         b.   Jakamarra-rlu   ka-nyanu   paka-rni

                 Jakamarra-Erg PresImpf-Reflex hit-Npst

                 "Jakamarra$_i$ is hitting himself$_i$"

         c.   Japanangka-rlu-nyanu   yirra-rnu mulukunpa **nyanungu-wana**

                 Japanangka-Erg-Reflex put-Npst bottle   **3-Perl**

                 "Japanangka$_i$ set the bottle down beside him$_i$." (Simpson 1991:170-171)

(111) demonstrates that a Condition B violation is incurred by an overt pronoun interpreted as the object, (111a), but not by a null object pronoun, (111b), nor by an overt pronoun interpreted as an adjunct, (111c).[30] Therefore, binding theory is sensitive to the overt/covert

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[30]Recall from section 2.4.2 that reflexive predicates are transitive in Warlpiri, as shown by Hale (1983:24,ftn 10; 1983:43). Hale notes that the subject of a reflexive bears ergative case, the switch refer-

distinction, and to the object/adjunct distinction, indicating that overt DPs are active for binding purposes, and that their structural position differs depending on their status as an object or an adjunct, contra the Secondary Predicate Hypothesis.

The structure Baker (2001:425) proposed for Warlpiri:

(112) *Structure of "The child sees me"*

```
                TP
              /    \
            DP       T'
           proᵢ    /    \
                  T      AspP
                       /      \
                     DP        Asp'
                    proₖ      /    \
                            Asp      VP
                                   /    \
                                 DP       V'
                                 tᵢ     /    \
                                      NP        V'
                                 PROᵢ child   /    \
                                            V'      NP
                                          /   \   PROₖ me
                                         V     DP
                                        see    tₖ
```
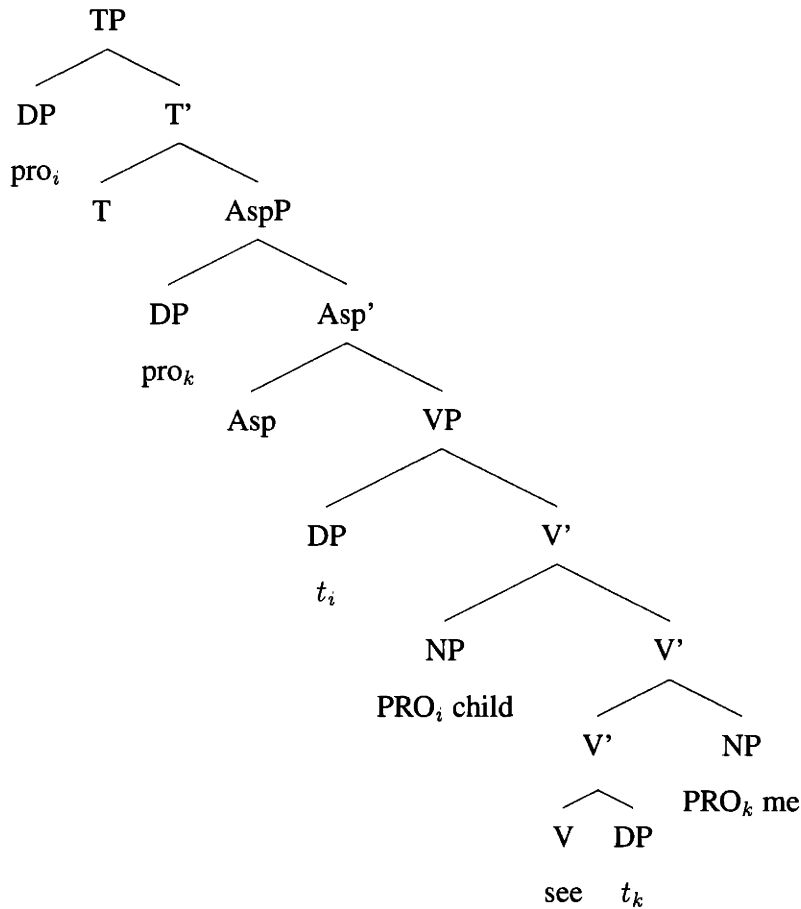
was motivated by the "flat" Condition C data standardly reported in the literature:

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ence system may register control by a matrix reflexive object, and body part nominals may be related to the reflexive object. A secondary predicate may also be related to the object of a reflexive, see (117) below. I conclude that the reflexive object position is filled by a phonologically null anaphor.

(113) a. Jakamarra-kurlangu maliki ka   nyanungu-rlu wajili-pi-nyi

Jakamarra-Poss   dog   PresImpf 3   chase-Npst

"He$_{*i/j}$ is chasing Jakamarra$_i$'s dog"

b. Nyanungu ka   Jakamarra-kurlangu maliki-rli wajili-pi-nyi

3   PresImpf Jakamarra-Poss   dog-Erg chase-Npst

"Jakamarra$_i$'s dog is chasing him$_{*i/j}$" (Simpson 1991:179-180)

Baker is ambiguous as to the presence of the PROs in the structure (cf p425 and ftn 15), but it is clear from his discussion in footnote 15 (2001:437) that the he does not consider the presence of PRO relevant for the binding violation. Instead, the possessor R-expression *Jakamarra* must be referential here, and violate Condition C by virtue of being bound by the subject pronoun *pro* in (113a) or the object pronoun *pro* in (113b). This means that Baker cannot maintain his explanation for why Warlpiri nominals are always secondary predicates and never arguments–that Warlpiri lacks the category of nouns, having only adjectives.[31]

Of course, this analysis cannot then capture the dative possessor data, which show the opposite pattern of grammaticality:

(114) a. Karnta-ku   jaja-ngku-lpa   nyanungu jakuru-pu-ngu

woman-Dat grandmother-Erg-PstImpf 3   goodbye-VF-Pst

"The woman$_i$'s grandmother was announcing her leave to her$_i$"

b. Karnta-ku   jaja-lpa   nyanungu-rlu jakuru-pu-ngu

woman-Dat grandmother-PstImpf 3-Erg   goodbye-VF-Pst

"She$_i$ was announcing her leave to the woman$_i$'s grandmother"

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[31]However, in footnote 15 (2001:437) Baker proposes an alternative explanation of the data in (113); he proposes that the possessors are actually adjectival and thus do not introduce a referent into the discourse. I argue in section 2.5 that this is indeed the case.

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Returning to the Condition B data, repeated in (115), we find that Baker's version of the secondary predicate hypothesis also encounters difficulties here.

(115) a. * Jakamarra-rlu ka-nyanu   **nyanungu** paka-rni

Jakamarra-Erg PresImpf-Reflex **3**   hit-Npst

"Jakamarra$_i$ is hitting him(self)$_i$"

b. Jakamarra-rlu ka-nyanu   paka-rni

Jakamarra-Erg PresImpf-Reflex hit-Npst

"Jakamarra$_i$ is hitting himself$_i$" (Simpson 1991:170-171)

(116)

```
                    TP
                   /  \
                 DP    T'
                pro_i  / \
                      T   AspP
                         /    \
                       DP      Asp'
                     anaph_i   /  \
                             Asp    VP
                                   /   \
                                 DP     V'
                                 t_i   /  \
                                     NP    V'
                              PRO_i Jakamarra / \
                                            V'    NP
                                           / \  (PRO_i him)
                                          V   DP
                                         hit  t_i
```

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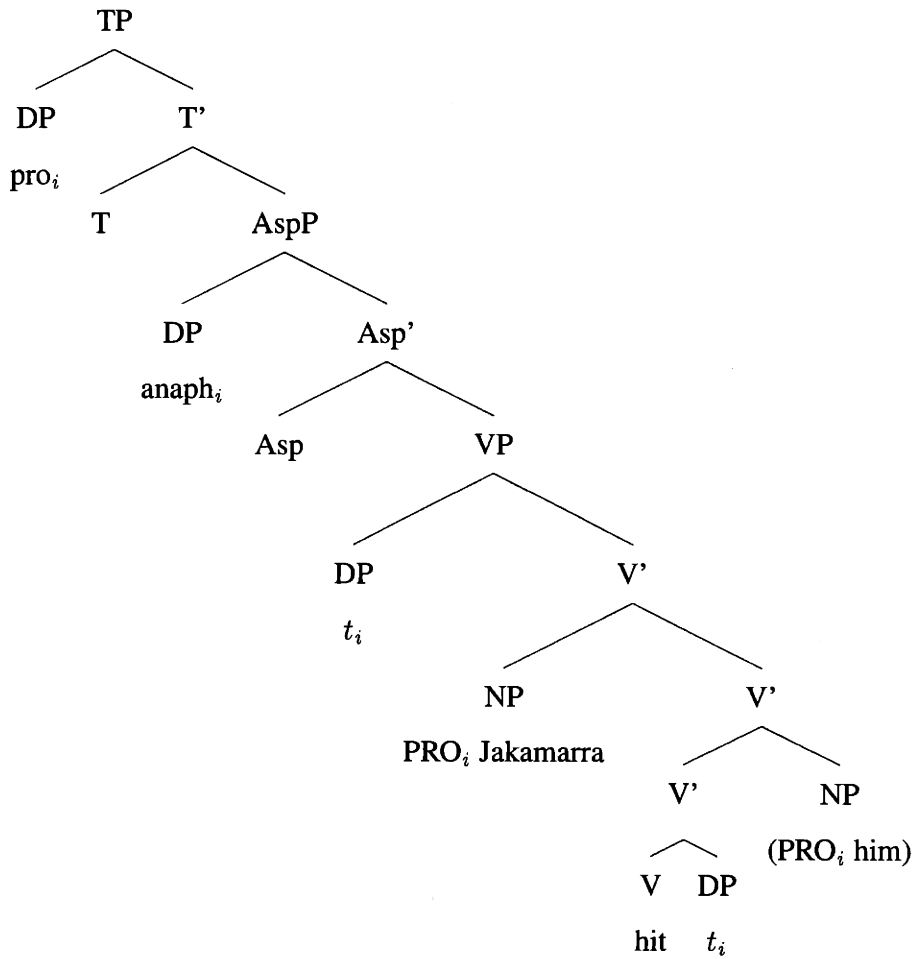
In this structure, the only difference between (115a) and (115b) that could have an effect on binding conditions is the PRO associated with "him" ("him" itself being a secondary predicate). However, a true secondary predicate may be associated with the object of a reflexive, indicating that this PRO is in fact licit:

(117) **Wati**-lki-li-nyanu   nya-ngu kurdu-warnu-rlu

      man-then-3pl-Reflex see-Pst child-Assoc-Erg

      "The young people saw each other (to be) men then." (Hale et al. 1995:1441)

(118)

```
                TP
              /    \
          DP          T'
         pro_i      /    \
                  T         AspP
                          /      \
                      DP            Asp'
                    anaph_i       /     \
                               Asp        VP
                                        /    \
                                    DP          V'
                                    t_i       /    \
                                           NP          V'
                                    PRO_i children   /    \
                                                   V'        NP
                                                 /   \     PRO_i men
                                                V    DP
                                               see   t_i
```

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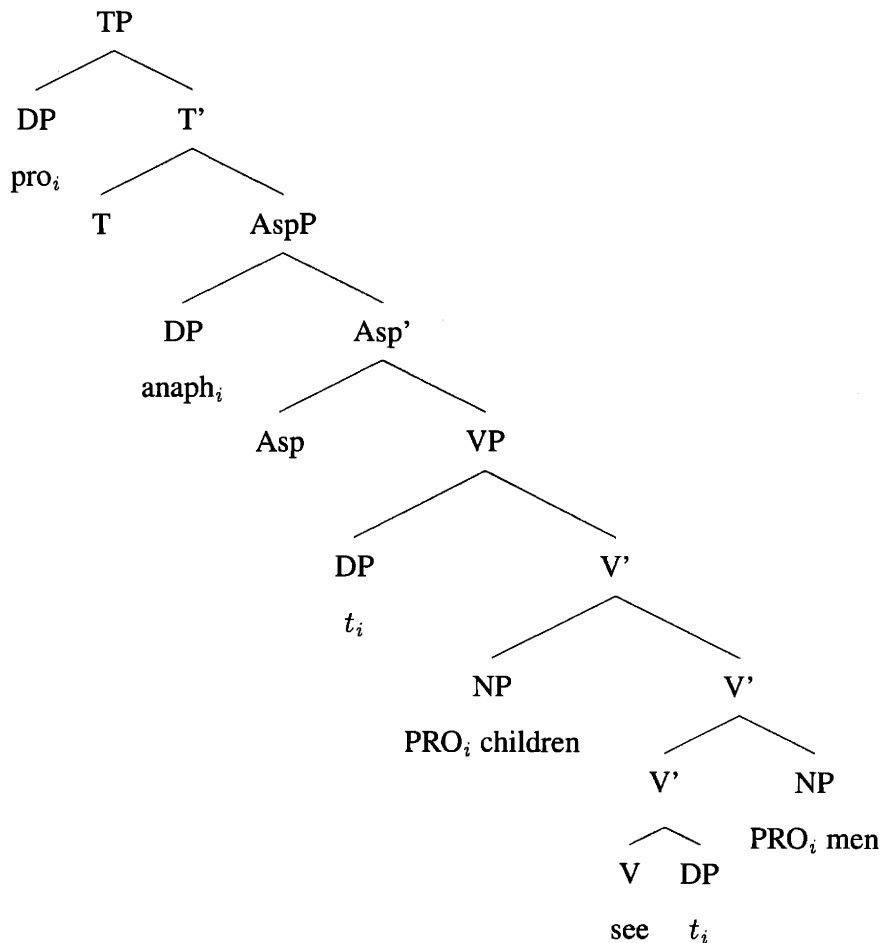
Let me emphasize this point, since it conclusively argues against both versions of the secondary predicate hypothesis. (115a) contains an object pronoun in a reflexive clause, and the sentence is ungrammatical, whereas (117) contains a true secondary predicate related to the object in a reflexive clause, and the sentence is grammatical. These data demonstrate that binding Condition B distinguishes between an overt pronoun and a true secondary predicate in Warlpiri, and therefore that overt pronouns cannot be secondary predicates.

The same point can be made with Condition C effects in reflexive sentences:[32]

(119)   * Nyanungu-rlu ka-nyanu **Jakamarra** pi-nyi

       3-Erg   PresImpf **Jakamarra** hit-Npst

       "Jakamarra hits himself" (Simpson 1991:177)

       (lit 'He$_i$ hits Jakamarra$_i$')

(119) contains an object R-expression in a reflexive clause and the sentence is ungrammatical, again in contrast with (117), which contains a true secondary predicate related to the object and the sentence is grammatical. These data demonstrate that binding Condition C distinguishes between overt DPs, i.e. R-expressions, and secondary predicates in Warlpiri. Therefore, overt DPs cannot uniformly be secondary predicates.

I conclude that the secondary predicate approach cannot be the correct account of non-configurationality in Walrpiri.

2.4.4   Conclusions

In this section I have evaluated in detail three previous accounts of nonconfigurationality in Warlpiri: the dual structure account, the pronominal argument account, and the secondary

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[32]The true secondary predicate interpretation is pragmatically difficult in this example.

predicate account. I have presented significant difficulties with all, and conclude that none are likely to be correct for Warlpiri.

In the following section I begin to develop an alternative account of Warlpiri syntax. I propose a microparametric account of nonconfigurationality whereby the class of nonconfigurational languages simply does not exist.

2.5 Towards a Microparameteric Account

In this section I outline an alternative analysis of Warlpiri nonconfigurationality, which serves as the basis for the remainder of the thesis.

I would like to begin with the following:

> A priori, there are two extreme positions one can take toward the superficial differences among languages. On the one hand, it could be that Mohawk, for example, actually differs from English in many minor ways, and that it is the cumulative effect of all these little differences that makes Mohawk seem so alien to an English speaker. The other approach would be to say that Mohawk differs from English in one essential way, but this difference is so deeply embedded in the grammatical system that it affects all kinds of linguistic structures. Which view is the correct one—or perhaps what mixture or intermediate position between the two extremes—is a central concern of linguistic theory. (Baker 1996:3)

The analyses considered to this point took the second approach, claiming that nonconfigurational languages form a coherent typological class as defined by a single *macroparameter*.[33] Thus, the Configurationality Parameter of Hale (1983) and the parametrized Morphological Visibility Condition of Baker (1996):

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[33]Although the LFG version of the dual-structure approach was microparametric in that the tools used to

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(120) *The Configurationality Parameter (Hale 1983:26)*

    a. In configurational languages, the projection principle holds of the pair (LS, PS).

    b. In non-configurational languages, the projection principle holds of LS alone.

(121) *The Morphological Visibility Condition (Baker 1996:17)* A phrase X is visible for θ-role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via:

    (i) an agreement relationship, or

    (ii) a movement relationship

        Yes: Mohawk, Nahuatl, Mayali, ...

        No: English, French, Chichewa, ...

However, as early as Hale (1983) it was recognized that so-called nonconfigurational languages represent a heterogeneous class. Thus, Hale hedges on his parameter, stating that:

> "the Configurationality Parameter ... determines what superficial characteristics a non-configurational language *may* exhibit, not characteristics that it *must* exhibit." (Hale 1983:42)

He continues:

> "In Navajo, for example, also possibly non-configurational, ... while some flexibility of word order is observed, it is not free in the Warlpiri sense because

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describe Warlpiri (n-ary branching, default pronominal arguments in f-structure, and linking of discontinuous constituents to the adjunct function within an argument) are also used for configurational languages.

linear ordering, in concert with verbal inflection, signals the proper assignment of grammatical functions to overt nominal expressions ... Thus, while freedom of word order is allowed in Navajo, by virtue of its position relative to the CP [Configurationality Parameter], a principle of interpretation takes overt nominals to be in a fixed order for the purpose of determining their grammatical functions. Similarly, extensive use of null anaphora is often severely constrained in languages which lack verbal or auxiliary inflections indicating the person and number (and gender, if relevant) of the direct arguments of the verb. This restriction may well be due to a general principle of recoverability in discourse, permitting null anaphora only where the reference is clear from the immediate linguistic or discourse context." (Hale 1983:41-42)

Such a position, however, reduces the predictive power of such a macroparameter and leaves us with the question of how nonconfigurational language is to be defined.

Hale (1983) also recognized that the behaviour of Condition C with R-expression possessors vary across nonconfigurational languages. Assuming that both precedence and c-command are relevant to Condition C in nonconfigurational languages, he suggests that nonconfigurational languages can vary as to which structure is relevant to Condition C:

(122)   a. Condition C applies only at PS (Samoan)

        b. Condition C applies only at LS (unattested?)

        c. Condition C applies both at PS and LS (Japanese) (Hale 1983)

Based on Mohanan's (1983) characterization of Malayalam, we must also also Condition C to refer only to linear order at syntactic structure:

(123)   *Condition C in Malayalam* (Mohanan 1983)

        a. kutti   awante ammaye   <u>n</u>ulli

           child-NOM his   mother-ACC pinched

"The child$_i$ pinched his$_i$ mother"

b. * awante ammaye   kutti   ṇulli

    his   mother-ACC child-NOM pinched

    "The child$_i$ pinched his$_i$ mother"

c. * awan kuttiyute ammaye   ṇulli

    he   child's   mother-ACC pinched

    "He$_i$ pinched the child$_i$'s mother"

d. kuttiyute ammaye   awan ṇulli

    child's   mother-ACC he   pinched

    "He$_i$ pinched the child$_i$'s mother"

Hungarian shows yet another pattern of behaviours:

(124) *Condition C in Hungarian*

a. * (ö)   ismeri János anyját

    he-NOM knows John mother-ACC

    "He$_i$ knows John$_i$'s mother"

b. * János anyját   (ö)   ismeri

    John mother-ACC he-NOM knows

    "He$_i$ knows John$_i$'s mother"

c. * (öt)   ismeri János anyjá

    he-ACC knows John mother-NOM

    "John$_i$'s mother knows him$_i$"

d. * János anyjá   ismeri (öt)

    John mother-NOM knows he-ACC

    "John$_i$'s mother knows him$_i$" (Marácz & Muysken 1989:31)

(125) *Condition C in Hungarian II* (Choe 1989:284-285)

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a. * János   szereti János apját

　　John.NOM loves   John father-ACC

　　"John$_i$ loves John$_i$'s father"

b. János apja   szereti Jánost

　　John father.NOM loves   John-ACC

　　"John$_i$'s father loves John$_i$ (Choe 1989:284-285)

According to Bruening (2001), in Passamaquoddy, Condition C does not limit coreference either within a matrix clause, or into an embedded clause. The examples multiply.

Further variation within the class of nonconfigurational languages is found in word order. Thus, while Warlpiri is claimed to have entirely free word order, Navajo word order is quite strict (see quote from Hale (1983) above), Ainu word order is apparently limited to SOV and OSV (Baker 1996:117, citing Shibatani 1990:23), Kiowa has a neutral SOV word order (Baker 1996:117, citing Watkins 1984:204-208), Classical Nahual is neutrally verb initial (Baker 1996:117, citing Launey 1981:35-36), Diyari has preferred SOV word order (Austin & Bresnan 1995:262), and so on, and so on.

Variation is also found in the possibility for discontinuous constituents. Thus, as we have seen, although Warlpiri and Mohawk are both nonconfigurational languages,[34] in Mohawk discontinuous expressions are limited to quantifiers and determiners, and the quantifier or determiner must appear initially rather than finally:

(126) *Limitations on Discontinuous Expressions in Mohawk*

　　a. **KíikΛ** wa-hi-yéna-'　　　　　ne **kwéskwes**

　　　 this   FACT-1SS/MSO-catch-PUNC NE **pig**

　　　 "I caught this pig" (Baker 1996:138)

---

[34]Baker (1996, 2001) is clear that Mohawk and Warlpiri cannot belong to the same typological class.

b. ?* **Kwéskwes** wa-hi-yéna-'　　　　　　　　ne **kíikʌ**

　　　pig　　　FACT-1SS/MSO-catch-PUNC NE **this**

　　　"I caught this pig"

c. **Ak-itshénʌ érhar** wa-ha-níiye-'

　　　1SP-pet　　**dog**　FACT-MSS-bark-PUNC

　　　"My dog barked"

d. 　* **Ak-itshénʌ** wa-ha-níiye-'　　　　　**érhar**

　　　1SP-pet　　FACT-MSS-bark-PUNC **dog**

　　　"My dog barked" (Baker 1996:140)

These restrictions lead Baker to propose that in fact discontinuous constituents are not allowed in Mohawk, proposing alernative explanations for the apparent cases. These restrictions are not found in Warlpiri.

(127) *Discontinuous expressions in Warlpiri*

　　　Maliki-rli-ji　　　yarlku-rnu **wiri-ngki**

　　　dog-Erg-1sgObj bite-Pst　　**big-Erg**

　　　"A big dog bit me." (Hale et al 1995:1434)

Additional examples may be cited, but the point is clear. nonconfigurational languages do not form a homogeneous class, even with respect to properties that are claimed to follow from their nonconfigurational status.

On the other side of the coin, the properties which are considered characteristic of nonconfigurational languages are all found in configurational languages. Thus, free word order is found, for example, in German, Hungarian, and Japanese; null anaphora (or *pro*-drop) is ubiquitous in the world's languages (Italian, Spanish, Korean, Chinese, ...); discontinuous constituents are found in at least Slavic and Germanic languages (the split XP construction).

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Finally, over the decades we observe a trend in the study of nonconfigurational languages: as more is learned about a particular language, the language is revealed to be configurational. Thus, Japanese and German "nonconfigurationality" is now standardly attributed to the movement process of scrambling (but see Fanselow, to appear), Irish "nonconfigurationality" is attributed to verb raising, Hungarian "nonconfigurationality" is attributed to discourse-motivated movement, and recently Passamaquoddy (Algonquian) "nonconfigurationality" has been attributed to optional A-movement of the object over the subject (Bruening 2001).

This is an important point. For many languages which are considered to be nonconfigurational the data are simply incomplete. Consider Warlpiri. Although this language has been well-studied over a number of years, its nonconfigurational properties have been simply quoted and requoted outside the Warlpiri literature without investigation. Thus, the claim that Warlpiri lacks Weak Crossover effects is based on a single sentence. Testing additional environments, I discovered that in fact Warlpiri does have Weak Crossover, but only in long-distance questions. The claim that Warlpiri Condition C data are "flat" had been tested with a number of verb types, but not using the dative possessor rather than the *-kurlangu* marked possessor. As already mentioned, and discussed further below, I discovered that the dative possessor data present a completely different pattern. Finally, Warlpiri's free word order has been cited and recited, sometimes accompanied by the following quote from Hale (1983:5) "to an extraordinary degree, it is true of Warlpiri that sentences containing the same content words in different linear arrangements count as repetitions of one another." However, the force of this claim is difficult to evaluate, particularly what native speakers understood by the notion of 'count as a repetition'. In retrospect, the very next page provides reason to doubt that word order in Warlpiri is truly free: "[i]n claiming that Warlpiri word order is 'free', I do not intend to deny that word order influences the interpretation of sentences. The role of word order in interpretation is an aspect of Warlpiri still very much in need of investigation" (Hale 1983:6 fn2). Given recent proposals on the ex-

istence of topic and focus positions in the sentence, this quote suggests that Warlpiri word order falls under the scope of such proposals. I argue in Chapter 4, section 4.2 that this is indeed the case. The lesson that we may learn from all this is that isolated pieces of data from an understudied language must be treated as suspect. In depth investigation into each language is required to place the data within their proper perspective.

In sum, there is a group of languages that superficially appear very different from languages we are more familiar with. They vary widely from each other, and each property that makes them appear different is found in languages outside the group.

The overall picture we are left with then is the other option suggested by Baker in the above quote: that languages vary microparametrically, with the collection of parametric choices sometimes producing a strikingly different superficial appearance.

This microparametric that I am proposing here thus requires a reconsideration of the properties of nonconfigurational languages in terms of microparameters that we expect to have force in at least some configurational languages as well. This is a research program, rather than a dissertation topic. In the remainder of this section I sketch a microparametric account of Warlpiri, which is expanded in the remainder of the dissertation.

Let us reconsider in this light some of the nonconfigurational properties of Warlpiri. In Chapter 4, section 4.2, I argue that much of the word order variation in Warlpiri may be attributed to discourse-motivated movement to the left periphery. Further research is required into the word order below TP in Warlpiri; I suspect that comparison with the German mittlefeld will yield interesting results.

Null anaphora in Warlpiri is equated with *pro* drop. As we have seen, *pro* drop is possible in nonfinite clauses in Warlpiri, which lack agreement morphology.

(128)   *Null anaphora in Warlpiri*

      Purra-nja-rla   nga-rnu
      cook-Inf-PriorC eat-Pst

"Having cooked (it), (he/she/it) ate (it)." (Laughren 1989:326)

Therefore, Warlpiri *pro*-drop must be the discourse-based *pro*-drop found in Chinese, for example, rather than the agreement-based *pro*-drop found in Italian.[35]

What have been considered under the label discontinuous expressions in Warlpiri likely consist of separate constructions. It is clear that some examples consist of true secondary predicates:

(129)   Nya-nyi ka-rna-ngku   ngarrka-lku

        see-Npst PresImpf-1sg-2sgObj man-after

        "I see you as a man now" (Hale 1983)

while others are intonationally set apart appositives or afterthoughts:

(130)   Ngula-jangka-ju yalumpu-ju-lku kala muru-pu-ngu nganjurrngu-rla-lku –

        FactC-El-Top   that-Top-then   PstC inside-hit-Pst mud-Loc-then

        marlu   nyanungu-ju

        kangaroo that-Top

        "Then it made that one go into the mud – that kangaroo" (Warlpiri Dictionary Project 1993)

These examples aside,[36] there remains a productive discontinuous constituent strategy. I propose that is be equated with the split XP construction found in Slavic and Germanic languages (see for example van Riemsdijk 1989, Krifka 1998, Fanselow & Ćavar 2002). There is initial evidence that these constructions have the properties found in Warlpiri discontinuous constituents. First, in Slavic and Germanic, like in Warlpiri, a DP may be split

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[35] Yang (2002) discusses limits on the possibility for *pro*-drop in Chinese, which have only begun to be explored. It would be instructive to determine if these limits carry over to Warlpiri.

[36] It can be difficult in practice to identify these types, particularly when dealing with corpus data.

into more than two positions in the clause. (131) illustrates this for German, and (132a) and (132b) for Warlpiri.

(131) **Bcher** hat man damals **interessante** in den Osten **keine** mitnehmen drfen
     books has one then   **interesting** in the East **no**   with-take may
     "As for books, one could not take any interesting ones to the East then." (Cavar & Fanselow 2002:[8a])

(132) a. **Janganpa** ka   **kuyu** janka-mi jarra-ngka **Jangala-kurlangu**
          possum   PresImpf **meat** cook-Npst flame-Loc **Jangala-Poss**
          "Jangala's possom is cooking in the flames."

      b. **Kuyu** ka-rlipa   **jaya**-jala   paka-rni **janganpa**-rlangu
          meat PresImpf-1plExcl **a.lot**-actually kill-Npst **possom**-for.example
          "We are killing a lot of possums." (Warlpiri Dictionary Project 1993)

Furthermore, the separate pieces of the phrase in split XP constructions must be morphologically licit independent DPs. For example, German determiners and adjectives inflect according to the "weak" paradigm when followed by a lexical item within the noun phrase, and otherwise inflect according to the "strong" paradigm. In split DPs, the "strong" paradigm is used, as shown in (133)); thus each piece of the DP behaves as a separate DP for the strong/weak distinction.

(133) a. Er hat kein Geld.
          he has no money
          "He has no money."

      b. Er hat keines.
          he has none
          "He has none"

      c. Geld   hat er keines/*kein
          money has he none/*no

"He has no money."

Such morphological requirements also appear in Warlpiri: the non-final nouns within a continuous noun phrase may lack a case suffix, whereas each of the pieces of a discontinuous noun phrase must bear its own case suffix:

(134)   a. Maliki wiri-ngki-ji   yalku-rnu

            dog   big-Erg-1sgObj bite-Pst

            "The/a big dog bit me"

       b. Maliki-rli-ji   yarlku-rnu wiri-ngki

            dog-Erg-1sgObj bite-Pst   big-Erg

            "The/a big dog bit me" (Hale 1983:38)

Most importantly, the split XP construction in Slavic and Germanic is used when the subparts of a DP have differing discourse status (Frey 2000, cited in Fanselow & Ćavar 2002; Nowak 2000). Thus, if one subpart of a phrase must undergo focus movement while another subpart is not focused (neutral, backgrounded, or a topic) the phrase will be split.

(135)   *Polish Split*

      Do sklepu   wlamano   sie   **nowego.**

      to store.GEN broke-in.(one) REFLEX **new-GEN**

      "Someone broke into the NEW store." (Nowak 2000:2)

Revealingly, in Warlpiri the discontinuous constituent strategy is used in the same discourse situation. Thus, Laughren (1984) reports that a discontinuous noun phrase strategy in Warlpiri is used to focus part of the noun phrase while marking the remainder as part of the background, providing the following examples:

(136)   A: Jangari   mayi ka-npa   marda-rni?

            Shanghai Interr PresImpf-2sg have-Npst

B: Yuwayi. **Jirrama** ka-rna   marda-rni **jangari-jarra**

   yes.   **two**   PresImpf-1sg have-Npst **shanghai-Dual**

A: "Do you have a shanghai?"

B: "Yes. I have two shanghais!" (Laughren 1984:5)

(137) Jurru-lpa-nyanu   yali yarlu-rnu. **Kurntu**-lpa-nyanu   **jurru**

       head.piece-PstImpf-Reflex there wet-Pst   **inside**-PstImpf-Reflex **head.piece**

       yarlu-rnu.

       wet-Pst

       "She wet that head-piece of hers. She wet the INSIDE of her head-piece." (Laugh-

       ren 1984:5)

An additional property of Warlpiri nonconfigurationality is that it fails to show Weak
Crossover effects in short distance questions:

(138) a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?

          who-Erg   child 3-Poss   hit-Npst
          "Who$_i$ hit his$_i$ child?"

       b. Ngana ka   nyanungu-nyangu maliki-rli wajili-pi-nyi?

          who   PresImpf he-Poss   dog-Erg   chase-Npst
          "Who$_i$ is his$_i$ dog chasing?" (Hale et al 1995:1447)

Although the explanation of Weak Crossover effects is still a matter of debate, (139) is
adequate as a descriptive generalization for our purposes:

(139) Pronoun B may be interpreted as a variable bound by A only if A A-binds B. (Ruys
       2000:515)

Examining long distance questions, however, we discover that the effects of Weak Crossover
appear:

(140) * **Ngana$_i$-kurra**-npa nyanungu$_i$-nyangu maliki nya-ngu [e paji-rninja-kurra]?

who$_i$-ObjC-2sg   3$_i$-Poss   dog   see-Pst [e bite-Infin-ObjC]

"Who$_i$ did you see his$_i$ own dog chasing?"

(OK without coreference: "Who$_i$ did you see his$_j$ dog chasing?")

This pattern of no WCO effects in short distance questions versus WCO effects in long distance questions is familiar from the literature on scrambling languages:

(141) *Hindi*

a. sab-ko$_i$ unkii$_i$ bahin pyaar kartii   thii

everyone-ACC their   sister loves do-IMP-FEM be-PAST-FEM

"Everyone$_i$, their$_i$ sister loves."

b. * sab-ko$_i$ uskii$_i$ bahin-ne   socaa   [(ki) raam-ne   dekhaa]

everyone-ACC his   sister-ERG thought (that) Ram-ERG saw

"Everyone$_i$, his$_i$ sister thought that Ram saw." (Mahajan 1990:26,41)

(142) *German*

a. (?) Wen$_i$ liebt seine$_i$ Mutter?

whom loves his   mother

"Who does his mother love?"

b. * Wen$_i$ glaubt   seine$_i$ Mutter, daβ jeder   liebt?

whom believes his   mother that everyone loves

"Who does his mother think that everyone loves?" (Richards 1999:48)

In such cases, this is attributed to the availablility of short distance A-scrambling, thus fixing WCO violations. Long distance scrambling, on the other hand, is uniformly A'-movement, and thus does not remedy WCO violations (see Mahajan 1990 for discussion). Thus, I propose that this account applies equally to Warlpiri.[37]

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[37]See below for further evidence of A-scrambling in Warlpiri, and section 4.3 for further details of the

Let us now turn to the Condition C data in Warlpiri standardly attributed to the nonconfigurational status of the language:

(143)   a. Nyanungu-rlu$_{*i/j}$ maliki Jakamarra$_i$-kurlangu paka-rnu

         3-ERG   dog   Jakamarra-POSS   hit-PAST

         "He$_{*i/j}$ hit Jakamarra$_i$'s dog"

   b. Jakamarra$_i$-kurlangu maliki-rli nyanungu$_{*i/j}$ paji-rni

         Jakamarra-POSS   dog-ERG 3   bite-PAST

         "Jakamarra$_i$'s dog bit him$_{*i/j}$" (Laughren 1991:14)

The data cannot be attributed to the "Avoid Pronoun Principle" (Chomsky 1981), in that the examples do not improve if the overt pronoun is eliminated:

(144)   a. * Maliki Jakamarra-kurlangu paka-rnu

         dog   Jakamarra-POSS   hit-PAST

         "He$_i$ hit Jakamarra$_i$'s dog"

   b. * Jakamarra-kurlangu maliki-rli paji-rni

         Jakamarra-POSS   dog-ERG bite-PAST

         "Jakamarra$_i$'s dog bit him$_i$"

I believe the key to understanding these data lie in a suggestion made but not pursued by Baker (2001:437, ftn 15). Baker suggests that these possessors in Warlpiri are adjectival, and so do not introduce referents into the discourse. The suffix *-kurlangu* would thus be comparable to the English *-ian*:

(145)   a. The Italian$_i$ invasion of Albania haunted it$_{*i}$ for years.

   b. Italy$_i$'s invasion of Albania haunted it$_i$ for years. (Baker 2001:437)

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proposed scrambling analysis of the WCO data in Warlpiri.

If this is correct, the Condition C data in (143a) and (144) would reveal nothing about the syntactic structure of the Warlpiri clause.

In fact, there is initial evidence for such an adjectival analysis. First, possessors with the suffix -*kurlangu* are neutrally positioned after the head noun in Warlpiri, but may appear before the head noun. This is typical of adjectives in the language; Laughren (1984) shows that adjectives neutrally appear after the head noun, but may appear before the head noun when focused. In contrast, possessors bearing dative case are obligatorily postioned before the head noun, presumably in the specifier of DP:

(146)   a.   Karnta-ku   jaja-ngku   yunpa-rnu.

             woman-DAT maternal.grandmother-ERG sing-PAST

             "The woman's grandmother sang (it)."

         b.   * Jaja-ngku   karnta-ku(-rlu)   yunpa-rnu.

             maternal.grandmother-ERG woman-DAT(-ERG) sing-PAST

             "The woman's grandmother sang (it)." (Laughren 2001:29)

Furthermore, when the pronoun is replaced by an R-expression, both the "flat Condition C" sentences become grammatical:[38][39]

(147)   a.   Jakamarra-rlu   maliki Jakamarra-kurlangu paka-rnu

             Jakamarra-ERG dog   Jakamarra-POSSs   hit-PAST

             "Jakamarra$_i$ hit Jakamarra$_i$'s dog"

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[38]Thanks to Mary Laughren for verifying these data for me.

[39]Note that Condition C effects involving two R-expressions are generally present in the language:

(1)   Jupurrurla-rlu   ka   Jupurrurla nya-nyi

     Jupurrurla-Erg PresImpf Jupurrurla see-Npst

     "Jupurrurla$_i$ is looking at Jupurrurla$_{*i/j}$"

b. Jakamarra-kurlangu maliki-rli Jakamarra paji-rni

Jakamarra-POSS   dog-ERG 3   bite-PAST

"Jakamarra$_i$'s dog bit Jakamarra$_i$"

Plausibly, in these sentences the R-expression is referring independently, and Condition C is not violated because the possessor is adjectival rather than referential. Compare:

(148)   The Italian$_i$ invasion of Albania haunted Italy$_i$ for years.

This analysis makes two predictions. The first is that a pronoun in a following sentence will not be able to refer back to a possessor with the suffix -*kurlangu*. Since it is the adjectival status of the possessor that prevents coreference, c-command and by extension clausehood should be irrelevant. This prediction remains to be substantiated.

The second prediction is that dative possessors like those in (146) will not show the same "flat" Condition C pattern. This is indeed the case:

(149)   a.   Karnta-ku   jaja-ngku-lpa   nyanungu jakuru-pu-ngu

woman-Dat grandmother-Erg-PstImpf 3   goodbye-VF-Pst

"The woman$_i$'s grandmother was announcing her leave to her$_i$"

b.   Karnta-ku   jaja-lpa   nyanungu-rlu jakuru-pu-ngu

woman-Dat grandmother-PstImpf 3-Erg   goodbye-VF-Pst

"She$_i$ was announcing her leave to the woman$_i$'s grandmother"

The grammaticality of (149a) is expected if Warlpiri has a standard hierarchical structure whereby the subject c-commands the object. The pronominal object does not c-command the possessor R-expression inside the subject and so Condition C is not violated. On a flat structure analysis of Warlpiri, on the other hand, the object pronoun would c-command the subject and the sentence would be predicted to be ungrammatical as a Condition C violation.

The grammaticality of (149b) is also expected. Let us see why. There are a number of phenomena within Warlpiri (beyond the obvious word order variations), that require positing optional A-movement of the object over the subject. The lack of short distance Weak Crossover effects considered above is one case. Another is the anaphor -*kariyinyanu* "another like self":

(150)   Ngarrka-ngku karnta nya-ngu karnta-kariyinyanu paka-rninja-kurra.

      man-Erg   woman see-Pst woman-other.self hit-Infin-ObjC

      "The man saw the woman hit another woman." (Simpson 1991:186)

Simpson (1991) demonstrates that a DP bearing this suffix behaves like an anaphor in requiring an antecedent within its minimal clause, and allowing logophoric usages (in the Wakirti Warlpiri dialect). [40] However, an object may serve as the antecedent for a subject marked with -*kariyinyanu*:

(151)   Maliki-karinyanu-rlu nya-ngu Rocky.

      dog-other.self-Erg   see-Pst Rocky

      "Another dog like himself saw Rocky." (Simpson 1991:184)

Under the approach pursued here, these data again demonstrate A-movement of the object over the subject.[41] Unfortunately, in (151) the movement is masked by further A'-

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[40]These data will be discussed in more detail in Chapter 4, section 4.3.

[41]In fact, the binding of a reflexive under A-movement in Warlpiri is also subject to a limitation characteristic of scrambling languages: an anaphor embedded within the subject may be bound by the object through scrambling, as in (151); however, if the subject is itself an anaphor it may not be bound by the object through scrambling–hence the standard asymmetric Condition A data in Warlpiri discussed in section 2.2:

(1)   a. Purlka-jarra-rlu   ka-pala-nyanu   nya-nyi

       old.man-Dual-Erg PresImpf-3Dual-Reflex see-Npst

       "The two old men are looking at each other" (Simpson 1991:163)

movement of the subject to the left periphery (see Chapter 4, section 4.2 for discussion of movement to the left periphery in Warlpiri).

I conclude that optional A-movement of the object over the subject is possible in Warlpiri.

Pursuing the grammaticality of (149b), it is an empirical generalization that A-movement repairs Condition C violations (Lebeaux 1995:23). Thus, A-scrambling repairs Condition C violations in Hindi (Mahajan 1990),[42] as does A-movement in English:

(152)   a.   John's$_i$ mother seems to him$_i$ t_i to be wonderful. (cf *It seems to him$_i$ that John's$_i$ mother is wonderful.) (Lebeaux 1995:[91b, 92b])

      b.   John's$_i$ picture struck him$_i$ t_i as a good likeness. (Saito 1992:90)

Therefore, (149b) is predicted to be grammatical, since the Condition C violation may be repaired by A-scrambling of the object over the subject.

2.6   Conclusion

This chapter has examined the notion of nonconfigurationality, particularly regarding the case of Warlpiri. I examined three previous accounts of nonconfigurationality in some detail: the dual-structure approach, the pronominal argument approach, and the secondary predicate approach. I demonstrated that none of these approaches are able to account for

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    b.   * Purlka-jarra   ka-nyanu-palangu   nya-nyi

       old.man-Dual PresImpf-Reflex-3DualObj see-Npst

       Lit: Each other are looking at the old men.

I take this as further evidence for my scrambling analysis of Warlpiri, although I do not have an explanation for the restriction.

[42]Although the same is not true of Japanese, which has been considered evidence that scrambling is not A-movement in Japanese; see Webelhuth (1989) and Saito (1992).

the properties of Warlpiri. Instead, I argued for a microparametric approach to nonconfigurationality whereby nonconfigurational languages do not differ from configurational by a single parameter, but rather the properties of nonconfigurational languages follow from a collection of parameter settings, parameters that are also relevant for configurational languages. Finally, I outlined the beginnings of a microparametric approach to a number of properties in Warlpiri: free word order, null anaphora, discontinuous constituents, lack of short distance Weak Crossover effects, and Condition C data with possessors. In the remaining chapters, I extend this approach, examining in more detail the configurational syntax of Warlpiri; Chapter 3 considers A-syntax and Chapter 4, A'-syntax.

Chapter 3

A-syntax

3.1 Introduction

This chapter discusses two issues in the A-syntax of Warlpiri: split ergativity and applicative constructions. Section 3.2 examines ergativity, providing in section 3.2.2 an analysis of the split ergative system in Warlpiri whereby DPs display ergative-absolutive case marking, while agreement follows a nominative-accusative pattern, an analysis which is extended to other languages in 3.2.3. I argue for a dissociation between case and agreement, and provide support for the proposal of Chomsky (2000) that the relationship of Agree between a probe and a goal may operate independently of Merge, which places a copy of the goal in a position local to the probe. In other words, movement, overt or covert, is not required to establish a relationship between a case checking head and a DP. This permits an analysis of ergativity whereby absolutive case is equated with nominative case licensed by T, with movement of the absolutive argument to the specifier of T being an additional parameter of language variation. Ergative case is claimed to be inherent case assigned in situ. Whether or not this inherent case marked DP is visible to agreement with T is an additional parameter of variation between languages. In Warlpiri, the ergative case marked DP is visible to

agreement with T, thus resulting in the nominative-accusative agreement pattern.

Section 3.3 makes crucial use of the analysis of split ergativity in analysing applicative constructions in Warlpiri. I demonstrate that Warlpiri displays two applicative constructions with distinct syntactic properties. I use these applicative constructions to argue for a hierarchical verb phrase in Warlpiri, by arguing that lexical analyses of the applicative constructions are inherently problematic. Finally, I develop a structural analysis of the two constructions that makes crucial use of the proposed analysis of split ergativity in Warlpiri.

3.2 Split-Ergativity

3.2.1 Background

The literature on ergativity is exceptionally rich (see Levin 1983, Marantz 1984, Levin & Massam 1985, Bok-Bennema 1991, Johns 1992, Murasugi 1992, Bobaljik 1993, Jelinek 1993, Philips 1993, Mahajan 1994, Bittner & Hale 1996a,b, among others), as is the crosslinguistic variation shown by ergative languages. In this section I limit myself to discussions of "surface" or "morphological" ergativity, rather than "deep" ergativity. The very existence of deep ergativity, whereby I intend a structure like that proposed in Marantz (1984), in which the agent is merged as the complement of the verb, and the theme is merged as the external argument, is highly controversial, and in my opinion not allowed by the principles of universal grammar. In any case, Warlpiri shows clear evidence of a primacy of the agent over the theme. For example, (153) illustrates that Condition A behaves as though the agent asymmetrically c-commands the theme:

(153)   a. Purlka-jarra-rlu   ka-pala-nyanu   nya-nyi
               old.man-Dual-Erg PresImpf-3Dual-Reflex see-Npst
               "The two old men are looking at each other" (Simpson 1991:163)

b. * Purlka-jarra ka-nyanu-palangu nya-nyi

  old.man-Dual PresImpf-Reflex-3DualObj see-Npst

  Lit: Each other are looking at the old men.

(154) makes the same point regarding Condition C. In a reflexive sentence, an overt DP can be marked with ergative case as the subject, but not absolutive case as the object:

(154) a. Purlka-jarra-rlu ka-pala-nyanu nya-nyi

   old.man-Dual-Erg PresImpf-3Dual-Reflex see-Npst

   "The two old men are looking at each other" (Simpson 1991:163)

  b. * Purlka-jarra ka-pala-nyanu nya-nyi

   old.man-Dual PresImpf-3Dual-Reflex see-Npst

   "They$_i$ (two) are looking at the old men$_i$."

These data are the expected results of binding Condition C if the agent c-commands the theme: in (154b) the R-expression is the theme in object position and thus c-commanded by the coindexed pro subject, violating Condition C. In (154a) the R-expression is the agent in subject position, not c-commanded by the coindexed pro theme, and Condition C is not violated. Therefore, a deep ergative analysis is not appropriate for Warlpiri.

By the same token, any analysis of ergativity whereby the object obligatorily undergoes A-movement over the subject to T (overtly or covertly) cannot be correct for Warlpiri.[1] However, we should not reject all analyses that equate absolutive case with nominative case tout court. This is perhaps the most standard position in the literature, at least in part because nominative and absolutive are the cases realized in each system in both transitive and intransitive clauses, and because there is an overwhelming tendency for nominative and absolutive to be the unmarked cases in their respective systems (Dixon 1994:56-63).

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[1]However, I would argue that Warlpiri does show optional A-scrambling of the object over the subject; see Chapter 2, section 2.5

Warlpiri conforms to this pattern with zero realization for absolutive case, while ergative case is marked as *-rlu/ngku*; accordingly, the absolutive is also the citation form. We may equate absolutive and nominative case, while rejecting A-movement of the object to T, by adopting the mechanism of "Agree" (Chomsky 2000). This operation sets up an agreement relationship between a probe and a goal in situ, which may or may not be followed by merger of a copy of the goal into a local relationship with the probe. Thus, the object in an ergative/absolutive language may enter into a case/ϕ-feature agreement relationship with T without raising to T at any point during the derivation.

This observation eliminates the primary motivation in Bobaljik (1993) for equating absolutive with accusative, and ergative with nominative: various data indicating asymmetric c-command of the subject over the object in ergative languages.[2]

Furthermore, as my primary interest is the analysis of the Warlpiri pattern, I confine myself to analyses that allow for split ergativity of the Warlpiri type, in which overt DPs inflect on an ergative-absolutive pattern, (155), whereas agreement shows a nominative-accusative pattern, (156).

(155)   a.   **Ngajulu-rlu**-rna-ngku   nyuntu nya-ngu

            1-ERG-1SGSUBJ-2SGOBJ 2.ABS see-NPAST

            "I saw you"

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[2]His other argument was based on non-finite clauses. His analysis, equating ergative with nominative case, predicts that ergative case should be unavailable in non-finite clauses, while absolutive case, as accusative should remain available. In support of this claim, he cites West Greenlandic, in which the non-finite verb registers absolutive agreement but not ergative. However, he does not present the data regarding the case borne by DPs in non-finite clauses in West Greenlandic, and . Furthermore, he notes in footnote 13 a different pattern in the Mayan languages whereby neither ergative nor absolutive case is available in non-finite clauses. Without more information on the syntax of West Greenlandic, and data from other ergative languages, it is impossible to weigh the force of this argument.

b. **Ngajulu**-rna   parnka-ja

1.ABS-1SGSUBJ run-PAST

"I ran"

c. Nyuntu-rlu-npa-ju   **Ngajulu** nya-ngu

2-ERG-1SGSUBJ-2SGOBJ 1.ABS   see-NPAST

"You saw me"

(156) a. Nya-ngu-**rna**-ngku

see-PAST-**1SGSUBJ**-2SGOBJ

"I saw you"

b. Parnka-ja-**rna**

run-PAST-**1SGSUBJ**

"I am running"

c. Nya-ngu-npa-**ju**

see-PAST-2SGSUBJ-**1SGOBJ**

"You saw me"

Marantz 1991

Marantz (1991) argues for a link between accusative and ergative case, while maintaining a positional difference betweeen the DPs that bear these cases. His theory is couched in an elimination of abstract case in favour of morphological case and residual DP licensing mechanisms. A DP will bear the most specific case available to it: lexically governed (quirky) > dependent (ergative/accusative) > unmarked (based on the environment: nominative, genitive, ...) > default. He claims that accusative and ergative case are assigned by the complex head V+I to a DP governed by V+I (or the trace of V), when V+I (or the trace of V) governs a second DP.[3] Ergative and accusative case differ in directionality–ergative

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[3]provided this second DP doesn't receive quirky case.

case is assigned upwards (to the subject in [spec, IP]), whereas accusative case is assigned downwards (to the object).

He discusses split ergativity of the Warlpiri type in which agreement shows a nominative-accusative pattern, while case marking shows an erative-absolutive pattern. He claims that agreement is also a morphological phenomenon, AGR being added on in the morphological component. Its realization follows similar principles to case realization, but since the two are separated, they need not give identical results:

> There is no reason to expect a correlation between the "directional" features of INFL for case marking and the "directional" features of AGR for agreement. Split ergativity of the Georgian sort simply exploits this lack of correlation. (Marantz 1991:252)

However, this theory is too permissive. In allowing the directionality of case and agreement to vary independently, it cannot explain the absence of systems in which the case marking follows a nominative-accusative pattern, and the agreement marking an ergative-absolutive pattern:

> Both case-marking and cross-referencing affixes can be accusative, or both can be ergative; but if there is a split, then bound forms will be accusative and free forms ergative (as in Murinypata) – never the other way around. (Dixon 1994:93)

This type of system is just as easily described in his analysis:

(157) a. *Ergative-absolutive case, nominative-accusative agreement*

Case	Agreement
case assigned up to subject	agreement copied down from object
when V+I governs a distinct position	when V+I governs a distinct position

  b. *Nominative-accusative case, ergative-absolutive agreement*

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Case	Agreement
case assigned down to object	agreement copied up from subject
when V+I governs a distinct position	when V+I governs a distinct position

Bittner & Hale 1996a,b

Bittner & Hale (1996a,b) propose an analysis of ergativity that addresses Warlpiri directly. The summary I present in this section abstracts away from complications for the purpose of comparison with other analyses. The formulation I end up with bears little surface resemblance to the original, but I believe is a fair assessment of the theory. See the original papers for the details of the theory. Also, their papers are very rich in examining a wide range of data; some of these data will be discussed in section 3.2.2, some will be discussed in section 3.3, and some will not be discussed in this thesis.

For Bittner & Hale, absolutive case is assigned by C under government. The government of the object by C is accomplished in two distinct ways, creating a basic split between two types of ergative languages. In syntactically ergative languages, that is languages that show primacy of the absolutive argument over the ergative (their exemplar is Inuit), the object raises over the subject to the specifier of IP. By hypothesis, in languages that do not show primacy of the absolutive over the ergative (their exemplar is Warlpiri), C-I-V form a discontinuous head rendering the whole clause transparent for government from C. Thus, absolutive case is assigned in situ.

Similarly to Marantz (1991), for ergative and accusative case to be licensed, there must be a "case competitor", for them a distinct nominal (N/NP/D/DP) that does not bear inherent case.[4] Ergative case is licensed if the DP and its case competitor are governed by I; accusative case is licensed if the DP and its case competitor are governed by V.

The distinction between ergative-absolutive and nominative-accusative languages, for Bittner & Hale, lies in the verb. By hypothesis, transitive verbs in nominative-accusative

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[4]or ergative or accusative case.

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languages are merged in a head-adjunction structure with a D head bearing the feature [+transitive]. This D head serves as a case competitor for the object, allowing the verb to license accusative case. In ergative-absolutive languages, this D is absent; therefore, the verb cannot license accusative case. The object then serves as a case competitor for the licensing of ergative case to the subject by I. For the object to be assigned absolutive case by C, it must either raise to the specifier of IP, or if the clause is transparent to government by C (as is hypothesized for Warlpiri), the object may be assigned absolutive case in situ. The partial structure of VP for each type of language is shown below:

(158)

Nominative-accusative   Ergative-absolutive

```
        V'
       /  \
      V    Obj           V'
     / \                /  \
    D   V              V   Obj
```
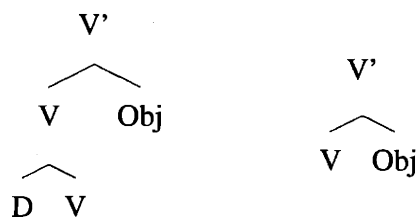
In that the presence of D head adjoined to V in nominative-accusative languages is largely a stipulation,[5] we may make a further abstraction on their theory. Nominative/absolutive case is licensed by C. In nominative-accusative languages, the transitive verb has the ability to license accusative case. In ergative-absolutive languages, the verb lacks this ability. Instead, I licenses ergative case when it governs a transitive verb phrase.

Turning to agreement, they also dissociate agreement from case, claiming that "pronominal agreement is a syntactic relation between a functional head and an argument chain that the head canonically antecedent-governs—that is governs and binds—at S-structure" (1996b:570). In nominative-accusative languages, the object agrees with the D head adjoined to the V, and the subject agrees with either I or C. In ergative-absolutive languages

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[5]Although they equate this D with pronominal object agreement in some languages.

with ergative-absolutive agreement, I governs and agrees with the transitive subject, while C governs and agrees with the object (and intransitive subject). This presupposes the raising of the object over the subject to the specifier of IP. In ergative-absolutive languages with nominative-accusative agreement (like Warlpiri), I agrees with the subject (licensed in situ), and C agrees with the object, through the intermediary of V.

Therefore, their theory makes the strong prediction that ergative languages that show ergative agreement must be syntactically ergative languages, in which the object raises over the subject, and thus show evidence for primacy of the subject over the object. Ergative agreement is obtained by raising of the object to C, while accusative agreement is obtained by leaving the object in situ. However, syntactically ergative languages are quite rare, whereas languages with ergative agreement are not.[6]

An example of a language with ergative agreement morphology, but a nominative-accusative syntax is Basque (Ortiz de Urbina 1989). Although Bittner & Hale (1996a) discuss Basque as a transparently ergative language, like Warlpiri, (159) illustrates that agreement operates on an ergative pattern.[7]

(159) a. Zu-k   gu   ikusi g-aitu-zu

you-Erg us(Nom) seen 1Nom-have:Pl-2sgErg

"You have seen us."

b. Gu   etorri g-ara

we(Nom) come 1Nom-be.Pl

"We have arrived."

Therefore, according to their analysis Basque should be a raising ergative language. How-

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[6]The criticism raised here is perhaps unfair, in that the issues raised by ergative agreement are complex and not limited to their theory. I consider these issues further in section 3.2.3 below.

[7] Bittner & Hale argue convincingly that unergative intranstive verbs are syntactically transitive, thus patterning with transitives for case marking and agreement.

ever, this then predicts that Basque should be syntactically ergative, contrary to fact:

(160) Seme-a   eskolan   utzi   eta klasera joan zen

son-ABS at.school leave and to.class go 3sA-Pret

"X left his/her son at school and X/*the son went to class." (Ortiz de Urbina 1989:23)

I conclude that their analysis of split-ergativity is problematic.[8]

In the next section, I present my analysis of Warlpiri-type split ergativity, which will be crucially used in my analysis of applicative constructions in section 3.3. Section 3.2.3 speculates on the extension of the analysis of Warlpiri ergativity to other ergative systems.

3.2.2 Warlpiri Split-Ergativity

Warlpiri is a split ergative language in which overt nominals inflect according to an ergative-absolutive pattern, whereas agreement morphology shows a nominative-accusative paradigm:

(161) *Agreement Clitics Show a Nominative-Accusative Pattern*

    a. Nya-ngu-**rna**-ngku

        see-PAST-**1SGSUBJ**-2SGOBJ

        "I saw you"

    b. Parnka-ja-**rna**

        run-PAST-**1SGSUBJ**

        "I am running"

    c. Nya-ngu-npa-**ju**

        see-PAST-2SGSUBJ-**1SGOBJ**

        "You saw me"

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[8]Furthermore, internally to Warlpiri, since their analysis allows for only two agreement positions (1996b:570), they are unable to explain the double object agreement discussed in section 3.3.2 below.

(162) *DPs Show an Ergative-Absolutive Pattern*

    a. **Ngajulu-rlu**-rna-ngku   nyuntu nya-ngu

        1-ERG-1SGSUBJ-2SGOBJ 2.ABS see-NPAST

        "I saw you"

    b. **Ngajulu**-rna   parnka-ja

        1.ABS-1SGSUBJ run-PAST

        "I ran"

    c. Nyuntu-rlu-npa-ju   **Ngajulu** nya-ngu

        2-ERG-1SGSUBJ-2SGOBJ 1.ABS   see-NPAST

        "You saw me"

To account for such a pattern, we require a split between ϕ-feature agreement and case licensing (contra George & Kornfilt 1981, Chomsky 1999).

I propose that Warlpiri-type split ergative languages differ from nominative-accusative languages in the lexical entry of the v that introduces the external argument. In nominative-accusative languages, this v licenses structural accusative case (to the verbal object) in transitive sentences. In ergative languages, this v licenses inherent ergative case to its specifier (the external argument) in transitive sentences.[9] This accounts for Marantz's (1991:3) generalization:

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[9] This approach may be considered a variant of Ura (2001), which suggested a parametrization of checking whereby nominative/accusative languages disallow feature checking in θ-positions, whereas ergative/absolutive languages do allow feature checking in θ positions. This option is not available to me, in that I adhere to a derivational theory of checking and locality: a head is merged into the structure and searches down the syntactic tree for an appropriate element to enter into an agreement relationship with. In such a system, any element above the searching head in the tree will not be found–the search operates downwards, and higher elements will not have been merged into the structure yet. Furthermore, as Ura's theory stands, it predicts that ergative-absolutive languages should allow free variation between ergative-absolutive patterning and nominative-accusative. Allowing a language to check features in situ makes available the derivation in which accusative (i.e. ergative) features are checked by the subject, but it does not rule out an alternative

(163)   No Ergative Case on a non-thematic subject.

Let us consider the derivation of a basic transitive sentence in a split ergative language like Warlpiri. The type of derivational system I am assuming should become clear in the discussion. The v that introduces the external argument is merged into the derivation as a sister to the VP formed by the verb and its object. This v has the ability to assign inherent case, and the need to establish a structural ϕ-feature agreement relationship with a DP. It searches down the tree for an appropriate DP, finds the object, and enters a ϕ-feature agreement relationship with it. The external argument is merged, and receives inherent case from v. Subsequently, T is merged with the need to establish a ϕ-feature agreement with a DP, and to license structural absolutive case. It searches down the tree for an appropriate DP to establish a ϕ-feature agreement relationship with and finds the subject. It enters into a ϕ-feature agreement relationship with the subject. Then, it searches down the tree for an appropriate DP to license the structural case of. Since the subject bears inherent case, it is

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derivation in which the accusative case is checked by the object. It remains to be determined if the system can be augmented to make the correct predictions. Furthermore, in making ergative case *identical* to accusative, Ura's theory faces difficulties in split ergative languages in which ergative and accusative bear different inflections, and in which ergative and accusative may co-occur in a single sentence. Dixon (1994:83-97) discusses a number of split ergative languages with distinct marking of ergative and accusative (both contrasting with nominative/absolutive) for at least some types of nominals–including the Panoan language Cashinawa from Peru, the Papuan language Yimas, Kalaw Lagaw Ya from the Torres Strait, and a number of Pama-Nyungan languages (at least Diyari, Waga-Waga, Yidin^y, Arabana, Gumbaynggir), and for at least some tenses or aspects–Dixon (1994:100) states that this is generally the case for languages with ergative splits based on tense or aspect that have case marking, including the Mayan language Chorti.

In the alternative account proposed here, in which ergative case is inherent whereas accusative case is structural, inflectional differences between them are expected, and the possibility for both to be assigned is left open (although perhaps marked, as an instance of a single head assigning two cases, one inherent, one structural). This said, Ura's section on ergativity is short and schematic, and could perhaps serve as the basis for a more detailed account in which such issues are addressed.

not found by the search algorithm. Instead, the object is the first appropriate DP found, and T licenses absolutive case on the object.

Now let us consider EPP features. Recall that the Warlpiri switch reference suffix -*karra* marks control of an embedded subject by a matrix subject,[10] where matrix subject refers to the subject of a transitive verb, the subject of an unergative verb, or the subject of an unaccusative verb. Given this pattern, I assume that these must structurally form a natural class. Therefore, T also has an EPP requirement, which is met by merging into its specifier a copy of the first DP it finds in its search: the subject of a transitive, or the only argument of an intransitive.

The v that merges with an intransitive VP lacks the ability to assign inherent case and need to check ϕ features in ergative-absolutive languages, and lacks the ability to license structural accusative case and the need to check ϕ features in nominative-accusative languages. Therefore, T merges into the derivation with the need to license absolutive/nominative case and to enter into a ϕ-feature agreement relationship. It finds the only argument of the intransitive to satisfy both requirements.

3.2.3 Split Ergativity Beyond Warlpiri

The case and agreement patterns found in ergative languages varies greatly. In this section, I consider a few patterns in light of the theory of split ergativity proposed here. As we shall see, the theory allows for certain places of minimal variation, which allows for additional patterns. However, the full range of patterns will not be addressed. In this section, I will adopt the terminology whereby A refers to a transitive subject, O to a transitive object, and S to an intransitive subject. When the distinction becomes relevant, S_A will refer to an intransitive subject that is underlyingly a subject, and S_O to an intransitive subject that is underlyingly an object.

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[10]See Chapter 2, section 2.2.

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Recall that in Warlpiri, the ergative-marked subject is visible for ϕ-feature agreement with T. One minimal point of variation is for the ergative-marked subject not to be visible to agreement with T. This would result in an ergative agreement pattern whereby S and O triggers agreement, while A fails to. This pattern is found for example in Canelo-Krahô from the Jê family (Dixon 1994:44, citing Popjes & Popjes 1986), and Avar from the North-east Caucasian family (Dixon 1994:44, citing Černý 1971, Charachidzé 1981).

Another point of variation, mentioned in footnote 9, is for v to both assign inherent ergative case and license structural accusative case (although this is likely a marked system given that a single head is responsible for two case features, indeed Dixon (1994:40) describes such systems as "rare"). This would result in a system with a three-way distinction: ergative, absolutive, and accusative. This pattern is apparently found in the South-east Iranian language Yazgulyam, in the past tense (Dixon 1994:40, citing Payne 1980), in the Western Australian language Dhalanji (Dixon 1994:41, citing Austin 1981), and in Australian languages from south-east Queensland (Dixon 1994:41, citing Breen 1976 and McDonald and Wurm 1979).

Consider now languages in which A triggers ergative agreement. This pattern is found for example in Abaza of the North-west Caucasian family (Dixon 1994:43, citing Aleen 1956), and Sacapultec Maya (Dixon 1994:44 citing Du Bois 1987:205). The following illustrates the pattern from Abaza:

(164)   a.   d-θád

                3ABS-gone

                "he/she's gone"

          b.   h-l-bád

                1plABS-3femERG-saw

                "she saw us"

          c.   d-h-bád

3ABS-1plERG-saw

"we saw him/her" (adapted from Dixon 1994:43)

The question arises, which head is the locus of A agreement? The examples from Abaza are typical of this type of agreement system in that the ergative agreement appears close to the verb, while the absolutive agreement appears farther out. Therefore, one possibility is that this ergative agreement is with v, which is accomplished in situ as a reflex of the inherent case assignment by v, rather than through the mechanisms of search and agree. Another possibility is that the ergative agreement does occur through the mechansims of search and agree, thus with a head higher than the merged position of the external argument. Possible support from such an analysis comes from languages like Inuit, in which the ergative agreement is separated from the verb by other morphemes:

(165) arna-p   atisassat irrur-m-a-git

woman-Erg clothes   wash-DPST-3SG-3PL

"When the woman had washed the clothes..." (Bittner 1994:16)

A difficulty with such an analysis is in explaining why this higher head agrees only with the A argument, and not S_A or S_O.[11] I leave the issue as an open question, pending detailed syntactic analysis of languages with ergative agreement. Indeed, it may turn out that agreement with the ergative argument is a non-uniform phenomenon across languages.

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[11]One possibility I do not consider is that ergative agreement is related to structural ergative case checking in an AGRP$_{ERG}$ located between TP and vP. Consider the point at which T merges into the derivation, with the need to enter into a ϕ-feature agreement relationship, and to license absolutive case. The search operation will find the ergative subject. Bearing structural case, the subject will be visible to the search algorithm, and since it is closer to T than the object it will be found first. T will not be able to license structural absolutive case on the subject, as it already bears structural ergative case. The derivation crashes. This is an instance of the "defective intervention effect". An identical problem is faced by analyses that posit an AGROP between TP and vP; although a number of technical proposals were made, a satisfactory solution seems illusive. Thus, I adopt an analysis whereby the locus of object case and agreement is vP.

A further locus of variation between languages allowed by the proposed theory is whether the case and agreement relationship between T and the absolutive argument is accompanied by move, i.e. merger of a copy of the absolutive argument into the specifier of T. This merger is necessary for a language to be syntactically ergative. However, it is not sufficient. If the ergative subject also raises to T, the language will be syntactically nominative. The ergative will raise to the specifier of T, followed by the absolutive creating an inner specifier of T (following the now-standard tucking-in proposal of Richards 1997). Thus, the ergative subject will remain above the object after raising, resulting in a nominative syntax.

As discussed in section 3.2.1 above, Basque illustrates the dissociation of ergative agreement and ergative syntax (Ortiz de Urbina 1989). Basque exhibits an agreement pattern like Abaza in that S and O trigger absolutive agreement, while A triggers ergative agreement.

(166) a. Zu-k   gu   ikusi g-aitu-zu
         you-Erg us(Nom) seen 1Nom-have:Pl-2sgErg
         "You have seen us."

      b. Gu   etorri g-ara
         we(Nom) come   1Nom-be.Pl
         "We have arrived."

One difference between Basque and Abaza is that S_A in Basque is treated as A. However, as mentioned in footnote 7, this pattern is explained in that intransitive verbs in Basque with S_A subjects are syntactically transitive (see for example Hale & Keyser 1993, Bittner & Hale 1996a):

(167) Miren-ek hitz egin du.
      Miren-Erg word done have.3sg
      "Miren spoke." (Bittner & Hale 1996a:27)

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Despite the ergative agreement pattern, Basque syntax is nominative. For example, (168) shows a so-called topic chaining structure, a standard test for ergative versus nominative syntax. In a nominative language, an unexpressed subject in the second conjunct of a coordinate clause is understood as the subject (A or S) of the first conjunct. In a language with ergative syntax, an unexpressed subject in the second conjunct must be understood as the absolutive argument of the first conjunct. (168) demonstrates that Basque behaves as a nominative language (see Ortiz de Urbina 1989 for further details).

(168)   Seme-a   eskolan   utzi   eta   klasera   joan zen

       son-ABS at.school leave and to.class go   3sA-Pret

       "X left his/her son at school and X/*the son went to class." (Ortiz de Urbina 1989:23)

Therefore, Basque represents a further system predicted by the proposed analysis–a language with ergative agreement, but nominative syntax. We conclude that Basque lacks one or both of the necessary conditions for a language to show ergative syntax–raising of the absolutive to the specifier of TP, and failure to raise the A to TP.

Following Bittner & Hale's (1996b) characterization of Inuit, Inuit is a language that has ergative agreement, and has raising of the absolutive to the specifier of TP and failure to raise A to TP. Thus, Inuit is morphologically and syntactically ergative. Such a language is predicted by the analysis here, although it is expected to be rare in requiring a co-occurence of a number of independently varying properties.

This concludes the brief survey of additional language patterns. In the next section, I turn to an analysis of applicative constructions in Warlpiri.

3.3 Applicatives

In this section, I examine double object and ethical dative constructions in Warlpiri, first demonstrating that these represent two types of applicative constructions. Next, I discuss the LFG account of applicatives presented in Bresnan & Moshi (1990), and show that the Warlpiri data raises difficulties for such an account. Finally, I present an analysis of applicative constructions that assumes a hierarchical verb phrase, and show that the Warlpiri data may be accommodated within such an analysis. To begin, I outline some crosslinguistic generalizations regarding applicative constructions.

Two types of applicatives have been identified crosslinguistically (see esp. Baker 1988, Bresnan & Moshi 1990), which are traditionally called "asymmetric" and "symmetric". As the names suggest, asymmetric applicatives are characterized by asymmetric behaviour between the verbal object (VO) and the applicative object (AO): only the AO shows primary object properties. In contrast, in symmetric applicatives both the AO and VO show primary object properties. Glossing over some interesting complications that arise within particular languages, the cluster of properties of symmetric and asymmetric applicatives are summarized in the following table.

(169) *Types of Applicatives Crosslinguistically*

Asymmetric	Symmetric
AO shows object properties (agreement, passives, scope, ...)	AO, VO show object properties (agreement, passives, scope, ...)
transitivity restriction on verb	no transitivity restriction on verb
animacy restriction on AO	no animacy restriction on AO
AO semantically related to VO	AO semantically related to event

In this section, I demonstrate that Warlpiri has both types of applicative constructions.

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Thus, a class of ditransitive verbs are asymmetric applicatives and the ethical dative construction is a symmetric applicative. I begin with the ditransitives.

3.3.1 Ditransitives

Warlpiri has a class of verbs with an ERG-DAT-ABS case frame, that is the subject displays ergative case, the indirect object displays dative case, and the direct object shows absolutive case. An example of such a verb is *yi-nyi* "give":

(170) Warnapari-rli ka-rla   kurdu-ku ngapurlu yi-nyi.

       dingo-Erg   PresImpf-3Dat child-Dat milk   give-Npst

       "The dingo gives milk to the little one."

I argue that this is not a PP-dative construction, as the translation suggests, but rather an asymmetric applicative construction, akin to the English double object construction: *The dingo gives the little one milk*. Therefore, based on (169), we expect of such verbs that the dative (AO) will show object properties rather than the absolutive (VO), that the dative (AO) will have to be animate, that the dative (AO) will be interpreted as a potential possessor of the absolutive (VO), and that only transitive verbs will allow datives that have these properties. Each of these predictions are borne out.

First, the dative AO shows primary object properties for agreement and control (Simpson 1991). Thus, the dative AO triggers object agreement rather than the absolutive VO:

(171) Ngajulu-rlu kapi-rna-**ngku**   karli-patu   yi-nyi   nyuntu-ku

       I-Erg   FutC-1sg-**2sgObj** boomerang-pauc give-Npst you-Dat

       "I will give you (the) (several) boomerangs" (Hale et al 1995:1432)

Recall the Warlpiri switch reference system is sensitive to the grammatical function of the controller of non-finite PRO subjects, as repeated in (172) below.

(172) *Embedded complementizers*

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a. Karnta ka-ju wangka-mi [yarla karla-nja-**karra**]

    woman PresImpf-1sg speak-Nonpst [yam dig-Inf-**SubjC**]

    "The woman is speaking to me while digging yams"

    (Hale 1983:21)

b. Purda-nya-nyi ka-rna-ngku [wangka-nja-**kurra**]

    aural-perceive-Nonpst PresImpf-1sg-2sgObj [speak-Inf-**ObjC**]

    "I hear you speaking" (Hale 1983:20)

c. Wati-rla jurnta-ya-nu karnta-ku [jarda-nguna-nja-**rlarni**]

    man-3Dat away-go-Pst woman-Dat [sleep-lie-Inf-**ObvC**]

    "The man went away from the woman while she was sleeping" (Hale et al 1995:1442)

When the dative AO controls a non-finite PRO subject, the complementizer -*kurra* is used, registering control by a matrix object. This complementizer cannot be used when the absolutive VO controls the embedded subject.[12]

(173) a. Karnta-ngku ka-ju kurdu miliki-yirra-rni nguna-nja-**kurra**-(ku)

       woman-Erg PresImpf-1sgObj child show-put-Npst lie-Infin-**ObjC**-(Dat)

       "The woman is showing the child to me while I am lying down" (Simpson 1991:342)

     b. * Yu-ngu-rna-rla kurdu parraja-rla nguna-nja-**kurra** yali-ki

       give-Pst-1sg-3Dat child coolamon-Loc sleep-Infin-**ObjC** that-Dat

       "I gave the child which was sleeping in the coolamon to that one" (Simpson 1991:341)

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[12]Simpson annotates (173b) as "??", however both Ken Hale, pc, and Mary Laughren, pc, have indicated that the sentence is completely ungrammatical for their consultants. In any case, the contrast with (173a) is clear.

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Second, not only must these verbs be transitive, but they also fall into the familiar crosslinguistic classes of double object verbs (see Levin 1993, Pesetsky 1995):

(174) *Double Object Verb Classes*:

    a. inherently signify act of giving: *yi-nyi* "give"

    b. inherently signify act of taking: *punta-rni* "take away from", *jurnta-marda-rni* "take away from", *punta-punta-yirra-rni* "take away from", ...

    c. instantaneous causation of ballistic motion: *kiji-rni* "throw" (cf not *rarra-ma-ni* "drag")

    d. sending: *yilya-mi* "send/throw to"

    e. communicated message: *ngarri-rni* "tell", *payi-rni* "ask", *japi-rni* "ask", *milki-yirra-rni* "show" (cf not *wangka-mi* "speak/say", *jaalyp(a)-wangkami* "whisper")

    f. continuous causation of accompanied motion in some manner: *ka-nyi* "carry, bring, take"

Also, there exists an alternation in Warlpiri between the ERG-DAT-ABS and an ERG-ABS-ALL(ative) ditransitive, an alternation comparable to the double object versus PP-dative alternation in English. In the ERG-ABS-ALL variant, it is the ABS that controls object agreement:

(175) Yu-ngu-**ju**-lu   Jakamarra-kurra

      give-Pst-**1sgObj**-3pl Jakamarra-All

      "They gave me to Jakamarra" (Laughren 1985)

An interesting example in this light is (176), in which the allative variant is used in order to express coreference between the subject and the absolutive object.[13]

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[13]I would like to thank Mary Laughren for this example, which she recorded from Darby Jampinjinpa Ross.

(176) Yu-ngu-lu-nyanu   yurrkunyu-kurra

give-Pst-3pl-Reflex police-All

"They gave themselves up to the police."

This is necessary because coreference is expressed in Warlpiri through use of the reflexive agreement clitic, and, as we have seen, the absolutive does not trigger object agreement in the ERG-DAT-ABS case frame. Thus, (177a) is an attempt to render (176) with reflexive agreement in the ERG-DAT-ABS case frame, and the sentence is ungrammatical; (177b) is an attempt to express coreference in the ERG-DAT-ABS ditransitive with an overt pronoun instead of reflexive agreement and the sentence is ungrammatical, as a Condition B violation.

(177) a. * Yu-ngu-lu-nyanu-rla yurrkunyu-ku.

give-Pst-3pl-3Dat   police-Dat

"They gave themselves to the police"

b. * Yu-ngu-lu-rla   nyanungu-rra yurrkunyu-ku.

give-Pst-3pl-3Dat police-Dat

"They gave themselves to the police." (Mary Laughren, pc)

Third, asymmetric applicatives crosslinguistically display a characteristic semantics, in which the AO is interpreted as a (potential) possessor of the VO. The dative AO of ERG-DAT-ABS verbs receives this interpretation, whereas the allative of the ERG-ABS-ALL variant does not. Thus, of the pair in (178),

(178) a. Ngarrka-ngku ka-rla   kurdu-ku japujapu kiji-rni

man-Erg   PresImpf-3Dat child-Dat ball   throw-Npst

"The man is throwing the child the ball"

b. Ngarrka-ngku ka   japujapu kurdu-kurra kiji-rni

man-Erg   PresImpf ball   child-All   throw-Npst

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"The man is throwing the ball to the child" (Hale 1982:253)

Hale (1982) remarks that "[the] dative in [(178a)] implies that the child is the recipient of the ball, not merely the endpoint of motion. The allative in [(178b)], on the other hand, implies that the child - or the child's location - is merely the end-point of the trajectory traversed by the ball." (Hale 1982:253)

Finally, related to the possessive semantics, crosslinguistically we find an animacy restriction on the goal (AO) of asymmetric applicatives. This animacy restriction is also found on the dative AO of ERG-DAT-ABS verbs; if the AO is inanimate, the absolutive-allative variant must be used instead.

(179) a. Purturlu   kala-**rla**   yilya-ja.

backbone PstC-**3Dat** send-Pst

"He sent her the backbone"

b. Marnkurrpa-rna yilya-ja Yalijipiringi-**kirra**

three-1sg   send-Pst Alice.Springs-**All**

"I sent three to Alice Springs"

Thus, I conclude that ditransitive verbs that display the ERG-DAT-ABS case frame should be identified as asymmetric applicatives.

In the next section we consider a second applicative construction in Warlpiri, the ethical dative construction.

3.3.2 Ethical Datives

The Warlpiri ethical dative construction involves the addition of a dative DP, without an overt morpheme to indicate how the additional DP is to be interpreted. An example of this is given in (180):

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(180) Karli   yinga-rla paka-rni jinta-kari-rli **nyanungu-ku**

boomerang RelC-3Dat chop-Npst one-other-Erg **3-Dat**

"Because the other one will chop a boomerang for him"

(Simpson 1991:381)

This construction proved problematic for previous analyses of Warlpiri lexical struc-
ture, notably the detailed LFG account of Simpson (1991). Simpson is forced to posit a
new grammatical function for ethical datives, which she calls "EXTERNAL OBJECT", in
addition to an optional process promoting ethical datives to the "OBJECT" function.

Examining the construction, we discover that it exhibits distinct behaviour from the
double objects considered above, behaviour typical of symmetric applicative constructions
crosslinguistically, (169). First, both the ethical dative (AO) and the object of the verb (VO)
trigger object agreement.[14] Thus, in (181), *warri-rni* "seek" selects a dative object, and the
auxiliary agrees with both this VO object and the dative AO.

(181) Ngarrka-ngku ka-**ju-rla**   ngaju-ku karli-ki   warri-rni

man-Erg   PresImpf-**1sgObj-3Dat** me-Dat boomerang-Dat seek-Npst

"The man is looking for a boomerang for me" (Hale 1982:255)

In addition, when either the VO or the AO control an embedded PRO subject, the *-kurra*
complementizer appears, indicating control by a matrix object.[15]

(182) *Control by DAT*

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[14]This is mitigated by two morphological restrictions: a dative and an absolutive cannot both be registered
in the auxiliary (Simpson 1991), and the two registered objects cannot both be first or second person. Thus,
the double agreement is visible when the object of the verb is dative, and at least one of the VO and AO is
third person.

[15]Simpson notes that examples like (182a) with control by the AO are rare, and Mary Laughren, pc,
wonders if there might be a covert verb "give" in this example. However, this issue is not raised by (182b),
which contrasts with the minimally different (183), with control by the absolutive.

a. Kamina-rlu ka-rla   mangarri purra   ngati-nyanu-ku

girl-Erg   PresImpf-3Dat food   cook.Npst mother-self-Dat

nguna-nja-**kurra**-ku

lie-Infin-**ObjC**-Dat

"The girl is cooking food for her mother who is lying down." (Simpson 1991:385)

b. Jakamarra-ku-rna-rla   maliki ramparl-luwa-rnu jarda-nguna-nja-**kurra**

Jakamarra-Dat-1sg-3Dat dog   accident-hit-Pst   sleep-lie-Infin-**ObjC**

"I accidentally hit Jakamarra$_i$'s dog while he$_i$ was sleeping."

(183) *Control by ABS*

Maliki-rna ramparl-luwa-rnu Jakamarra-ku parnka-nja-**kurra**

dog-1sg   accident-hit-Pst Jakamarra-Dat run-Infin-**OBJC**

"I accidently hit Jakamarra's dog while it was running."

Second, unlike asymmetric applicatives, there is no transitivity restriction on the ethical dative construction:

(184) a. Karnta ka-rla   kurdu-ku parnka-mi

woman PresImpf child-Dat run-Npst

"The woman is running for the sake of the child"

(Simpson 1991:381)

b. Nantuwu ka-rla   Japanangka-ku   mata-jarri-mi

horse   PresImpf-3Dat Japanangka-Dat tired-Inch-Npst

"The horse is tiring on Japanangka" (Hale 1982:254)

Finally, we do not find the possessive semantics characteristic of asymmetric applicatives in the ethical dative construction. Instead, interpretation of the dative AO "embrac[es] a considerable range of possible semantic connections which may hold between an entity

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and an event or process" (Hale 1982:254), including at least benefactive, malefactive, and possessive:[16]

(185) a. Nantuwu ka-rla   Japanangka-ku mata-jarri-mi

  horse   PresImpf-3Dat Japanangka-Dat tired-Inch-Npst

  "The horse is tiring on Japanangka"

  "Japanangka's horse is tiring"

  b. Ngarrka-ngku ka-rla   kurdu-ku karli   jarnti-rni

  man-Erg   PresImpf-3Dat child-Dat boomerang trim-Npst

  "The man is trimming the boomerang for the child"

  "The man is trimming the child's boomerang" (Hale 1982:254)

In sum, the properties displayed by the Warlpiri ethical datives are those of a symmetric applicative construction. I conclude that Warlpiri has both an asymmetric and a symmetric applicative. In the next section, I return to the issue of whether Warlpiri has a hierarchical verb phrase in the light of these applicative constructions. I consider the LFG account of applicatives, and conclude that the Warlpiri case is problematic for this account.

3.3.3 Implications

Bresnan & Moshi (1990) (B&M) present an LFG account of the symmetric/asymmetric applicative distinction, which I summarize briefly here. They employ two features [± r(estricted)] and [± o(bject)], which define four grammatical functions:

(186) *Four Grammatical Functions*

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[16]Indeed, Mary Laughren, personal communication, notes that additional possible interpretations of (185a) include "The horse with Japanangka is tiring", "The horse is tiring because of Japanangka", and "The horse is tiring and it's a potential danger to Japanangka".

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$$\begin{bmatrix} -r \\ -o \end{bmatrix} \text{SUBJ} \qquad \begin{bmatrix} +r \\ -o \end{bmatrix} \text{OBL}_\theta$$

$$\begin{bmatrix} -r \\ +o \end{bmatrix} \text{OBJ} \qquad \begin{bmatrix} +r \\ +o \end{bmatrix} \text{OBJ}_\theta$$

Of these only restricted object OBJ_θ is unfamiliar–this is defined as an object which may not appear in subject position and which has a fixed semantic role, like an oblique.

B&M claim that certain feature values are intrinsically (dis)associated with certain theta roles crosslinguistically, while others are added by rule, subject to certain constraints. However, feature values do not need to be fully specified for the final determination of grammatical roles; the roles are assigned based on compatibility with the feature values specified. B&M make use of these roles in proposing their *Asymmetrical Object Parameter*, reproduced here in (187).

(187)   *Asymmetrical Object Parameter*

$$\begin{array}{ccc} * & \theta & \ldots \quad \theta \\ & | & | \\ & [-r] & [-r] \end{array}$$

Combined with a universal restriction against benefactives and recipients bearing the feature [+ o], this parameter has as a result that (for languages in which it is set as an active constraint), a theme (VO) can never bear the OBJ function in a sentence which also contains a benefactive or recipient (AO).

It is important to recognize that under B&M's analysis, symmetric and asymmetric applicatives do not differ with respect to the grammatical functions assigned to each nominal; the AO bears the OBJ function, and the VO the OBJ_θ function. By Function-Argument Biuniqueness (which B&M attribute to Bresnan 1980), two nominals in a clause cannot

bear the same function:

(188)   *Function-Argument Biuniqueness*

Each expressed lexical role must be associated with a unique function, and con-
versely.

Languages with symmetric applicatives and those with asymmetric applicatives differ only
with respect to the results of applying a lexical rule. For example, in a symmetrical object
language, if a lexical rule applies to suppress the agent (i.e. the passive), the benefactive AO
(universally [-r]) may become the SUBJ, freeing up the OBJ function for the VO. However,
in an asymmetrical object language, the VO cannot bear the feature [-r] in the presence of a
(necessarily [-r]) benefactive, and thus can never bear the OBJ function (see (186) above).

Warlpiri is problematic for this analysis in two respects. First, B&M posit a distinction
between asymmetric and symmetric *languages*, whereas we have just seen that Warlpiri has
both asymmetric and symmetric applicatives. No simple adjustment to their theory could
accommodate such a language. Second, B&M cannot capture the symmetric behaviour
between the AO and VO we find in Warlpiri. Embedded complementizers showing control
by a matrix object are found for both AO and VO control, without the application of a
lexical rule. Furthermore, B&M describe object agreement differences between symmetric
and asymmetric languages as both OBJ and OBJθ triggering object agreement in sym-
metric languages, versus only OBJ triggering object agreement in asymmetric languages.
However, this description cannot carry over to Warlpiri, since OBJθ triggers agreement in
symmetric applicatives in Warlpiri but not in asymmetric applicatives. Thus, the agreement
data cannot be traced to a language-specific choice of the type of object that triggers agree-
ment. I conclude that B&M's LFG account of applicative constructions cannot carry over
to Warlpiri.

The key problem for the LFG approach is this: because this is a lexical account in
which grammatical functions are taken as primitives, one DP must be identified as bearing

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the OBJ function to the exclusion of all others. In the Warlpiri symmetric applicative construction, both the VO and the AO behave as objects. A structural approach, on the other hand, should be more successful, in that it allows a dissociation of the properties that may define an object (how the DP receives its θ-role, how its case is licensed, and so on). In the following section, I sketch a structural analysis of the symmetric/asymmetric applicative distinction, and show how it accounts for the properties of the ditransitive and ethical dative constructions in Warlpiri. This analysis will crucially require that Warlpiri display a hierarchical verb phrase.

3.3.4 A Structural Account

The analysis of applicative constructions I present here is an extension of Pylkkänen (2000, 2002). I adopt the basic structures and semantics she proposes, while providing an account of the differences in object properties between the two types of applicative constructions.[17]

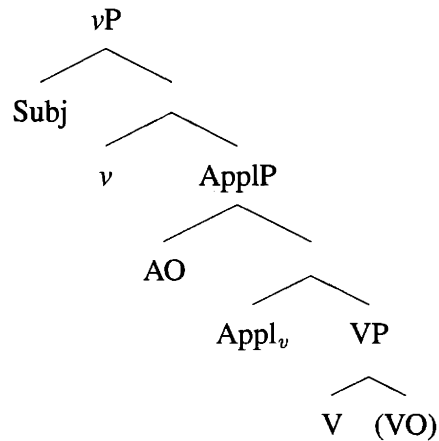Under this approach, symmetric and asymmetric applicatives differ structurally:

(189) *Asymmetric Applicative (cf Pesetsky 1995)*

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[17]See McGinnis (2000) for an alternative explanation of the object properties based on the notion of *phase* (Chomsky 2000) that is partially compatible with the current analysis. McGinnis' basic proposal is that Appl_v defines a phrase whereas Appl_P does not, which seems likely to be true (see Legate (1999, 2001) for phases on verbal domains smaller than the v that introduces the external argument). McGinnis deals with a wider range of data than considered here, some of which may indeed be attributable to differences in phasehood (for example, the distinctions in phonological phrasing she cites from Seidl (2000)). However, her account of the crosslinguistic data considered here seems unnecessarily complex; the present analysis provides a simpler account with fewer ancillary assumptions.

vP

```
        vP
       /  \
    Subj   \
          / \
         v   VP
            /  \
           V   ApplP
               /  \
              AO    \
                   /  \
                Appl_P  VO
```
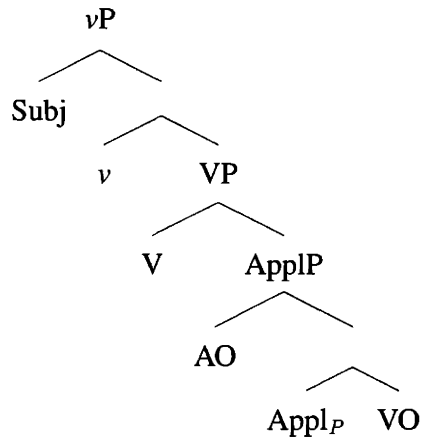
(190) *Symmetric Applicative (cf Marantz 1993)*:

```
        vP
       /  \
    Subj   \
          /  \
         v   ApplP
             /  \
            AO    \
                 /  \
              Appl_v  VP
                     /  \
                    V   (VO)
```

In the asymmetric applicative, the phrase headed by the applicative morpheme appears as the complement to the verb. I follow Pesestsky (1995) in claiming that it is prepositional. This applicative preposition relates the AO, in its specifier, to the VO in its complement, establishing the semantic relationship of (potential) possession between them.[18] The structure

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[18]In addition, Legate (2001) and Pylkkänen (2001) demonstrate the existence of applicatives in which the applicative DP is interpreted as the source rather than the goal. In Warlpiri, verbs that select this type of asymmetric applicative head include for example, *punta-rni* "take away from", *jurnta-marda-rni* "take away from", and *punta-punta-yirra-rni* "take away from".

therefore captures the inability of asymmetric applicatives to appear with intransitive verbs, as well as the characteristic semantic interpretation of the AO as a potential possessor.

In the symmetric applicative, on the other hand, the phrase headed by the applicative morpheme dominates the verb phrase. I assume that it is therefore a type of light verb, or v. Since the AO is related directly to the VP, this structure captures the lack of transitivity restriction on symmetric applicatives. As a v, the symmetric applicative head assigns a *theta*-role to the DP in its specifier, relating the AO to the event. The θ-roles that may be assigned by this v vary across languages within a restricted set; for example, Warlpiri allows (at least) beneficiary, maleficiary, comitative, in hazard, and (indirect) cause, while Bresnan & Moshi (1990:149) report beneficiary, maleficiary, instrument, location, and motive for Kichaga.

I argue that the distinction between the nature of the applicative morphemes, prepositional for asymmetric applicatives and verbal for symmetric applicatives, has significant repercussions throughout the syntax of the constructions. In the asymmetric applicative, the applicative preposition assigns case to the VO in its complement, and the AO checks case and ϕ-feature agreement (person, number, gender) with the v that introduces the subject.[19] In the symmetric applicative, the VO checks case and ϕ-feature agreement with the applicative v, and the AO checks case and ϕ-feature agreement with the v that introduces the subject.

These structures allow us to understand the differing behaviour of VOs between symmetric and asymmetric applicatives. In symmetric applicatives, both the AO and the VO enter a licensing relationship with a v head, and thus both exhibit behaviour as objects. In asymmetric applicatives, on the other hand, only the AO is licensed by v head, the VO being the object of a preposition, and therefore, only AO behaves as a direct object. One direct

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[19]Whether the licensing relationship between AO and v is accomplished through overt movement, covert movement, or in situ agreement, although ultimately interesting, is not crucial to the discussion here.

consequence of this licensing relationship is that in symmetric applicative constructions, both the AO and the VO may trigger object agreement morphology, since both enter into ϕ-feature agreement with a v, in the extended projection of the verb. This is illustrated in (191) with data from Kichaga. In asymmetric applicative constructions, only the AO triggers object agreement morphology, since only the AO agrees with a v; the VO is licensed by a preposition. This is shown in (192) for Chicheŵa.

(191)   a.   N-ä-ï-m̀-lyì-í-à   k-èlyâ.

                 Foc-1S-Pres-**1O**-eat-Appl-FV 7-food

                 "He/she is eating food for/on him/her."

        b.   N-ä-ï-**kì**-lyí-í-à   m̀-kà.

                 Foc-1S-Pres-**7O**-eat-Appl-FV 1-wife

                 "He/she is eating it for/on the wife."

        c.   N-ä-ï-**kì**-**ḿ**-lyì-ï-à

                 Foc-1S-Pres-**7O**-**1O**-eat-Appl-FV

                 "He/she is eating it for/on him/her." (Bresnan & Moishi 1990:150-151)

(192)   a.   Amayi a-ku-**mu**-umb-ir-a   mtsuko.

                 woman SP-Pres-**OP**-mold-Appl-Asp waterpot

                 "The woman moulded the waterpot for him."

        b.   * Amayi a-na-**u**-umb-ir-a   mwana.

                 woman SP-Pst-**OP**-mold-Appl-Asp child

                 "The woman is moulding it for the child." (Baker 1988:247)

In further illustration of the proposal, consider the ability of primary objects to raise to subject position in passives. In symmetric applicatives either the AO or VO may raise to subject position in the passive; this is illustrated by the Kichaga examples in (193). In asymmetric applicatives, on the other hand, only the AO may become the subject, as illustrated by the Chicheŵa examples in (194).

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(193)　a.　M̀-kà　n-ä-ï-lyì-í-ò　　　　　　k-èlyâ

　　　　　1-wife Foc-1S-Pres-eat-Appl-Pass 7-food

　　　　　"The wife is being benefited/adversely affected by someone eating the food."

　　　　　K-èlyá k-ï-lyì-í-ò　　　　　　m̀-kà

　　　　　7-food 7S-Pres-eat-Appl-Pass 1-wife

　　　　　"The food is being eaten for/on the wife." (Bresnan & Moshi 1990:150)

(194)　a.　Mbidzi zi-na-gul-ir-idw-a　　　　nsapato (ndi kalulu)

　　　　　zebras SP-Pst-buy-Appl-Pass-Asp shoes　(by　hare)

　　　　　"The zebras were bought shoes by the hare."

　　　b.　* Nsapato zi-na-gul-ir-idw-a　　　mbidzi (ndi kalulu)

　　　　　shoes　SP-Pst-buy-Appl-Pass-Asp zebras (by　hare)

　　　　　"Shoes were bought for the zebras by the hare." (Baker 1988:248)

The passive is standardly understood to involve v losing its ability to license case. If we make the minimal assumption that this can affect either v head in the symmetric applicative, we predict that either object may raise to subject position. Thus, if the v that introduces the external argument cannot license case, the AO will raise to subject position; if instead the applicative v cannot license case, the VO will raise to subject position. In contrast, the asymmetric applicative has only a single v head to be affected in the passive, resulting in movement of the AO to subject position. The applicative head, as a preposition, cannot lose its case assigning ability through passivization, and thus the VO will never raise to subject position.[20]

Returning to Warlpiri, recall that Warlpiri is a split ergative language in which overt nominals inflect according to an ergative-absolutive pattern, whereas agreement morphology shows a nominative-accusative paradigm. In section 3.2 above, I proposed an analysis

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[20]The result will hold as long as a pseudopassive derivation in which the preposition is reanalysed with the verb (e.g. *This bed has been slept in*) is not available.

of this pattern according to which the v that introduces the external argument assigns inherent ergative case to the external argument in its specifier, and undergoes ϕ-feature agreement with the direct object of the verb. Furthermore, T undergoes ϕ-feature agreement with the external argument, and licenses structural absolutive case on the verbal object.

Now consider the applicative constructions. To aid the reader, I repeat the relevant syntactic structures. In asymmetric applicatives, v enters into ϕ-feature agreement with the AO. Case on the AO is licensed by T.[21] The VO is licensed internally to the ApplP as the object of the applicative preposition.
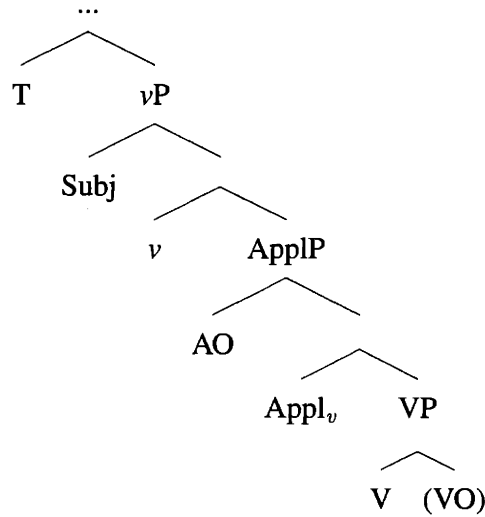
(195) *Asymmetric Applicative*
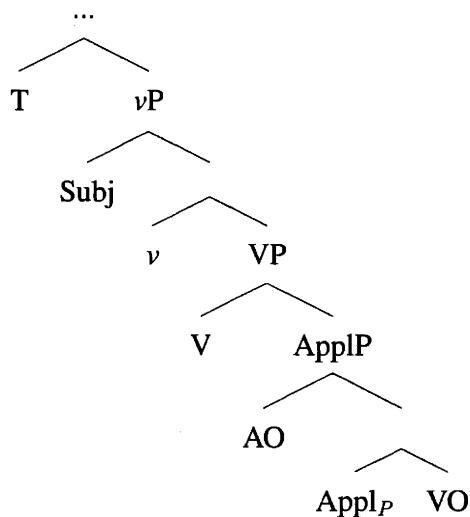
In symmetric applicatives, the v that introduces the external argument again enters ϕ-feature agreement with the AO. I propose that just as this v licenses ergative case to the subject in its specifier, the applicative v licenses dative case to the AO in its specifier. The applicative v enters ϕ-feature agreement with the VO. Absolutive case on the VO is licensed by T.

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[21]I assume the dative morphology is a quirky requirement imposed by the applicative head. Unfortunately, Warlpiri lacks passives, limiting our ability to test this assumption.

(196) *Symmetric Applicative*

```
                    ...
                 ╱      ╲
               T          vP
                        ╱    ╲
                    Subj       ╲
                             ╱    ╲
                            v      ApplP
                                 ╱      ╲
                               AO         ╲
                                        ╱    ╲
                                     Appl_v    VP
                                              ╱  ╲
                                             V   (VO)
```

Crucial for the overall discussion is that ϕ-feature agreement relationships in Warlpiri are analysed identically to those in nominative-accusative languages. Thus, the patterns of object agreement may be explained in the same manner. In the symmetric applicatives, both AO and VO undergo ϕ-feature agreement with a v, and both trigger object agreement morphology. In the asymmetric applicatives, however, only the AO undergoes ϕ-feature agreement with a v (the VO being licensed by the applicative preposition), and so only the AO controls object agreement.

In addition, recall that non-finite complementizers in Warlpiri register object control when either the AO or VO of a symmetric applicative control the PRO subject of the non-finite clause. However, non-finite complementizers only register object control in asymmetric applicatives when the AO controls the PRO subject. The examples are repeated below:

(197) a. Kamina-rlu ka-rla   mangarri purra   ngati-nyanu-ku
           girl-Erg   PresImpf-3Dat food   cook.Npst mother-self-Dat

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nguna-nja-**kurra**-ku

lie-Infin-**ObjC**-Dat

"The girl is cooking food for her mother who is lying down." (Simpson 1991:385)

b. Maliki-rna ramparl-luwa-rnu Jakamarra-ku parnka-nja-**kurra**

   dog-1sg   accident-hit-Pst Jakamarra-Dat run-Infin-**OBJC**

   "I accidently hit Jakamarra's dog while it was running."

(198) a. Karnta-ngku ka-ju   kurdu miliki-yirra-rni nguna-nja-**kurra**-(ku)

        woman-Erg PresImpf-1sgO child show-put-npst lie-Infin-**ObjC**-(Dat)

        "The woman is showing the child to me while I am lying down" (Simpson 1991:342)

b. * Yu-ngu-rna-rla   kurdu parraja-rla   nguna-nja-**kurra** yali-ki

        give-pst-1sgS-3Dat child coolamon-Loc sleep-Infin-**ObjC** that-Dat

        "I gave the child which was sleeping in the coolamon to that one" (Simpson 1991:341)

The proposed analysis of case/agreement patterns in Warlpiri allows an obvious characterization of these data. Control by a nominal that enters into ϕ-feature agreement with a v registers as object control, whereas control by a nominal that enters into ϕ-feature agreement with T registers as subject control, otherwise the default complementizer is used.

In sum, the structural analysis of the symmetric/asymmetric applicative distinction proposed carries over to Warlpiri, given certain independently-required assumptions about the split-ergative case system in the language.

3.3.5 Additional Evidence

In this section I present additional evidence for the proposed analysis of applicative constructions in Warlpiri.

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Recall that symmetric applicatives may receive a wide range of interpretations, being semantically composed witht the verb phrase rather than a single argument. One of these interpretations is a possessor interpretation:

(199) Ngarrka-ngku ka-rla   kurdu-ku karli   jarnti-rni

      man-Erg   PresImpf-3Dat child-Dat boomerang trim-Npst

   "The man is trimming the child's boomerang" (Hale 1982:254)

I have discovered a restriction on the possessor reading: it may be related to the subject of an intransitive predicate if the subject is interpreted as a theme, (200a), but it cannot be related to a subject interpreted as an agent, (200b).

(200) a. Nantuwu ka-rla   Japanangka-ku mata-jarri-mi

         horse   PresImpf-3Dat Japanangka-Dat tired-Inch-Npst

         "Japanangka's horse is tiring" (Hale 1982:254)

      b. * Jaja-ngku   karnta-ku   yunpa-rnu.

         maternal.grandmother-ERG woman-DAT sing-PAST

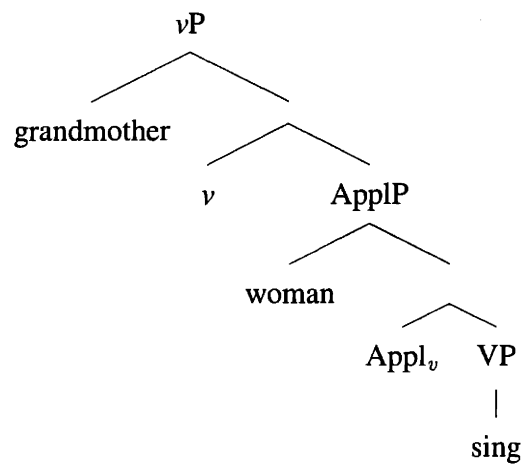   "The woman's grandmother sang." (Laughren 2001:29)

This constitutes the first evidence for the unaccusative/unergative distinction in intransitive predicates in Warlpiri.

Assuming that the subject in (200a) is generated as the object of the verb, whereas the subject in (200b) is generated as an external argument, and adopting my analysis of symmetric applicative constructions, the pattern of grammaticality in (200) is expected. The applicative object is generated between the v that introduces the external argument and the VP.

(201) *Symmetric Applicative, Unaccusative Verb*:

ApplP
├── Japanangka
└── Appl$_v$ ── VP
              └── tire ── horse
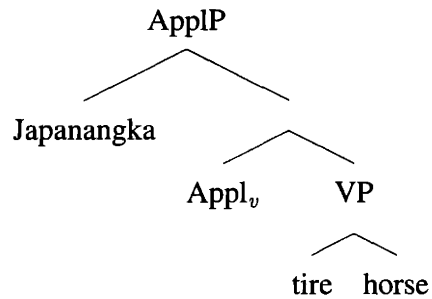
(202) *Symmetric Applicative, Unergative Verb*:

vP
├── grandmother
└── v ── ApplP
        ├── woman
        └── Appl$_v$ ── VP
                        └── sing

In (201), the applicative object "Japanangka" is semantically related to the VP, which contains the object "horse". Japanangka can therefore be interpreted as the possessor of the horse. In (202), the applicative object "woman" is semantically related to the VP, but the subject "grandmother" is external to the VP, out of the scope of "woman".

The possessive interpretation of the ethical dative in Warlpiri seems a subcase of the "possessor dative" construction, found for example in Hebrew, German, and Romance. The possessor dative construction has generated considerable attention in the literature, since, as in the Warlpiri case, the dative behaves syntactically as the object of the verb, but is interpreted semantically both as the possessor of another DP within the verb phrase, and as "affected" (that is as a benefactor, malefactor, etc) (see Guéron 1985, Borer & Grodzinsky 1986, Vergnaud & Zubizarreta 1992, Shibatani 1994, Ura 1996, Landau 1999,

and references therein). Analyses of the construction fall into two classes—one that posits raising of the possessor to the object position, and another that posits control or binding of a null possessor (the nature of which varies with the analysis) by the dative object. The contrast in (200) is replicated in the possessor dative construction (Borer & Grodzinsky 1986), and both approaches to the possessor dative construction provide an explanation for the contrast.[22] (203) is an illustrative example from Hebrew:

(203) a. ha-kelev ne'elam   le-Rina
           the-dog disappeared to-Rina
           "Rina's dog disappeared"

       b. * ha-kelev hitrocec   le-Rina
             the-dog ran.around to-Rina
             "Rina's dog ran around" (Landau 1999:7)

Under the control/binding account, the restriction is explained through c-command: the dative object must be generated above the null possessor for the possessor to be within the scope of the dative. In order for this approach to succeed, the nature of the relationship between the null possessor and the dative must not be one that may be accomplished through movement. Otherwise, scrambling of the dative over the subject should be sufficient, and the explanation for the restriction is lost. Under the raising account, the ban on downwards movement is invoked, preventing a dative possessor of the external argument from lowering to object position.

Either approach is in principle compatible with the analysis presented here. My analysis

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[22]Borer & Grodzinsky show that possessor datives and ethical datives in Hebrew differ in that ethical datives may only be clitics, while possessor datives may be full DPs as well. In French, on the other hand, possessor datives expressing alienable possession may only be clitics whereas possessor datives expressing inalienable possession may be full DPs as well (Shibatani 1994). Such restrictions are not found in Warlpiri, but ultimately require explanation.

attributes the "affected" interpretation to the symmetric applicative head, which assigns the applicative argument a θ-role of benefactive, malefactive, and in Warlpiri also comitative, causative, and hazard. The most significant challenge for the raising account is the explanation of the affected interpretation, which under my analysis would involve movement into a θ-position. I consider it likely that such movement is universally unavailable, but see Hornstein (2001), among others. As for the control/binding approach, its most significant challenge is accounting for the additional restrictions on the possessive interpretation presented in Landau (1999): a dative possessor may not be interpreted as the agent of a process nominal, nor the theme of the possessed DP, and the relationship between the dative possessor and the possessed DP is constrained by locality:

(204)   a.   * cilamti   la-cava   et   ha-harisa   šel ha-'ir

                 I.photographed to-the.army Acc the-destruction of the-city

                 "I photographed the army's destruction of the city" (Landau 1999:6)

   b.   Gil higdil   le-Rina et   ha-tmuna

         Gil enlarged to-Rina Acc the-picture

         "Gil enlarged Rina's picture" [Rina = possessor/creator, Rina $\neq$ theme] (Landau 1999:5)

   c.   * Jean lui semble avoir lavé les cheveux. (Guéron 1985:[18], cited in Landau 1999:8)

   d.   Gil ripe   le-Rina et   ha-gur   šel ha-kalba.

         Gil cured to-Rina Acc the-puppy of the-dog.(Fem)

         "Gil cured the dog's puppy which belongs to Rina" (Landau 1999:9)

         [Rina must possess the puppy, not the dog]

In my opinion, Landau dismisses possible control/binding accounts of these phenomena (in particular an instantiation involving a null anaphor) too quickly. However, I leave the choice between these approaches, and the details of the analysis of possessor datives to

further research.

Before concluding, I would like to discuss an alternative analysis of the Hebrew case which represents a departure from the two established positions, and which is not compatible with the present proposal. Pylkkänen (2001, 2002: 43-58) proposes that the dative possessor is an asymmetric applicative (in contrast to the current proposal whereby it is a symmetric applicative). This renders the impossibility of relating the dative possessor to the external argument a subcase of the transitivity restriction typical of asymmetric applicatives. Pylkkänen claims that the asymmetric applicative head establishes a source relationship ("from the possession of") between the dative possessor and the theme, to which Pylkkänen attributes the oft-cited interpretation of the possessor as "affected". She notes that the loss of possession established by this head can be abstract, for example, stating of (205) that it "does imply that something is lost: the *privacy* of the intimite piece of clothing in question" (2002:47).

(205) Riikka   näki Sanna-lta   aluspaida-n

       Riikka.NOM saw Sanna-ABL undershirt-ACC

       "Rikka saw Sanna's undershirt" (Pylkkänen 2002:47)

(Assumedly when the affected interpretation is benefactive rather than malefactive (Landau 1999:3), a goal applicative must be available as well.) Whether this interpretation of the meaning proves compatible with the full range of possibilities for possessor datives, for example (206), remains to be determined.

(206) ha-pgiša   im   ha-bos hukdema   le-Rina be-š'a

       the-meeting with the-boss was-advanced to-Rina in-hour

       "Rina's meeting with the boss was moved up an hour." (Landau 1999:4)

This analysis is problematic for the Warlpiri case in that the construction behaves as a symmetric rather than asymmetric applicative; for example, as we have seen, control by

the dative possessor and control by the absolutive theme are encoded as control by a matrix object. The examples are repeated below:

(207) Jakamarra-ku-rna-rla   maliki ramparl-luwa-rnu jarda-nguna-nja-**kurra**

Jakamarra-Dat-1sg-3Dat dog   accident-hit-Pst   sleep-lie-Infin-**ObjC**

"I accidentally hit Jakamarra$_i$'s dog while he$_i$ was sleeping."

    a. Maliki-rna ramparl-luwa-rnu Jakamarra-ku   parnka-nja-**kurra**

        dog-1sg   accident-hit-Pst   Jakamarra-Dat run-Infin-**OBJC**

        "I accidently hit Jakamarra's dog$_i$ while it$_i$ was running."

The analysis is also problematic for other languages, in that it predicts that possessor datives should not be able to combine with other asymmetric applicatives, contrary to fact. For example, Landau (1999:20) cites the following from Choctaw:

(208)   Alla holisso chim-im-a:-li-tok.

       child paper   2DAT-3DAT-give-1NOM-Pst

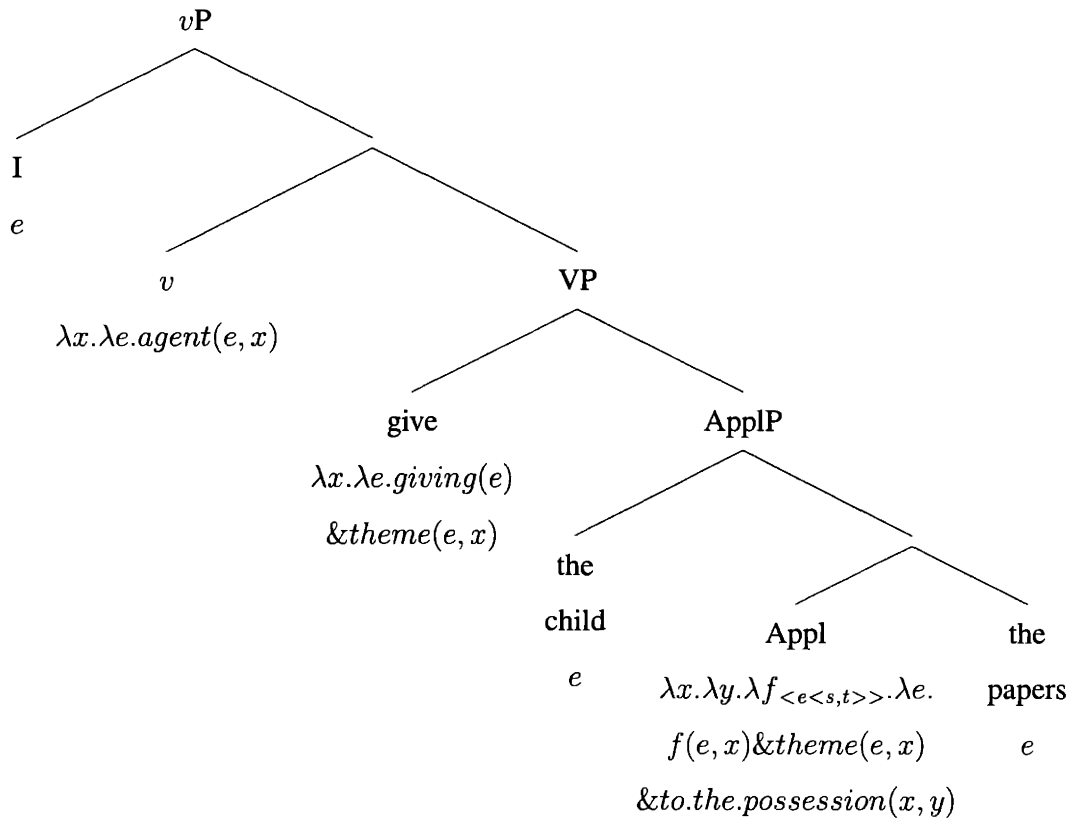   "I gave your papers to the child." (Davies 1981:[21b])

Although the translation is that of a PP-dative rather than a double object construction, the agreement makes it clear that we are dealing with a double object construction. The goal "child" triggers object agreement, but not the theme "papers", indicating an asymmetric applicative in which the applicative goal but not the theme behaves as a direct object. Therefore, (208) involves a possessor dative and an asymmetric applicative, which should be ruled out on Pylkkänen's analysis. Let us consider why.

On this analysis, the semantic composition of the construction makes it non-iterable. The key problem is that the applicative head relates the applicative DP in its specifier to the theme in its complement. If two applicative heads were to appear in the structure, each would need the theme to appear in its complement, impossibly. In other words, two asymmetric applicative heads require four DPs, not three. The following trees illustrate

the point with the semantics used by Pylkkänen (2002) (a combination of Heim & Kratzer (1998) and Kratzer (1996)); see that work for details. (209) illustrates the basic asymmetric applicative, with the sentence *I gave the child the papers*.
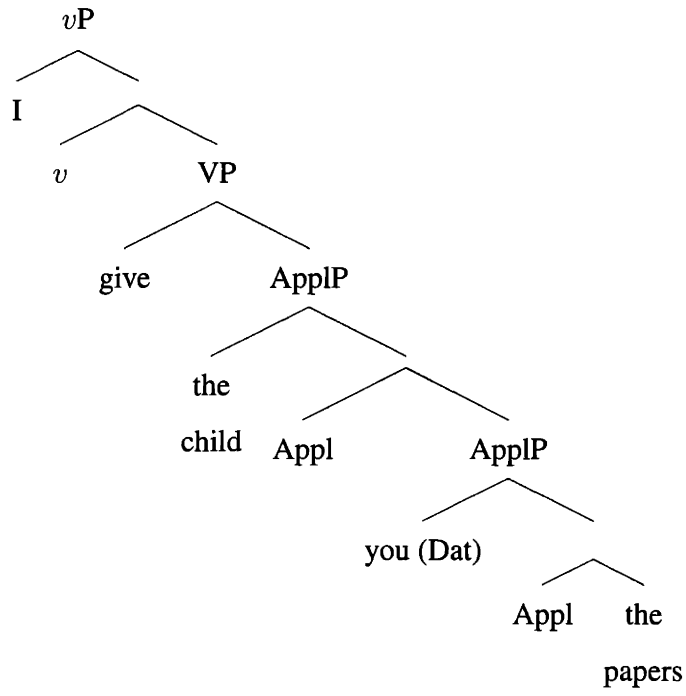
(209)   *I gave the child the papers*

$$\lambda e.giving(e)\&agent(e, I)\&theme(e, the papers)\&to.the.possession(the papers, the child)$$

vP
```
        vP
       /  \
      I    \
      e     \
           / \
          v   VP
  λx.λe.agent(e, x)
             /  \
          give   ApplP
    λx.λe.giving(e)    /  \
      &theme(e, x)   the    \
                    child    \
                     e      / \
                         Appl   the
          λx.λy.λf_{<e<s,t>>}.λe.   papers
              f(e, x)&theme(e, x)      e
            &to.the.possession(x, y)
```
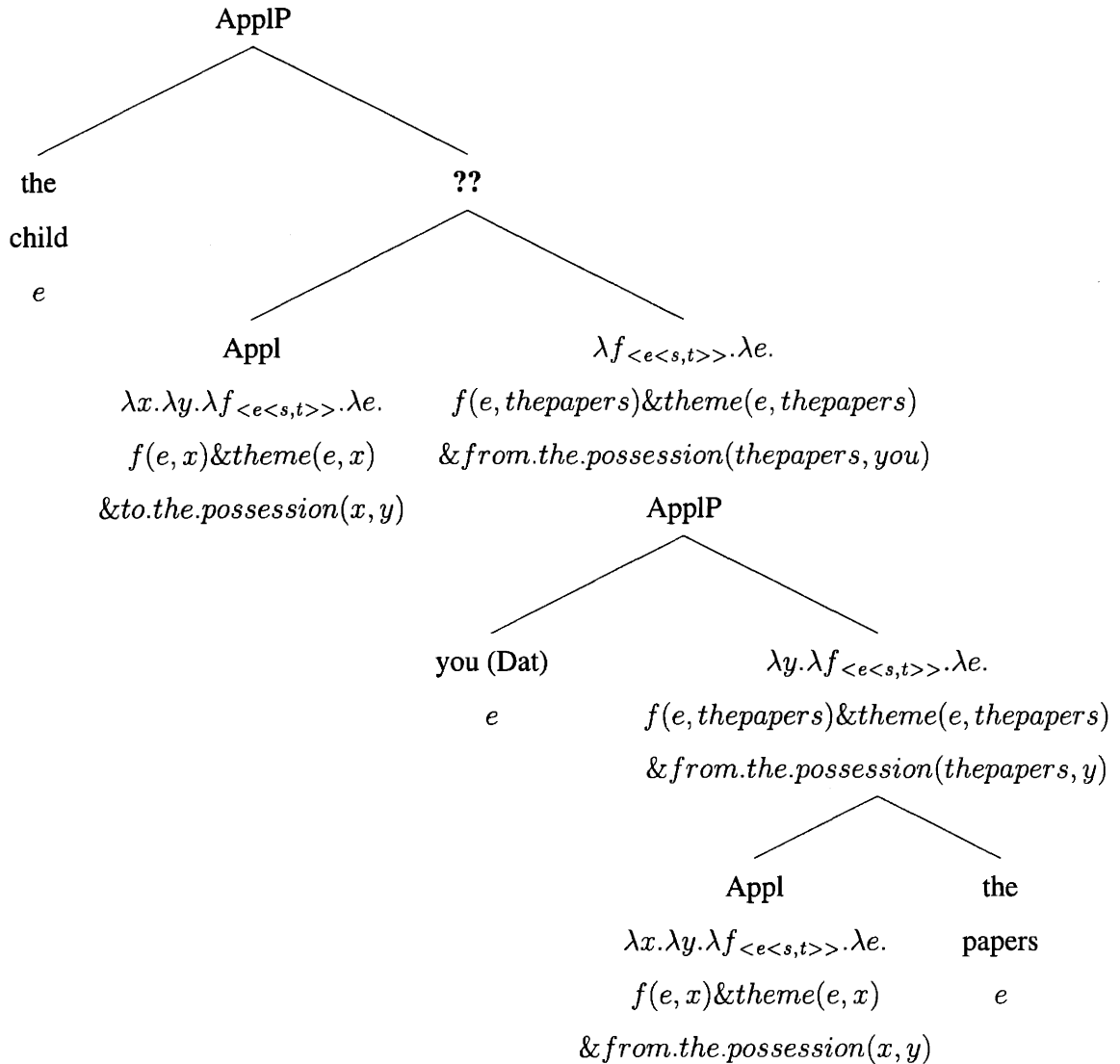
(210) and (211) shows the impossibility of iterating asymmetric applicative projections. (210) illustrates the full structure, and (211) the semantic composition until it can no longer proceed.
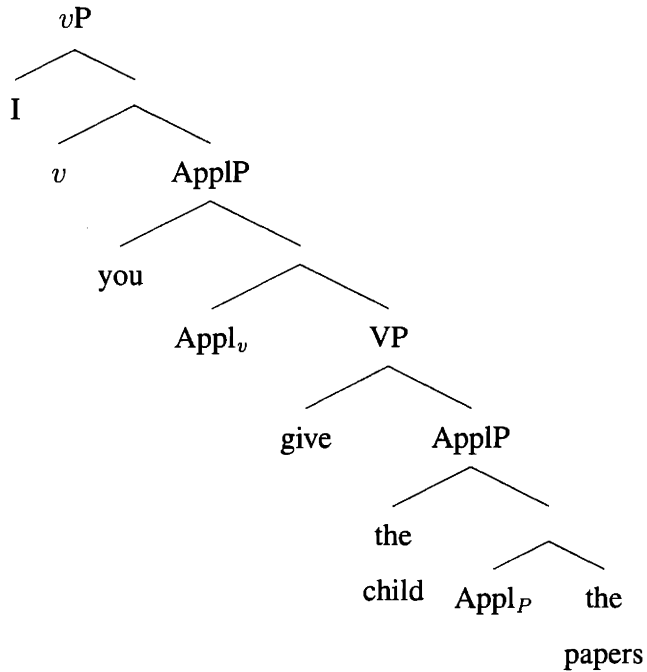
(210)   **I gave the child your papers*

```
           vP
          /  \
         I    \
             / \
            v   VP
               /  \
            give   ApplP
                  /   \
                the    \
               child  Appl   ApplP
                           /    \
                      you (Dat)   \
                               Appl   the
                                     papers
```

(211)   *I gave the child your papers*

ApplP

the
child
e

??

Appl
$\lambda x.\lambda y.\lambda f_{<e<s,t>>}.\lambda e.$
$f(e,x)\&theme(e,x)$
$\&to.the.possession(x,y)$

$\lambda f_{<e<s,t>>}.\lambda e.$
$f(e,thepapers)\&theme(e,thepapers)$
$\&from.the.possession(thepapers,you)$

ApplP

you (Dat)
e

$\lambda y.\lambda f_{<e<s,t>>}.\lambda e.$
$f(e,thepapers)\&theme(e,thepapers)$
$\&from.the.possession(thepapers,y)$

Appl
$\lambda x.\lambda y.\lambda f_{<e<s,t>>}.\lambda e.$
$f(e,x)\&theme(e,x)$
$\&from.the.possession(x,y)$

the
papers
e

On the present analysis, the example in (208) consists of a symmetric applicative and an asymmetric applicative, which co-occur without difficulty. In addition, the agreement patterning in (208) is expected under this analysis–the symmetric applicative DP (i.e. the possessor dative "you") behaves like an object, triggering object agreement, as does the asymmetric applicative DP (i.e. the goal "the child"), but not the theme ("the papers") in the complement of the asymmetric applicative head.

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(212) *I gave the child your papers*

```
              vP
           ╱     ╲
          I        ╲
               ╱      ╲
              v       ApplP
                   ╱      ╲
                 you       ╲
                      ╱      ╲
                   Appl_v     VP
                           ╱     ╲
                        give     ApplP
                              ╱      ╲
                            the       ╲
                                  ╱      ╲
                           child  Appl_P   the

                                          papers
```

Let me return to the key points of this section. The high applicative DP in Warlpiri may be interpreted as the possessor of an object or the subject of an unaccusative, but not the subject of an unergative. This provides the first evidence for an unaccusative/unergative distinction in Warlpiri. Furthermore, this pattern is found in possessor dative constructions crosslinguistically. Previous analyses of the possessor dative construction split into two classes, the raising and the control/binding approaches. Both of these approaches provide an explanation for the pattern, and both of these approaches are compatible with the analysis here, whereby the applicative is generated above the object and below the subject. This pattern thus provides additional evidence for the analysis.

3.3.6 Conclusion

To conclude this section, I have argued that the analysis of applicative constructions in Warlpiri requires positing a hierarchical verb phrase. I demonstrated that Warlpiri exhibits both a symmetric and an asymmetric applicative construction. I showed that the Warlpiri applicative data are problematic for an LFG analysis of applicatives (Bresnan & Moishi 1990), which uses a-structure and f-structure to account for the differing behaviour of noun phrases in applicatives, rather than the syntactic structure. Since a dual-structure analysis of Warlpiri requires differences in the behaviour of noun phrases to be encoded at a-structure/f-structure (by hypothesis no asymmetries between noun phrases are present in the syntactic structure), the applicative data are problematic for dual-structure analyses of Warlpiri generally. Finally, I outlined an analysis of applicative constructions which attributes the differing behaviour of noun phrases to the syntactic structure, and showed that the Warlpiri data can be straightforwardly accounted for under such an analysis.

This section, then, has argued for a hierarchical syntactic verb phrase in Warlpiri.

3.4 Conclusion

This chapter has contributed to the overall goal of developing a micro-parametric, configurational analysis of Warlpiri in the following ways. First, I provided a configurational analysis of the ergative split in the language that does not require the assumption that all argument positions are filled by null pronominals (compare Jelinek 1984), and that uses the same mechansims of case and agreement that are found in configurational languages. In addition, I developed a configurational analysis of applicative constructions in Warlpiri, and in doing so demonstrated that these constructions require positing a hierarchical verb phrase in Warlpiri. Finally, I presented the first piece of evidence of a distinction between unergative intransitives and unaccusative intransitives in the language.

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In the next chapter, I turn to A'-syntax in Warlpiri.

Chapter 4

A'-syntax

4.1 Introduction

This chapter examines a number of issues in the A'-syntax of Warlpiri. In section 4.2 I demonstrate that Warlpiri has an articulated left periphery, in the sense of Rizzi (1997) and subsequent work. I present evidence for two topic projections, and two focus projections, and consider the positioning of finite "complementizers" in Warlpiri. Next, in section 4.3, I argue that wh-phrases move to their left peripheral position in Warlpiri, rather than being base-generated there. Section 4.4 considers the interpretation of the focus position in Warlpiri. Finally, in section 4.5, I examine the wh-scope marking construction in Warlpiri and argue for an indirect dependency account.

4.2 Left Periphery

Rizzi (1997) argues for an articulated left periphery in which CP is divided into a number of distinct projections, following Pollock's (1989) division of IP into distinct projections. Rizzi's (1997) proposed structure is the following:

(213) [ForceP [TopP* [FocP [TopP* [FinP]]]]]

where ForceP specifies the clause type (declarative, interrogative, adverbial, etc), TopP hosts topics, FocP hosts foci and wh-phrases, TopP hosts additional topics, and FinP marks finiteness.

An important modification to this structure is proposed by Benincà (2001) and summarized in Poletto (2002). She argues that topics cannot appear lower than focus, providing examples like (214). These data show that "a book of poems" cannot be left dislocated to a topic position below focus, but can be left dislocated above focus, which seems to clearly indicate the unavailability of a TopP dominated by FocP.

(214) a. * A GIANNI, un libro di poesie, lo regalerete

    TO GIANNI, a book of poems, you will give it

    "You will give a book of poems to Gianni."

  b. Un libro di poesie, A GIANNI, lo regalerete

    a book of poems, TO GIANNI, you will give it (Poletto 2002:5)

Furthermore, Benincà argues that Rizzi's examples that purported to show low topics should receive alternative analyses. Consider the data in (215).

(215) a. QUESTO a Gianni, domani, gli   dovremmo dire!
    THIS   to Gianni, tomorrow, to-him should   tell
    "Tomorrow we should tell this to Gianni."

  b. A Gianni, QUESTO, domani   gli   dovremmo dire!
    to Gianni, THIS,   tomorrow to-him should   tell

  c. A Gianni, domani,   QUESTO gli   dovremmo dire!
    to Gianni, tomorrow, THIS   to-him should   tell (Poletto 2002:6)

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(215c) is the order expected by Benincà, in which both the topics "to Gianni" and "tomorrow" precede the focus "this". In (215b), "tomorrow" is shown to occupy a position for adverbs within the IP domain rather than a position for topics. This leaves the position of "a Gianni" below focus in (215a) to be explained. Benincà argues that it is occuping a focus position, on the basis of Weak Crossover effects; "a Gianni" in this position exhibits Weak Crossover effects, as typical of focused elements but not topics. Furthermore, *gli* "to him" can be analysed as a doubled clitic rather than the resumptive clitic associated with left dislocation.

Benincà & Poletto (2001) add a position for Hanging Topic Left Dislocated elements above ForceP, and discuss multiple topic and focus constructions. The resulting modified structure is that in (216).

(216) [(TopP$_{HTLD}$) [ForceP [(TopP*) [(FocP*) [FinP]]]]]

The structure in (216) will serve as the theoretical starting point for the discussion of the left periphery in Warlpiri. Let us now turn to the empirical starting point.

The Warlpiri literature identifies the initial position in the clause, before the second position clitic cluster, as a focus position. Indeed, wh-phrases typically appear in this position, as do the phrases that replace them in the answer:

(217) a. **Nyiya** ngapa-ngka nyampirl-wanti-ja?

 what   water-Loc   splash-fall?

 "What fell with a splash into the water?"

 b. **Kurdu** marda   ngapa-kurra wantija.

 child   perhaps water-All   fall-Pst

 "The child probably fell into the water." (Warlpiri Dictionary Project 1993)

However, in two quantitative and descriptive studies of Warlpiri discourse, Swartz (1988) and Shopen (2001) refer to the initial position in Warlpiri as hosting topics. Laughren

(2002) presents the insight that the pre-auxiliary position in Warlpiri is not unique. Rather it represents the specifier of a topic projection or a focus projection, with the second position clitic cluster raising to occupy the head of the highest (active) functional projection. Laughren cites the following example illustrating that a topic precedes a wh-phrase when both are present:[1]

(218) **Pikirri-ji-<u>npa</u>**   **nyarrparla-rla** warungka-ma-nu-rnu?

        spearthrower-Top-<u>2sg</u> where-Loc   forget-cause-Pst-hither

        "Where did you forget the spearthrower on your way here?" (Laughren, 2002:[27])

Additional exemplars can also be found, for example the final sentence in the following conversation fragment:

(219) **A:**   Kapi-rna-ngku   – kakarda-lku   yarda-rni   paka-rni.

        FutC-1sg-2sgObj – nape.of.neck-then more-hither hit-Npst

        "I will hit you again on the back of the neck this time."

      M: Kuturu-rlu.

        nullah-Erg

        "With a nullanulla"

      A: Karli-ngki-lki.

        boomerang-Erg-then

---

[1]Topicalized phrases are typically marked with the suffix -*ju*, which I gloss as a topic marker. This morpheme is subject to vowel harmony and surfaces as either -*ju* or -*ji*. However, phrases marked with this morpheme may also be positioned lower in the clause, often appearing in the post-verbal position which Swartz (1988) describes as backgrounded. Shopen (2001) further notes that, similarly to the English definite determiner, -*ju* may be suffixed to a nominal that has not been previously mentioned in the discourse, if it "designate[s] an entity a speaker assumes is uniquely identifiable for the addressee" (Shopen 2001:193). Furthermore, more than one nominal in a sentence may be suffixed with -*ju*. It is clear that the range of usage of -*ju* is wider than the discourse function topic, but a precise characterization of its semantics must be left for future research.

"Then with a boomerang"

M: Karli-ngki-lki.   **Kuturu-ju**   <u>ka-npa-nyanu</u>   **nyarrpara**-wiyi

boomerang-Erg-then **nullanulla-Top** PresImpf-2sg-Reflex **where**-first

marda-rni?

have-Npst

"With a boomerang. Where do you have this nullanulla of yours?" (Hale

1960:7.20-7.21)

The proposal that Warlpiri has a topic projection dominating a focus projection suggests that Warlpiri may have an articulated left peripheral structure like that proposed for Italian, see (216) above, and documented for other languages in much subsequent work. Providing evidence for such a structure is the topic of the following sections.

4.2.1 Topics

As mentioned above, Warlpiri exhibits topicalization to a left peripheral position above focus.

(220)   **Kuturu-ju**   <u>ka-npa-nyanu</u>   nyarrpara-wiyi marda-rni?

nullanulla-Top PresImpf-2sg-Reflex where-first   have-Npst

"Where do you have this nullanulla of yours?" (Hale 1960:7.20-7.21)

The following sequence demonstrates that multiple topicalization is possible, and that contrastive topics may also undergo topicalization:[2]

---

[2]The suffix *-nya* is defined in the Warlpiri Dictionary (Warlpiri Dictionary Project 1993) as "focus suffix" without further comment. The distribution of this suffix requires investigation. Focused phrases in answer to wh-questions typically do not bear this suffix, cf (217) above. The examples in (221) typify one use of *-nya* in involving contrastive focus; an additional example follows:

(1) Nyanungu-rlu-ju-lpa karli-**nya**   jarntu-rnu – ngaju-lpa-rna kurlarda maja-rnu.

3-Erg-Top-PstImpf boomerang-**Foc** carve-Pst   1-PstImpf-1sg spear   straighten-Pst

"He was making (lit. carving) a boomerang, and I was making (lit. straightening) a spear." (Warlpiri Dictionary Project 1993)

-nya also sometimes appears in yes/no questions:

(2) a. Japanangka-**nya** ya-nu?

Japanangka-**Foc** go-Pst

"Did Japanangka go?" (Mary Laughren, pc)

  b. Kaji-lpa-rna-rla   yapa-ku   wangka-yarla, kaji-ka-rna-rla   ngaju-lu-rla

NfactC-PstImpf-1sg-3Dat person-Dat speak-Irr   NfactC-PresImpf-1sg-3Dat 1-?-Loc

Japanangka-rlu payi-rni Jangala-rlangu-ku: "Lajamanukurra-**nya** miti-pu-ngu

Japanangka-Erg ask-Npst Jangala-example-Dat Lajamanu-All-**Foc**   go-Pst

Japaljarri-ki   japun-nyanu, yangka Jangala-pardu?" "Yuwayi, pirrarni   kulpa-ja nyanungu-ju."

Japaljarri-Dat uncle-Reflex that   Jangala-Dimin yes   yesterday go-Pst 3-Top

"Should I be talking to someone, I, Japanangka, might ask him about Jangala, say. 'Has Japaljarri's uncle gone to Lajamanu?' 'Yes, he went back yesterday.'" (Warlpiri Dictionary Project 1993)

Perhaps the most common usage of *-nya* is as an exhaustive focus. Entries in the Warlpiri Dictionary (Warlpiri Dictionary Project 1993) frequently contain an explanation of the headword, followed by the ending statement "that is [headword]" or "that is what we call [headword]", where "that" is suffixed with *-nya*. This seems to be a final exhaustive answer to the (implicit) question "what is [headword]?" or "what do you call [headword]?":

(3) a. Jalya, ngula-ji yangka kurdu wawarda-wangu manu tirawuju-wangu manu

bare that-Top like   child clothes-without or   trousers-without or

wirripakarnu-wangu.   Ngula-**nya** jalya-ji.

hair.string.belt-without that-**Foc**   bare-Top

"*Jalya* is like a child who has no clothes on, or no trousers or no hair-string belt. That is *jalya*."

  b. Kiwinyi-winyi-piya-lku. Yi-ka-ngalpa   marda

mosquito-swarm-like-then RelC-PresImpf-1plObj attack-example-certainly

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(221) **Nyampu-ju** ka-rlipa   **ngalipa-rlu-ju** palya-nya   ngarri-rni.

this-Top   PresImpf-1plIncl **we.Incl-Top**   'palya'-Foc call-Npst

Walypali-rli ka-lu   taya-nya ngarri-rni.

white-Erg   <u>PresImpf-3pl</u> tar-Foc   call-Npst

"We call this *palya*. Whites call it *tar*." (Hale field notes)

The first sentence contains two topics *nyampu* "this" and the contrastive topic *ngalipa* "we"; the second sentence contains the contrastive topic *walypali* "whites". In both, the focused phrases, *palya* and *taya* "tar" follow the topics, further illustrating that the focus

---

jangkardu-rlangu-kula   kiwinyi-winyi-jarri-lki. ()   palkaji

mosquito-swarm-Inch-then   body-Top mosquito-swarm-like

kiwinyi-winyi-piya. Ngula-**nya**   ka-rnalu ngarri-rni wangarla-ju.

that-**Foc**   PresImpf-1plExcl call-Npst wasp-Top

"It is like a mosquito in that it becomes mosquito like and can attack us. Its body is like that of a mosquito. That is what we call *wangarla*." (Warlpiri Dictionary Project 1993)

In this exhaustive usage, sentences containing *-nya* are often translated as clefts:

(4)   a.   Pirdijirri-**nya** kala-rnalu   nga-rnu – wakati, jarraji.

        seed.cake-**Foc** PstC-1plExcl eat-Pst   *wakati jarraji*

        "It was a seed cake of *wakati* and *jarraji* that we used to eat." (Warlpiri Dictionary Project 1993)

     b.   Kala-lu   warrarda nyina-ja kunarri-ki   yalumpu-ku-ju – miyi-pardu-ku   jawirrilyi-ki.

        PstC-3pl always   set-Pst   food.gift-Dat that-Dat-Top   food-Dimin-Dat food.gift-Dat

        Jawirrilyi kala-lu   yupuju-rla nga-rnu – kunarri   – miyi-pardu yarla. Yali-**nya**

        food.gift PstC-3pl bush-Loc   eat-Pst   food.gift   food-Dimin yam   that-**Foc**

        kala-lu-jana   yu-ngu.

        PstC-3pl-3plObj give-Pst

        "They would sit and wait for that gift of food. They used to eat the food out in the bush – yams. That is what they used to give them."

Further analysis of this particle must be left to future research.

position follows the topic positions in Warlpiri.

In addition to topicalization, Warlpiri displays hanging topic left dislocation (HTLD), illustrated in (222).

(222) **Wawirri,** ngula <u>ka</u>   nyina   walya-ngka-jala.
       kangaroo, that   PresImpf be.Npst ground-Loc-actually
       The kangaroo, it lives on the ground. (Warlpiri Dictionary Project 1993)

The two types of topicalization differ in a number of ways, as can be observed in (220) and (222), as well as (225) below. HTLD is intonationally set off from the remainder of the clause, and correspondingly cannot serve as a host for the second position clitic cluster. A topicalized phrase, on the other hand, does host the clitic cluster, when present. Furthermore, hanging topics, but not topicalized phrases, are related to a resumptive element within the clause, typically *ngula* "that". Indeed, the resumptive in HTLD constructions must itself be topicalized. The Warlpiri data thus follow crosslinguistic patterns in these respects (see the papers in Anagnostopoulou et al. 1997 for comprehensive discussion of these phenomena).

Previous research on HTLD and topicalization in other languages has identified semantic differences between the two constructions. Rodman (1997) argues that HTLD in English is used to introduce a new topic into the discourse, whereas topicalization only applies to established topics:

(223) a. What can you tell me about John?
           John Mary kissed.
           * John, Mary kissed him.

       b. What can you tell me about John?
           Nothing. *But Bill Mary kissed.
           Nothing. But Bill, Mary kissed him. (Rodman 1997:33-34)

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Puskas (2000) replicates the pattern for Hungarian:

(224)   a. **A:** Hát Attilával miröl beszéltek?

"So what did they speak about with Attila?

      B: Attilával   semmiröl   nem beszéltek.

Attila-INSTR [TOP] nothing-DELAT NEG speak-PAST-3PL

"With Attila they didn't speak about anything."

     * **B':** Attilával,   vele   semmiröl   nem

Attila-INSTR [LD], he-INSTR nothing-DELAT NEG

beszéltek.

speak-PAST-3PL

"Attila, they didn't speak about anything with him."

   b. **A:** Hát Attilával miröl beszéltek?

"So what did they speak about with Attila?

   ?? B: Semmiröl.   De Zetával   a   lovakrol

nothing-DELAT but Zeta-INSTR [TOP] the horses-DELAT

beszéltek.

speak-PAST-3PL

"Nothing. But with Zeta they spoke about the horses."

    B': Semmiröl.   De Zetával,   vele   a   lovakrol

nothing-DELAT but Zeta-INSTR [LD] he-INSTR the horses-DELAT

beszéltek.

speak-PAST-3PL

"Nothing. But Zeta, they spoke about the horses with him."

Rodman (1997:52,ftn3) also discusses the use of HTLD to return to a previous topic:

Consider the following discourse, which is a 'counterexample' to my claim of complementary distribution.

Billie and his little brother Bobbie were playing near the hedge the other day when a mockingbird swooped down and pecked Bobbie on the head. Billie was so frightened by the incident that he ran around screaming for help. Bobbie was actually less disturbed than Billie. He merely whistled for Harpo, our pet eagle, who had just returned from carrying out protective strikes against a dangerous warren of rabbits.

That mockingbird we didn't think we would see again
[mockingbird still felt to be a topic]
That mockingbird, we didn't think we would see her again
[mockingbird felt to need to be reestablished as a topic]

but in less than a week another, similar incident took place that apparently involved the same bird.

HTLD and topicalization also differ semantically in Warlpiri. HTLD is used to establish a topic, whereas topicalization is used to refer to a topic that is already established. For example, many entries in the Warlpiri Dictionary (Warlpiri Dictionary Project 1993) begin with the establishment of the word in question as the topic for the discourse, through HTLD. Characteristic examples are provided in (225).

(225) a. Jalyirrpa, ngula-ji parla watiya-jangka manu pinkirrpa jurlpu-kurlangu.
       'jalyirrpa', that-Top leaf tree-from   or   feather bird-possessive
       "*Jalyirrpa* is a leaf from a tree or a bird's feather."

       b. Yalypilyi ngula-ju pama   kuja-ka   nguna manja-ngawurrpa.
       'yalypilyi' that-Top delicacy FactC-PresImpf lie-Npst mulga-belonging.to
       "*Yalypilyi* is a sweet scale found on mulga trees.

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c. Jalangu, ngula-ji yangka parra jukurrawangu   manu pirrarniwangu

   'jalangu', that-Top that   day   tomorrow-without and   yesterday-without

   "Jalangu is a day which is not tomorrow or not yesterday."

d. Jamalya   ngula-ju watiya rdilyki paji-rninja-warnu – linji.

   'jamalya' that-Top tree   broken cut-Inf-from   – dead

   Jamalya is a tree which has been broken off and which is dead. (Warlpiri
   Dictionary Project 1993)

Continued reference to the established topic is then accomplished through topicalization
rather than dislocation.

(226)   a. *Initial reference through HTLD*

   Jaalypa, jaalypa yangka   kaji-ka   kanunju wangka

   'jaalypa', whisper aforementioned NFactC-PresImpf down   speak-Npst

   jaalypa-nyayirni.

   whisper-really

   "Jaalypa is like when one speaks in a low voice, very low."

   b. *Subsequent reference through topicalization*

   Ngula-ju marda yi-ka-lu-rla   kulu-rlangu jangkardu-wangka

   that-Top maybe RelC-PresImpf-3pl-Dat anger-for.eg opposing-speak.Npst

   yangka   kanunju kuja-ka-lu   jaaly-ma-ni – jaalypa

   aforementioned down   FactC-PresImpf-3lp plot-Npst   – soft

   kuja-ka-lu   wangka-mi.

   FactC-PresImpf-3pl speak-Npst

   "It is perhaps as when angry people are speaking against someone like in a low

   voice when they are plotting – they speak softly." (Warlpiri Dictionary Project

   1993)

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More research is required to precisely deliminate the discourse situations in which HTLD and topicalization are used, both in Warlpiri and in other languages. However, as expected on crosslinguistic grounds, the Warlpiri constructions differ in their contexts of usage, and furthermore differ similarly to other languages: HTLD used for establishing new topics, and topicalization for refering to established topics.

Thus, Warlpiri exhibits crosslinguistically familiar topicalization and hanging topic left dislocation constructions. Based on analyses of the constructions in other languages (see for example the papers in Anagnostopoulou et al. (1997)), I assume that the topicalization construction involves movement whereas HTLD involves base-generation.[3] Furthermore, we have seen the targets of HTLD and topicalization are distinct, with hanging topics appearing above the projection which hosts topicalized phrases.

4.2.2 Foci

Wh-phrases in Warlpiri appear in a left-peripheral position, as do the focused phrases which replace them in the answer. Additional examples are provided in (227).

(227)   a. **Ngana-patu** ka-lu   wangka-mi?
           who-Pl   PresImpf-3pl speak-Npst
           "Which ones are speaking?"

        b. **Yurntumu-wardingki-patu** ka-lu   wangka-mi
           Yuendumu-habitant-Pl   PresImpf-3pl speak-Npst
           "Yuendumu people are speaking"

        c. **Nyarrpa-jarri-mi** ka-lu   Yurntumu-wardingki-patu?
           how-Incho-Npst   PresImpf Yuendumu-habitant-Pl
           "What are the Yuendumu people doing?"

---

[3]See section 4.3 below for evidence that placement of wh-phrases in Warlpiri involves movement.

d. **Wangka-mi** ka-lu   Yurntumu-wardingki-patu

    speak-Npst PresImpf-3pl Yuendumu-habitant-Pl

    "The Yuendumu people are speaking" (Laughren 2002:[14a,b,d,e])

Notice that in (227d), the verb occupies the focus position, which is perhaps unexpected if the focus position is equated with the specifier of a functional projection. Preverbs may also occupy the focus position:

(228)   **Jurnta**-ju-lu   ya-nu ngaju-ku

       away-1sgO-3plS go-Pst me-Dat

       "They went away from me"

This patterning has been argued to involve prosodic inversion of the second position clitic as a "last resort" to satisfy its need for a phonological host (for example Halpern 1995, Austin & Bresnan 1996). However, Laughren (2002) argues against this position, since it fails to explain the interpretation of the initial verb or preverb as focused. This interpretation indicates that the verb or preverb indeed occupies the focus position. I argued in Legate (2001) that since the preverb may only appear in this position if the overt complementizer is null, the preverb is occupying a head position. Thus, I proposed that the focus feature of FocP may be checked either by movement to the head of FocP, or by movement to its specifier.[4] This analysis is supported by the possibility for complementizers, also heads, to appear in the focus position:

(229)   Kala-lu warru-pu-ngu yapa-patu-rlu kuyu.

       Pst-3pl around-kill-Pst person-Pl-Erg animal

       "People used to kill animals all over." (Laughren 2002:[13a])

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[4]For related claims, see Legate 1996 for Irish predicate movement, Massam & Smallwood 1997 for Niuean predicate movement, and Alexiadou & Anagnostopoulou 1998.

The fact that the verb may appear in the focus position in the presence of an overt complementizer I took to indicate that in addition to head movement, the verb phrase may move to the specifier of FocP (the only derivation permitted by Laughren 2002). This requires that everything but the verb has extracted from the verb phrase. An alternative possibility is that the requirement for the complementizer to be null in preverb focus constructions is related to another property of the preverb focus constructions–the verb is obligatorily positioned after the second position clitic. The syntax of verb-initial and, particularly, preverb-intial sentences has additional layers of complexity (see Laughren 2002 for discussion). However, it is clear that head-like items including verbs, preverbs, and complementizers may appear in the focus position.

Wh-phrases are not in complementary distribution with focused phrases in Warlpiri (unlike, for example, Italian (Rizzi 1997) and Hungarian (Puskas 2000)). When they do co-occur, focus must precede wh:

(230)   (I don't care where the children were playing. ...)

Ya-nu-pala   nyarrpara-kurra kurdu-jarra?
go-Pst-Dual where-All   child-Dual

"Where did the children GO?" (answer: Yalijipiringi-kirra "to Alice Springs")

This suggests that Warlpiri has a projection that hosts wh-phrases distinct from and lower than the focus projection.

A similar finding was also reported by Rizzi (1999) for embedded wh-phrases in Italian. Although in matrix clauses wh-phrases and focused phrases are in complementary distribution in Italian, leading Rizzi to posit that the target of wh-movement in matrix questions is FocP, a wh-phrase in an embedded question may co-occur with a focused phrase.[5] When they do co-occur, the focused phrase must precede the wh-phrase:

[5]He notes, however, additional unexplained restrictions. A PP wh-phrase may not co-occur with a focused direct object.

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(231) a. Mi domando A GIANNI che cosa abbiano detto (non a Piero)

"I wonder TO GIANNI what they have said (not to Piero)

   b. *? Mi domando che cosa A GIANNI abbiano detto (non a Piero)

"I wonder what TO GIANNI they have said (not to Piero) (Rizzi 1999:4[14c,d])

Thus, Rizzi concludes that wh-movement in embedded questions is not to FocP, but to a lower projection in the left periphery.

The idea that wh-movement is not a subcase of focus movement in Warlpiri, but rather movement triggered by a distinct projection receives further support when we consider non-exhaustivity. Non-exhaustivity in Warlpiri can be overtly marked by the suffix -*rlangu* "for example":

(232) Raarlku-raarlku-wapa-mi yangka ka-lu   **nantuwu-rlangu**

have.stripes-Npst   like   PresImpf-3pl **horse-e.g.**

mulyu-ngka-kurlu rdipa-kurlu,   manu **yapa-rlangu** ka-lu

nose-Loc-having   stripe-having and   **person-e.g.** PresImpf-3pl

raarlku-nyina-mi miirnta-kurlu   kuja-ka   karli-mi   mulyu-ngurlu.

be.striped-Npst   mucous-having FactC-PresImpf flow.out-Npst nose-El

"Horses, for example, have stripes on their muzzle, and humans also have lines of snot that streams from their noses." (Warlpiri Dictionary Project 1993)

Focused phrases bearing the suffix -*rlangu* need not move to the left peripheral focus position:[67]

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[6]Note that the wh-phrase *nyiya* "what" marked with -*rlangu* in the question in (233) is an intonationally dislocated sluiced second clause, as reflected in the translation.

[7]Non-exhaustive focus will be further considered in section 4.4.

(233) **A:** Nyiya kaji-ka-lu   nyina wampana-piya-ju,

      what PotC-PresImpf-3pl be.Npst spectacled.hare.wallaby-like-Top

      nyiya-rlangu?

      what-e.g.

      "What ones might be like the spectacled hare wallaby, what for example?"

    B: Kala ka-lu   nyina wampana-piya-ju

      well PresImpf-3pl be.Npst spectacled.hare.wallaby-like-Top

      purdaya-rlangu

      burrowing.bettong-e.g.

      "Ones that are like the spectacled hare wallaby are the burrowing bettongs for example." (Hale field notes)

In this example, *wampana-piya* "like a spectacled hare wallaby" appears in the post-verbal backgrounded position, and the focused *purdaya-rlangu* "burrowing bettong for example" appears after it, perhaps in situ.

Wh-phrases marked with *-rlangu*, in contrast, must move to the wh-focus position. (234) illustrates a wh-phrase marked with *-rlangu* moved to the left peripheral position and interpreted as a wh-phrase. (235) illustrates a wh-phrase marked with *-rlangu* that failed to move to the wh-focus position (appearing after the verb), and thus cannot receive an interpretation as a wh-phrase; instead, it must be interpreted as an indefinite.

(234) **Nyiya-rlangu** kaji-ka-lu   nyina wampana-piya-ju?

     what-e.g.   PotC-PresImpf-3pl be.Npst spectacled.hare.wallaby-?-Top

     "What ones for example might be like the spectacled hare wallaby?" (Hale field notes)

(235) Kaji-lpa-ngku   wanti-yarla **nyiya-rlangu** milpa-kurra ...

     NfactC-PstImpf-2sg fall-Irr   **what-e.g.**   eye-All

"If something were to fall into your eyes ..." (Warlpiri Dictionary Project 1993)

*"What might have fallen into your eyes?"

This indicates that movement of wh-phrases is not a subcase of movement of focused phrases, but rather a separate phenomenon. The analysis proposed here whereby wh-movement and focus movement target different projections allows a straightforward understanding of this finding.

Returning to the positioning of FocP and FocP$_{wh}$, as discussed above, the projection that hosts wh-phrases is distinct from, and lower than the topic projection. Illustrative examples are repeated below:

(236) a. **Pikirri-ji-**<u>npa</u>   **nyarrparla-rla** warungka-ma-nu-rnu?

           spearthrower-Top-2sg where-Loc   forget-cause-Pst-hither

           "Where did you forget the spearthrower on your way here?" (Laughren 2002:[27])

      b. **Kuturu-ju** ka-npa-nyanu   **nyarrpara**-wiyi marda-rni?

           nullah-Top PresImpf-2sg-Reflex **where**-first   have-Npst

           "Where do you have a nullah?" (Hale 1960:7.20-7.21)

The projection that hosts focused phrases can also be shown to be distinct from, and lower than, the topic projection.[8] Consider the following dialogue:[9]

(237) **A:** Jampijinpa-rlu ka   nga-rni   kuyu manu Jungarrayi-rli

          Jampijinpa-Erg PresImpf consume-Npst meat and   Jungarrayi-Erg

          ka   nga-rni   miyi

          PresImpf consume-Npst vegetable.food

          "Jampijinpa is consuming meat and Jungarrayi is consuming vegetables."

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[8]Thanks to Carol Neidle for raising this issue.

[9]The translation is necessarily a little awkward because *nga-rni* in Warlpiri does not distinguish between "eat" and "drink".

B: Japaljarri-rli-ji   ka   nyiya nga-rni?

      Japaljarri-Erg-Top PresImpf what consume-Npst

      "What is Japaljarri consuming?"

A: **Japaljarri-rli-ji**   ka   **pama** nga-rni

      Japaljarri-Erg-Top PresImpf **beer** consume-Npst

      "Japaljarri is consuming beer."

In *A*'s final utterance, *Japaljarri* is the topic, as has been set up by the dialogue and as shown by the topic marker *-ji*. Following this topic (after the second position clitic), is *pama* which is focused as the answer to the wh-question.

4.2.3 Heads

To this point, I have considered the elements occupying specifier projections on the left periphery. Here I would like to consider the elements occupying head positions.

Recall the basic left peripheral structure we have been assuming:

(238)   [(TopP$_{HTLD}$) [ForceP [(TopP*) [(FocP) [(FocP$_{wh}$) [FinP]]]]]]

where TopP$_{HTLD}$ is absent from embedded clauses, since hanging topic left dislocation is a root phenomenon, ForceP types the clause, and FinP expresses finiteness.

Rizzi (1999, 2002b) notes that what have been considered embedded complementizers may be the phonological expression of different heads within the left periphery. Thus, he argues that in embedded finite clauses in Italian, *che* is the head of ForceP, whereas in embedded nonfinite clauses, *di* is the head of FinP.[10]

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[10]Rizzi marks *a Gianni* as a topic in (239a). Recall, however, that I am following Benincà (2001) and Poletto (2002) in considering the lower TopP in Rizzi's hierarchy as an additional FocP.

(239) a. Credo che   ieri QUESTO a Gianni   avereste dovuto dirgli

         Force Top Foc   Top   Fin IP

         "I believe that yesterday THIS to Gianni you should have said"

    b. Penso   a Gianni, di   dovergli parlare

         Force Top   Fin IP

         "I think, to Gianni, to have to talk to him." (Rizzi 2002:14[44])

Rizzi cites Roberts (2001b) for the observation that Welsh embedded finite clauses realize both Force and Fin overtly:

(240) Dywedais i [*mai* 'r   dynion fel arfer *a* [werthith y ci]]

       'said   I C   the men   as usual C will-sell he dog' (Rizzi 2002:14[46])

In Warlpiri, the embedded complementizer *kuja* "that" precedes wh-phrases, indicating that it occupies the position of ForceP, rather than FinP.

(241) Jakamarra-rlu-ju   payu-rnu, **kuja   nyiya** pantu-rnu Japanangka-rlu

       Jakamarra-Erg-1sgObj ask-Pst   **FactC what** spear-Pst Japanangka-Erg

       "Jakamarra asked me what Jakamarra speared" (Granites et al 1976)

However, whether this and other embedded complementizers originate in ForceP in Warlpiri is less clear. These complementizers in Warlpiri express finiteness, possibility, future, (ir)realis mood, and past habitual aspect:[11]

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[11] In addition, *kula* is normally considered a negative complementizer. Laughren (2002) argues that it is generated in the same position as other complementizers but unlike other complementizers obligatorily raises to a head above focused phrases and below topicalized phrases. Thus, in the following example, *ngaju* "I" is interpreted as a topic, and *yani* "go" as focused. If there is no topic, *kula* appears initially.

(1) (Ngaju) kula-ka-rna   ya-ni   ...

    (I)   Neg-PresImpf-1sg go-Npst

    "I'm not *going*/don't *go*" (Laughren 2002 [31])

(242) *(Finite) Complementizers in Warlpiri*

kuja, ngula	Fact
kapu, ngarra	Future
kaji	Nonfact
kala	Past habitual
kala	Potential
yungu, yinga, yi	Cause/Reason

Incorporating Cinque's (1999) hierarchy of functional projections with Rizzi's left peripheral structure, these complementizers express a coherent subsection of the syntactic tree:

(243) $\text{Fin} > \text{T(Past)} > \text{T(Future)} > \text{Mood}_{irrealis} > \text{Mod}_{possibility} > \text{Asp}_{habitual}$

Therefore, if we assume that these complementizers are generated lower in the hierarchy, their content is more easily explained. The subhierarchy of the tree from FinP to $\text{AspP}_{habitual}$ is combined into a single head in Warlpiri, which is morphologically nondivisible. Whether this combination is due to syntactic head movement, or is lexical is not crucial to the current discussion. The latter possibility presumes a theory of crosslinguistic variation whereby a universal hierarchy of features is made available by UG; each language mades a one time choice whether to realize features adjacent in the hierarchy on a single head, or on separate heads.[12]

Positing raising to ForceP rather than base-generation in ForceP may allow a partial

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[12]There must be a limit as to which features may combine into a single head, perhaps related to the oft-mentioned but poorly understood separation of the clause into separate domains–CP, IP, VP. The theory proposed here seems related to the *Feature Scattering Principle* of Giorgi & Pianesi (1997:15):

(1) *Feature Scattering Principle*

   Each feature can head a projection.

However, I have not examined their theory to determine if it differs in detail.

understanding of the rare cases in which *kuja* is found in matrix clauses. In these cases, *kuja* follows the wh-phrase:

(244) **Nyarrpara-rlu kuja** panti-rni?

      How-Erg   **FactC** spear-Npst

      "How to spear it?" (Warlpiri Dictionary Project 1993)

Here, *kuja* fails to raise to ForceP, perhaps due an absence of this projection tied to the unusual properties of this construction (as reflected in the translation).

An additional finite complementizer found in Warlpiri is *japa*, normally glossed as "if" or "whether".

(245) yankirri-**japa**-rna panti-rni?

      emu-**Q**-1sg   spear-Npst

      Is it an emu I'll spear? (Warlpiri Dictionary Project 1993)

However, *japa* is also found in wh-questions:

(246) Jakamarra-rlu-ju   payu-rnu, nyiya **japa** Japanangka-rlu pantu-rnu

      Jakamarra-Erg-1sgObj ask-Pst   what **Q**   Japanangka-Erg spear-Pst

      "Jakamarra asked me what Japanangka speared." (Granites et al 1976)

Both of these examples illustrate the low positioning of *japa*, below the focused phrase *yankirri* "emu" in (245) and below the wh-phrase *nyiya* "what" in (246). However, it does not seem to correspond to the head of any projection considered thus far: the positioning of *japa* after the wh-phrase in (246) indicates it cannot be the head of FocP; its distribution extends beyond wh-questions and thus it should not be equated with the head of $FocP_{wh}$; although it does only appear in finite clauses, its basic meaning is not one of finiteness. Thus, it appears to be the head of an additional projection located between $FocP_{wh}$ and FinP, call it QuP.

Equating this Qu head with the head that forms questions in the semantic literature leads to additional complications. Following standard Hamblin/Karttunen semantics of questions, the head that forms wh-questions and the one that forms yes/no questions are distinct. The head that forms wh-questions takes the proposition expressed by IP and returns the singleton set of that proposition. The head that forms yes/no questions, on the other hand, takes the proposition expressed by IP and returns the set of the proposition and its negation. At this point there are two clear possibilities. One is that the Qu morpheme appears in two different "flavours", Qu_{wh} and $Qu_{yes/no}$, *japa* being used for Qu regardless of this distinction.

The second possibility is that QuP consists of two separate projections, one shared by wh-questions and yes/no questions, expressed by *japa*, and another higher one, unique to yes/no questions. The lower one, henceforth uniquely refered to as Q and expressed by *japa*, takes the proposition expressed by IP and returns the singleton set of that proposition. The higher morpheme unique to yes/no questions, call it YES/NO, takes a set of propositions P and returns a set consisting of the union of P and the negation of the members of P. The choice between these two analyses does not seem possible to make internally to Warlpiri, but must await further crosslinguistic evidence.

To summarize, I have argued for the following projections in the Warlpiri left periphery:

(247)   [(TopP$_{HTLD}$) [ForceP [(TopP*) [(FocP) [(FocP$_{wh}$) [(QuP) [FinP]]]]]]]

4.3 Placement

In this section, I turn to the placement of elements in their left peripheral positions, specifically the placement of wh-phrases in FocP$_{wh}$. I present an argument from island effects and an argument from Weak Crossover effects that wh-phrases move to FocP$_{wh}$ rather than being base-generated in this position.

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To begin, we note that a wh-phrase from an embedded clause cannot appear in the matrix CP to form a matrix question. This is illustrated by (248), which is grammatical only under a reading in which the wh-phrase originates in the matrix clause, despite the fact that this reading is pragmatically less favourable.

(248) **Ngana-ngkajinta**-ngku yimi-ngarru-rnu Jakamarra-rlu, kuja ya-nu wirlinyi

      who-with-2sgObj   speech-tell-Pst Jakamarra-Erg, CFact go-Pst hunting

      Jangala

      Jangala

      "Who did Jakamarra tell you with that Jangala went hunting?" (Granites et al 1976)

      (*"Who did Jakamarra tell you that Jangala went hunting with?")

Instead a scope-marking strategy must be used for long distance questions (see section 4.5 below for an analysis of scope-marking constructions in Warlpiri):

(249) Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja ngana-ngkajinta wirlinyi

      how-2sg   speech-tell-Past Jakamarra-Erg FactC who-with   hunting

      ya-nu   Jangala

      go-Past Jangala

      "Who did Jakamarra tell you Jangala is going hunting with?" (Granites et al 1976)

In contrast, a wh-phrase from a non-finite clause can appear in the matrix focus position, forming a long-distance question.

(250) **Nyiya-kurra** ka-npa   wawirri nya-nyi [e nga-rninja-kurra]

      what-ObjC PresImpf-2sg kangaroo see-NPst [e eat-Infin-ObjC]

      "What do you see a kangaroo eating?"

How do approaches without movement account for these data? Simpson (1991) argues that non-finite clauses are nominal in some sense. Therefore, just as the elements of a

noun phrase may be base-generated in distinct positions throughout the clause, (251), the sub-constituents of the non-finite clause may also be base-generated in discontinuous parts.

(251)   *Discontinuous DPs*

Maliki-rli-ji   yarlku-rnu **wiri-ngki**

dog-Erg-1sgObj bite-Pst   **big-Erg**

"A big dog bit me." (Hale et al 1995:1434)

The alternative approach advocated here, in contrast, attributes the contrast between (248) and (250) to constraints on movement. Thus, extraction from finite clauses is impossible or difficult in many languages, whereas extraction from non-finite clauses (and subjunctives) greatly improves.

Support for the movement-based approach comes from two sources: non-finite adjunct clauses, and Weak Crossover effects. First, the two approaches make different predictions for non-finite adjunct clauses. Under a non-movement account we expect non-finite adjunct clauses, as nominal, should also be able to appear discontinuously. Under a movement-based account, on the other hand, we expect non-finite adjunct clauses, as adjuncts, should be opaque to extraction. The latter prediction is borne out. In the following, the (a) examples are grammatical sentences containing a non-finite adjunct clause; the (b) examples are ungrammatical attempts to extract from the adjunct.[13]

(252)   a. Kurdu-ngku ka   jarntu warru-wajili-pi-nyi karnta-ku,   [miyi

child-Erg   PresImpf dog   around-chase-NPast woman-Dat [food

purra-nja-rlarni.]

cook-Infin-ObvC]

---

[13]The relationship of the adjunct to the main clause is encoded in the non-matrix complementizer. For example, *-kungarnti* indicates that the clause is prior to, in preparation for the main clause (translated as "before" in (253) and "in order to" in (254)).

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"The child is chasing the woman's dog around while she is cooking food" (Hale et al 1995:1439-1440)

b. * **Nyiya-rlarni** ka   kurdu-ngku jarntu warru-wajili-pi-nyi karnta-ku,

    what-ObvC PresImpf child-Erg   dog   around-chase-NPst woman-Dat

    [e purra-nja-rlarni]?

    [e cook-Infin-ObvC]

    "What is the child chasing the woman's dog around while she is cooking?"

(253) a. Wati-ngki-nyanu jurnarrpa   ma-nu, [wurna ya-ninja-kungarnti-rli].

    man-Erg-Reflex belongings get-Pst, [travel go-Infin-PrepC-Erg]

    "The man picked up his things before going on a trip." (Hale et al. 1995:1443)

b. * **Nyarrpara-kungarnti-rli**-nyanu wati-ngki jurnarrpa   ma-nu, [e

    where-PrepC-Erg-Reflex   man-Erg belongings get-Pst, [e

    ya-ninja-kungarnti-rli]?

    go-Inf-PrepC-Erg]

    "Where did the man pick up his things before going?"

(254) a. Karnta-ngku warlu yarrpu-rnu [kuyu purra-nja-kungarnti].

    woman-Erg fire   light-Pst   [meat cook-Infin-PrepC]

    "The woman lit the fire in order to cook meat."

b. * **Nyiya-kungarnti** karnta-ngku warlu yarrpu-rnu [e purra-nja-kungarnti].

    what-PrepC   woman-Erg fire   light-Pst   [e cook-Infin-PrepC]

    "What did the woman light the fire in order to cook?"

Therefore, we have found a movement effect in Warlpiri: finite clauses and non-finite adjunct clauses form movement islands, whereas non-finite argument clauses do not.

The claim that wh-phrases move to their surface position is also supported by Weak

Crossover effects.[14] Recall that Warlpiri does not show the effects of Weak Crossover in short distance questions:

(255) Ngana ka   nyanungu-nyangu maliki-rli wajili-pi-nyi?

who   PresImpf he-Poss   dog-Erg   chase-Npst

"Who$_i$ is his$_i$ dog chasing?" (Hale et al 1995:1447)

However, Weak Crossover effects re-appear in long distance questions:

(256)   * **Ngana$_i$-kurra**-npa nyanungu$_i$-nyangu maliki nya-ngu [e paji-rninja-kurra]?

who$_i$-ObjC-2sg   3$_i$-Poss   dog   see-Pst [e bite-Infin-ObjC]

"Who$_i$ did you see his$_i$ own dog biting?"

(OK without coreference: "Who$_i$ did you see his$_j$ dog biting?")

Instead, a short distance question plus adjoined relative clause is used:

(257) **Ngana$_i$**-npa nya-ngu [kuja-lpa   maliki nyanungu$_i$-nyangu-rlu paju-rnu?]

who$_i$-2sg   see-Pst [FactC-PstImpf dog   3$_i$-Poss-Erg   bite-Pst]

"Who did you see that his dog was biting him?" (Mary Laughren, pc)

What are the implications of the Weak Crossover data for a non-movement approach? The LFG analysis of Weak Crossover, which does not rely on hierarchy and movement, is outlined in Bresnan (1998). Bresnan proposes that such effects are captured by the *Prominence Principle*:

(258) *Prominence Principle (Bresnan 1998:75)*

A binder excludes from its domain any elements more prominent than it.

where:

The **domain** of a binder is the minimal clause or predication structure containing it.

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[14]These data were also considered in Chatper 2, section 2.5.

"Prominence" may be determined either by grammatical function (subject < object < restricted object < oblique < complement ...), by linear order, or by thematic role, resulting in the following possible constraints:

(259)   *Domain Constraints on Pronominal Binding (Bresnan 1998:76)*

    a. The domain of α [the binder] excludes any β that outranks α (in f-structure).

    b. The domain of α excludes any β that precedes α (in c-structure).

    c. The domain of α excludes any β that is thematically more prominent than α (in a-structure).

Languages are claimed to vary as to which of these constraints are active.

As we have seen, Warlpiri fails to show Weak Crossover effects locally, but does show them long distance. Such a distinction in other languages is explained by Bresnan using constraint (259b). Short distance scrambling[15] is claimed to be base generated without an empty category in the θ-position; whereas long distance scrambling does require an empty category in the lower clause. Thus, if the binder of a pronominal scrambles over it from an embedded clause, the binder both precedes the pronominal (as visible from the surface string) and follows it (due to the empty category in the embedded clause), violating constraint (259b). However, if the binder of a pronominal scrambles over it from within the same clause, the binder will only precede the pronominal (since there is no empty category), and constraint (259b) is not violated. Hence, Weak Crossover effects appear with long distance scrambling but not local scrambling.[16]

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[15]where "scrambling" is taken in the broad sense of any word order variation, including for example the initial placement of wh-phrases.

[16]In positing an empty category for long distance movement, the LFG base-generation account approaches a movement-based account. A revised LFG account which does not posit empty categories is proposed by Dalrymple, et al (2001). They replace (259b) with the following:

(1)   a. An operator O is more prominent than a pronoun P if and only if CoargOp f-precedes P.

This analysis requires that constraint (259a) be operative in the grammar of the language, that is that operators must precede the pronouns they bind. To see the effect of this condition, consider German, a scrambling language which also displays long distance but not short distance WCO effects. Bresnan proposes that constraints (259a) and (259b) are both operative in German, and that it is only a violation of both that leads to a WCO violation. This accounts for the following pattern:

(260)   a. dass seine Mutter jeder   mag

           that his   mother everyone.NOM likes

           "that everyone$_i$ likes his$_i$ mother"

        b. dass jeden   seine Mutter mag

           that everyone.ACC his   mother likes

           "that his$_i$ mother likes everyone$_i$"

        c. * das seine Mutter jeden   mag

           that his   mother everyone.ACC likes

           "that his$_i$ mother likes everyone$_i$"

(260a) is grammatical by virtue of not violating constraint (259a), since the operator "everyone" (the subject) functionally outranks the DP containing the pronoun (the object). (260b) is grammatical because it does not violate constraint (259b), since the operator linearly precedes the pronoun. In (260c), both constraints are violated and the sentence is ungrammatical.

---

where *Coarg* consists of the arguments and adjuncts of a single predicate

b. F-precedence f_1 f-precedes f_2 if and only if all c-structure nodes corresponding to f_1 precede all nodes corresponding to f_2

As they demonstrate, their revised version makes the same predictions as Bresnan (1996) without requiring an empty category for long-distance scrambling. Therefore, Warlpiri poses the same difficulties for their account as Bresnan's.

However, the Warlpiri equivalent of (260c), in which the DP containing the pronoun outranks the operator at f-structure, and the DP containing the pronoun precedes the operator at c-structure, is acceptable. In fact, constraint (259b) cannot be active in Warlpiri, since there is no evidence of word order affecting binding possibilities in the language. For example, Simpson (1991) gives both the following as possible word orders for "His dog$_i$ chases Jakamarra$_i$":

(261) a. Jakamarra ka   wajirli-pi-nyi maliki nyanungu-nyangu-rlu

          Jakamarra PresImpf chase-NPst   dog   3-Poss-Erg
          "His$_i$ dog chases Jakamarra$_i$."

       b. Maliki nyanungu-nyangu-rlu ka   Jakamarra wajirli-pi-nyi.

          dog   3-Poss-Erg   PresImpf Jakamarra chase-NPst

          "His$_i$ dog chases Jakamarra$_i$." (Simpson 1991:181)

Perhaps these examples involve coreference rather than binding. An additional example for which coreference is not a possibility comes from Simpson's (1991:183-189) discussion of the suffix -kariyinyanu "another like self".[17] Simpson shows that this suffix behaves as a reflexive in requiring an antecedent in its clause, (262), and, for some speakers of the Wakirti Warlpiri dialect, allowing a logophoric use, (263).

(262) a. Ngarrka-ngku karnta nya-ngu karnta-karinyinyanu paka-rninja-kurra.

          man-Erg   woman see-Pst woman-other.self   hit-Infin-ObjC

          "The man saw the woman hitting another woman."

       b. * Ngarrka-ngku karnta nya-ngu ngarrka-kariyinyanu paka-rninja-kurra.

          man-Erg   woman see-Pst man-other.self   hit-Infin-ObjC

          "The man saw the woman hitting another man." (Granites et al 1976, cited in Simpson 1991:186-7)

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[17]Simpson notes that in Wakirti Warlpiri this suffix may appear as -karinyanu, cf (264) below.

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(263)   Jangala-rlu purda-nya-ngu kuja: "Wara! Nangala-rlu ka   paka-rni

Jangala-Erg think-Pst   thus hey   Nangala-Erg PresImpf hit-Npst

Jangala-kariyinyanu!"

Jangala-other.self

"Jangala thought: 'Hey! Nangala is hitting another Jangala like me!'" (Simpson 1991:188)

Therefore, a DP marked with -*kariyinyanu* (when not used logophorically) acts like a reflexive in having to be bound in its minimal domain.

However, the binder of a DP marked with -*kariyinyanu* need not precede it:

(264)   Maliki-karinyanu-rlu nya-ngu Rocky.

dog-other.self-Erg   see-Pst Rocky

"Another dog like himself saw Rocky." (Simpson 1991:184)

Therefore, constraint (259b) cannot be active in Warlpiri, and cannot be used to explain the presence of long distance WCO effects in Warlpiri. Furthermore, appeal to constraint (259a) or constraint (259c) to account for the Warlpiri data is not possible, since an element scrambled long distance is not in the same minimal clause (and hence not in the same minimal f-structure or a-structure) as the pronominal it binds. Therefore, (259a) and (259c) are inapplicable.

I conclude that the Warlpiri Weak Crossover data are problematic for the LFG non-movement account.

On the approach advocated here, the lack of Weak Crossover effects in short distance movement in Warlpiri is attributed to a process of short distance A-scrambling which remedies WCO violations. I adopt the following as a basic characterization of the WCO constraint:[18]

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[18]Of course, the exact formulation of the WCO constraint (which should ultimately follow from deeper principles) is beyond the scope and needs of this discussion.

(265) Pronoun B may be interpreted as a variable bound by A only if A A-binds B. (Ruys 2000:515)

A-scrambling thus creates new binding possibilities. An operator in object position will not A-bind a pronoun embedded in the subject, for lack of c-command. However, if the operator A-scrambles over the subject, it may bind the pronoun, since in its moved position it c-commands the pronoun from an A-position.

On this approach, both German and Warlpiri exhibit local A-scrambling. Recall the crucial distinction between the two languages that created difficulties for the LFG approach: a pronominal embedded in the subject may not be bound by the object in German if the subject precedes the object, but may be in Warlpiri:

(266) a. * das seine Mutter jeden   mag
             that his   mother everyone.ACC likes
             "that his$_i$ mother likes everyone$_i$"

       b. Maliki-karinyanu-rlu nya-ngu Rocky.
           dog-other.self-Erg   see-Pst Rocky
           "Another dog like himself saw Rocky." (Simpson 1991:184)

On the present analysis, this distinction is attributed to an independent difference between the languages – Warlpiri has productive A'-movement to the left periphery; German does not. Thus, the derivation of (266a) involves movement of the subject to the subject position. (266b), on the other hand, may be analysed as also involving scrambling of the object over the subject, followed by movement of the subject to a topic or focus position in the left periphery.

Returning to long distance WCO effects, recall that both languages do exhibit long distance WCO effects. On the present analysis, this is attributed to the absence of long distance A-scrambling. Long distance A-scrambling has not been reported in the literature, and is likely universally unavailable (see for example Mahajan 1990). Instead, long

distance scrambling is A'-movement, which cannot create new binding possibilities and thereby remedy WCO violations.

To conclude, in this section I have presented new data demonstrating that the placement of wh-phrases in FocP$_{wh}$ is accomplished through movement rather than free base-generation.

In the following section, I turn to the interpretation of FocP.

4.4   Interpretation of Focus

Kiss (1998) argues for a distinction between two types of focus constructions, *identificational* and *informational*, which she defines as follows:

(267)   *Identificational Focus*

An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentialy hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds. (Kiss 1998:245)

(268)   *Informational Focus*

If a sentence part conveys new, nonpresupposed information marked by one or more pitch accents–without expressing exhaustive identification performed on a set of contextually or situationally given entities, it is not an identificational focus but a mere information focus. (Kiss 1998:246)

I summarize the properties he ascribes to each in the following table:

(269)

Identificational	Informational
expresses exhaustive identification	marks information as nonpresupposed
type of constituents restricted *universals, *also/even-phrases	type of constituents unrestricted
takes scope	does not take scope
moved to spec FP	does not involve movement
always coextensive with (moveable) XP	can be larger/smaller
can be iterated	can project

Crosslinguistically, Kiss argues that identificational focus can be [+exhaustive] and/or [+contrastive]. A [+contrastive] identificational focus "operates on a closed set of entites whose members are known to the participants of the discourse" (267).

In this section, I consider the Warlpiri focus position in light of this distinction.

As discussed in section 4.2.2 above, focused constituents in Warlpiri occupy a designated position on the left periphery of the clause, and undergo movement to this position. In this, it behaves as Kiss' identificational focus.

Following Kiss, if the Warlpiri case is indeed an identificational focus, it must be either [+contrastive] or [+exhaustive] or both. Let us consider the feature [+contrastive] first. One of the tests for contrastivity cited by Kiss is whether this type of focus can be used as the answer to a neutral wh-question, that is one in which the wh-phrase is non-D-linked (in the sense of Pesetsky 1987). The following examples apply this test to identificational focus in Italian, which Kiss argues to be [+contrastive].

(270)   a. Chi ha rotto   il   vaso?

           who has broken the vase

           "Who broke the vase?"

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b. # **Maria** ha rotto il vaso.

Maria has broken the vase

"It is **Maria** who broke the vase." (adapted from Kiss 1998:269)

(271) a. Chi di voi due ha rotto il vaso?

which of you two has broken the vase

"Which of you two broke the vase?"

b. **Maria** ha rotto il vaso.

Maria has broken the vase

"It is **Maria** who broke the vase." (adapted from Kiss 1998:269)

Out of context, (270) is a neutral wh-question, since *chi* "who" does not typically refer to a closed set of individuals salient in the discourse. Therefore, unless (270) is embedded in a context which makes such a set of entities salient, the question cannot be appropriately answered by an identificational focus. In (271), on the other hand, *chi di voi due* "which of you two" sets up the salient set of individuals, and the identificational focus in the answer is felicitous.

Applying this test to Warlpiri, we discover that Warlpiri is clearly [-contrastive]. The standard use of the focus position in Warlpiri is to host the answers to neutral wh-questions:

(272) a. **Nyiya** ngapa-ngka nyampirl-wanti-ja?

what water-Loc splash-fall?

"What fell with a splash into the water?"

b. **Kurdu** marda ngapa-kurra wantija.

child perhaps water-All fall-Pst

"The child probably fell into the water." (Warlpiri Dictionary Project 1993)

In (272), the set of entities that may have fallen into the water is not previously known to the participants in the discourse; this is particularly clear in this example in that the first

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speaker uses *nyiya* "what" in the question, anticipating an inanimate object in response, but the answer is animate: *kurdu* "child". Thus, Warlpiri focus is [-contrastive].

If Warlpiri focus is indeed identificational, it must then be [+exhaustive]. Kiss shows that in Hungarian, which exhibits [+exhaustive] focus, exhaustive answers to wh-questions appear in the focus position, whereas non-exhaustive answers appear in situ:

(273) **A:** Hol jártál a nyáron?

where went.you the summer.in

"Where did you go in the summer?"

B: Jártam OLASZORSZÁGBAN.

went.I Italy.to

"I went to ITALY [among other places]".

B': **Olaszországban** jártam.

Italy.to went.I

"It was *Italy* where I went." (Kiss 1998:249-250)

Similarly, in Warlpiri, exhaustive answers to wh-questions are invariably found in the left peripheral focus position, while non-exhaustive answers appear lower:[19]

(274) **A:** Nyiya kaji-ka-lu nyina wampana-piya-ju,

what PotC-PresImpf-3pl be.Npst spectacled.hare.wallaby-like-Top

nyiya-rlangu?

what-e.g.

"What ones might be like the spectacled hare wallaby, what for example?"

---

[19]In this dialogue, the A sentence was produced by Kenneth Hale. I thank Mary Laughren for discussion of exhaustivity in questions and for bringing these examples to my attention.

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B: Kala ka-lu   nyina   wampana-piya-ju

well PresImpf-3pl be.Npst spectacled.hare.wallaby-like-Top

purdaya-rlangu

burrowing.bettong-e.g.

"Ones that are like the spectacled hare wallaby are the burrowing bettongs for example." (Hale field notes)

However, the non-exhaustive answers to wh-questions may prima facie also appear in the focus position in Warlpiri, which is not predicted for [+exhaustive] focus, and is not possible in Hungarian (Katalin É Kiss, pc).

(275) **A:** Nyiya-rlangu kaji-ka-lu   nyina   wampana-piya-ju?

          what-e.g.   PotC-PresImpf-3pl be.Npst spectacled.hare.wallaby-like-Top

          "What ones for example might be like the spectacled hare wallaby?"

      B: Kala – **purdaya-rlangu**   ka-lu   nyina

          well **burrowing.bettong-e.g.** PresImpf-3pl be.Npst

          wampana-piya-ju

          spectacled.hare.wallaby-like-Top

          "Well, burrowing bettongs for example are like the spectacled hare wallaby."

          (Hale field notes)

Furthermore, Kiss argues that certain types of phrases due to their meaning may not occupy a [+exhaustive] identificational focus position, including "also"-phrases. The following example illustrates this for Hungarian:

(276)   * Mari **egy kalapot is**   nézett ki magának.

        Mary a   hat.ACC also picked out herself.DAT

        "It was **also a hat** that Mary picked for herself" (Kiss 1998:252)

However, "also"-phrases do appear to occupy the focus position in Warlpiri:

(277) **Palya-yijala** ka-rla   kanunjumparra nguna-mi, yi-ka-nyanu

wax-also   PresImpf-3Dat underneath   lie-Npst, RelC-PresImpf-Reflex

jaarl-yirrarni minikiyi-rli.

block.passage native.honey.bee-Erg

Wax too lies underneath it, thus the native honey-bee blocks itself in. (Warlpiri
Dictionary Project 1993)

One possible conclusion we may draw is that the Warlpiri focus position is a counterex-
ample to Kiss' typology. It moves to a designated position in the clause and yet must be
informational in that it is neither [+contrastive] nor [+exhaustive]. In fact, Kiss considers
informational focus to be non-quantificational, and indeed there is suggestive evidence that
focus in Warlpiri is non-quantificational, in contrast to wh-phrases.

As discussed in footnote 11 above, Laughren (2002) argues that the clausal negation
morpheme *kula* in Warlpiri is merged in the position of complementizers below focus (FinP
in my terminology), thus accounting for the complementary distribution between *kula* and
the complementizers, and obligatorily raises to a head above the focus position (but lower
than topicalized phrases). Thus, focused phrases appear to the right of *kula*, and topicalized
phrases to its left. In (278a) *ngaju* "I" is interpreted as a topic and *yani* "go" as focused,
while in (278b), *ngaju* "I" is focused.

(278) a. (Ngaju) kula-ka-rna   ya-ni   ...

(I)   Neg-PresImpf-1sg go-Npst

"I'm not *going*/don't *go*" (Laughren 2002:[31a])

b. Kula-ka-rna   ngaju ya-ni

Neg-PresImpf-1sg I   go-Npst

"*I*'m not going/*I* don't go." (Laughren 2002:[31c])

Given the ordering of the left periphery discussed in section 4.2.2 above, we expect
wh-phrases to also appear to the right of *kula*. However, wh-phrases are completely in-

compatible with *kula*. Thus, the only interpretation of *nyarrpara* "where" in (279) is as an indefinite rather than a wh-phrase.

(279) Kula-ka-rna   nyarrpara-kurra ya-ni
       Neg-PresImpf-1sg where-All   go-Npst
       "I'm not going anywhere" (Laughren 2002:[33b])
       *"Where am I going?"

One explanation for the ungrammaticality of (279) on the reading as a wh-question is that this is an intervention effect, with either *kula* intervening between the wh-phrase and its trace, or the wh-phrase intervening between *kula* and its trace. The study of intervention effects has a long history. Two noteable recent contributions include Beck (1996) and Rizzi (2002). Beck (1996) (discussed in more detail in footnote 26) proposes that quantificational elements form barriers for LF movement. Rizzi (2002) argues that the chain consisting of a quantificational specifier and its trace is disrupted by an intervening quantificational specifier, where "quantificational specifiers" include:

(280) Quantificational: Wh, Neg, measure, focus, ... (Rizzi 2002:[61b])

Neither proposal carries over to Warlpiri without additional assumptions, however, the phenomena seem clearly related. If an intervention effect is at issue in (279), this suggests that focus in Warlpiri must not be quantificational, since it fails to exhibit the intervention effect.

Another explanation is possible for the data in (275) and (277) above which apparently show non-exhaustivity for Warlpiri focus. Kiss (1998) and Puskas (2000) discuss an additional position in the Hungarian left periphery, located between TopP and FocP, which hosts universal quantifiers, "also"-phrases, and "even"-phrases. Furthermore, Puskas (2000) notes that movement to this position is optional. Therefore, FocP in Warlpiri may indeed be [+exhaustive], DPs marked with *-rlangu* "for example" and *yijala* "also" optionally moving to an additional projection within the left periphery.

Deciding between these two hypotheses must await further data.

In the following section, I turn to an additional issue in the A'-syntax of Warlpiri: the wh-scope marking construction.

4.5 Wh-scope Marking

In 1976 the following construction was recorded in the Survey of Warlpiri Grammar:

(281) a. Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja-ka
      how-2sgObj   speech-tell-Pst Jakamarra-Erg FactC-PresImpf

      nyarrpara-kurra ya-ni   Jampijinpa?
      where-to   leave-Npst Jampijinpa
      "Where did Jakamarra tell you Jampijinpa is going?"

    b. Jampijinpa ka   ya-ni   kurli-rra
      Jampijinpa PresImpf go-Npst south-All
      "Jampijinpa is going south."

    c. Ngarru-rnu-ju kuja-ka   kurli-rra ya-ni
      tell-Pst-1sgObj FactC-PresImpf south-All go-NPst
      "He told me that he's going south." (Granites et al 1976)

Over a decade later, the counterparts of this wh-scope marking construction in German, Romani, Hindi, Hungarian, and, later, other languages as well, began to generate considerable interest (see especially McDaniel 1989, Dayal 1994, Horvath 1996, and the papers in Lutz, Mller, & von Stechow 2000), however the Warlpiri case largely escaped attention.

Pretheoretically, the wh-scope marking construction as described for these other languages consists of an embedding clause containing a wh-phrase and a verb which does not subcategorize for a question, followed by an embedded clause containing a wh-phrase that takes matrix scope. Examples from German and Hindi are given in (2).

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(282) a. Was denkst du [wen sie mag?]

what think you [who she likes?]

"Who do you think she likes?"

b. Siitaa-ne kyaa socaa [ki ravii-ne kis-ko dekhaa?]

Sita-Erg what thought [that Ravi-Erg who saw?]

"Who did Sita think Ravi saw?" (Lutz, Mller, & von Stechow 2000)

The goal of this section is to provide an analysis of the Warlpiri wh-scope marking construction, which not only accounts for the particular properties of the Warlpiri case, but also explains how it is acquired by speakers of Warlpiri. I demonstrate that the construction can be seen as a natural consequence of other properties of Warlpiri grammar, specifically the discontinuous constituent construction.

I begin in section 4.5.1 with a brief introduction to the wh-scope marking construction in Warlpiri. Section 4.5.2 reviews the two major approaches to the wh-scope marking construction: the "direct dependency" and "indirect dependency" approaches, and the difficulties encountered in simply adopting one of these approaches for Warlpiri. Developing an alternative proposal requires an understanding of the properties of the matrix verbs used in these construction, verbs of communicated message, notably *ngarrirni* "tell" and an understanding of the properties wh-phrase used in these constructions: *nyarrpa* "how". These issues are addressed in section 4.5.3. Finally, in section 4.5.4, I develop an indirect dependency style analysis of the Warlpiri wh-scope marking construction.

4.5.1 Basic Properties

In this section, I present the basic properties of the wh-scope marking construction as it is found in Warlpiri. To begin, it is important to ensure that the Warlpiri examples are truly wh-scope marking constructions rather than a sequence of two questions; thus that (283) below would not be more properly translated as "What did Jakamarra tell you? What did

Japanangka spear?".

(283)   Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu [kuja   nyiya pantu-rnu

how-2sg   speech-tell-Pst   Jakamarra-Erg [FactC what spear-Pst

Japanangka-rlu]

Japanangka-Erg]

"What did Jakamarra tell you Japanangka speared?" (Granites et al 1976)

The first point to notice is that the complementizer kuja "that" introduces the embed-
ded clause in (283). This complementizer has an extremely limited distribution in matrix
questions, appearing if the wh-phrase is clefted, (284a), and in rare futurate questions like
(284b):

(284)   a. Wayipurru-rnu-lpa-lu miyi yawakiyi.   Nyiya-kurra kuja-lu   ma-nu?

gather-Pst-PstImpf-3pl fruit wild.currant what-All   FactC-3pl get-Pst

"They gathered up the wild currants. What was it that they gathered them
into?"

b. Nyarrpara-rlu kuja panti-rni?

How-Erg   that spear-Npst

"How to spear it?" (Warlpiri Dictionary Project 1993)

Even in these cases, the wh-phrase precedes the complementizer kuja, whereas in (283)
the wh-phrase follows kuja. Thus the embedded clause in (283) is not interpretable as an
independent question:

(285)   * Kuja   nyiya pantu-rnu Japanangka-rlu

FactC what spear-Pst Japanangka-Erg

"What did Japanangka spear?"

The ordering in which the wh-phrase follows the complementizer is rather that found in
non-matrix questions:

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(286) Jakamarra-rlu-ju   payu-rnu, kuja   nyiya pantu-rnu Japanangka-rlu

      Jakamarra-Erg-1sgObj ask-Pst   FactC what spear-Pst Japanangka-Erg

      "Jakamarra asked me the identity of what Jakamarra speared" (Granites et al 1976)

In addition, native speaker intuitions support treating the construction as a single sentence, rather than a sequence of questions. One speaker that I consulted commented:

> "[such] examples are correct, but we would use a couple of simpler sentences
>
> intead of the one long and complex one. Old people would use sentences like
>
> this. I (Bess) would make a series of short statements with 'mayi' tagged on as
>
> a question marker." (Bess Nungarrayi Price)

I conclude that the Warlpiri case is indeed a wh-scope marking construction rather than a sequence of questions.

In (at least) Hungarian, the wh-phrase found in the matrix clause of the wh-scope marking construction appears to be determined by the matrix verb. Thus, in Hungarian the matrix wh-phrase is not invariant, but rather depends on the matrix verb:

(287) a. **Mit**   gondolsz, hogy kit   látott   János
           what.Acc think.2sg that who.Acc saw.3sg John.Nom
           "Who do you think that John saw?"

       b. **Mire**   szàmìtasz, hogy melyik fiùval   fog Mari   beszèlni
          what-Al count-2sg, that which boy-with will Mary-Nom speak-Inf
          "On what do you count with which boy Mary will speak?" (Horvath 1997)

In Warlpiri, the wh-phrase that appears in the matrix clause in Warlpiri is *nyarrpa* "how". Significantly, this is the wh-phrase used to question the dependent clause of verbs of communicated message.[20] Compare (288a) and (288b).

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[20]The usage of *nyarrpa* will be further considered below.

(288) a. **Nyarrpa-rlu**-ngku yimi-ngarru-rnu

  how-Erg-2sgObj   speech-tell-Pst

  "What did (s)he tell you?"

  b. **Nyiya** ka   nga-rni

  what PresImpf eat-Npst

  "What is (s)he eating?"

In (at least) Hindi and certain German dialects, the SMC is the preferred manner of asking a long distance question, long distance wh-movement being highly restricted. Likewise, in Warlpiri the SMC does not alternate with a long-distance wh-movement strategy. As illustrated in (289), finite clauses are islands in Warlpiri, and so a wh-phrase must be interpreted as originating in the clause in which it appears.

(289) Ngana-ngkajinta-ngku yimi-ngarru-rnu Jakamarra-rlu, kuja   ya-nu wirlinyi

  who-with-2sgObj   speech-tell-Pst   Jakamarra-Erg, FactC go-Pst hunting

  Jangala

  Jangala

  "Who did Jakamarra tell you with that Jangala went hunting?" (Granites et al 1976)

  *"Who did Jakamarra tell you that Jangala went hunting with?"

Crucial to an analysis of the Warlpiri SMC is an understanding of its acquisition. The construction is rarely used: the Warlpiri Dictionary (Warlpiri Dictionary Project 1993), which also serves as an extensive corpus, contains not a single example of the construction, and Kenneth Hale in over 40 years of interaction with the Warlpiri people did not encounter any spontaneously-produced tokens (Kenneth Hale, pc). Instead, speakers opt for a series of questions, or an adverbial strategy eliciting the opinion of the speaker:

(290) a. Nyiya ngarra ka   nya-nyi parntarri-nja-karra-rlu?

    what   indeed PresImpf see-Npst crouch-Inf-SubjC-Erg

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"What indeed could he be seeing crouching over there?" (Granites et al 1976)

b. Nyarrpara-kurra nganta ka ya-ni?

where-All reportedly PresImpf go-Npst

"Where reportedly is he going?"

And yet speakers volunteer the construction when asked to translate sentences involving long-distance wh-movement for which the adverbial strategies cannot be used (e.g. "What did Japanangka tell you Jakamarra speared?"). Furthermore, speakers invariably understand the construction when presented with examples, and have clear intuitions about the grammaticality of permutations of the construction. Therefore, children must be able to infer the grammaticality of the SMC from more general principles of the language, without ever having to encounter it during acquisition.[21]

In the following section, I consider previous analyses of the wh-scope marking construction in other languages.

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[21]An anonymous reviewer for the Australian Journal of Linguistics (AJL) raised the question of whether the wh-scope marking construction could be traced to the influence of long-distance questions in English, given that my consultants are fluent in English. Several considerations make this unlikely. Obviously, the construction itself is ungrammatical in English (*What did Japanangka tell you what Jakamarra speared?). Furthermore, the Warlpiri instantiation of the construction is particularly non-English in that it uses "how" in the matrix clause, rather than "what"–as discussed in 4.5.3 below, Warlpiri uses "how" to question propositions; in languages with the construction in which "what" is used to question propositions (e.g. German, Hindi), "what" appears in the matrix clause. Finally, according to the impressions of one of my consultants, the construction is not an innovation growing along with the influence of English on the community, but rather is more characteristic of the speech of the elderly, and is falling into disuse (Bess Nungarrayi Price, pc). Historical and comparative investigation supporting this impression would be ideal.

4.5.2 Previous Analyses

Analyses of the wh-scope marking construction fall into two classes, which Dayal (1994) terms the *direct dependency* and *indirect dependency approach*.[22] In this section, we examine each type of analysis in turn, although we cannot go into the details of every variant within the two types. An open question is whether what is refered to as the wh-scope marking construction is truly a unified phenomenon across languages, or whether there are two distinct constructions across languages, one properly analysed with a direct dependency analysis and the other by an indirect dependency analysis. Indeed, Bruening (2001), in examining the case of Passamaquoddy, claims that not only are there two distinct constructions, but that both may be realized in a single language. This section will not consider the resolution of this issue, but simply which approach is appropriate for Warlpiri. Thus, the discussion will support the indirect dependency approach in that it is shown to be necessary for Warlpiri, but will leave open whether this approach is applicable universally.

Direct Dependency

The first approach we will consider his the direct dependency approach, proposed in Riemsdijk (1982), and more fully articulated in McDaniel (1989), McDaniel et al (1995), and subsequent work. These approaches are characterized by the idea that the wh-phrase in the matrix clause and the wh-phrase in the embedded clause form a single wh-chain. The similarity between the scope-marking constructions and full movement constructions is thus maximized.

For concreteness, consider a simple version of this approach. The matrix wh-phrase is a wh-expletive, inserted directly into the [spec, C] position, to type the clause (cf Cheng 1991, Brandner 2000), or check the wh-feature of C. The embedded clause occupies the

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[22]Mahajan 2000 develops an apparently mixed approach which upon further inspection reduces to the direct dependency approach (see Dayal 2000 and von Stechow 2000).

complement position of the matrix verb. At LF, the embedded wh-phrase moves to replace the wh-expletive, thus achieving the desired meaning, and satisfying Full Interpretation (Chomsky 1986).

A further issue sometimes addressed in the literature, is what it is that distinguishes languages that have wh-scope marking constructions from those that do not. McDaniel (1989) and McDaniel et al (1995) present two different responses. I will first discuss these responses and the difficulties with them for Warlpiri, and then consider the applicability of the direct dependency approach in general for Warlpiri.

McDaniel (1989) proposes that wh-scope marking constructions are interpreted via "absorption", a mechanism proposed by Higginbotham & May (1981) and Huang (1982) to account for the pair-list readings of multiple wh-questions. Thus, the features of multiple wh-phrases are "absorbed into a single super feature matrix" (McDaniel 1989:711), the wh-phrases then being bound by a single wh-operator, coindexed with all of them. McDaniel claims that the difference between languages with wh-scope marking constructions and those without is the timing of absorption. As a first pass, a wh-scope marking language allows absorption at S-structure as well as at LF, whereas a non-wh-scope marking language allows absorption only at LF.

In fact, McDaniel's analysis is more fine-grained, making a four-way distinction: (i) languages without absorption, which have no multiple wh-constructions and only full wh-movement; (ii) languages with LF absorption, which have English-style multiple wh-constructions and only full wh-movement; (iii) languages with "weak" S-structure absorption (as well as LF absorption), which also allow wh-scope marking constructions; and (iv) languages with "strong" S-structure absorption (as well as LF absorption), which also allow multiple wh-constructions in which the wh-phrases move to different CP projections.

Immediate issues with this particular implementation arise for Warlpiri. Since it allows wh-scope marking constructions, Warlpiri must be a language with (weak) S-structure absorption. However, as a language that disallows multiple wh-constructions, Warlpiri

should lack the absorption operation altogether. Only one wh-phrase may appear in the left-peripheral position, and phrases lower in the clause structure are interpreted as indefinites.

(291)   a. Ngula-rla **nyiya** wanti-ja langa-kurra kamta-ku-ju   jarda-kurra-ku.
            Then-3Dat **what** fall-Pst ear-All   woman-Dat-Top sleep-ObjC-Dat
            "Then something fell into the woman's ear while she slept."

        b. Ngaju ka-rna   jaaljaal-jarri-mi   **nyiya**-kurra.
            1   PresImpf-1sg feeling-Incho-Npst **what**-All
            "I have a feeling about **something**" (Warlpiri Dictionary Project 1993)

A possibility not considered by McDaniel in the typology is a language which allows weak S-structure absorption, but not LF absorption. Such a language would be like Warlpiri in allowing wh-scope marking constructions but not multiple wh-constructions. However, this suggestion will not rescue the analysis for Warlpiri; it predicts that multiple wh-questions should be available in Warlpiri only in the presence of wh-scope marking. This prediction is not borne out:

(292)   * Nyarrpa-ngku yimi-ngarru-rnu Japaljarri-rli   kuja   ngana nyarrpara-kurra
          how-2sgO   speech-tell-Pst Japaljarri-Erg FactC who   where-to
          ya-nu?
          go-Pst
          "Who did Japaljarri tell you went where?"

McDaniel et al (1995) propose a different explanation of the distinction between between languages with and without wh-scope marking constructions. Building on work by Rizzi (1990), McDaniel et al relate the licensing of the embedded wh-phrase in wh-scope marking constructions with the licensing of wh-phrases in relative clauses. In languages without wh-scope marking constructions, a feature on the complementizer ([pred])

differentiates complementizers found in relative clauses from those found in other [-wh] clauses. Wh-phrases are then restricted from appearing with a [-wh] complementizer unless it has the appropriate [+pred] feature. In languages with scope-marking constructions, it is claimed, the [pred] feature is absent from the language, and wh-phrases may appear freely with [-wh] complementizers (as long as the wh-phrase is A'-bound). McDaniel et al note that this analysis predicts that languages with wh-scope marking constructions will show no distinction between the embedded clause of a wh-scope marking construction and relative clauses: "whatever may appear in the Spec or C of one may appear in the Spec or C of the other" (736).

This implementation is problematic for Warlpiri as well, since wh-phrases cannot appear in relative clauses. Warlpiri has adjoined relative clauses, as shown in (293) (see Hale 1976, Larson 1985), which uniformly display the complementizer *kuja* "that".[23]

(293) a. Jarntu-ngku kuja   ngarrka yarlku-rnu, kapu paka-rni

           dog-Erg   FactC man   bite-Pst   FutC strike-Npst

           "The dog that bit the man, he will belt it."

       b. Ngarrka kuja   jarntu-ngku yarlku-rnu, ngula-ngku kapu paka-rni

           man   FactC dog-Erg   bite-Pst   that-Erg   FutC strike-Npst

           "The man whom the dog bit, he is going to belt it."

Generalizing beyond these specific proposals, there are several difficulties with the direct dependency proposal for Warlpiri. To begin, such an approach cannot explain the

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[23]Or rather the same range of complementizers found in finite clauses; (1) illustrates the non-fact complementizer:

(1) Ngarrka yangka kaji   jukurra ya-ni-rni,   ngula-ngku-ju pirrarni-rli yu-ngu maniyi

     man   that   NfactC tomorrow go-Npst-hither, that-Erg-Top yesterday-Erg give-Pst money

     "The man who will come tomorrow, he gave me money yesterday" (Granites et al 1976)

choice of matrix wh-phrase in Warlpiri as *nyarrpa* "how", rather than a wh-phrase more plausibly a default–*nyarrpara*, for example, which is used as "where", "how", "what", "who", "which", and "why not". In section (4.5.3) below, I discuss the use of *nyarrpa* to question the dependent clause of *ngarrirni* outside of the wh-scope marking construction:

(294)   Nyarrpa-rlu-ngku yimi-ngarru-rnu

       how-Erg-2sg   speech-tell-Past

       "What did (s)he tell you?"

Under the direct dependency approach, the choice of *nyarrpa* as the wh-expletive in the wh-scope marking construction cannot be related to the use of *nyarrpa* to question the dependent clause of *ngarrirni*. I consider this a serious defect of this approach.

An additional argument against the direct dependency approach raised by Dayal (1994) for Hindi, is the possibility for the embedded clause to be a yes/no question:

(295)   ravi-ne kyaa kahaa ki   anu aayegii yaa nahiiN

       Ravi-E what say-P that Anu come-F or   not

       "What did Ravi say, will Anu come or not?" (Dayal 2000:p118[ex22a])

Such examples are problematic for the direct dependency approach because prima facie there exists no wh-phrase in the embedded clause to form an expletive-associate chain with the matrix wh-expletive and to replace it at LF. This should lead to a violation of Full Interpretation (Chomsky 1986), which prohibits elements without a semantic interpretation from persisting to LF, and may lead to a violation of the selectional requirements of the matrix verb, since the embedded clause is [+wh].

Beck & Berman (2000) further argue that positing LF movement of "whether" does not rescue the analysis. Such movement fails to produce the desired reading, and produces a non-existent reading. Beck & Berman give the following illustrative example, where (296b) is the desired answer set, and (296c) is the predicted answer set:[24]

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[24]However, their conclusion only holds if we accept their semantics for "whether". If instead, "whether"

(296) a. peter-ne kayaa kahaa ki   merii party-par thii yaa nahiiN?

Peter   what said   that Mary party   was or not

"What did Peter say about whether Mary was at the party?"

b. {Peter said that Mary was at the party, Peter said that Mary wasn't at the party}

c. {Peter said that Mary was at the party, Peter didn't say that Mary was at the party} (Beck & Berman 2000:81[ex44])

(297) illustrates that embedded yes/no questions may also appear as the dependent clause in Warlpiri.[25]

(297) Nyarrpa-ngku Jangala-rlu yimi-ngarru-rnu yankirri-japa Japanangka-rlu

how-2sg   Jangala-Erg speech-tell-Pst emu-Q   Japanangka-Erg

pantu-rnu?

spear-Pst

"What did Jangala tell you, was it an emu that Japanangka speared?"

Finally, recall the acquisition criterion discussed above: an analysis of wh-scope marking in Warlpiri must reduce the construction to independent properties of the language, to

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were a quantifier that left a trace under movement, the correct answer set would be predicted. In fact, for the correct answer set to be predicted under a direct dependency approach would be undesirable for Beck & Berman in that they claim that German should be analysed with a direct dependency analysis, and attribute the ungrammaticality of a yes/no question in the embedded clause in German wh-scope marking constructions to this analysis. Indeed, although the possibility for a yes/no question in the embedded clause has figured prominently in the literature on wh-scope marking, as an argument against a direct dependency approach for languages that allow it, and for a direct dependency approach in languages that disallow it, it may not be a clear argument on either side. Pending further evidence on the issue, I conclude that the possibility for a yes/no question in the embedded clause (in languages in which it is grammatical) is at least a potential problem for the direct dependency account, whereas it is predicted on the indirect dependency account, considered below.

[25]See section (4.2.3) above for a discussion of *japa*.

explain its acquisition in the absence of construction-specific data. The direct dependency approach does not meet this criterion. Not only does it not reduce the construction to other properties of the language, it sets the construction apart as an anomaly. The approach requires the matrix wh-phrase to be an expletive, and yet Warlpiri systematically lacks expletives. Furthermore, the approach posits LF movement of the embedded wh-phrase to replace the matrix expletive, and yet nowhere else do we find evidence for movement from finite clauses in Warlpiri, be it overt movement or covert.

Given these difficulties with the direct dependency approach for Warlpiri, I turn in the next section to the alternative, the indirect dependency approach.

Indirect Dependency

The indirect dependency approach was first proposed by Dayal (1994) largely based on data from Hindi, and has been adopted and modified in much subsequent work. The core idea of the approach is that the matrix wh-phrase is not an expletive, but rather the object of the matrix verb, semantically restricted by the dependent clause. Here I present a variant of the analysis that consists of an amalgam of elements of other proposals. The matrix wh-phrase and the embedded clause are merged as a constituent in object position of the matrix verb, with the embedded clause serving as the semantic restriction of the matrix wh-phrase. Subsequently, the embedded clause is optionally postposed and the matrix wh-phrase undergoes wh-movement.[26]

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[26] This version of the analysis differs from Dayal (1994) in that Dayal proposed that the embedded clause is merged into the sentence adjoined at the CP level and related to the matrix wh-phrase through semantic mechanisms, whereas I claim that the embedded clause is merged into the sentence forming a constituent with the matrix wh-phrase. One piece of evidence for the version of the analysis I propose comes from a much-discussed distinction between wh-scope marking constructions and long distance wh-movement: the latter but not the former allows the presence of negation in the matrix clause. This is illustrated below for German:

(1) a. * Was glaubst du nicht, mit wem Maria gespochen hat?

        what believe you not with whom Maria talked has

     b. Mit wem glaubst du nicht, dass Maria gesprochen hat?

        with whom believe you not that Maria talked has

        "Who don't you think Mary talked to?" (Beck & Berman 2000:63[14,15])

Although Dayal (1994) proposes an analysis of this contrast, Beck & Berman (2000) demonstrate that it is untenable (see the authors cited for details).

Beck & Berman, pursuing a direct dependency analysis, propose that the ungrammaticality of (1a) should fall under a generalization discovered by Beck (1996) that negation forms a barrier to covert movement but not overt movement, under the assumption that in situ wh-phrases in multiple wh-questions must move covertly, and that the stranded restriction of a wh-word must also move covertly.

(2) a. ?? Wen hat neimand wo gesehen?

        whom has nobody-NOM where seen

        "Where did nobody see whom?"

     b. Wen hat Luise wo gesehen?

        whom has Luise where seen

        "Who did Luise see where?" (Beck & Berman 2000:78[35b,36b])

(3) a. ?? Wen hat keine Studentin von den Musikern getroffen?

        whom has no student-FEM.NOM of the musicians met

        "Which of the musicians did no student meet?"

     b. Wen hat Luise von den Musikern getroffen?

        whom has Luise of the musicians met

        "Which of the musicians did Luise meet?" (Beck & Berman 2000:78[35c,36c])

The ungrammaticality of (1a) follows from this generalization under a direct dependency account in that the embedded wh-phrase must undergo covert movement to replace the matrix wh-expletive. The negation in (1a) forms a barrier to this movement. (1b), on the other hand, involves overt movement, and thus the negation does not form a barrier to this movement.

Beck & Berman (2000) conclude that "there is a well-motivated explanation of the negation asymmetry [in (1)] in terms of the direct dependency analysis, while, ... it is not clear that the same can be said for the

The resulting meaning for *ravi-ne kyaa kahaa ki merii kis-se baat karegii* "What did John say, who will Mary talk with?" may be rendered as "what proposition in the set 'who will Mary talk with' did John say?".[27]

The application of such an analysis to Warlpiri must face a number of issues. The first

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indirect dependency approach". However, under the indirect dependency approach pursued here, according to which the matrix wh-phrase and the embedded clause are generated as a constituent, Beck & Berman's analysis simply carries over, as they themselves note in a footnote (2000:79[ftn12]). The wh-scope marking construction, according to this version of the indirect dependency approach, involves the separation of the wh-word and its restriction; thus the ungrammaticality of (1a) is equivalent to the ungrammaticality of (3a), both involving the separation of a wh-word from its restriction with negation intervening between the two.

The issue cannot be clearly formulated in Warlpiri in that it disallows clausal negation in wh-questions, while allowing clausal negation in sentences containing a focused phrase. As discussed in footnote 11 above, the negative marker *kula* obligatorily raises above the focus position. Thus, (4a) is uninterpretable as a wh-question, whereas (4b) allows a focused reading for *ngaju* "I".

(4) a. Kula-ka-rna   nyarrpara-kurra ya-ni
         Neg-PresImpf-1sg where-All   go-Npst
         "I'm not going anywhere" (Laughren 2002:[33b])
         *"Where aren't I going?"

     b. Kula-ka-rna   ngaju ya-ni
         Neg-PresImpf-1sg I   go-Npst
         "*I*'m not going/*I* don't go." (Laughren 2002:[31c])

See Lahiri 2002 for additional semantic arguments for the wh-phrase and the embedded clause forming a constituent at some point during the derivation.

[27]One issue with this analysis is that the matrix wh-phrase and the embedded clause cannot appear on the surface as a constituent. This fact is clearly related to the impossiblility of the constituent *it* + *CP* in the *it* extraposition construction (Stowell 1981), and an explanation of one should carry over to the other. In Warlpiri, the issue does not arise as sharply in that the language does not permit multiple questions, thus we do not expect to see the wh-phrase + CP in situ; furthermore, there is a strong dispreference for long constituents in the pre-auxiliary position, thus we would not expect to see the wh-phrase + CP in the moved position either.

issue is that Warlpiri is standardly assumed not to exhibit wh-movement (see for example Hale 1994, and Bresnan 2000). In section 4.3 above, I argued that Warlpiri does indeed have wh-movement. The second issue is that Warlpiri is standardly assumed not to possess embedded finite clauses (for example Hale et al. 1995). This is the topic of the following section. Finally, there are the Warlpiri-specific properties of wh-scope marking that must be explained: the use of *nyarrpa*, and the acquisition of the construction in the absence of construction-specific data. These will be shown in section 4.5.4 to fall out of the indirect dependency account.

4.5.3   Embedded Finite Clauses

It is standardly claimed in the Warlpiri literature (see for example Hale et al 1995) that Warlpiri lacks embedded finite clauses. Thus, non-matrix finite clauses are claimed to be adjoined, rather than embedded as a verbal complement. In this section, I examine this claim for the verb *ngarrirni* in its usage as a verb of communicated message meaning "to tell",[28] and like verbs. I demonstrate that the dependent finite clauses can function as adjuncts, but argue that this is not their only usage; non-matrix finite clauses also may function as complements. In doing so, I am led to examine the distribution of the wh-phrase *nyarrpa*. I argue that although this wh-phrase has a basic use as a manner adverb, it has extended uses to question a verb-phrase and to question propositions, compensating for the more restricted use of *nyiya* "what" in Warlpiri, as compared with English *what*.

Ngarrirni

The verb *ngarrirni* is a verb of communicated message, often translated as "tell". It may take a DP argument that is the goal/recipient of the message, either appearing in the dative

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[28]*ngarrirni* is also used to mean "to call", and has extended meanings similar, but not identical, to *say* and *tell* in English, including "indicate" and "swear at".

case, or the unmarked absolutive. Additionally, it may take a DP argument in absolutive case corresponding to "about DP" in English. Examples follow:

(298) a. (Payu-rnu-jana panu-kari: "Nyarrpara-rla ka   Japangardi nyina?")

          ask-Pst-3plObj many-other where-Loc   PresImpf Japangardi sit-Npst

          Ngula-lu-**rla**   ngarru-rnu panu-kari-rli: "Yatijarra."

          then-3pl-**3Dat** tell-Pst   many-other-Erg north

          "(He asked the others: "Where's Japangardi?") The others told him: "North.""

     b. (Kaji-lpa-nkulu   yangka yapa   wirrkardu ya-ntarla, jinta kaji-lpa

          PotC-PstImpf-2pl like   person several   go-Irr   one   PotC-PstImpf

          kulkurru karri-yarla,) kaji-ka-palangu   ngarri-rni-lki **jirrama-kari-ji**:

          partway   stand-Irr   PotC-PresImpf-3Dual tell-Npst-then **two-other-Top**

          "Nyumpala-pala ya-nta,   kamparru, wangka-nja-rlarni, ngaju

          you.two-Dual   go-Imperative ahead   speak-Infin-ObvC I

          ka-rna-rla   nyampu-ku ya-ni   – yapa-ku   wangka-nja-ku."

          PresImpf-1sg-3Dat here-Dat   go-Npst   person-Dat speak-Infin-Dat

          If several of you go out hunting, and if one stops on the way, he might tell the other two: "You go on ahead while I talk. I am going to talk to this person here."

     c. Kula-jarrangku **ngajarra**   ngarru-rnu-rra   lawa. (Kula-ju

          Neg-1DualExcl **we.Dual.Excl** tell-Pst-thither? no   Neg-1sgObj

          ngaju-rlangu jakuru-rra   pu-ngu lawa ya-nu wurulypa.)

          1-for.eg   bye-thither hit-Pst no   go.Pst sneak

          "He didn't tell us two. He didn't tell me at least he was leaving, he just snuck off." (Warlpiri Dictionary Project 1993)

     d. Japanangka-rlu-ju   yimi-ngarru-rnu Jangala ngaju-ku

          Japanangka-Erg-1sgObj speech-tell-Pst   Jangala 1-Dat

"Japanangka told me about Jangala." (anonymous reviewer AJL, pc)

Although the adjunct status of the non-matrix clauses associated with *ngarrirni* and like verbs has typically been asserted rather than argued for, there are several indications that it is indeed true. First, as mentioned above, the wh-phrase used to question the clause is not *nyiya* "what", but rather *nyarrpa* "how":

(299) a. Kaji-lpa-ngku   yapa-kari   nyarrpa wangka-yarla,

NfactC-PstImpf-2sgObj person-other how   say-Irr

pina-nya-nja-wangu kaji-ka-npa-rla   kuja wangka-mi, "**Nyarrpa?**

hear-Infin-without NfactC-PresImpf-2sg-Dat thus say-Npst   **how**

Pina   wangka-ya-rni-ji!   Kula-rna-ngku   pina-nya-ngu."

knowledge talk-Imper-hither-1sg NegC-1sg-2sgObj hear-Pst

"If someone says something to you, (and you) don't hear it, you might say to

him, "What? Say it to me again! I didn't hear you.""

b. "**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu   kukurnu-rlu

how-Erg-2sgObj   tell-Assoc.motion-Pst-hither little.brother-Erg

ngaju-ku-pirdangka-rlu?" "Kala-ju   yimi-ngarru-rnunjunu-rnu

I-Dat-sibling-Erg   PstC-1sgObj speech-tell-Assoc.motion-Pst-hither

yungu-lpa-npala   wapa-ja wurnturu ngurrara-kari-rla

RelC-PstIMpf-2Dual walk-Pst far   country-other-Loc

yapa-kurlu-kurlu-wangu-rla   kulkurru-kulkurru."

person-having-having-without-Loc country.without.people

"What did my young brother come and tell you?" "Well he came and told me

that you two went a long way in another country where there were no people –

all by yourselves." (Warlpiri Dictionary Project 1993)

(300) illustrates the basic function of *nyarrpa* as the manner "how", in the range of usages possible for a wh-phrase in Warlpiri: a wh-phrase, (300a) and an indefinite, (300b).

(300) a. "**Nyarrpa-rlu** ka-nkulu   yiri-ma-ni?" "Kala palya-ngku

how-Erg   PresImpf-2pl sharpen-Npst PotC adze-Erg

ka-rnalu   yiri-ma-ni."

PresImpf-1plExcl sharpen-Npst

"How do you sharpen it?" "Well we sharpen it with an adze."

b. Ngula-jangka-ju yalumpu-ju-lku kala   muru-pu-ngu nganjurrngu-rla-lku –

FactC-El-Top   that-Top-then   Emph inside-hit-Pst mud-Loc-then

marlu   nyanungu-ju – kula **nyarrpa** parnka-yarla – yalumpu-juku kala

kangaroo that-Top   Neg **how**   run-Irr   that-still   PstC

ngirnti-ngki-li ma-nu, kala pu-ngu.

tail-Erg-2pl   get-Pst PstC hit-Pst

"Then it made that one go into the mud – that kangaroo – he couldn't run at

all – it was right there that they grabbed hold of him by the tail, killed him."

(Warlpiri Dictionary Project 1993)

(299a), repeated below as (301), illustrates that *nyarrpa* may also be used as an indefinite with the verb *ngarrirni*.

(301) Kaji-lpa-ngku   yapa-kari   **nyarrpa** wangka-yarla,

NfactC-PstImpf-2sgObj person-other **how**   say-Irr

pina-nya-nja-wangu kaji-ka-npa-rla   kuja wangka-mi, "Nyarrpa? Pina

hear-Infin-without   NfactC-PresImpf-2sg-Dat thus say-Npst   **how**   again

wangka-ya-rni-ji!   Kula-rna-ngku   pina-nya-ngu."

talk-Imp-hither-1sgObj NegC-1sg-2sgObj hear-Pst

"If someone says something to you, then not hearing it you might say, "What? Say

it to me again! I didn't hear you.""

In addition, (299b) above, repeated below in part as (302) demonstrates that when *nyarrpa* is used to question the dependent clause, it may bear ergative case marking. This is

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true of *nyarrpa* in general, witness (300a) above, and is true of manner adverbs in general: when used in a clause with an ergative subject, the manner adverb bears ergative case, as shown in (303):[29]

(302) "**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu kukurnu-rlu

  how-Erg-2sgObj   tell-Assoc.motion-Pst little.brother-Erg

  ngaju-ku-pirdangka-rlu?"

  I-Dat-sibling-Erg

  "What did my young brother come and tell you?" (Warlpiri Dictionary Project 1993)

(303) a. Nga-rnu-lu muku kurdu-kurdu-rlu **yarnunjuku-rlu** miyi-wangu-jangka-rlu.

    eat-Pst-3pl all   child-child-Erg **hungrily-Erg**   food-without-Prop-Erg

    "The children ate it all hungrily because they had had no food."

   b. "**Yaruju-rlu**-lu palyarru-ngka!" "Yuwayi, **yaruju-rlu**   ka-rna

    quickly-Erg-Pl paint-Imp   yes   **quickly-Erg** PresImpf-1sg

    mapa-rni."

    paint-Npst

    "Paint it quickly!" "Yes, I am painting it quickly." (Warlpiri Dictionary Project 1993)

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[29]The explanation for why manner adverbs must bear ergative case in agreement with an ergative subject is likely related to their function in the clause. For example, Simpson (1991) analyses manner adverbials in Warlpiri as predicates over individuals which take a subject obligatorily controlled by the subject of the clause. Outside of the Warlpiri literature, manner adverbs have been argued to be predicates over events or individuals (Geuder 2000, Arregui & Matthewson SALT at NYU). An additional consideration is that temporal adverbs optionally agree in case with the subject of the clause in Warlpiri. Although not standardly assumed, it is possible that temporal adverbs optionally predicate over individuals. This would require adopting a semantic analysis incorporating time slices of individuals, and is beyond the scope of this paper.

Finally, the manner pro-form *kuja* "thus" may be used to fill the position of the dependent clause when the latter is dislocated; as a manner adverb, *kuja* may bear ergative case, as in (304).

(304) ngula kaji-ka ngati-nyanu-rlu-ju   ngarri-rni **kuja-rlu**, "Lawa-ngka

then   NfactC mother-Reflex-Erg-Top say-Npst **thus-Erg** no-Loc

ka-ngku   yimirri-nyi marda,

PresImpf-2sg trick-Npst maybe

"then the mother might tell him thus, "That's not true he is probably tricking you.""

These observations apply to speaking verbs in general in Warlpiri. For example, the following illustrates the pro-form *kuja* with the verbs *wangkami* "say" and *payirni* "ask". As expected, *kuja* bears ergative case with the verb *payirni*, which takes an ergative subject, but not *wangkami*, which takes an absolutive subject.

(305) a. Kurdiji-mardarnu-ku kaji-lpa-rla   waku wanti-wanti-yarla, yangka

senior.kin-Dat   PotC-PstImpf-3Dat arm twitch-Irr   like

jampu-pirdinypa nyampu, waku, kaji-ka   **kuja** wangka-mi: "Waku

left.side   here   arm   PotC-PresImpf **thus** speak-Npst arm

ka-rna-rla   wanti-wanti. ..."

PresImpf-1sg-3Dat twitch.Npst

"If one feels a twitch in ones arm for one's senior relation, here on the left side,

then one might say this, "My arm is twitching. ...""

b. **Kuja-rlu** kuja-ka   payi-rni: "Nyarrpara-purdanji ka-npa

thus-Erg FactC-PresImpf ask-Npst where-way   PresImpf-2sg

murrumurru-jarri?"

sick-Incho.Npst

"He asks him like this: "Where are you hurting?"" (Warlpiri Dictionary Project

1993)

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We have apparently reached the conclusion that the non-matrix clause related to these verbs is a manner adjunct rather than an embedded clause.

However, this conclusion would be unwelcome, in that it would require considerable crosslinguistic variation in verbal argument structure. Furthermore, the distinction between *ngarrirni*, which requires a declarative dependent clause, and *payirni* which requires a question, would be difficult to capture if both dependent clauses function as manner adverbs (assumedly embedded under a functional head taking the proposition or set of propositions as an argument and returning a manner adverb). Fortunately, the conclusion would be premature. Whenever the manner pro-form *kuja* is used, it is related to a direct quote rather than reported speech, as seen in (304) and (305) above. Although the syntax and semantics of direct quotes are controversial, it is clear that a direct quote may be used to express the manner of speaking outside of Warlpiri:

(306)   Robin told me he was sorry like this: "Perhaps I erred in judgement."

The ability of a direct quote to convey manner of speaking is also evidenced by the use of "how" in translation and naming:

(307)   a.   Q: How do you say "Where are you?" in Chinese?
             A: "Ni zai nar?"

        b.   Como se   llama?
             how   3sg call.3sg.Pres
             "What is it called/named?" (Spanish)

        c.   Nyarrpa-rlu ka-nkulu   nyampu-ju ngarri-rni Warlpiri-rli?
             how-Erg   PresImpf-2plExcl this-Top   say-Npst Warlpiri-Erg
             What do you call this in Warlpiri?

Therefore, the replacement of a direct quote by the manner pro-form *kuja* in Warlpiri is unsurprising. The use of *nyarrpa* "how" to request a direct quote in Warlpiri is also expected.

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However, verbs of saying in Warlpiri may also occur with reported speech rather than a direct quote:

(308) a. "Nyarrpa-rlu-ngku ngarru-rnunjunu-rnu kukurnu-rlu

how-Erg-2sgObj tell-Assoc.motion-Pst little.brother-Erg

ngaju-ku-pirdangka-rlu?" "Kala-ju   yimi-ngarru-rnunjunu-rnu

I-Dat-sibling-Erg   PstC-1sgObj speech-tell-Assoc.motion-Pst

[yungu-lpa-**npala**   wapa-ja wurnturu ngurrara-kari-rla

RelC-PstIMpf-2Dual walk-Pst far   country-other-Loc

yapa-kurlu-kurlu-wangu-rla   kulkurru-kulkurru.]"

person-having-having-without-Loc country.without.people

"'What did my young brother come and tell you?' 'Well he came and told me that you two went a long way in another country where there were no people – all by yourselves.'"

b. Kala-lu-nyanu   jawirri-ngarru-rnu miyi-ki, maniyi-ki yi-nja-ku,   kala

PstC-3pl-Reflex leave-tell-Pst   food-Dat money-Dat give-Inf-PurpC but

lawa.

no

"They told each other that they would give them (i.e. each other) food and money but they didn't."

c. Ngaju-ku-pirdangka-rlu-ju ngarru-rnu yungu-nganta ya-ntarla-rni;   wali

1-Dat-sibling-Erg-1sg   tell-Pst   RelC-allegedly go-Infin-Hither well

lawa-juku ka-rla   karri.

no-still   PresImpf-3Dat stand.Npst

My brother told me that he intended on coming, but he is still not here.

Consider (308a). In this example, the agreement in the embedded clause is the second dual *npala*, rather than first dual *rli*, indicating that the clause is reported speech.

Indeed, we find examples with both positions filled–reported speech and a direct quote:

(309) Jinta-kari-rli   kaji-ka-jana   yangka – kuja-ka   nyina   ngurrpa,
one-other-Erg PotC-PresImpf-3plObj that   FactC-PresImpf be.Npst ignorant

ngapa-ku, ngula-ngku kaji-ka-jana   payi-rni ngapa nyanungu kutu
water-Dat that-Erg   PotC-PresImpf-3plObj ask-Npst water that   close

japa: "Nyangurla-karra-rlipa rdakurlpa-rra pi-nyi?"
Q   when-SubjC-1plIncl   arrive-Thither arrive-Npst (rdakurl-pinyi = arrive)
"Someone might ask them – that is one who doesn't know about the water – he
might ask them if the water is close or not: "How long will it take us to reach it?""

This example is particularly interesting in that it illustrates, as expected, that the content of
the message may be different from the manner it is communicated, even when the manner
is a direct quote.

I propose that Warlpiri verbs of saying have a standard syntax whereby a non-matrix
finite clause appears in complement position. In addition, direct quotes may be used as
manner adjuncts. The content of the message is only optionally overtly expressed, inde-
pendently of the manner adverb; this accounts for the use of the manner adverb without a
clause in complement position.

(310) Kula-jarrangku ngajarra   ngarru-rnu-rra lawa.
Neg-1DualExcl we.Dual.Excl tell-Pst-thither? no
"He didn't tell us two. (Warlpiri Dictionary Project 1993)

To complete the analysis, I must explain why *nyarrpa* "how" is uniformly used to ques-
tion the dependent clause, even when it is the content of the message rather than the manner
of speaking that is at issue. This is the topic of the following section.

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Nyarrpa

The word *what* in English has a wide range of uses, being used at least to question an (inanimate) individual, (311a), a verb phrase, (311b), a proposition, (311c), a set of propositions, (311d), and a reason, (311e):

(311)   a.   What did Robin eat?

       b.   What did Robin do?

       c.   What did Robin say?

       d.   What did Robin ask?

       e.   What did Robin hit you for?

The word *nyiya* "what" in Warlpiri, on the other hand, has a narrower range of usage as a wh-phrase (although it has a wider usage than *what* in that it may also be used as an indefinite, even in the scope of negation). It is limited to questioning non-human individuals and reason:

(312)   a.   Nyiya-npa-ju   ka-ngu-rnu?

           what-2sg-1sgObj bring-Pst-Hither

           "What have you brought me?"

       b.   Nyiya-ngurlu ka-npa-jana   paka-rni?

           what-El   PresImpf-2sg-3plObj hit-Npst

           "Why (lit. what from) are you hitting them?"

To question a verb phrase, *nyarrpa* is used:

(313)   a.   "**Nyarrpa**-jarri-ja-npa ngurra-ngka-ju?" "Ngayi-lpa-rna   nyina-ja."

           how-Incho-Pst-2sg   home-Loc-Top   only-PstImpf-1sg be-Pst

           "Ngari-wangu. "**Nyarrpa**-jarri-ja-wurru-lpa-npa?"   "Ngayi-lpa-rna

           only-without   **how**-Incho-Pst-regardless-PstImpf-2sg only-PstImpf-1sg

nyina-ja. **Nyarrpa**-jarri-nja-wangu ngayi-lpa-rna nyina-ja."

be-Pst **how**-Incho-Infin-without only-PstImpf-1sg be-Pst

"What did you do at home?" "I was just there." "Come on. What were you

really doing?" "Well I was just there. I was just there doing nothing."

b. "**Nyarrpa**-rlipa jarrayi?" "Kari-nganta-rlipa ya-ni, nguru

how-1plIncl Incho obvious-1plIncl go-Npst country

ngalipa-nyangu-kurra."

1plIncl-Poss-All

"What will we do then?" "We'll go – to our own country."

c. **Nyarrpa**-rlipa ma-ni yalumpu-ju?

how-1plIncl Cause-Npst that-Top

"What shall we do to that one?" (Warlpiri Dictionary Project 1993)

Notice that this use of *nyarrpa* is distinguished from the manner use in that it does not bear

ergative case in sentences with ergative subjects, as in (313c).

I propose that *nyarrpa* is also used to question propositions in Warlpiri, accounting for

its use with verbs of saying when the manner of speaking is not at issue. This resolves

an additional issue not noted to this point. Whereas ergative case marking on manner

adverbs in sentences with ergative subjects is obligatory (Simpson 1991), the ergative case

marking on *nyarrpa* when used with verbs that embed propositions is optional. (302) above,

repeated in (314) below, illustrated use of the ergative case marking.

(314) "**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu kukurnu-rlu

how-Erg-2sgObj tell-Assoc.motion-Pst little.brother-Erg

ngaju-ku-pirdangka-rlu?"

I-Dat-sibling-Erg

"What did my young brother come and tell you?" (Warlpiri Dictionary

1993)

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The examples in (315) illustrate failure to use the ergative case marking.

(315) a. **Nyarrpa** ka-npa   manngi-nya-nyi wayinpa   wita?

     how   PresImpf-1sg think-Npst   you.there small

     "What are you thinking of, little mate?" (Warlpiri Dictionary Project 1993)

     b. **Nyarrpa**-ngku yimi-ngarru-rnu Jakamarra-rlu?

     how-2sg   speech-tell-Pst   Jakamarra-Erg

     "What did Jakamarra tell you?

This is now explained through the two uses of *nyarrpa* with these verbs: one to question the manner of speaking, which expects quoted speech as an answer and which requires ergative case marking on *nyarrpa*, and the second to question the proposition communicated, which may or may not be answered with quoted speech, and which does not require ergative case marking on *nyarrpa*.[30]

To summarize, I have argued that a dependent clause associated with *ngarrirni* may have either of two functions. It may be a manner adjunct, reporting the manner in which

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[30]Whether ergative case marking on this use of *nyarrpa* is disallowed is unclear. There are indeed cases of *nyarrpa-rlu* 'how-Erg' used in a question which is answered with reported speech:

(1)   "**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu   kukurnu-rlu   ngaju-ku-pirdangka-rlu?" "Kala-ju

     how-Erg-2sgObj   tell-Assoc.motion-Pst little.brother-Erg I-Dat-sibling-Erg   PstC-1sgObj

     yimi-ngarru-rnunjunu-rnu   yungu-lpa-npala   wapa-ja   wurnturu ngurrara-kari-rla

     speech-tell-Assoc.motion-Pst RelC-PstIMpf-2Dual walk-Pst far   country-other-Loc

     yapa-kurlu-kurlu-wangu-rla   kulkurru-kulkurru."

     person-having-having-without-Loc country.without.people

     "What did my young brother come and tell you?" "Well he came and told me that you two went a long way in another country where there were no people – all by yourselves." (Warlpiri Dictionary Project 1993)

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the message was communicated, and thus often, but not always, also revealing the content of the message. Alternatively, it may be an embedded clause, reporting the content of the message, through reported speech or a direct quote. On either of these uses, *nyarrpa* "how" questions the dependent clause, either through its use as a quantifier over manners (in which case it takes ergative case marking in clauses with ergative subjects), or through its use as a quantifier over propositions (in which case it need not bear ergative case marking in clauses with ergative subjects). Given this much background, we may now turn in the following section to the analysis of wh-scope marking constructions in Warlpiri.

4.5.4   Warlpiri wh-scope marking

In the previous section, I examined the syntax of the verb *ngarrirni* "tell" and the wh-phrase *nyarrpa* "how" in Warlpiri. I argued that although the dependent clause related to *ngarrirni* may be a manner adjunct, it may also be a complement clause expressing the content of the communicated message. In addition, I argued that *nyarrpa*, in addition to quantifying over manners, may quantify over propositions, and that both of these uses are visible with verbs like *ngarrirni* in Warlpiri. Assuming this syntax, this section develops the version of the indirect dependency account, outlined in section 4.5.2 above, for the Warlpiri wh-scope marking construction.

Recall that the Warlpiri wh-scope marking construction uses *nyarrpa* "how" in the matrix clause, instead of "what", as found in other languages, or a wh-phrase that is plausibly a default (e.g. *nyarrpara*):

(316)   Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja-ka   nyarrpara-kurra
how-2sgObj   speech-tell-Pst   Jakamarra-Erg FactC-PresImpf where-to
ya-ni   Jampijinpa?
leave-Npst Jampijinpa
"Where did Jakamarra tell you Jampijinpa is going?" (Granites et al 1976)

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We have seen that *nyarrpa* is used with *ngarrirni* as a quantifier over propositions in object position to question the dependent clause. Thus, I propose that *nyarrpa* is serving the same function in the wh-scope marking construction—filling the object position to question the dependent clause of *ngarrirni*, and moving to the left peripheral position for wh-phrases. As for the dependent question, it is clearly not an manner adjunct containing quoted speech in these cases. I propose that it is merged forming a constituent with *nyarrpa*, serving as its semantic restriction. As a set of propositions, the embedded question is of the appropriate type to serve as the restriction on *nyarrpa*, and together they form a quantifier over propositions.[31] The proposed meaning for (316) is thus "Which proposition in the set of propositions "where is Jampijinpa going?" did Jakamarra tell you?".

Recall that the dependent clause may be a yes/no question in Warlpiri, and that this was potentially problematic for the direct dependency account (see section 4.5.2):

(317) Nyarrpa-ngku Jangala-rlu yimi-ngarru-rnu yankirri-japa   Japanangka-rlu

   how-2sg   Jangala-Erg speech-tell-Pst   emu-whether.or.not Japanangka-Erg

   pantu-rnu?

   spear-Pst

   "What did Jangala tell you, was it an emu that Japanangka speared?"

This possibility is predicted under this account. As a set of propositions, a yes/no question is also of the appropriate type to serve as the restriction on *nyarrpa*.

Furthermore, this analysis accounts for the acquisition of the wh-scope marking construction in Warlpiri in the absence of construction-specific data. A common construction in Warlpiri, indeed one of the hallmark properties identified by Hale (1983), is the discontinuous constituent construction. In this construction, a phrase which is semantically interpreted as a constituent may appear discontinuously in the clause:

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[31] The fact that *nyarrpa* only optionally appears with a restriction is comparable to the behaviour of *what* in English: *What did you read?* versus *What book did you read?*, and other wh-phrases in Warlpiri.

(318) Maliki-rli-ji   yarlku-rnu wiri-ngki

dog-Erg-1sgObj bite-Pst   big-Erg

"A big dog bit me." (Hale et al 1995:1434)

Most crucially for our purposes, wh-phrases frequently appear discontinuously in Warlpiri, the wh-word being separated from its restriction:

(319) a. Nyarrpara-ngurlu ka-npa   wapa   kirri-ngirli-ji

where-El   PresImpf-2sg be-Npst camp-El-Top

"What camp are you from?"

b. Nyarrpara-ku ka-npa-rla   ngarrka-ku piirr-pardi-mi?

which-Dat   PresImpf-2sg-3Dat man-Dat   wait.for-Npst

"Which man are you waiting for?" (Warlpiri Dictionary Project 1993)

c. Ngana-ku ka-npa-rla   ngarrka-ku piirr-pardi-mi?

who-Dat   PresImpf-2sg-3Dat man-Dat   wait.for-Npst

"Which man are you waiting for?" (anonymous AJL reviewer, pc)

Therefore, the child need not be exposed to the wh-scope marking construction to acquire it. They have independent evidence that *nyarrpa* may be used as a quantifier over propositions, that wh-phrases may take restrictions, and that wh-phrases may be separated from their restrictions. This is sufficient to render the wh-scope marking construction grammatical.

Before concluding, I would like to provide support for an element of the analysis not examined to this point. I have proposed that *nyarrpa* undergoes wh-movement to a left-peripheral position, stranding its restriction. The question arises as to why the restriction should be stranded. Stranding is motivated by two factors. First, there is a dispreference in Warlpiri for a heavy constituent in the pre-auxiliary position (Kenneth Hale, pc); this mitigates against the appearance of the wh-phrase and its clausal restriction together on the left-periphery. Furthermore, Warlpiri, like Germanic and Slavic languages with split DP

constructions (see for example van Riemsdijk 1989, Cavar & Fanselow 2000), allows the splitting of a constituent if its subparts have distinct discourse status.[32] Thus, in Slavic and Germanic, if one subpart of a phrase must undergo focus movement while another subpart is not focused (neutral, backgrounded, or a topic) the phrase will be split. This is true of Warlpiri as well: Laughren (1984) reports that a discontinuous noun phrase strategy in Warlpiri is used to focus part of the noun phrase while marking the remainder as part of the background:

(320) a. A: Jangari mayi ka-npa   marda-rni?
                 Shanghai Interr PresImpf-2sg have-Npst
                 "Do you have a shanghai?"

        b. B: Yuwayi. Jirrama ka-rna   marda-rni jangarri-jarra
                 yes.   Two   PresImpf-1sg have-Npst shanghai-Dual
                 "Yes. I have two shanghais!" (Laughren 1984:5)

Thus, in this example the DP jangarri jirrama "two shanghais", jirrama "two" is moved into the clause-initial focus position, while jangarri "shanghai" is a postverbal topic.

Returning to the wh-scope marking construction, the matrix wh-phrase, undergoes focus movement as a wh-phrase. Therefore, we expect the matrix wh-phrase and its clausal restriction to split in discourse situations in which the dependent clause is not focused (e.g. if it is D-linked in the sense of Pesetsky 1987). Differing discourse status of *nyarrpa* and the embedded clause is thus a further possible motivation for the stranding of the embedded clause.[33]

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[32]This was discussed in Chapter 2, section 2.5.

[33]All the examples of the wh-scope marking construction in Warlpiri involve the embedded clause appearing finally. In fact, the analysis predicts that the embedded clause may also appear before the verb when not dislocated, since the restriction of other wh-words does appear in this position, (cf (319b) above). The

4.5.5 Summary

In this section, I have examined the wh-scope marking construction in Warlpiri. I argued that the direct dependency account of wh-scope marking constructions cannot carry over to Warlpiri, both due to problems with the analysis itself, and to its inability to predict the acquisition of the construction in Warlpiri in the absence of construction-specific data. In developing an indirect dependency account, I argued that non-matrix finite clauses in Warlpiri are not uniformly adjuncts, but rather may serve as arguments as well. In addition, I argued that *nyarrpa* "how" in Warlpiri covers some of the range of "what" in English, being used to question verb phrases and propositions. Finally, I presented an indirect dependency analysis of wh-scope marking constructions in Warlpiri according to which the matrix wh-phrase and the embedded clause form a constituent, the matrix wh-phrase moving and stranding the embedded clause.

verification of this prediction must be left to future work. Thank you to Noam Chomsky for discussion on this point.

Chapter 5

Conclusion

Ngulajankajupala pardjarra. Pardijarrapala jukurralku yinya kakarrumpayi.
That far, ngajunyangujurna puraja. ... Yangkakari kujarna nyurrukari ya-
pakarikirlangu. Yuwa nyampunya karna jalangurlu pura, ngajuju.

That is as far as I can follow it. ... The rest which I now leave belongs to other
people. This is what I can relate now, this is what belongs to me.

<div align="right">Popeye Jangala, Lajamanu May 30, 1990.</div>

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