

Warlpiri: Theoretical Implications

by

Julie Anne Legate

Honours B.A. York University (1995)

M.A. University of Toronto (1997)

Submitted to the Department of Linguistics and Philosophy
in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

August 2002

© Massachusetts Institute of Technology 2002

All rights reserved

Author _____
Department of Linguistics and Philosophy
August 2002

Certified by _____
Noam Chomsky
Thesis Supervisor

Certified by _____
Sabine Iatridou
Thesis Supervisor

Accepted by _____
Alec Marantz
Chairman, Department of Linguistics

Warlpiri: Theoretical Implications

by

Julie Anne Legate

Submitted to the
Department of Linguistics and Philosophy

August 2002

In Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

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 structural case and its morphological realization, 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 also reveals the first reported evidence for unaccusativity 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 information structure. 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 Warlpiri does have embedded finite complement clauses. 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

Title: Institute Professor of Linguistics and Philosophy

Thesis Supervisor: Sabine Iatridou

Title: Professor of Linguistics

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 largely functionalist college 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 disappointed 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 excitement and energy level then was unsurpassed—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, believed in me even when I didn't, and was completely unfazed by my son Russell crawling all over her office floor playing loudly with 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 general 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 granddaughter. 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.

Thank you to the Warlpiri speakers who helped me to better understand their language: Bess Nungarrayi Price, Helen Napurrurla Morton, Teresa Napurrurla Ross, and Christine Nungarrayi Spencer. Thank you especially to Bess Nungarrayi Price and Dave Price, who have been in contact with me throughout, teaching me about the Warlpiri culture as well as the language, and becoming dear friends.

John Frampton and Sam Gutmann have been wonderful friends and colleagues, ready to discuss any topic, be it the details of Noam's latest paper, syntax, architectural issues, Irish, Warlpiri, Icelandic, morphology, phonology, math, computation, or whatever else struck us as interesting at the time. John was also kind in opening his house to us after we moved to Hamden and needed a place to stay for the night in Boston. Being a member of Team Rocket (with them and Charles Yang) was a highlight of my time at MIT.

My classmates in Ling97 made for great friends and colleagues: Karlos Arregi, Paul Elbourne, Elissa Flagg, Michela Ippolito, Liina Pykkänen, Andrea Rackowski, and Isabel Oltra Massuet, who left us for Catalonia too soon.

Also at MIT, David Pesetsky encouraged me when I was at the beginning of my research into Warlpiri. Kai von Fintel was patient and positive during our meetings, and Suzanne Flynn was a valuable member of my general's committee; I enjoyed our discussions. Thanks also to my professors Morris Halle, Michel DeGraff, Danny Fox, Michael Kenstowicz, Alec Marantz, Shigeru Miyagawa, Norvin Richards, and Cheryl Zoll, and to Howard Lasnik, one of the quickest and smartest and nicest people around. I regret not working with you more.

I've benefited from discussions with a number of people over the years, at MIT, over email, and at conferences; thanks to Elena Anagnostopoulou, Karlos Arregi (for always being ready to answer random emails about Spanish and Basque, and to play chainsaw with Russell), Johanna Barry, Andrew Carnie (and for help with my application to MIT), Aniko Csirmaz, Gisbert Fanselow, Daniel Harbour, Richie Kayne, Katalin Kiss, Jeff Lidz, Vivian Lin, Martha McGinnis, David Nash, Andrew Ira Nevins (and for a great reference letter),

Jim McCloskey (very sorry there's no Irish in this), Carol Neidle, Jon Nissenbaum, Anita Panlilio, Jane Simpson, Peggy Speas, Steve Swartz, audiences at my talks, and especially to those who I have inexplicably forgotten to mention. Thanks also to Larry Page and Sergey Brin for Google, an excellent research tool.

Thank you to my family (Mom, Dad, Kira, Mark), who have supported me and my interest in language throughout my life, and have helped me enormously during my time as a student, not only through their encouragement and unfaltering belief in my abilities, but also with more tangible help, including my parents moving me, I believe, 12 times in 11 years, my mom planning my wedding, and my mom staying with me as nanny during the last month before my defense so I could finally sit down and write. I could not have done it without you, Mom; thank you so much! Charles Yang has been with me all the way, to stay up all night with me, listen to my half-worked out ideas, fix my computer, cook, get me books, photocopy papers for me, send off my applications, be dragged along as babysitter at conferences, ... , and love me just the same. Thank you! Finally, in my third year I was blessed with my son, Russell Cheng Legate-Yang, who brought more joy into my life than I thought possible, and also made it virtually impossible to write this dissertation. I'd like to note here an additional file from my dissertation folder on my computer:

```
c:\julie\diss\yut.tex
```

written by Russell, as he came with his chubby cheeks and soft hands to sit in my lap and try to decode the mystery of this machine that I would sit and stare at for hours at a time in lieu of playing with him. He would ask for his file, first “yut fayie ih?” and later “where yut fayie?”, and then press the buttons on the keyboard full of wonder and excitement at being able to make the letters appear on the screen.

Don't lose the wonder, Russell, it's what makes life worthwhile.

Now on to the wonder of Warlpiri...

Contents

1	Introduction	12
2	Nonconfigurationality	15
2.1	Introduction	15
2.2	Basic Properties	16
2.3	Analyses	20
2.3.1	Dual Structure	21
2.3.2	Pronominal Argument	27
2.3.3	Secondary Predicate	35
2.3.4	Conclusion	39
2.4	Issues and Arguments I: Dual Structure	39
2.5	Issues and Arguments II: Pronominal Argument	47
2.5.1	Arguments for the PAH	47
2.5.2	Arguments against the PAH	70
2.5.3	Summary	89
2.6	Issues and Arguments III: Secondary Predicate	90
2.7	Towards a Microparametric Account	97
2.8	Conclusion	117

3	A-syntax	118
3.1	Introduction	118
3.2	Split-Ergativity	119
3.2.1	The Grammatical Subject	120
3.2.2	Split Absolute	128
3.2.3	Typology	139
3.2.4	Previous Analyses	144
3.2.5	Ergativity and Nonconfigurationality	153
3.2.6	Conclusions	158
3.3	Applicatives	159
3.3.1	Ditransitives	160
3.3.2	Ethical Datives	165
3.3.3	Implications	167
3.3.4	A Structural Account	170
3.3.5	Additional Evidence	178
3.3.6	Conclusion	189
3.4	Conclusion	189
4	A'-syntax	191
4.1	Introduction	191
4.2	Left Periphery	191
4.2.1	Topics	197
4.2.2	Wh-phrases and Foci	203
4.2.3	Heads	209
4.3	Movement versus Base-generation	213
4.4	Interpretation of Focus	222
4.5	Wh-scope Marking	229

4.5.1	Basic Properties	231
4.5.2	Previous Analyses	235
4.5.3	Warlpiri Background	246
4.5.4	Warlpiri wh-scope marking	264
4.5.5	Summary	267

5 Conclusion **269**

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 arguments and adjuncts, 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 *microparametric* approach. According to this approach, non-configurational 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; further each parameter setting is also required for configurational languages. Finally, I outline a microparametric analysis for the basic nonconfigurational properties of Warlpiri.

The remainder of the dissertation further develops the microparametric 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.

Finally, I develop an indirect dependency analysis of the wh-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 typologically interesting, and motivated the positing of a distinct typological class of non-configurational languages. In section 2.3, I examine three approaches that take the existence of nonconfigurational languages as a given, and thus propose theoretical analyses to account for such languages: (i) the *dual-structure* approach, which posits two levels of representation, 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 adjuncts 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 sections 2.4-2.6, I discuss a variety of phenomena that allow us to evaluate these different approaches. Finally, in section 2.7 I sketch an alternative, microparametric account of nonconfigurationality, which will be adopted in the subsequent chapters of the dissertation. 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 parameteric choices that give the appearance of nonconfigurationality. In that the analyses of various phenomena in the remainder of the dissertation 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 colleagues 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) null anaphora (that is the apparent absence of argumental nominals), 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-Npast
 "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) *Null anaphora in Warlpiri*

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

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

(3) *Discontinuous expressions in Warlpiri*

Maliki-rli-ji yarlku-rnu **wiri-ngki**
dog-Erg-1sgObj bite-Past **big-Erg**

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

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 null anaphora is possible for all arguments. Nor can asymmetries between arguments be found in Weak Crossover effects, or in Condition C effects with possessors: WCO effects do not appear in short distance wh-questions, (4),¹ and Condition C behaves in sentences with possessor R-expressions as though subjects and objects stand in a relationship of mutual c-command, (5).²

(4) *WCO*

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

²These data will be considered in more detail in section 2.4 and section 2.7, where it will be shown that this evidence for mutual c-command collapses under further scrutiny.

- a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?
 who-Erg child 3-Poss hit-Npast
 “Who_i hit his_i child?”
- b. Ngana ka nyanungu-nyangu maliki-rli wajili-pi-nyi?
 who PresImpf he-Poss dog-Erg chase-Npast
 “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-Past
 “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-Past
 “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.

(6) *Condition A*

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-Npast
 “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.”

- a. Purlka-jarra-rlu ka-pala-nyanu nya-nyi
 old.man-Dual-Erg PresImpf-3Dual-Reflex see-Npast
 “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-Npast
 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-Npast
 “Jakamarra_i is hitting him_i” (Simpson 1991:170)
- b. Japanangka-rlu-nyanu yirra-rnu mulukunpa nyanungu-wana
 Japanangka-Erg-Reflex put-Npast 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

⁴For some speakers, *-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 warna-rlangu yinga-lu ya-ni munga-puru-rlarni-karra-ju.
 or like travel-e.g. Rel.C-3pl go-Npast night-during-ObvC-while-Top
 “Or like when people travel to another place while it’s still dark.”

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

(8) *Embedded complementizers*

- a. Karnta ka-ju wangka-mi [yarla karla-nja-**karra**]
woman PresImpf-1sgObj speak-Nonpast [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-Nonpast 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-Past woman-Dat [sleep-lie-Inf-**ObjC**]
“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 characteristic of “nonconfigurational” languages (see, for example, the papers in Marác & Muysken 1989).

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, null anaphora, and discontinuous constituents. In the following sections, 2.4-2.6, I examine a wider range of data to more fully evaluate the analyses.

disinction between subject control, (- \emptyset), 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*.

2.3.1 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 (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 lexical structure includes information about 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 follows of the dictionary definition and lexical structure 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 phrase structure is the syntactic representation. The phrase structure of a sentence is related to the lexical structure of a verb through a linking rule; this rule requires 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 account for nonconfigurational languages like Warlpiri, Hale first revises the Projection Principle:

(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 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.

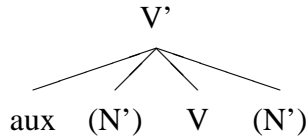
Thus, in configurational languages, the argument structure of a verb must be satisfied both in the lexical structure and the phrase structure, while, in nonconfigurational languages, the argument structure of a verb need only be satisfied in the lexical structure.

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. $X' \rightarrow X'^* X$

b. $V' \rightarrow AUX X'^* V X'^*$



(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.

The nonconfigurational setting of the Configurationality Parameter and the relatively unconstrained phrase structure rules for Warlpiri are used to account for the language's core nonconfigurational properties. The nonconfigurational setting of the configurationality parameter allows arguments to appear non-locally to the associated predicate, and the phrase structure rules imposes no ordering of predicates and arguments, thus deriving free word order. Regarding null anaphora, there are two issues: how arguments are allowed to be absent in the phrase structure, and how pro-dropped arguments are interpreted. The absence of arguments is straightforwardly allowed by the nonconfigurational setting of the Configurationality Parameter, which allows the argument of the predicate to be absent in the Phrase Structure, and the phrase structure rules in (14), which do not require argument positions in the syntax. In addition, lexical insertion is assumed to be free, thus allowing, for example, insertion of a transitive verb into a phrase structure lacking appropriate argument positions. As for the interpretation, Hale proposes that the argument positions in the lexical structure are pronominal; hence no nominal is required in the Phrase Structure for an argument to be interpreted, and when no associated nominal is present in the phrase structure, the argument is interpreted as pronominal:

- (15) Panti-rni ka
 spear-NPAST PRES.IMPF
 “He/she is spearing him/her/it.” (Hale 1983:7)

When an associated nominal is present in the phrase structure, the principle *Assume a Grammatical Function* (Hale 1983:37, adapted from Chomsky 1981:129-130) forces the nominal in the Phrase Structure to replace the pronominal in the Lexical Structure. This results in the Phrase Structure nominals being interpreted as the arguments of the predicates, and appearing in a hierarchical configuration.

Finally, the same two issues arise for discontinuous constituents: how they are permitted, and how they are interpreted. Regarding the first issue, the nonconfigurational setting of the Configurability Parameter and the relatively unconstrained phrase structure rules are again required. In addition, the linking rule, in (11) above, does not impose a one-to-one relationship between argument positions in the lexical structure and nominals in the phrase structure. Regarding the interpretation of discontinuous constituents, Hale distinguishes between two types, which he calls *argumental* and *predicative*. Argumental discontinuous nominals are equivalent to a single continuous nominal, while predicative consist of one referential nominal and another nominal serving as a secondary predicate or conjunction.⁵

- (16) Maliki-rli-ji yarlku-rnu wiri-ngki
 dog-ERG-1SG.OBJ bite-PAST big-ERG
 Argumental: “The/a big dog bit me.”
 Predicative: “The/a dog bit me and it was big” (Hale 1983:38)

Predicative nominals are interpreted through their open subject position, which is bound by the argument position in the lexical structure (be it the pronoun, or the referential nominal in the phrase structure that has replaced the pronoun through Assume a Grammatical

⁵Unfortunately, the two interpretations are not truth-conditionally distinct in (16).

Function). The interpretation of argumental discontinuous nominals is discussed and then left to further research.

In sum, the central aspects of Hale's account of the core nonconfigurational properties of Warlpiri are his parameterization of the Projection Principle in the Configurationality Parameter, combined with relatively unconstrained phrase structure rules for Warlpiri. Furthermore, his two distinct levels of representation, one hierarchical and one flat, potentially captures the mix of asymmetric and symmetric properties in Warlpiri.

In the next section we consider a later variant of Hale's approach.

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 particularly 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.

LFG allows for multiple levels of representation, including: a(rgument)-structure, which encodes theta roles, f(unctional)-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 (cf Hale's Lexical Structure pronominal arguments that are replaced by Phrase Structure nominals, if present); this eliminates

the need for an element in the c-structure linked to each grammatical function in the f-structure. Therefore, as in Hale (1983), no empty categories are posited in the syntax. Finally, regarding discontinuous constituents, LFG cannot simply allow more than one noun phrase linked to a single grammatical function, since this would violate *Function-Argument Bi-uniqueness*:⁶

(17) *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 to this head. This is claimed to be possible as a result of the freedom with which nominals in Warlpiri may be used as predicates.

Differently from Hale, the syntactic representation of the clause is not entirely flat; one hierarchical projection is posited, whose specifier hosts a focused element and whose head hosts the second position auxiliary. The consequences of this difference will be discussed in section 2.4 below.

The structures posited for Warlpiri in LFG are illustrated below.

(18) *Structures of Warlpiri—Austin & Bresnan 1996*

a-structure:

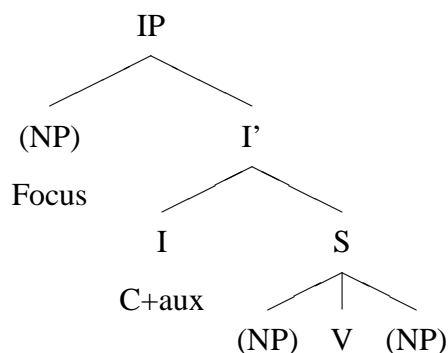
chase < *ag* *th* >
 [−*o*] [−*r*]

f-structure:

⁶Simpson cites Bresnan 1980 for a more formal definition.

PRED	'verb < (f SUBJ)(f OBJ) >'
SUBJ	["DP"]
OBJ	["DP"]

c-structure:



In the next section I turn to an alternative analysis of nonconfigurationality in Warlpiri, the pronominal argument hypothesis.

2.3.2 Pronominal Argument

In response to Hale (1983), Jelinek (1984) presents an alternative approach to nonconfigurationality in Warlpiri. Her influential *Pronominal Argument Hypothesis* (PAH) is appealing in that it attempts to account for nonconfigurationality while limiting the extent of possible variation between languages. Thus, Jelinek does not require multiple levels of representation, or parametrization of the Projection Principle. She claims that the Projection Principle is indeed satisfied in Warlpiri, by the agreement clitics found in the second position clitic cluster. Her hypothesis is that the agreement clitics are the arguments of the predicate, while any nominals are adjuncts to the clause.

A variant of the PAH is developed in detail in Baker (1996). Baker argues that the argument positions are filled not by the agreement morphology itself, but rather by null *pro*'s identified by the agreement morphology; furthermore, he argues that the relationship

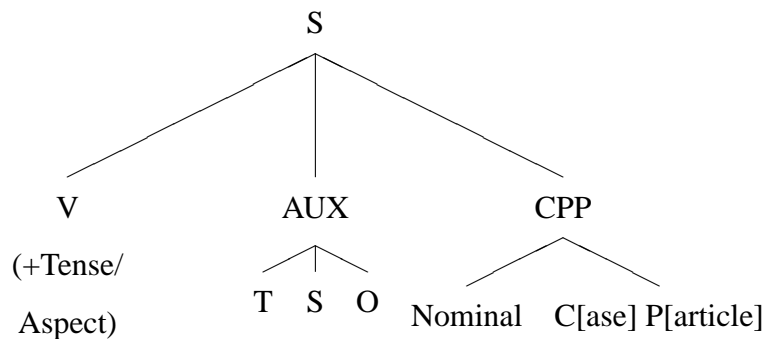
between the overt nominals adjoined to the clause and the *pro*'s should be understood as clitic left dislocation. Baker explicitly limits the scope of his work to a restricted class of *polysynthetic* languages, those which exhibit productive noun incorporation and full obligatory agreement morphology 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 Northern Australia, Chukchee, and perhaps Classical Ainu (Baker 1996:19), of which he focuses on Mohawk. Warlpiri is not included in this class. However, the approach is considered here both because of its similarity to Jelinek's, and because subsequent researchers have extended Baker's analysis to nonconfigurational languages as well.⁷

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

Jelinek 1984

As mentioned above, Jelinek considers the agreement clitics in the Warlpiri second position auxiliary cluster to be the arguments of the predicate. These are base-generated in their surface position, with no hierarchical relationship between the arguments. The overt nominals are optional adjuncts to the clause.

(19) *Syntactic Structure for Warlpiri (Jelinek 1984:50)*



⁷A variant of the pronominal argument approach for Warlpiri is developed in Laughren (1989), whereby the nominals occupy a distinct plane in the syntactic structure. See that work for details.

She notes that “[w]e need to add to [(19)] the stipulation that any case particle phrase (CPP) may appear in the sentence initial position, whereupon the verb appears after AUX, with no fixed order with respect to any CPPs present” (Jelinek 1984:51).

She likens the relationship between the argumental clitics and the CPP adjuncts to that between pronominals and appositives in English:

(20) He, the doctor, tells me, the patient, what to do. (Jelinek 1984:50)

In support of her claim that the clitics are the true arguments of the predicate, rather than simply agreement, she cites the following examples to demonstrate that the clitics may differ from the nominals in person and number.

- (21) a. Puyukuyuku-puru kula-lpa-**rlipa-nyanu** **yapa**
 fog-WHILE NEG.C-PAST.IMPF-**1PL.INCL-REFLEX** person
 nya-ngkarla.
 see-IRREALIS
 “We (plural inclusive) cannot see one another (as) person (s) (i.e., our shapes or figures) when it is foggy.” (Hale 1983:33; cited in Jelinek 1984:46)
- b. Nya-nyi ka-rna-**ngku** **ngarrka-lku**
 see-NPAST PRES.IMPF-1SG-**2SG.OBJ** man-AFTER
 “I see you (as) a man now (i.e., as fully grown, or initiated)” (Hale 1983:32, cited in Jelinek 1984:46)

However, such examples are unrevealing. These clearly involve secondary predicates related to pronominal arguments, rather than referential nominals disagreeing in person and number with the associated clitic. Indeed, Hale notes that in cases in which the nominal is referential, disagreement is impossible:

- (22) a. * Nyuntu ka-rna wangka-mi
 you PRES.IMPF-1SG speak-NPAST
 (Hale 1983:30)

- b. * Kurdu-jarra ka-lu wangka-mi
 child-DUAL PRES.IMPF-3PL speak-NPAST
 (Hale 1983:31)

Thus, (22a) involves disagreement between a second person nominal and a first person clitic, and (22b) involves disagreement between a dual nominal and a plural clitic (Warlpiri has a distinct dual clitic form); both result in ungrammaticality.

Jelinek also argues that the clitics disagree with the nominals in case. Warlpiri exhibits a split-ergative case system, whereby DPs bear case suffixes according to an ergative-absolutive case system, while agreement clitics supplete according to a nominative-accusative pattern (see section 3.2 below for discussion and analysis):

(23) *Ergative-Absolutive Case Marking*

- a. **Ngajulu-rlu-rna-ngku** **nyuntu** nya-ngu
1-ERG-1SGSUBJ-2SGOBJ 2.ABS see-NPAST
 “I saw you”
- b. **Nyuntu-rlu-npa-ju** **ngaju** nya-ngu
2-ERG-1SGSUBJ-2SGOBJ 1.ABS see-NPAST
 “You saw me”
- c. **Ngaju-rna** parnka-ja
1.ABS-1SGSUBJ run-PAST
 “I ran”

(24) *Nominative-Accusative Agreement Clitics*

- a. Nya-ngu-**rna-ngku**
 see-PAST-**1SGSUBJ-2SGOBJ**
 “I saw you”
- b. Nya-ngu-**npa-ju**
 see-PAST-**2SGSUBJ-1SGOBJ**
 “You saw me”

- c. Parnka-ja-**rna**
run-PAST-1SGSUBJ
“I am running”

Jelinek considers this split crucial to Warlpiri-type nonconfigurality. She proposes that the clitics bear grammatical nominative-accusative case, as arguments, while the adjunct nominals bear “lexical” case. Lexical case is defined simply as the case borne by the nominals, and is divided into “primary” lexical cases, which may be linked to argumental clitics, and “secondary” lexical cases, which may not.

(25) *Warlpiri Case (Jelinek 1984:51)*

- a. G-case appears on clitic pronouns. The G-cases are NOM, ACC, and DAT.
- b. L-case appears on nominals. The primary L-cases are ERG, ABS, and DAT; secondary L-cases are LOCATIVE, PERLATIVE, ALLATIVE, ELATIVE, etc.

Thus, for Jelinek, the clitics are distinct in case from the nominals, indicating that the relationship between them is less direct than agreement to argument. Jelinek posits a linking rule associating clitics and nominals,

(26) *Linking Rule (Jelinek 1984:52)*

A clitic pronoun may be coindexed with a nominal, providing the L[exical]-case of the nominal and the G[rammatical]-case of the clitic pronoun are *compatible* (assigning a distinct index to each clitic).

based on case compatibility:⁸

(27) *Case Compatibility Rule [Warlpiri] (Jelinek 1984:52)*

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

⁸The reference to person in the rules is due to the morphology of the clitics in Warlpiri: dative clitics distinct from the accusative clitics exist for third person, but not for first and second.

- 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).

Returning to Hale's (1983) core properties of nonconfigurational languages, free word order under Jelinek's analysis is claimed to follow from free ordering of adjunction of nominals, and the statement that any nominal may precede the auxiliary (see the discussion below (19) above). Null anaphora is captured through the optionality of adjuncts. 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) develops a sophisticated version of the PAH. As mentioned above, Baker proposes that argument positions are filled not by the agreement morphology itself, but rather by *pro*'s identified by the morphology. Further, the relationship between the *pro*'s and the adjoined nominals is argued to be clitic left dislocation.

Rather than simply stipulating these two properties, Baker attempts to derive them. The central parameter he posits is whether the following condition is active in the language:⁹

(28) *The Morphological Visibility Condition (Baker 1996:17,496)*

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

⁹See Baker 1996:286 and Baker 1996:483 for alternative formulations.

YES: Mohawk, Nahuatl, Mayali, ...

NO: English, French, Chichewa, ...

He argues that agreement morphology that licenses *pro*-drop requires structural case crosslinguistically.

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

Thus, for languages with the “yes” setting of (28), i.e. his *polysynthetic* languages, agreement morphology is necessary for θ -assignment, and yet the agreement morphology absorbs case. DPs in polysynthetic languages are therefore left without structural case. Adopting a version of the case filter that crucially incorporates phonological realization allows a way out of the deadlock:

- (30) *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)

Therefore, DPs without case may avoid violating the case filter in two ways: they may be unpronounced, or they may appear in non-argument positions. These are the options Baker claims are exploited by polysynthetic languages.¹⁰ Argument positions are filled by unpronounced pronouns, *pro*'s, while all pronounced DPs appear in clitic left dislocated positions, thus A'-positions.

Let us consider now how Hale's (1983) core properties of nonconfigurational languages would be derived in this framework. First, free word order follows from freedom of ordering of adjunction for multiple clitic left dislocation. Word orders with DPs appearing to

¹⁰Leaving aside incorporation, which permits θ -assignment without a case-absorbing agreement morpheme; see (28).

the right of the verb require allowing right adjunction. Baker notes that this is possible in Romance languages, citing (31),

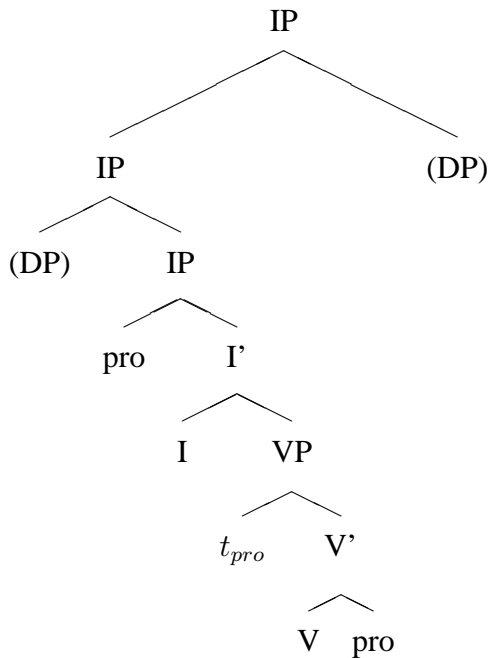
(31) Il est parti, Jean.

“He is gone, Jean.” (Baker 1996:114)

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 of a polysynthetic language would be:

(32) *Syntactic structure*



Second, null anaphora is derived as 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 permitted, as illustrated by the following examples from Spanish:

- (33) a. Este hombre, lo vi en la fiesta.
'That man, I saw him at the party.'
- b. Lo vi en la fiesta, este hombre.
'I saw him at the party, that man.'
- c. * Este, lo vi en la fiesta, (el) hombre.
'That, I saw him at the party, (the) man' (Baker 1996:139)

Baker maintains that 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 (see Baker 1996:138-185 for details).

Detailed examination of the PAH will be undertaken in section 2.5. Before this, the following section presents the final major approach to nonconfigurational languages: the secondary predicate approach.

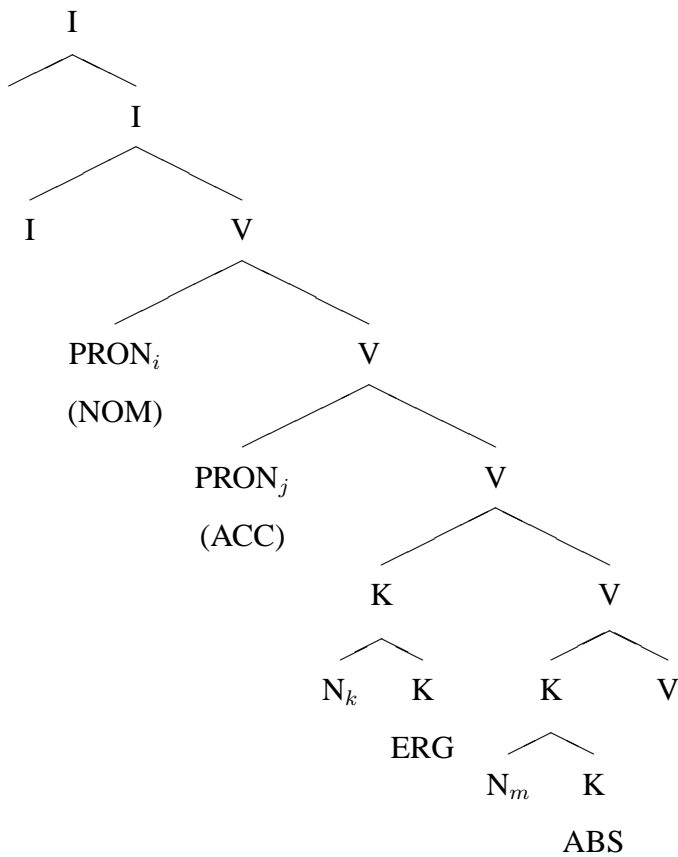
2.3.3 Secondary Predicate

In this section I outline the *Secondary Predicate* approach to nonconfigurationality, which seems to have only been entertained for Australian languages. This approach is proposed in Speas (1990) and revived by Baker (2001).¹¹ It is similar to the PAH in maintaining that all argument positions are filled by *pro*'s. It differs, however, in proposing that all overt nominals are secondary predicates merged low in the verb phrase, rather than clausal adjuncts.

¹¹See also Pensalfini, to appear, for a version of the approach.

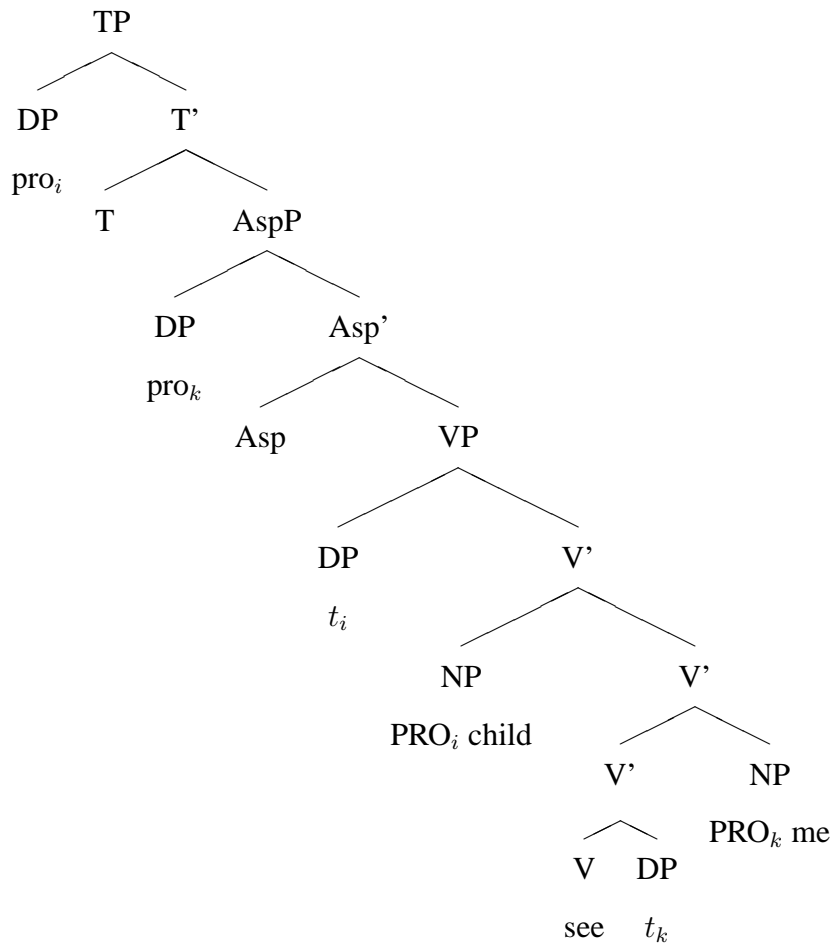
According to Speas (1990), the secondary predicates appear below the θ -positions of the arguments, and are non-referential, but contain a referential DP (M. Speas, pc). This DP is not coindexed with the corresponding pronoun in argument position. Rather the secondary predicate undergoes Theta Identification (Higginbotham 1985) with the appropriate position in the verb's θ -grid, and the θ -role is assigned to the pronominal in argument position.

(34)



Baker posits a 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, in which the *pro* arguments have moved to case positions outside the verb phrase:

(35)



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. Baker gives the following examples, while admitting that they require specific discourse context to be acceptable:

- (36) 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 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:

- (37) 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”:

- (38) 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.¹²

¹²Naturally, one could posit a distinction between the behaviour of secondary predicates in nonconfigurational languages and the behaviour of secondary predicates in English. However, neither author pursues this route since it runs contrary to a goal of their project, which is to explain the properties of nonconfigurational languages through elements found in configurational languages. Thus, a configurational language would need to be found that exhibited freely ordered and discontinuous secondary predicates.

Note that the current project shares the goal of explaining nonconfigurational languages through configurational. The fundamental difference is that they retain a macroparameter distinguishing nonconfigurational languages from configurational, whereas I analyse nonconfigurationality without such a parameter.

2.3.4 Conclusion

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

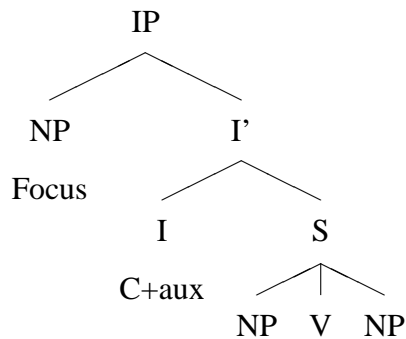
2.4 Issues and Arguments I: Dual Structure

In this section, I consider the dual structure approach to 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.¹³ Although cross-framework evaluation of analyses can be complex, I argue that the LFG account of Warlpiri syntax faces a number of empirical challenges. Since additional data and analysis relevant to the evaluation of the dual structure approach will be presented and developed in Chapter 3 and Chapter 4, several of the arguments here are by necessity in abbreviated form with pointers to the relevant later sections.

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

(39) *c*-structure:

¹³In fact, the LFG approach and the approach pursued here share an important characteristic: both are microparametric. Thus, Austin & Bresnan (1996) do not posit a parameter (or its equivalent) to distinguish between nonconfigurational and configurational languages. Instead, the mechanisms employed to account for Warlpiri are those used to account for other configurational languages. This seems to me to be exactly the right path to pursue.



The first crucial characteristic of this structure I will consider 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, symmetric and asymmetric, 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. However, I show that in the symmetric applicative construction in Warlpiri, both the applicative object and the verbal object behave as primary objects. Furthermore, in the asymmetric applicative construction the applicative object behaves as a primary object while the verbal object does not, therefore object properties in Warlpiri cannot simply be defined over a larger class consisting of the applicative object and the verbal object. I demonstrate that a structural approach is able to capture the Warlpiri data because under such an approach grammatical functions are not primitive notions, and so the various properties that trigger behaviour associated with objects may be 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:

(40) *WCO*

- a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?
 who-Erg child 3-Poss hit-Npast
 “Who_i hit his_i child?”
- b. Ngana ka nyanungu-nyangu maliki-rli wajili-pi-nyi?
 who PresImpf he-Poss dog-Erg chase-Npast
 “Who_i is his_i dog chasing?” (Hale et al 1995:1447)

Presenting the data in (40b), 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 contrast with English remains clear).” (Farmer, Hale, & Tsujimura 1986:33). One other possibility 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:

(41) *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)

(42) *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 2.7 and section 4.3, I argue that Warlpiri does indeed allow for A-scrambling of this type. Furthermore, section 4.3 presents new data showing that Warlpiri does ex-

hibit long distance Weak Crossover effects. There, I examine the LFG analysis of Weak Crossover effects crosslinguistically, in light of these new data, and conclude that the LFG account does not carry over to the Warlpiri case.

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

- (43) a. Nyanungu-rlu ka Jakamarra-kurlangu maliki wajili-pi-ny
 3-Erg PresImpf Japanangka-Poss dog chase-Npast
 “He_{*i/j} is chasing Jakamarra_i’s dog”
- b. Jakamarra-kurlangu maliki-rli ka nyanungu wajili-pi-ny
 Jakamarra-Poss dog-Erg PresImpf 3 chase-Npast
 “Jakamarra_i’s dog is chasing him_{*i/j}” (Simpson 1991:179)

Compare:¹⁴

- (44) a. Jakamarra-rlu ka wajirli-pi-ny maliki nyanungu-nyangu
 Jakamarra-Erg PresImpf chase-Npast dog 3-Poss
 “Jakamarra_i is chasing his_{i/j} dog.”
- b. Maliki nyanungu-nyangu-rlu ka Jakamarra wajili-pi-ny
 dog 3-Poss-Erg PresImpf Jakamarra chase-Past
 “His_{i/j} dog is chasing Jakamarra_i.” (Simpson 1991:180-1)

Notice that word order does not affect the judgements:

- (45) a. Jakamarra-kurlangu maliki ka nyanungu-rlu wajili-pi-ny
 Jakamarra-Poss dog PresImpf 3 chase-Npast

¹⁴Note that the positioning of the object after the verb is not the crucial factor in (44a). 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-Past
 “Jakamarra_i hit his_{i/j} dog.” (Laughren 1991:14[15a])

“He_{*i/j} is chasing Jakamarra_i’s dog”

- b. Nyanungu ka Jakamarra-kurlangu maliki-rli wajili-pi-ny
 3 PresImpf Jakamarra-Poss dog-Erg chase-Npast
 “Jakamarra_i’s dog is chasing him_{*i/j}” (Simpson 1991:179-180)

- (46) a. Nyanungu-nyangu ka wajirli-pi-ny maliki Jakamarra-rlu
 3-Poss PresImpf chase-Npast dog Jakamarra-Erg
 “Jakamarra_i is chasing his_{i/j} dog.”

- b. Jakamarra ka nyanungu-nyangu-rlu maliki-rli wajili-pi-ny
 Jakamarra PresImpf 3-Poss-Erg dog chase-Past
 “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 the subject asymmetrically c-commands the object, whereas Warlpiri has an n-ary branching S in which the subject and the object stand in a relationship of mutual c-command.

These data constitute the strongest argument for flat structure in Warlpiri, in that it shows the object and the subject must be in a relationship of mutual c-command, rather than the object may optionally c-command the subject. Consider why this is so. Assuming a hierarchical structure for Warlpiri, whereby the subject asymmetrically c-commands the object, (43a) is correctly 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 (43b) 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 (44b). 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 (1996), shown in (39) above. In this structure, the element in the pre-auxiliary focus position asymmetrically c-commands the remainder of the sentence. Therefore, they predict that (45a) should be grammatical on the coreferent reading, in contrast to (43a), 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, in which case they must stipulate the initial focus position and positioning of the auxiliary.

In fact, further data involving R-expression possessors demonstrate that the LFG analysis of Warlpiri is inadequate even assuming Simpson’s entirely flat c-structure. Recall that the dual structure analysis of Warlpiri, both Hale’s (1983) original and its LFG variant, reject the presence of empty categories in the syntactic structure. Both equate null anaphora with the absence of expression of an argument in the syntax, and use pronominals in Lexical Structure/f-structure as default arguments.

Therefore, the dual-structure analysis of the Condition C data in (43) 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 (47) indicate that this prediction is not borne out. Without the offending pronoun, the sentences

remain ungrammatical.¹⁵

- (47) 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}”

Furthermore, the flat Condition C effect does not uniformly appear with overt pronouns. Possessors in Warlpiri may bear the dative case suffix rather than the possessive suffix *-kurlangu*. When the dative suffix is used, the flat Condition C effect disappears. The sentences are in fact grammatical, whether the pronoun is in object position or subject position:

- (48) a. Karnta-ku jaja-ngku-lpa nyanungu jakuru-pu-ngu
woman-Dat grandmother-Erg-PastImpf 3 goodbye-VF-Past
“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-PastImpf 3-Erg goodbye-VF-Past
“She_i was announcing her leave to the woman_i’s grandmother”

Under any approach that posits a flat syntactic structure, the pronoun c-commands its R-expression antecedent in (48a) and (48b), predicting incorrectly that these sentences should also be ungrammatical.

I conclude that the Condition C data with R-expression possessors do not demonstrate the existence of a flat syntactic structure in Warlpiri. Indeed, the data raise difficulties for approaches, like the LFG dual-structure approach, that posit a flat syntactic structure

¹⁵Incidentally, the ungrammaticality of the sentences in (47) also argue against an analysis based on the *Avoid Pronoun Principle* (Chomsky 1981). Thus, the sentences in (43) are not ungrammatical because the use of an overt pronoun should have been avoided in favour of a null pronoun.

for Warlpiri. In section 2.7, I present an alternative analyses of these data. Previewing, I argue that an R-expression marked with the possessive suffix *-kurlangu* is adjectival and not available as a referent in the discourse, thus Condition C is not relevant for data in (43) and (47). The data in (48), I analyse as the result of optional scrambling of the object over the subject.

A second characteristic of the structure in (39) above is that it posits only a single projection above S, namely IP, which is headed by both the complementizer and the auxiliary, and hosts focus phrases in its specifier. Austin & Bresnan 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 section 4.2 below, I demonstrate the existence of a number of additional functional projections on the left periphery of the clause in Warlpiri: 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 there 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 new data showing island constraints and Weak Crossover effects in Warlpiri, and argue that these demonstrate that the placement of (at least) wh-phrases in Warlpiri is accomplished through movement rather than base generation.

The dual structure approach to Warlpiri nonconfigurationality thus faces empirical challenges. Determining whether or not these challenges can be met, I leave for researchers working within this tradition. My focus for the remainder of this section will be the remaining previous analyses, beginning with the pronominal argument hypothesis.

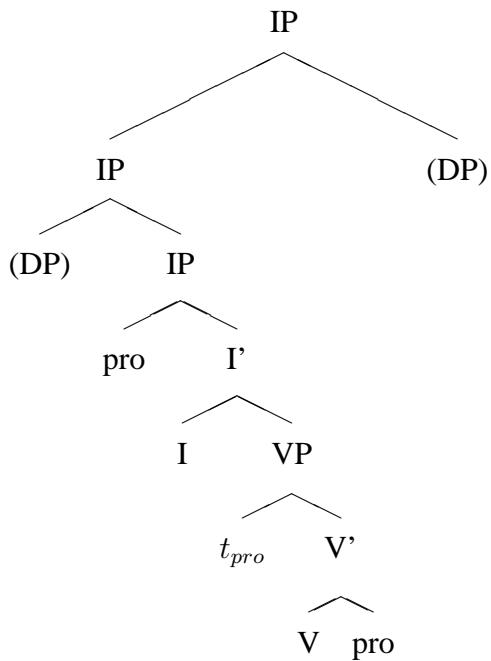
2.5 Issues and Arguments II: Pronominal Argument

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, both new and adapted from the literature. I conclude that there are no strong arguments for the PAH and a few clear arguments against it.

2.5.1 Arguments for 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. Recall that Baker’s version of the PAH claims that argument positions are filled by null *pro*’s, while DPs are adjoined to IP in a clitic left dislocation structure:

(49)



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:

- (50) 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:

- (51) 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)

Importantly, Condition C is not violated in Baker’s structures for these sentences: since “Mary’s boyfriend” in both examples is adjoined to IP, the coreferent *pro* in argument position does not c-command it, regardless of whether the *pro* is in subject or object position. No phonologically overt pronominal is present, so no question of c-command between adjuncts can arise.

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 demonstrates convincingly 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:

- (52) El libro de Juan, lo perdío.
 “Juan’s book, he lost it.” (disjoint only) (Baker 1996:267)

Thus, Baker argues that possessive constructions, like “Mary’s boyfriend”, in Mohawk are actually relative clauses, which do not reconstruct for Condition C (see Lebeaux 1989):

- (53) El hecho que Juan descubrió, 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.

(Hale 1976:78), and is typically associated with the resumptive element *ngula* “that” in the main clause. Both this characteristic intonation pattern and the resumptive *ngula* are absent in sentences with dative possessors.

(56) 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)

c. *Relative clause*

Karli-ngki kuja-npa yankirri luwa-rnu ngula-ju rdilyki-ya-nu
 boomerang-Erg FactC-2sg emu hit-Past that-Top broken-go-Past

“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:

(57) # 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)

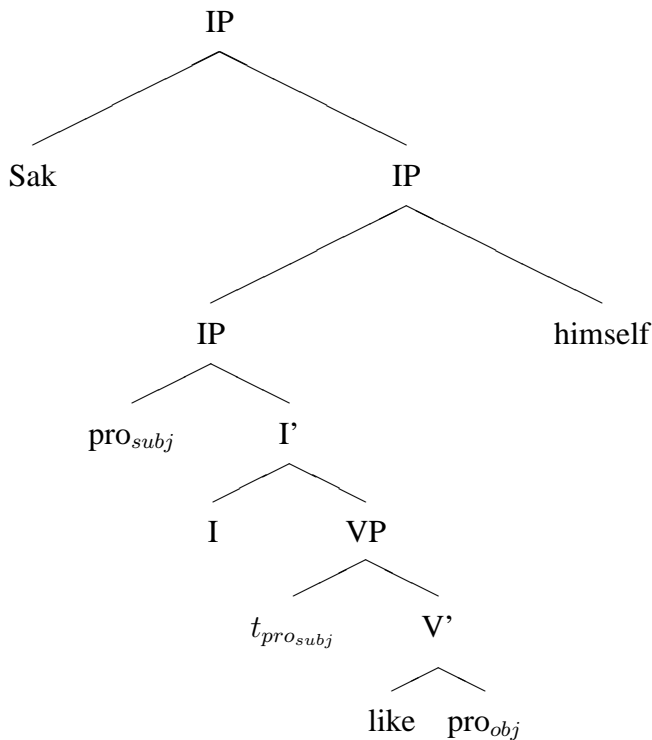
Instead, a morphological detransitivization strategy is used:¹⁶

¹⁶Baker 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).

- (58) 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:

- (59) *Structure for "Sak likes himself"*



The problem is that *pro_{obj}* is pronominal whereas the associated adjunct *himself* is reflexive. No pattern of coindexing can satisfy both Condition A and Condition B, while maintaining the necessary coindexing between a *pro* and its associated adjunct.¹⁷

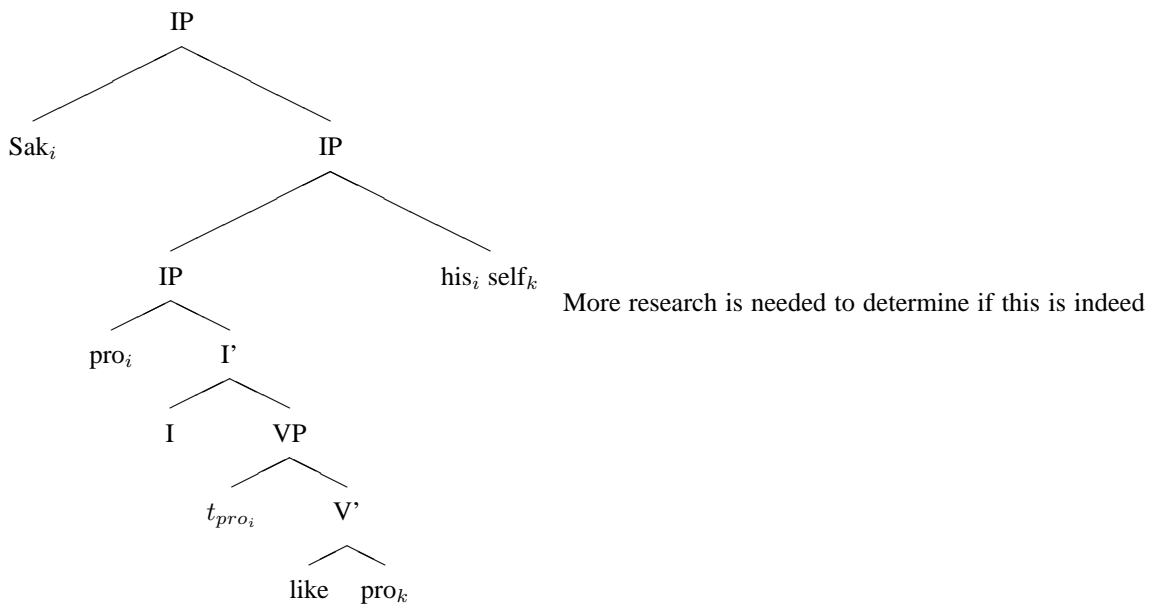
¹⁷ Faced with the presence of a DP anaphor in Chuckchee, Baker weakens his position to the prediction that Polysynthetic languages will lack *morphologically simplex* DP anaphors. For the Chuckchee case, Baker adopts an analysis like that proposed by Iatridou (1988) for Greek. According to this analysis, the apparent anaphor is actually a noun phrase consisting of a possessive anaphor and a head noun, i.e. "himself" is closer to "his (own) self". The possessive anaphor is coindexed with the subject, but the DP as a whole is not,

Although Baker thus considers his analysis supported, we must again consider the connectivity effects of clitic left dislocation. These effects 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:

- (60) a. *? A lei, Maria non ci pensa.
of her Maria not there thinks
- b. ✓ A se stessa, Maria non ci pensa.
of herself Maria not there thinks (Baker 1996:105)

resulting in a grammatical structure:

(1) Structure for “Sak likes himself” in Chuckchee (Baker 1996:53)



the correct analysis of Chuckchee, or if rather Chuckchee is a counterexample to the generalization.

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 reflexives. Instead, the position for object agreement morphology in the second position clitic cluster is filled by a reflexive/reciprocal marker:

- (61) a. Kala-ka-rlipa-**nyanu** mata-rra-ma-ni?
 PotC-PresImpf-1plIncl-**Reflex** tired-thither-Caus-Npast
 “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-Npast
 “The two old men are looking at each other.” (Simpson 1991:163)

However, reflexive (or reciprocal) sentences in Warlpiri are not intransitive, as demonstrated by Hale (1983:24 fn 10, 1983:43). Hale observes that the subject of a reflexive sentence receives ergative case, indicating a transitive 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 may be present, indicating the existence of an object:

- (62) Wati-**ngki**-nyanu paka-rnu **jurru**
 man-**Erg-Reflex** hit-Past **head**
 “The man hit himself (on) the head” (Hale et al: 1995))

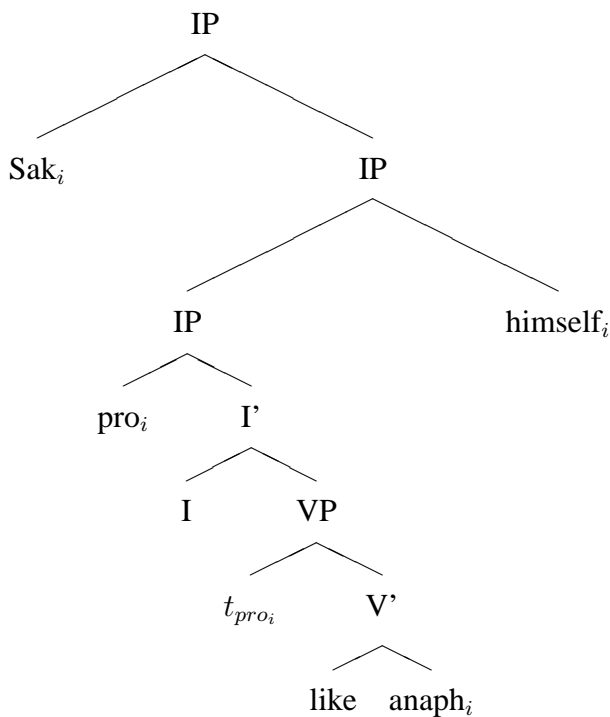
In addition, reflexive sentences may contain a secondary predicate related to the object, again indicating the presence of an object:

- (63) **Wati**-lki-li-nyanu nya-ngu kurdu-warnu-rlu.
man-then-3pl-Reflex see-Past child-Assoc-Erg
 “The young people saw each other (to be) men then.” (Hale 1985:1441)

Therefore, there must be a phonologically null anaphor in the object position of reflexive sentences in Warlpiri.

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:

(64) *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 (if in fact robust, see footnote 17) cannot serve as support for the theory.

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):

(65) 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:

(66) * 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 the grammatical version of (67)

(67) 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.¹⁸ The plural pronoun may appear outside the scope of *all*:

¹⁸*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.

- (68) 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:

- (69) 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:

- (70) 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.¹⁹ 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.²⁰

¹⁹As 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/ISO-help-HAB
 “Rarely does someone help me.” (Baker 1996:61)

²⁰There are a few candidates for DP quantifiers in Warlpiri not considered by Bittner & Hale that do not 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, nonpolysynthetic 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 (1999) 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 Benjamin Bruening, cited in 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:

(71) All the candidates₁ thought that they₁ would be elected. (Bruening 2001:102)

The salient reading of (71) 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:

- (72) 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. In fact, many quantifier phrases may undergo clitic left dislocation: Baker notes that “[b]oth Rizzi (1986b) and Cinque (1990) mention that there is improvement if the quantifier appears with a lexical N’ ” (Baker 1996:90, ftn9); and Iatridou (1995) points out that the quantifier “each” may be clitic left dislocated in Modern Greek (although not “every”):

- (73) *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 the presence or absence of quantifier phrases does 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:

- (74) a. *Úhka t-á'-y^-[e]-'?*
 who CIS-FACT-FSS-go-PUNC
 “Who is coming?”
- b. *Nahót^ wa-hs-hnínu-’?*
 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.

Therefore, a DP may be merged in argument position, on the condition that it A'-moves 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 section 4.3 that wh-phrases move to this position.

- (75) **Nyiya** ngapa-ngka nyampirl-wanti-ja?
 what water-Loc splash-fall?
 “What fell with a splash into the water?” (Warlpiri Dictionary Project 1993)

Wh-phrases lower in the clause are interpreted as indefinites:

- (76) a. Kula-ka-rna nyarrpara-kurra ya-ni
 Neg-PresImpf-1sg where-All go-Npast
 “I’m not going anywhere” (Laughren 2002:[33b])
 *“Where am I not going?”
- b. Ngula-rla **nyiya** wanti-ja langa-kurra karnta-ku-ju jarda-kurra-ku.
 Then-3Dat **what** fall-Past ear-All woman-Dat-Top sleep-ObjC-Dat
 “Then something fell into the woman’s ear while she slept.” (Warlpiri Dictionary Project 1993)

Since only one wh-phrase may move to the left periphery, multiple wh-questions are thus ruled out in Warlpiri.

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 legiti-

mate 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 principles 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. Indeed, Kiss (1998) and Puskas (2000) demonstrate the existence of left-peripheral A’-projections in Hungarian that host 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’-positions in Polysynthetic languages, as opposed to *may* move overtly, as predicted if Polysynthetic languages do not form a typological class identified by a single macroparameter. Other predictions that Baker claimed to follow from the Polysynthesis parameter are thus eliminated as well—lack of DP anaphors (which may be bound in their A-trace positions), lack of quantifier phrases (which may bind in their A-trace positions), and 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 (77).

- (77) a. *Wawirri nya-nyi ka-rna
kangaroo see-Npast PresImpf-1sg
“I see a kangaroo.”
- b. *Nya-nyi wawirri ka-rna
see-Npast 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 (77) 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.²¹ 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 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

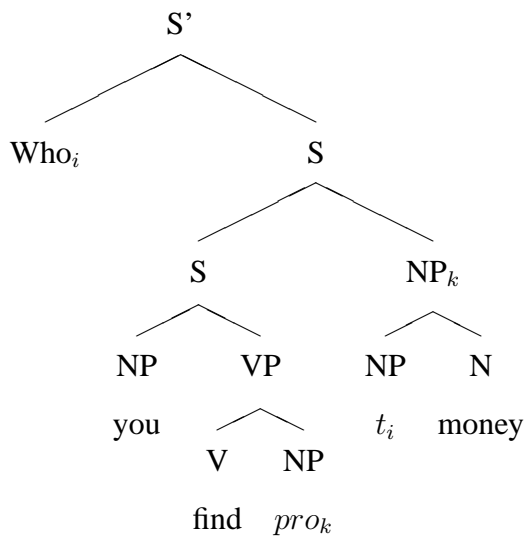
Next, Baker turns to Condition on Extraction Domain effects:

- (78) *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.

Given this condition, Baker's claim that all DPs are adjoined in Polysynthetic languages predicts that extraction from overt DPs should be ungrammatical, regardless of grammatical

²¹Raising of elements out of the verb phrase is a clear alternative. Laughren (2002) suggests object raising; verb raising is also a possibility. More research is needed on this issue.

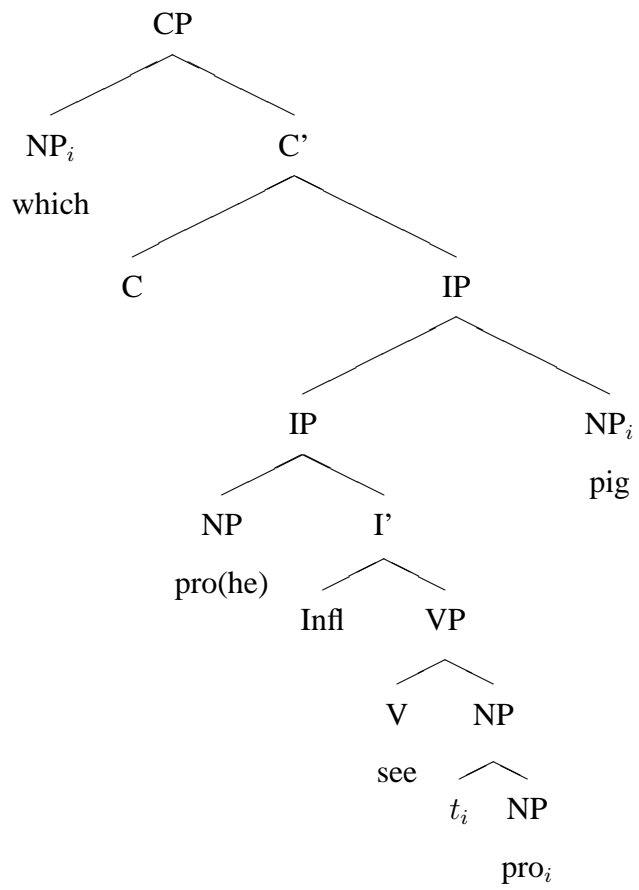


However, later in the book he discusses cases in which a wh-word can be separated from its restriction:

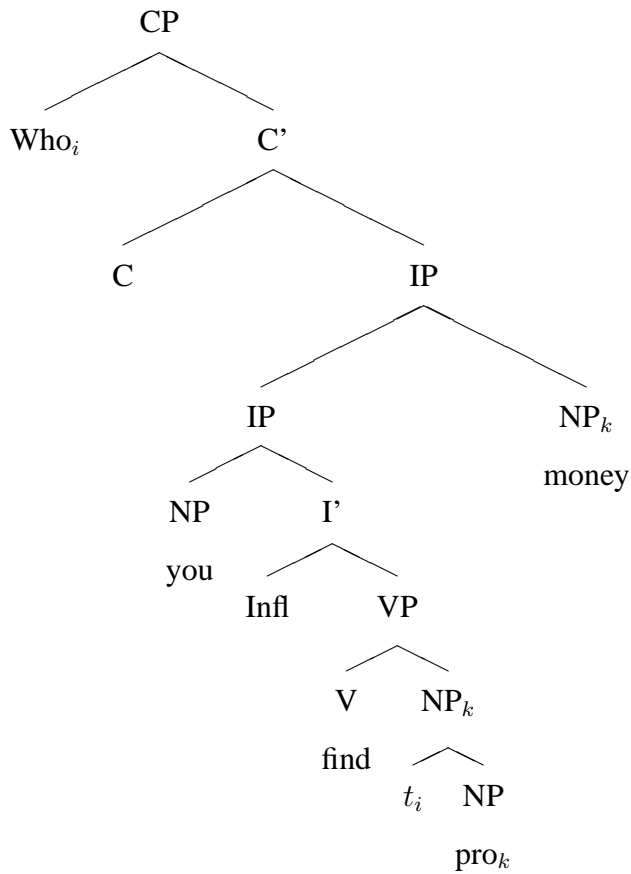
- (83) Ka nikáy^ wa-há-k^-' (ne) kwéskwes?
 which FACT-MASS/ZSO-see-PUNC NE pig
 “Which pig did he see?” (Baker 1996:158)

proposing the following structure:

- (84)



An identical structure should be possible for cases like (79b):



Thus the combination of the CED and Baker’s PAH in fact does not capture the ungrammaticality of the examples in (79), in contrast with the grammaticality of (83).

Furthermore, Baker (1996:266) argues that possessor constructions are relative clauses in Mohawk. Thus, under his analysis, (79b) 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:

- (85) * Nahót^ wa'-hse-ríyo-? ne érhá 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 (79) are not CED effects but Complex NP Constraint violations.

To summarize, Baker’s claim that all phonologically overt nominals in Mohawk are adjoined, combined with the impossibility of extraction from adjuncts (CED), predicts that extraction from nominals in Mohawk should be impossible. Unfortunately, in some cases extraction is *prima facie* possible in Mohawk, (83), while in other cases extraction is impossible but for orthogonal reasons, (79). Therefore, CED effects cannot support the PAH in Mohawk.

It is worth noting at this point that equivalent constructions in Warlpiri, exhibiting *prima facie* extraction from nominals, are completely grammatical:

- (86) a. **Nyarrpara-ku** ka-npa-rla **ngarrka-ku** piirr-pardi-mi?
which-Dat PresImpf-2sg-3Dat **man-Dat** wait.for-Npast
 “Which man are you waiting for?” (Warlpiri Dictionary Project 1993)
- b. **Kurdu-kurlangu** ka parnka-mi **maliki**
child-Poss Pres.Impf run-Npast **dog**
 “The child’s dog is running” (Granites et al 1976)

Therefore, there is no support from CED effects for the PAH in Warlpiri either.

WCO

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

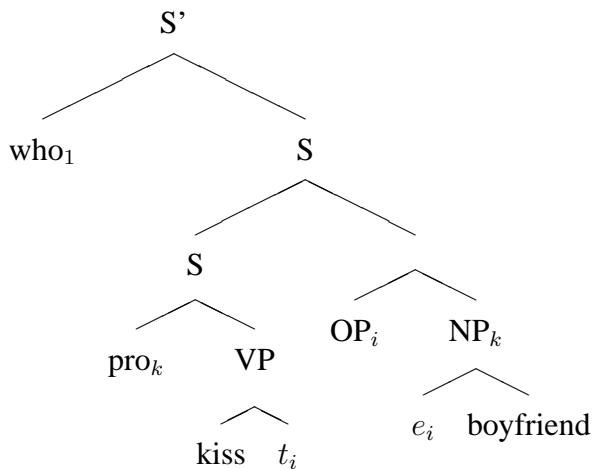
- (87) a. Úhka wa’-te-shako-noru’kwány-’ raó-skare’?
 who FACT-DUP-MSS/FSO-kiss-PUNC MSP-friend
 “Who kissed his girlfriend?” (bound OK)
- b. Úhka wa’-te-shako-noru’kwány-’ akó-skare’?
 who FACT-DUP-MSS/FSO-kiss-PUNC FSP-friend
 “Who did her boyfriend kiss (her)?” (bound OK) (Baker 1996:80)

The PAH *prima facie* 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.²³

(88) *Structure of (87b)*



As already mentioned, in Warlpiri, as well, WCO effects are absent in short distance questions:

²³ 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, when an overt pronoun is present thus ruling out the parasitic gap parse, Baker 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.

(89) *WCO*

- a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?
who-Erg child 3-Poss hit-Npast
“Who_i hit his_i child?”
- b. Ngana ka nyanungu-nyangu maliki-rli wajili-pi-nyi?
who PresImpf he-Poss dog-Erg chase-Npast
“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 the WCO data constitute an argument against the PAH for Warlpiri, and perhaps for Mohawk as well (see footnote 23).

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;²⁴ while three were shown to not constitute arguments for or against the PAH: lack of overt DP anaphors, absence of quantifier phrases, and CED effects. Finally, Baker’s analysis of obligatory movement of *wh*-phrases was found to undermine the hypothesis considerably, 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.

²⁴Recall 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.

2.5.2 Arguments against the PAH

In this section, I examine 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 turning to additional arguments that arise from Baker (1996).

The Indefinite Interpretation

Austin & Bresnan (1996) present a series of arguments against Jelinek's (1984) version of the pronominal argument hypothesis, whereby overt DPs are adjuncts linked through case compatibility rules to argumental clitics. Austin & Bresnan's first argument concerns a distinction in interpretation between the agreement clitics and overt DPs, which is unexpected if DPs are simply optional adjuncts.

When the clitic appears without an associated nominal, the interpretation is necessarily definite:

- (90) Panti-rni ka
spear-Npast PresImpf
“He/she is spearing him/her/it.” (Simpson 1991:153)
NOT: “Someone is spearing something.”

However, when the clitic co-occurs with an overt nominal, a nonspecific interpretation becomes possible; Austin & Bresnan give the following examples in support of this claim:

- (91) Ngarrka-ngku ka wawirri panti-rni
man-Erg PresImpf kangaroo spear-Npast
“The/a man is spearing the/a kangaroo.” (Simpson 1991:153)
- (92) Kardiya yurrkunyur-lu manu yapa-ngku turaka-rlu
white.person police.officer-Erg and Aboriginal-Erg tracker-Erg
kala-ka-ngku-pala muru-pi-nyu.
PotC-PresImpf-2sgObj-3DualSubj arrest-Npast

“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 (91) shows very little, and the DPs in (92) receive a generic interpretation, rather than an indefinite interpretation.²⁵ However, examples involving true indefinite interpretations can be found:

- (93) a. **Karli**-ji paka-ka – nyina-nja-rlarni, kaji-rna
boomerang-1sgObj chop-Imperative sit-Infin-ObvC, NfactC-1sg
yama-ngka nyina.
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 ka-rna
wait-Imperative-1sgObj-3plSubj here-Loc water-Loc, 1 PresImpf-1sg
ya-ni **kuyu** panti-rninja-kurra.
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-3pl live.Npast **Warlpiri**-Top
“**At Balgo Mission** there are **Warlpiri people** living.” (Warlpiri Dictionary
Project 1993)

Thus, in (93a) “a boomerang” is the object of a verb of creation, in (93b) the speaker does not yet know which animal will be speared, and (93c) is an existential sentence.

The problem posed by the indefinite interpretation is two-fold. First, how does an optional adjunct affect the the clitic so as to render an otherwise impossible indefinite interpretation possible? Second, why is it that an indefinite DP merged at the IP level can receive an indefinite interpretation, which is standardly assumed to be possible only within the verb phrase (Diesing 1992)?

²⁵Note that indefinites adjoined to IP are indeed expected to allow a generic interpretation, cf Diesing 1992.

In Romance languages, nouns are explicitly marked for definiteness, showing that [\pm 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.²⁷

Baker (2001) takes a different approach, writing in the context of the secondary predicate analysis discussed below; 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* associate 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

²⁷In 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 (90).

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 pragmatic function in configurational languages, which is the source of the restriction to definite 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. As noted above, null pronominals in the absence of a nominal are necessarily interpreted as definite in Warlpiri:

- (98) Panti-rni ka
spear-NPAST PRESIMPF
“He/she is spearing him/her/it.”
NOT: “Someone is spearing something.”

We would not expect the addition of a secondary predicate to alter the definiteness of the associated pronominal.

For the PAH, on the other hand, the idea is 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). This discourse function would force the definite or specific indefinite interpretation. In nonconfigurational languages, CLLD would then target a different A’-specifier, one which is associated with no particular interpretation. Such an analysis would be strengthened by the discovery of a configurational language in which CLLD has the discourse properties (or lack thereof) of

CLLD 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):

- (99) 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:

- (100) **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 prima facie lack of a morpho-syntactic distinction between the definite and indefinite interpretations.

To recap, there are a number of remaining issues here for the PAH. First, for Warlpiri, it must be explained why the indefinite interpretation is possible only when an overt nominal is present, and why the indefinite interpretation is possible for nominals merged at IP. Notice that these data are unproblematic if we do not adopt the PAH. We need only state that Warlpiri has a null pronoun *pro* that fills the argument position when no overt nominals are present, but no corresponding null indefinite. When a DP is present, it fills the argument position, *pro* is absent, and all interpretations are available in the standard manner.

Second, for Baker's version of the PAH, it must be determined why CLLD in configurational languages results in a definite/specific indefinite interpretation (in the presence of a clitic, or an indefinite interpretation in the absence of a clitic), while CLLD in nonconfigurational languages has no interpretational effect. Certain suggestions have been made,

however, to adopt the PAH, this issue needs to be resolved.

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.²⁸

- (101) a. Kurdu-jarra-rlu-ka-pala maliki wajili-pi-nyu wita-jarra-rlu
child-Dual-Erg-PresImpf-3Dual dog chase-Npast 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-nyu
child small-Dual-Erg-Pres-Impf dog chase-Npast
“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

²⁸The observation and examples are due to Hale (1981); unfortunately, the two readings are truth conditionally equivalent in (101).

the overt DPs inflect for ergative-absolutive case whereas the agreement clitics follow a nominative-accusative pattern.

(102) *Case Compatibility Rule [Warlpiri] (Jelinek 1984:52)*

- 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). Jelinek does partially address this issue, in allowing for lexically-determined exceptions (Jelinek 1984:ftn 13). Deeper difficulties with the case compatibility rule stemming from case patterns in non-finite clauses will be raised and discussed in section 3.2.

A related problem is the restrictiveness of the linking rules proposed by Jelinek, in that they are language specific. Baker (1996:96) raises this issue with respect to Jelinek’s later work on nonconfigurational languages, observing that these linking rules “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 do not seem so clearly problematic in that the agreement morphology receives structural case, rather than the *pro*’s that form the chain with the clitic left dislocated DPs. However, the

source of the case morphology on the dislocated DPs in Warlpiri, which do show structural case (distinguishable from semantic case; see for example Simpson 1991), 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:

- (103) a. Purra-nja-rla nga-rnu
 cook-Infin-PriorC eat-Past
 “Having cooked (it), (he/she/it) ate (it).” (Laughren 1989:326)
- b. Pingka-rlipa mata-ma-ninja-kujaku ya-ni
 slow-1plIncl tired-Caus-Infin-NegPurpC go-Npast
 “We’ll go slowly lest (we) tire (ourselves).” (Simpson 1991:141)

Furthermore, they demonstrate that even in finite clauses not all arguments are cross-referenced 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, the result should be ungrammatical.

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

- (104) yaany-pardi-mi kaji-ka-npa nyuntu ngula-ji ngari ka-rna
 shame-Npast PotC-PresImpf-2sg 2 that-Top just PresImpf-1sg
 wangka-mi yapa panu-kurra
 talk-Npast person many-All

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

However, this argument is optional, and in the absence of an overt DP is simply absent from the interpretation; thus, it is unclear that this should be treated as an argument rather than an adjunct. The presence of allative case here is marked; normally this DP would bear dative case and appear registered in the auxiliary, and thus be more clearly an argument.

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 third singular agreement morphology is null in Warlpiri. However, as Austin & Bresnan note, third person dual and plural agreement are not null and these do not appear with associated agreement morphology either.²⁹

- (105) Ngajulu-rlu kapi-rna-ngku **karli-patu** yi-nyi nyuntu-ku
I-Erg FutC-1sg-2sgObj **boomerang-Pauc** give-Npast 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, we should note that the issue has not been investigated in these terms.

Baker (1996) encounters the identical difficulty for ditransitives in Mohawk, and resolves the issue 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).³⁰

²⁹In 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, thus accounting for the lack of agreement patterns. There I assume a fully configurational syntax for Warlpiri with DPs appearing in argument position, see section 2.7 below.

³⁰He identifies a morpheme found in some verb roots with this incorporated noun:

This analysis is not available in 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 must admit for the possibility that the former claim is correct but not the latter.³¹

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 noncon-

-
- (1) a. Wa’-ke-**n**-óhare-’ (ne ó-wis-e’)
 FACT-ISA-??-wash-PUNC NE NSO-glass-NSF
 “I washed it (the glass)”
- b. Wa’-ke-**wis**-óhare-’
 FACT-ISA-**glass**-wash-PUNC
 “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-híiy-u-’
 CIS-FACT-ISA/MSO-give-PUNC
 “I gave it to him (e.g. a specific knife)
- b. Wa-hiy-**a**’shár-u-’
 FACT-ISA/MSO-**knife**-give-PUNC
 “I gave a/the knife to him” (Baker 1996:204-205)

³¹Although we have seen independent difficulties with the former claim as well in previous sections.

figurational 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 properties found in Warlpiri do not consistently co-occur, nor do they consistently co-occur with agreement morphology, as required by the PAH.³² The following table is adapted from Austin & Bresnan (1996:262).

(106)

Language	Agreement	Free Word Order	Null Anaphora	Discontinuous DPs
1. Warlpiri	yes	yes	yes	yes
2. Western Desert	yes	yes	yes	yes
3. Jiwarlri	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 Warlpiri 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

³²Although see the discussion at the end of the previous section.

clause. Clitic left dislocated phrases must appear to the right of an embedded complementizer in Spanish, while Mohawk allows either ordering:

- (107) a. Juan piensa que a Mariá, la verá en la fiesta.
 “Juan thinks that Mary, he will see her at the party.”
 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)
- (108) a. Wa’-uk-hróri-’ ne Sak tsi wa-hr^-[i]hey-e’
 FACT-FSS/ISO-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^’
 Ø-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.³³

³³Allowing adjunction to VP would also be required for Warlpiri. Adverbial placement in Warlpiri can be used to locate DPs in positions lower than IP. In Legate (to appear b) I argue that 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 b, for details).

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:³⁴

- (109) 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

-
- (1) **Kari-nganta** miyi-wangu ka-rnalú-jana yarnunjúku nyina
 fact food-without PresImpf-1plExcl-3plObj hungry sit.Npast
 “Isn’t it obvious that we are waiting for them (here) hungry without any food.” (Laughren 2002:[29d])
- (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-Past depart-Past
 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 vP.

³⁴Bruening (2001:36) forms an argument against the PAH based on the claim that “[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.

“What did Sak steal?” (Baker 1996:118)

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

- (110) a. **Nyangur****la-warnu**-rlu-ngku **maliki-rli** paju-rnu?
when-after-Erg-2sgObj **dog-Erg** bite-Past
“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-Npast
“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 initial DP is necessarily interpreted as a topic.³⁵ DPs following a wh-phrase, on the other hand, receive a neutral interpretation.³⁶ Therefore, the Warlpiri data are not explained as simply as freedom of adjunction sites. See 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, on the other hand, overt DPs need not be intonationally separate. Baker does not have a clear solution to this objection, suggesting only that the distinction may be tied to the

³⁵The 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.

³⁶or a backgrounded interpretation, if they are also post-verbal.

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 alternates with a DP in argument position strategy in these languages, and thus the speaker must choose 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. For Warlpiri, such a suggestion is questionable, in that Warlpiri shows a contrast between relative clauses, which are syntactically dislocated and intonationally separate from the rest of the clause (Hale 1976), and DPs, which are not intonationally separate from the rest of the clause. Furthermore, in section (4.2.1) I discuss hanging topic left dislocation in Warlpiri; DPs which appear in this type of dislocation construction are intonationally separate from the rest of the clause. This suggests that Warlpiri does intonationally mark dislocated phrases, and that DPs that do not bear this marked intonation are not dislocated. More investigation into the intonation patterns of Warlpiri is required.

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:

- (111) 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:

- (112) 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:

- (113) **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 referred to as "connectivity" effects:

- (114)
- 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 (115).

(115) *CLLD in Greek*

- a. Tin tixi tu kathe ftochos 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:

- (116) 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:

- (117) 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.

2.5.3 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.³⁷

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 vacuous.

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

2.6 Issues and Arguments III: Secondary Predicate

In this section, I evaluate the final analysis of nonconfigurationality in Warlpiri: the secondary predicate approach. This approach has not been 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 2.5.2, I argued that the indefinite interpretation of overt DPs is

³⁷We will consider this point in more detail in section 2.7 below.

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 (118) and (119) below.

- (118) Panti-rni ka
 spear-NPAST PRESIMPF
 “He/she is spearing him/her/it.”
 NOT: “Someone is spearing something.”

- (119) 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 (120).

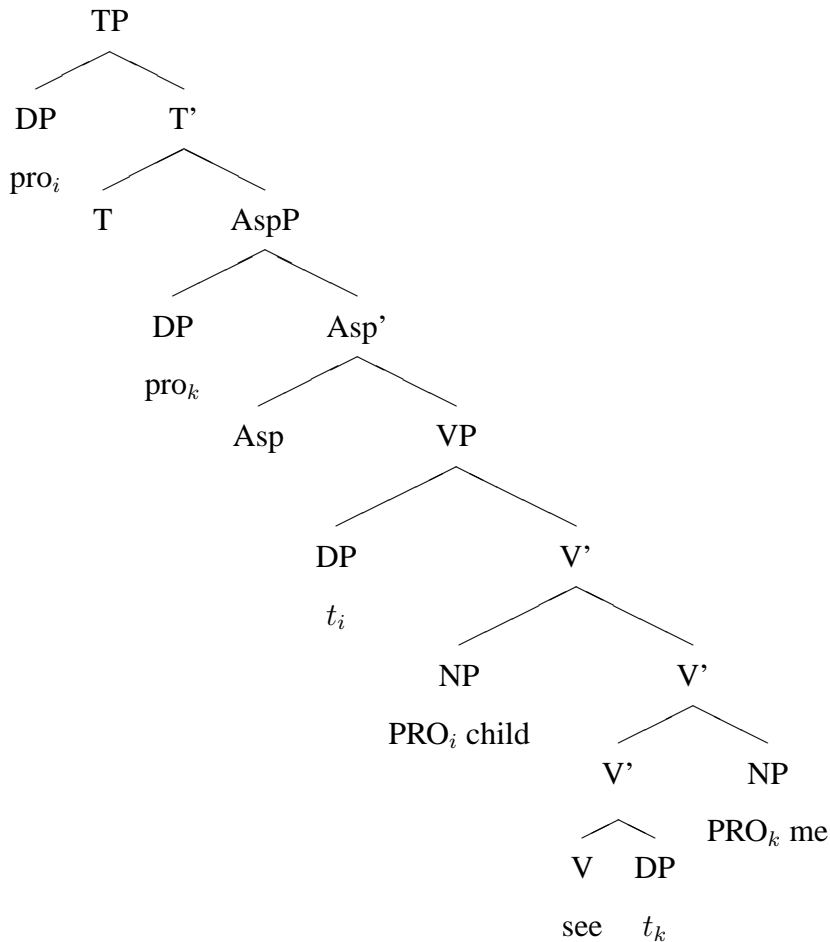
- (120) a. *Jakamarra-rlu ka-nyanu **nyanungu** paka-rni
 Jakamarra-Erg PresImpf-Reflex **3** hit-Npast
 “Jakamarra_i is hitting him(self)_i”
- b. Jakamarra-rlu ka-nyanu paka-rni
 Jakamarra-Erg PresImpf-Reflex hit-Npast
 “Jakamarra_i is hitting himself_i”
- c. Japanangka-rlu-nyanu yirra-rnu mulukunpa **nyanungu-wana**
 Japanangka-Erg-Reflex put-Npast bottle **3-Perl**
 “Japanangka_i set the bottle down beside him_i.” (Simpson 1991:170-171)

(120) demonstrates that a Condition B violation is incurred by an overt pronoun interpreted as the object, (120a), but not by a null object pronoun, (120b), nor by an overt pronoun interpreted as an adjunct, (120c).³⁸ Therefore, binding theory is sensitive to the overt/covert 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.

³⁸Recall from section 2.5.1 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 reference 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 (126) below. Thus, I concluded that the reflexive object position is filled by a phonologically null anaphor.

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

(121) *Structure of “The child sees me”*



was motivated by the “flat” Condition C data standardly reported in the literature:

- (122) a. Jakamarra-kurlangu maliki ka nyanungu-rlu wajili-pi-nyi
 Jakamarra-Poss dog PresImpf 3 chase-Npast
 “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-Npast
 “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 fn 15), but it is clear from his discussion in footnote 15 (2001:437) that 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 (122a) or the object pronoun *pro* in (122b). 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.³⁹

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

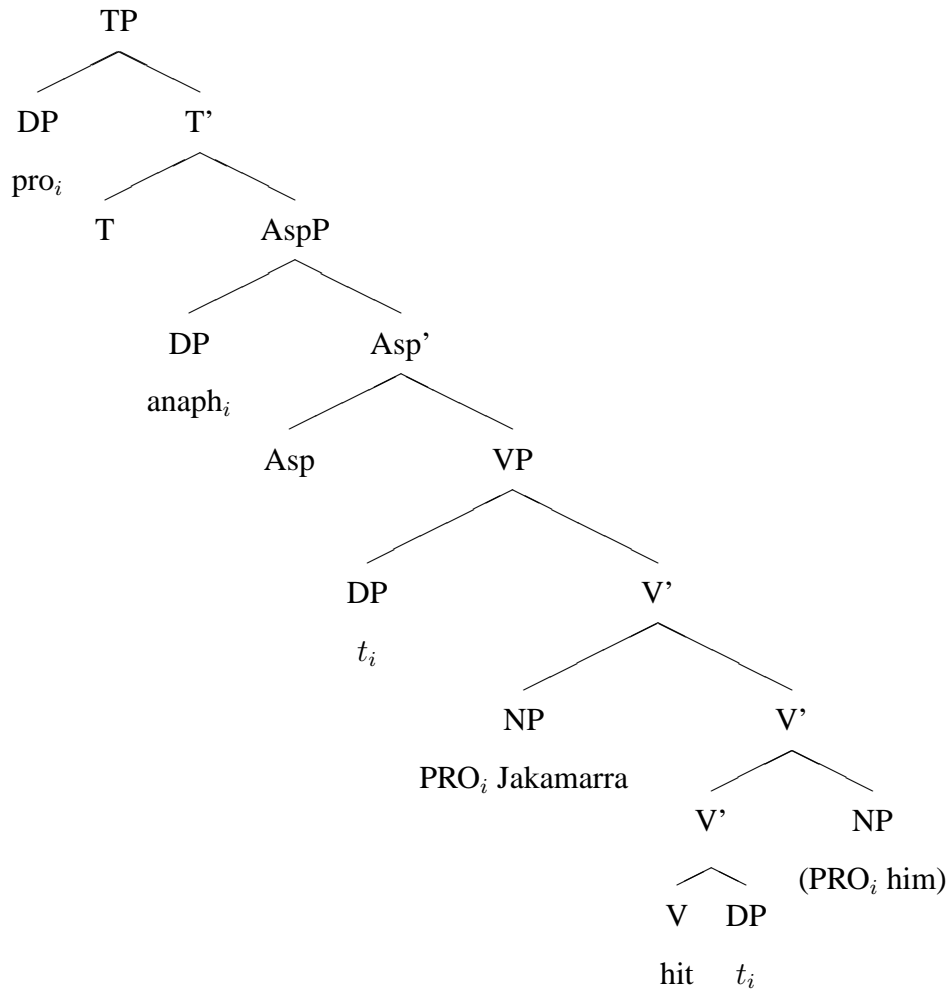
- (123) a. Karnta-ku jaja-ngku-lpa nyanungu jakuru-pu-ngu
 woman-Dat grandmother-Erg-PastImpf 3 goodbye-VF-Past
 “The woman_i’s grandmother was announcing her leave to her_i”
- b. Karnta-ku jaja-lpa nyanungu-rlu jakuru-pu-ngu
 woman-Dat grandmother-PastImpf 3-Erg goodbye-VF-Past
 “She_i was announcing her leave to the woman_i’s grandmother”

Returning to the Condition B data, repeated in (124), we find that these also pose difficulties for Baker’s version of the secondary predicate hypothesis.

- (124) a. * Jakamarra-rlu ka-nyanu nyanungu paka-rni
 Jakamarra-Erg PresImpf-Reflex 3 hit-Npast
 “Jakamarra_i is hitting him(self)_i”
- b. Jakamarra-rlu ka-nyanu paka-rni
 Jakamarra-Erg PresImpf-Reflex hit-Npast
 “Jakamarra_i is hitting himself_i” (Simpson 1991:170-171)

³⁹However, in footnote 15 (2001:437) Baker proposes an alternative explanation of the data in (122); he proposes that the possessors are actually adjectival and thus do not introduce a referent into the discourse. I argue in section 2.7 that this is indeed the case.

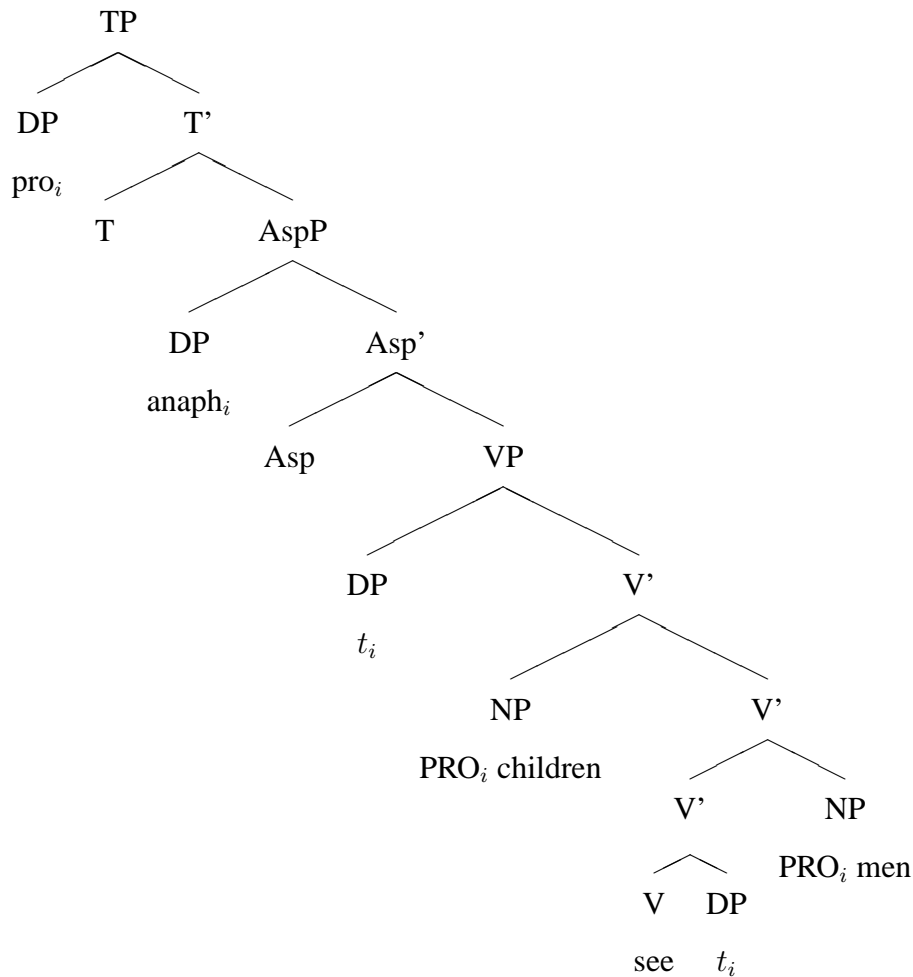
(125)



In this structure, the only difference between (124a) and (124b) 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:

- (126) **Wati**-lki-li-nyanu nya-ngu kurdu-warnu-rlu
man-then-3pl-Reflex see-Past child-Assoc-Erg
“The young people saw each other (to be) men then.” (Hale et al. 1995:1441)

(127)



Let me emphasize this point, since it conclusively argues against both versions of the secondary predicate hypothesis. (124a) contains an object pronoun in a reflexive clause, and the sentence is ungrammatical, whereas (126) 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:⁴⁰

⁴⁰The true secondary predicate interpretation is pragmatically difficult in this example.

- (128) *Nyanungu-rlu ka-nyanu **Jakamarra** pi-nyi
 3-Erg PresImpf **Jakamarra** hit-Npast
 “Jakamarra hits himself” (Simpson 1991:177)
 (lit ‘He_i hits Jakamarra_i’)

(128) contains an object R-expression in a reflexive clause and the sentence is ungrammatical, again in contrast with (126), 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 Warlpiri.

Thus, I have evaluated in detail three previous accounts of nonconfigurationality in Warlpiri: the dual structure account, the pronominal argument account, and the secondary 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 typological class of nonconfigurational languages simply does not exist.

2.7 Towards a Microparametric 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 quote:

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 non-configurational languages form a coherent typological class as defined by a single *macroparameter*.⁴¹ Thus, the Configurationality Parameter of Hale (1983) and the parametrized Morphological Visibility Condition of Baker (1996):

(129) *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.

(130) *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

⁴¹Although the LFG version of the dual structure approach is microparametric in that the tools used to 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.

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 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:

- (131) 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:

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

- a. kutti awante ammaye nulli
 child-NOM his mother-ACC pinched
 "The child_i pinched his_i mother"
- b. * awante ammaye kutti nulli
 his mother-ACC child-NOM pinched
 "The child_i pinched his_i mother"
- c. * awan kuttiyute ammaye nulli
 he child's mother-ACC pinched
 "He_i pinched the child_i's mother"
- d. kuttiyute ammaye awan nulli
 child's mother-ACC he pinched
 "He_i pinched the child_i's mother"

Hungarian shows yet another pattern of behaviour:

(133) *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 anyját
he-ACC knows John mother-NOM
“John_i’s mother knows him_i”
- d. * János anyja ismeri (öt)
John mother-NOM knows he-ACC
“John_i’s mother knows him_i” (Marác & Muysken 1989:31)

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

- 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), Passamaquoddy shows yet another pattern in that 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 Nahuatl 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.

Variation is also found in the possibility for discontinuous constituents. Thus, as we have seen, although Warlpiri and Mohawk are both considered to be nonconfigurational

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 non-configurational 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).

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 that are considered to be nonconfigurational the data are simply incomplete. Consider Warlpiri. Although this language has been well-studied over a number of decades, 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 show Weak Crossover effects, 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 possessor marked with *-kurlangu*. 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, Hale’s comment on 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 existence 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 section 4.2 that this is indeed the case. The lesson that we may learn from all this is a trivial one: in depth investigation into each language is required to place isolated data points 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 approach 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 section 4.2 below, 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 *mittefeld* will yield interesting results.

The natural analysis of null anaphora in Warlpiri is as *pro* drop. The difficulty with this approach is that Warlpiri exhibits partial rich agreement. Thus, on the one hand, in general both subjects and objects in finite clauses trigger agreement, suggesting that Warlpiri exhibits Italian-style agreement-identified *pro*-drop. However, there are a number of situations in which DPs do not trigger agreement morphology, and yet still may undergo *pro*-drop, including at least absolutive DPs in the double object construction, and all DPs in nonfinite clauses:

- (137) a. Ngajulu-rlu kapi-rna-ngku yi-nyi nyuntu-ku
 I-ERG FUT.C-1SG-2SG.OBJ give-NPAST you-DAT
 “I will give (it/them/...) to you”
- b. Purra-nja-rla nga-rnu
 cook-INFIN-PRIOR.C eat-PAST
 “Having cooked (it), (he/she/it) ate (it).” (Laughren 1989:326)

Therefore, agreement-identified *pro*-drop cannot be the complete explanation.

Let us then consider whether Warlpiri exhibits discourse-licensed *pro*-drop, as do Chinese, Japanese, and Korean, for example. One characteristic of discourse-licensed *pro*-drop is that it allows sloppy identity interpretations (Xu 1986, Otani & Whitman 1991):

- (138) a. *Chinese*
- Zhangsan bu xihuan [guanyu ziji-de yaoyan]; Mali ye bu xihuan [_{NPE}]
 Zhangsan not like about self-GEN rumour Mary also not like
 “Zhangsan doesn’t like rumours about himself, and Mary doesn’t (like) either.”
- i. Mary does not like rumours about herself either.
 ii. Mary does not like rumours about Zhangsan either.
- b. *Japanese*

John-wa [zibun-no tegami-o sute-ta]; Mary-mo [_{NPE}]
 John-TOP self-GEN letter-ACC discard-PERF Mary-ALSO
 sute-ta
 discard-PERF

“John threw out his letters, and Mary did (throw out) too”

- i. Mary threw out her (=Mary’s) letters.
- ii. Mary threw out his (=John’s) letters. (Kim 255-256)

Sloppy identity interpretations in general are available with ellided DPs, but not with simple pronouns. This is illustrated by the following English examples; since English does not allow ellision of an object DP on its own, VP ellipsis is used.

- (139) a. Robin threw out his letters and Kim threw them out too.
- i. * Kim threw out Kim’s letters.
 - ii. Kim threw out Robin’s letters.
- b. Robin threw out his letters and Kim did too. < throw out his letters >
- i. Kim threw out Kim’s letters.
 - ii. Kim threw out Robin’s letters.

Therefore, discourse-identified *pro*-drop has been analysed as ellipsis, either VP-ellipsis preceded by verb raising (Otani & Whitman 1991) or argument ellipsis (Kim 1999⁴³).⁴⁴ Although I consider the argument ellipsis analysis most promising, either approach is compatible with the discussion here.

⁴³Huang’s original 1984 analysis of Chinese *pro*-drop contains the core of the argument ellipsis analysis. He refers to the ellided object as a null operator, in order to unify two cases—object relative clauses and null topics. Leaving relative clauses aside as a distinct phenomenon, Huang’s proposal may be restated as topical objects may be ellided.

⁴⁴Thus, *pro*-drop is a misnomer.

Therefore, we have a clear prediction. If Warlpiri has discourse-identified *pro*-drop, sloppy readings should be available.⁴⁵ This prediction is borne out:

- (140) Jakamarra-rlu nyanungu-nyangu warlu palupu-ngu, manu
 Jakamarra-ERG 3-POSS fire extinguish-PAST and
 Jupurrula-rlu-yijala [_{NP} e] palupu-ngu.
 Jupurrula-ERG-ALSO extinguish-PAST
 “Jakamarra_i extinguished his_i fire and Jupurrula did (extinguish) too.”

- i. OK: Jupurrula extinguished Jakamarra’s fire too. (i.e. Jupurrula helped Jakamarra)
- ii. OK: Jupurrula extinguished Jupurrula’s fire.

Thus, we conclude that Warlpiri does exhibit discourse-identified *pro*-drop, like Chinese, Japanese, Korean, etc.⁴⁶ I leave as an open question whether agreement-identified *pro*-drop is also available in Warlpiri. This entails that the *pro*-drop parameter is divided into two distinct parameters, rather than a single three-valued parameter:

- (141) *A three-valued pro-drop parameter*

no	English, ...
agreement-identified	Italian, ...
discourse-identified	Chinese, ...

⁴⁵Recall that Baker 1996 analyses sloppy identity readings in Mohawk through a chain formation operation which results in the adjunct behaving as though it appears in the argument position (cf Cinque 1990 on connectivity effects in clitic left dislocation constructions). By now it is clear that this cannot be the general solution for Warlpiri: if Warlpiri had a chain formation operation, it would need to be both obligatory (to account for Condition C effects with unembedded R-expressions, and Condition B effects in reflexive sentences, for example), and optional (to account for Condition C effects with embedded R-expressions, and quantifier scope possibilities, for example), impossibly.

⁴⁶In addition, 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 other discourse-identified *pro*-drop languages, like Japanese, Korean, and Warlpiri.

- (145) **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])
- (146) a. **Janganpa** ka **kuyu** janka-mi jarra-ngka **Jangala-kurlangu**
possum PresImpf **meat** cook-Npast flame-Loc **Jangala-Poss**
 “Jangala’s possum is cooking in the flames.”
- b. **Kuyu** ka-rlipa **jaya-jala** paka-rni **janganpa-rlangu**
meat PresImpf-1plExcl **a.lot**-actually kill-Npast **possum**-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.⁴⁸ 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 (147)); thus each piece of the DP behaves as a separate DP for the strong/weak distinction.

- (147) 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.”

⁴⁸This has been considered a problem for movement-based analyses of split XPs. However, this problem vanishes if we adopt a post-syntactic morphological framework, like Distributed Morphology (Halle & Marantz 1993, 1994).

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:

- (148) a. Maliki wiri-ngki-ji yalku-rnu
 dog big-Erg-1sgObj bite-Past
 “The/a big dog bit me”
- b. Maliki-rli-ji yarlku-rnu wiri-ngki
 dog-Erg-1sgObj bite-Past 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.⁴⁹

(149) *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:

⁴⁹I use “topic” here to mean sentential topic (e.g. Reinhart 1981, Gundel 1985, and Vallduví’s (1992) “link”); I use “focus” in the sense of new information focus (e.g. Jackendoff 1972, Vallduví 1992, Kiss’ 1998 “informational” focus). I use “backgrounded” similarly to Vallduví’s “tail”, although for me the backgrounded material consists of a constituent (typically a DP or PP); in this light it is interesting to note that Catalan’s right dislocation construction that Vallduví uses to illustrate the tail targets similar constituents.

(150) A: Jangari mayi ka-npa marda-rni?
Shanghai Interr PresImpf-2sg have-Npast

B: Yuwayi. **Jirrama** ka-rna marda-rni **jangari-jarra**
yes. **two** PresImpf-1sg have-Npast **shanghai-Dual**

A: "Do you have a shanghai?"

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

(151) Jurru-lpa-nyanu yali yarlu-rnu. **Kurntu-lpa-nyanu jurru**
head.piece-PastImpf-Reflex there wet-Past **inside**-PastImpf-Reflex **head.piece**
yarlu-rnu.
wet-Past

"She wet that head-piece of hers. She wet the INSIDE of her head-piece." (Laughren 1984:5)

Therefore, the unification of Warlpiri discontinuous constituents and split XPs in Slavic and Germanic languages is promising.

An additional oft-cited property of Warlpiri nonconfigurality is that it fails to show Weak Crossover effects in short distance questions:

(152) a. Ngana-ngku kurdu nyanungu-nyangu paka-rnu?
who-Erg child 3-Poss hit-Npast
"Who_i hit his_i child?"

b. Ngana ka nyanungu-nyangu maliki-rli wajili-pi-nyi?
who PresImpf he-Poss dog-Erg chase-Npast
"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, (153) is adequate as a descriptive generalization for our purposes:

(153) 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:

- (154) * **Ngana_i-kurra**-npa nyanungu_i-nyangu maliki nya-ngu [*e* paji-rninja-kurra]?
who_i-ObjC-2sg 3_i-Poss dog see-Past [*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:

(155) *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)

(156) *German*

- a. (?) Wen_i liebt seine_i Mutter?
 whom loves his mother
 “Who does his mother love?”
- b. * Wen_i glaubt seine_i Mutter, da_β 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 availability 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.⁵⁰

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

- (157) 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:

- (158) 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 form an anaphoric island. The suffix *-kurlangu* would thus be comparable to the English *-ian*:

- (159) 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)

⁵⁰See below for further evidence of A-scrambling in Warlpiri, and section 4.3 for further details of the proposed scrambling analysis of the WCO data in Warlpiri.

If this is correct, the Condition C data in (157) and (158) 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 positioned before the head noun, presumably in the specifier of DP:

- (160) 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:⁵¹⁵²

- (161) a. Jakamarra-rlu maliki Jakamarra-kurlangu paka-rnu
 Jakamarra-ERG dog Jakamarra-POSSs hit-PAST
 “Jakamarra_i hit Jakamarra_i’s dog”
- b. Jakamarra-kurlangu maliki-rlu Jakamarra paji-rni
 Jakamarra-POSS dog-ERG 3 bite-PAST
 “Jakamarra_i’s dog bit Jakamarra_i”

⁵¹Thanks to Mary Laughren for verifying these data for me.

⁵²Note 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-Npast
 “Jupurrurla_i is looking at Jupurrurla_{*i/j}”

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:

(162) 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 tested.

The second prediction is that dative possessors like those in (160) will not show the same “flat” Condition C pattern. This is indeed the case:

- (163) a. Karnta-ku jaja-ngku-lpa nyanungu jakuru-pu-ngu
 woman-Dat grandmother-Erg-PastImpf 3 goodbye-VF-Past
 “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-PastImpf 3-Erg goodbye-VF-Past
 “She_i was announcing her leave to the woman_i’s grandmother”

The grammaticality of (163a) 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 (163b) 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”:

- (164) Ngarrka-ngku karnta nya-ngu karnta-kariyinyanu paka-rinja-kurra.
 man-Erg woman see-Past 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).⁵³ However, an object may serve as the antecedent for a subject marked with *-kariyinyanu*:

- (165) Nyanungu-ju-lpa purlka-**kariyinyanu**-rlu nya-ngu.
 3-TOP-PAST.IMPF old.man-**OTHER.SELF**-ERG see-PAST
 The other old man (like him) saw him. (Warlpiri Dictionary Project 1993)

Under the approach pursued here, these data again demonstrate A-movement of the object over the subject.⁵⁴

I conclude that optional A-movement of the object over the subject is possible in Warlpiri.

⁵³These data will be discussed in more detail in section 4.3.

⁵⁴In 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 (165); 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-Npast
 “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-Npast
 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.

Pursuing the grammaticality of (163b), 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),⁵⁵ as does A-movement in English:

- (166) 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, (163b) is predicted to be grammatical, since the Condition C violation may be repaired by A-scrambling of the object over the subject.

2.8 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 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.

⁵⁵Although the same is not true of Japanese, which has been considered evidence that scrambling is not A-movement in Japanese; see Weibelhuth (1989) and Saito (1992).

Chapter 3

A-syntax

3.1 Introduction

This chapter investigates two issues in the A-syntax of Warlpiri: split ergativity and applicative constructions.¹ Section 3.2 examines ergativity, providing in sections 3.2.1-3.2.2 an analysis of the Warlpiri split ergative system that crucially assumes a hierarchical syntactic structure. I argue that absolutive case in Warlpiri is a morphological default, disguising distinct structural nominative and structural accusative cases. The analysis allows me to place Warlpiri within a typology of case/agreement systems, in section 3.2.3. Finally, I consider in section 3.2.4 the advantages of the proposed system over previous analyses of ergativity. Section 3.2.5 shows in particular how the proposed analysis compares favourably to the previous analysis of split ergativity in Warlpiri based on nonconfigurationality (Jelinek 1984).

Section 3.3 makes crucial use of the proposed analysis of split ergativity in examining applicative constructions in Warlpiri. I demonstrate that Warlpiri displays two applicative

¹The analysis of split ergativity presented in this chapter is modified from the submitted version, based on data discovered after filing the dissertation, and discussion with Noam Chomsky, for which I thank him.

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 is compatible with the proposed case and agreement system of the language.

3.2 Split-Ergativity

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. The split ergative pattern in Warlpiri is characterized by DP inflection according to an ergative/ absolutive pattern, (167), and agreement suppletion on a nominative/ accusative pattern, (168).

(167) *Ergative/ Absolutive Case Marking*

- a. **Ngajulu-rlu**-rna-ngku nyuntu nya-ngu
1-ERG-1SG.SUBJ-2SG.OBJ 2.ABS see-NPAST
 “I saw you”
- b. Nyuntu-rlu-npa-ju **ngaju** nya-ngu
 2-ERG-1SG.SUBJ-2SG.OBJ **1.ABS** see-NPAST
 “You saw me”
- c. **Ngaju**-rna parnka-ja
1.ABS-1SG.SUBJ run-PAST
 “I ran”

(168) *Nominative/ Accusative Agreement Clitics*

- a. Nya-ngu-**rna**-ngku
 see-PAST-**1SG.SUBJ-2SG.OBJ**
 “I saw you”

- b. Nya-ngu-npa-**ju**
see-PAST-2SG.SUBJ-**1SG.OBJ**
“You saw me”
- c. Parnka-ja-**rna**
run-PAST-**1SG.SUBJ**
“I am running”

The following section begins to delve into this system by examining subject properties in Warlpiri.

3.2.1 The Grammatical Subject

A controversial and crucial question when considering ergative case systems is whether the ergative or the absolutive functions as the subject.² I start with the assumption that the answer potentially differs from language to language; there does not exist a single model of ergativity applicable to all ergative case systems. Furthermore, I take subjecthood to consist of two distinct notions—(i) an underlying or thematic subject, to be identified with the DP that is generated in the specifier of *v*P and receives the external θ -role (agent/experiencer/causer); and (ii) a grammatical subject, to be identified with the DP appearing in a designated A-position outside of the verb phrase, which I will refer to as the specifier of TP (see for example McCloskey 1997 for discussion).³ It has indeed been proposed (notably in Marantz 1984) that ergative case systems differ from nominative/accusative case systems in the thematic subject position, that is, ergative agents appear as the complement to the verb. I will assume that such a radical difference between lan-

²The issue is in fact broader, arising for non-nominative subject constructions in general; see for example Andrews 1976, Thráinsson 1979, Zaenen et al 1985, Sigurdsson 1989, 1996, 2002; Holmberg & Hróarsdóttir to appear, and references therein.

³In addition, it seems likely that certain “subject” properties are in fact topic properties. See footnote 17 for related discussion.

guages is not provided for by universal grammar. In any case, Warlpiri exhibits no evidence for such a proposal, and indeed the applicative data discussed in section 3.3 below seems particularly difficult to account for on such a hypothesis. I am thus concerned in this section with the second notion of subjecthood—is it the ergative or the absolutive that fills the specifier of TP in Warlpiri? I will argue that the highest argument fills the specifier of TP, that is the ergative thematic subject in a transitive clause, and the single (absolutive) argument of an intransitive clause.

The question of subjecthood is partially related to a second controversial and crucial question related to ergative case systems—what is the source of ergative and absolutive case? Thus, a common analysis of ergativity maintains that absolutive case is nominative case associated with finite T (see *inter alia* Murasugi 1992, Bittner 1994, Ura 2001). Such an analysis requires an agreement relationship be established between finite T and the nominative object. If this relationship is established through overt movement of the object to the specifier of TP, then we may expect the object to exhibit grammatical subject properties. If this relationship is established through covert movement of the object of the specifier of TP, then we expect the object to only exhibit those grammatical subject properties that diagnose syntactic positioning at LF. Finally, following recent work by Chomsky (1999, 2000), if the relationship is established in situ (through the *Agree* operation), with no movement of the object, then we expect the object not to exhibit grammatical subject properties. Thus, although the questions of grammatical subjecthood and source of absolutive case are partially interrelated, they are distinct questions, and so I treat them separately. This section concerns the question of grammatical subjecthood, and the following section examines the question of case source.

To begin the discussion of the grammatical subject position in Warlpiri, I present two tests which demonstrate that the ergative DP behaves as though it asymmetrically c-commands the absolutive DP in transitive clauses. These data speak in support of an analysis whereby the ergative subject occupies the grammatical subject position in a transitive

clause, rather than the absolutive object.

First, the ergative subject in Warlpiri behaves as though it asymmetrically c-commands the absolutive object for the purposes of Condition A. Thus, a reflexive object may be bound by the ergative subject, but not vice-versa:

- (169) a. Purlka-jarra-rlu ka-pala-nyanu nya-nyi
old.man-DUAL-ERG PRESIMPF-3DUAL-REFLEX see-NPAST
“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-NPAST
Lit: Each other are looking at the old men.

It is important to realize that these data cannot be explained by claiming the reflexive/reciprocal is formed by detransitivization in Warlpiri. A number of considerations demonstrate that reflexive/reciprocal sentences in Warlpiri are transitive, as noted by Hale (1983:24 fn 10, 1983:43): (i) the subject receives ergative case; (ii) the object switch reference marker *-kurra* is licensed, indicating control of the embedded subject by the matrix object (the switch reference system was outlined in section 2.2 and is further discussed below); (iii) an overt body-part noun related to the object may be present. To this we may add, (iv), the fact that a secondary predicate related to the object may be present. These properties are illustrated in the following examples (note that *jurru* “head” and *wati* “man” appear in the unmarked absolutive case, indicating that they are related to the object position, rather than bearing the ergative case suffix that would be required if they were related to the transitive thematic subject position):

- (170) a. Wati-**ngki**-nyanu paka-rnu **jurru**
man-ERG-REFLEX hit-PAST **head**
“The man hit himself (on) the head”
- b. **Wati**-lki-li-nyanu nya-ngu kurdu-warnu-**rlu**.
man-then-3PL-REFLEX see-PAST child-ASSOC-ERG
“The young people saw each other (to be) men then.” (Hale et al 1995:1441)

- c. Kurdu-**ngku** ka-nyanu nya-nyi, karri-nja-**kurra**
 child-**ERG** PRES.IMPF-REFLEX see-PAST stand-INFIN-**OBJ.C**
 “The child sees himself standing” (Hale 1982b [138b])

These data clearly indicate the presence of an absolutive object in addition to the ergative subject. I conclude that there is a phonologically null anaphor in object position of reflexive/reciprocal sentences in Warlpiri, which triggers the special agreement morpheme *-nyanu*. Therefore, the data in (169) demonstrate that the ergative subject asymmetrically c-commands the absolutive object.

Second, the ergative subject also behaves as though it asymmetrically c-commands the absolutive object for the purposes of Condition C:⁴

- (171) a. Purlka-jarra-rlu ka-pala-nyanu nya-nyi
 old.man-DUAL-ERG PRESIMPF-3DUAL-REFLEX see-NPAST
 “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-NPAST
 “They_i (two) are looking at the old men_i.”

In (171a), the overt R-expression is marked with ergative case, as the thematic subject; whereas in (171b) the overt R-expression is in the (unmarked) absolutive case, as the transitive object. The grammaticality of (171a) as opposed to the ungrammaticality of (171b), then, may be explained in terms of Condition C. In (171a), the ergative R-expression occupies the grammatical subject position and thus c-commands the coreferent anaphoric *pro* in object position, resulting in no Condition C violation. In (171b), on the other hand, the

⁴ The reflexive/reciprocal agreement clitic *-nyanu* is used in (171b) to force the coreferent interpretation. If the clitic is replaced by the 3rd dual object agreement clitic *-jana*, the sentence remains ungrammatical on the coreferent interpretation, but becomes grammatical on a non-coreferent interpretation. As is, (171b) is grammatical on the irrelevant interpretation whereby *purlka-jarra* “two old men” is a secondary predicate rather than the object—“They (two) see each other as two old men”, cf (170b) above.

absolute R-expression is c-commanded by the coreferent ergative *pro* in the grammatical subject position and the sentence is ungrammatical as a Condition C violation.

One additional point about (171b) should be mentioned. Consider the alternative analysis whereby the absolute is generated in object position and then raises to the grammatical subject position. In its merged position within the verb phrase, the absolute R-expression is c-commanded by the coreferent pronominal thematic subject. Could this be the source of the Condition C violation in (171b)? The answer is clearly no. It is now well-established that A-movement repairs Condition C violations (see Mahajan 1990, Saito 1992, Lebeaux 1995, Fox 1999, *inter alia*). This phenomenon is illustrated below with data from English:

- (172) a. John's_i mother seems to him_i t_i to be wonderful.
(*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, the ungrammaticality of (171b) cannot be explained by the existence of a configuration before A-movement that would violate Condition C. Rather, (171b) shows us that the thematic subject c-commands the object after A-movement, which then results in the Condition C violation.

Next, I turn to three tests that demonstrate that the ergative subject of a transitive and the absolute subject of an intransitive pattern together on tests of grammatical subjecthood, to the exclusion of absolute objects. Furthermore, I will demonstrate that this is equally true of intransitive absolute subjects that, on thematic and crosslinguistic grounds, are plausibly generated as the object of an (unaccusative) intransitive predicate.⁵

First, as mentioned above, ergative and absolute subjects trigger subject agreement morphology, as distinct from object agreement:

⁵See section 3.3.5 below for evidence of unaccusativity in Warlpiri.

- (173) a. Nya-ngu-**rna**-ngku
see-PAST-1SG-2SGOBJ
“I saw you”
- b. Nya-ngu-**npa-ju**
see-PAST-2SG-1SGOBJ
“You saw me”
- c. Parnka-**ja-rna**
run-PAST-1SG
“I ran”
- d. Mata-jarri-**ja-lku** nganta-**rna**
tired-INCH-PAST-NOW supposedly-1SG
“I seem to be tired” (Warlpiri Dictionary Project 1993)

Second, ergative and absolutive subjects are treated as a natural class for switch reference morphology. Thus, recall that Warlpiri displays a system of switch-reference whose basic use is on nonfinite clauses: *-karra* indicates control of the embedded PRO by the matrix subject, *-kurra* indicates control of the embedded PRO by the matrix object, and *-rlarni* is the default used when there is an overt embedded subject, or when the embedded PRO is controlled by a matrix adjunct:

- (174) a. Karnta_i ka-ju wangka-mi [PRO_i yarla
woman_i PRESIMPF-1SGOBJ speak-NPAST [PRO_i yam
karla-nja-**karra**]
dig-INFIN-**SUBJC**]
“The woman is speaking to me while digging yams” (Hale 1983:21)
- b. Purda-nya-nyi ka-rna-ngku_i [PRO_i
aural-perceive-NPAST PRESIMPF-1SG-2SGOBJ_i [PRO_i
wangka-nja-**kurra**]
speak-INFIN-**OBJC**]
“I hear you speaking” (Hale 1983:20)
- c. Wati-rla jurnta-ya-nu karnta-ku_i [PRO_i jarda-nguna-nja-**rlarni**]
man-3DAT away-go-PAST woman-DAT_i [PRO_i sleep-lie-INFIN-**OBVC**]

“The man went away from the woman while she was sleeping” (Hale et al 1995:1442)

The subject switch reference marker *-karra* is used for control by a matrix ergative subject, or absolutive subject of an unergative verb, as illustrated in (175).

- (175) a. Ngarrka-ngku ka karli jarnti-rni,
 man-ERG PRESIMPF boomerang trim-NPAST,
 wangka-nja-**karra**-rlu
 speak-**INFIN-SUBJC**-ERG
 “The man is trimming a boomerang while speaking.”
- b. Ngarrka ka wangka-mi, karli jarnti-rninja-**karra**
 man PRESIMPF speak-NPAST, boomerang trim-**INFIN-SUBJC**
 “The man is speaking while trimming a boomerang.” (Granites et al 1976)

Absolutive subjects of unaccusative predicates are also found with the switch reference marker *-karra*. The example here involves use of the switch reference marker with a temporal adjunct, rather than a nonfinite clause.⁶

- (176) Nyangurla-**karra**-rlipa rdakurlpa-rra pi-nyi?
 when-**SUBJC**-1PLINCL enclosed.space-HITHER VF-NPAST
 (rdakurl(pa)-pi-nyi “arrive, enter”)
 “When will we get there?” (Warlpiri Dictionary Project 1993)

The appearance of switch reference markers with temporal adjuncts is standard; selected uses of the switch reference markers beyond nonfinite clauses are illustrated in (177):

- (177) a. Kala-lu nya-ngu mala-lku rdululu-nyina-nja-kurra.
 PAST.C-3PL see-PAST hare.wallaby-THEN scatter-sit-**INFIN-OBJ.C**
 Kala-lu ngula-**kurra** wapirdi-wapirdi-paka-rnu.
 PAST.C-3PL that-**OBJ.C** approaching-approaching-hit-PAST

⁶The use of switch reference markers on temporal adjuncts is clearly related to the use of case marking on temporal adjuncts in agreement with the subject of the clause. See Chapter 3, fn 29.

“Then they saw the Hare Wallabies scattering. They came up and killed them while (they were doing) that.”

- b. Yama-kari-rla kala-rnalu nyina-ja-rni
 shade-OTHER-LOC PAST.C-1PL.EXCL sit-PAST-HITHER
 wanta-ngka-ja, ngarntajari-**karra**.
 sun-LOC-INDEED orange-**SUBJ.C**

“We came and sat down under another shady tree as it was hot, (eating) Bush Oranges.”

- c. Munga-puru-rlarni-**karra**, ngula-ji yangka wirlinyi ya-ni.
 dark-while-OBV.C-**SUBJ.C**, that-TOP like hunting go-NPAST

“While it’s still dark, like one will go hunting.” (Warlpiri Dictionary Project 1993)

Analysis of the range of uses of the switch reference morphology must be left to future work. For our purposes, the crucial point is that the switch reference morphology treats subjects–ergative, absolutive unergative, and absolutive unaccusative as a natural class.

Third, these subjects are also treated as a natural class by control. Only grammatical subjects may be controlled PRO in a nonfinite clause. This is illustrated by (178), where the interpretation involving control of the object is impossible.

- (178) Ngana-kurra-mpa Jakamarra-kurlangu maliki nya-ngu [paji-rninja-kurra]?
 who-OBJC-2SG Jakamarra-POSS dog see-PAST [bite-**INFIN-OBJC**]
 “Who did you see Jakamarra’s dog biting?”
 = who_i did you see Jakamarra’s dog_j [PRO_j t_i biting]
 * “Who did you see Jakamarra’s dog being bitten by?”
 = who_i did you see Jakamarra’s dog_j [t_i PRO_j biting]

As illustrated below, ergative and absolutive subjects may all be controlled PRO:

- (179) a. Yurnturru-lu-rla yirra-ka panu-kari-rli, ngaju yi-rna
 surround-3PL-3DAT put-**IMPERATIVE** many-other-ERG I RELC-1SG
 kurlarda-rlu panti-rni – [PRO ngapa-kurra-juku nga-rninja-kurra.]
 spear-ERG spear-NPAST [water-OBJC-STILL drink-**INFIN-OBJC**]

borne by transitive objects. In doing so, I also provide analyses of ergative case source and nominative/ accusative agreement patterns. Throughout, I contrast the analysis with an alternative whereby absolutive case is uniformly licensed by a high functional head, call it finite T (*inter alia* Murasugi 1992, Bittner 1994, Ura 2001). Subsequently I contrast the analysis with other alternatives. I begin by outlining my proposal, and then provide supporting arguments.

The core of my proposal is that absolutive case is non-uniform in Warlpiri. Absolutive case on the subject is structural nominative case licensed by finite T. Absolutive case on the object, on the other hand, is structural accusative case licensed by *v*. Morphological realization of both nominative and accusative case as absolutive is due to the status of the absolutive as the morphological default. The absolutive as a default is supported on crosslinguistic grounds (see Dixon 1994), and is supported internally to Warlpiri by the absolutive appearing as the morphologically unmarked citation form. To illustrate, a partial case paradigm is provided for the subsection name *Nungarrayi* below.

(180)

Nungarrayi-rli	Nungarrayi-ki	Nungarrayi-rla
Nungarrayi-ERG	Nungarrayi-DAT	Nungarrayi-LOC
Nungarrayi-kirra	Nungarrayi-ngirli	Nungarrayi
Nungarrayi-ALL	Nungarrayi-EL	Nungarray(ABS)

Thus, whereas all other cases are morphologically represented as a suffix, the absolutive consists solely of the bare stem. It is important to note that my claim is that the absolutive in Warlpiri is the *morphological* default, used when no suffix expressing the specific case is available, as distinct from the *syntactic* default case, assigned when no appropriate syntactic case licenser is available. Although morphemes have been proposed that have a zero phonological realization but do not correspond to the morphological default (e.g. Halle & Marantz 1993, Sauerland 1995), morphemes with zero phonological realization are typically defaults, and indeed the zero default may be universally available (Halle & Marantz

1993:133-134). Thus, the Warlpiri absolutive is highly plausible as a morphological default.

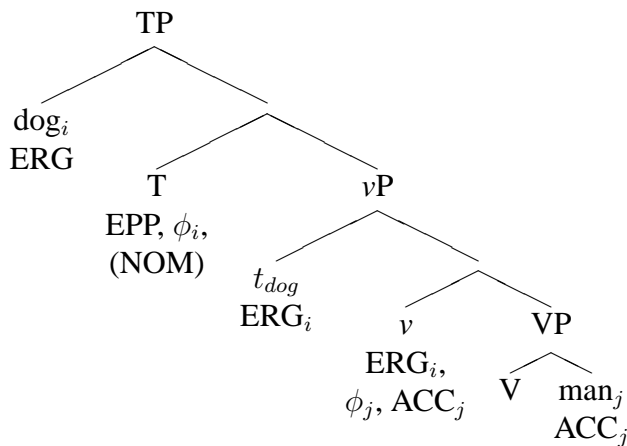
Turning to ergative case, I analyse this as inherent case licensed by the light verb that introduces the external argument in a transitive clause. A detailed defence of this position was articulated in Woolford (1997). This position easily accounts for Marantz’s (1991:3) generalization:

(181) No Ergative Case on a non-thematic subject.

Arguments from the Warlpiri data for this position and against alternative conceptions of ergative case licensing are discussed below.

To exemplify how this case licensing system works, and its interaction with agreement, consider the derivation of a transitive sentence.⁷

(182) Maliki-rli ngarrka yarlku-rnu
 dog-ERG man bite-PAST
 “A dog bit a man”



The object “man” undergoes ϕ -feature agreement with transitive v , resulting in object agreement and the licensing of accusative case. This object agreement will later raise

⁷The tree in (182) ignores irrelevant details, including the head-final nature of the Warlpiri verb phrase.

as a second position clitic. Since Warlpiri lacks an accusative case suffix, the accusative case will be morphologically realized as the default unmarked absolutive. Transitive *v* also assigns inherent ergative case to the subject “dog”. Subsequently, T undergoes ϕ -feature agreement with the highest DP, here the thematic subject “dog”, and the EPP feature of T attracts this DP to the specifier of TP. Nominative case is not licensed on “dog”, as “dog” already bears inherent ergative case.

In an intransitive clause, neither structural accusative case nor inherent ergative case is assigned. The single argument (be it a thematic object or the thematic subject) undergoes ϕ -feature agreement with T, has its nominative case licensed by T, and is attracted to the specifier of TP to satisfy the EPP feature of T. Since Warlpiri lacks a nominative case suffix, the nominative case will be realized as the default unmarked absolutive.

The account thus places the ergative case property of Warlpiri into the lexical entry of the light verb. I have (to this point) proposed two distinct light verbs in Warlpiri:

- (183) a. *v*_{TRANS}:
- assigns a θ -role to the thematic subject
 - assigns inherent ergative case to the thematic subject
 - licenses structural accusative case
 - has unvalued ϕ -features
 - combines with a transitive verb
- b. *v*_{INTRANS}:
- assigns a θ -role to the thematic subject
 - combines with an intransitive verb

The crucial innovation of this analysis is the splitting of absolutive case into nominative case licensed by finite T and accusative case licensed by transitive *v*. In what follows, I provide empirical motivation for this analysis.

Nonfinite Clauses

In this section, I examine the case patterns found in nonfinite clauses in Warlpiri. These patterns are crucial in that they clearly demonstrate a split between absolutive case on intransitive subjects and absolutive case on transitive objects. Nonfinite clauses in Warlpiri appear to be gerunds (see Simpson 1991, who argues that they are nominalized). For example, they undergo both verbal reduplication patterns (reduplication of the first two syllables), *parnta-parntarri-nja-mpa-ya-ni* ‘crouch-crouch-INFIN-BY-go-NPAST’, and nominal reduplication patterns (reduplication of entire stem), *ya-ninja-ya-ninja-karra-rlu* ‘go-INFIN-go-INFIN-SUBJC-ERG’ (see Nash 1986). Furthermore, word order in nonfinite clauses is fixed. Anticipating the discussion in Chapter 4, I assume that word order variations in Warlpiri are determined by: (i) A-scrambling, and (ii) movement to the left periphery motivated by information structure. Thus, fixed word order in nonfinite clauses indicates that the functional categories above the verb phrase targeted by scrambling and movement to the left periphery are absent. This again supports the status of nonfinite clauses as gerunds, lacking higher functional material.

Consider now the case patterns of nominals within these nonfinite clauses. Transitive subjects may bear either ergative case or dative case:

- (184) a. *Kurdu-lpa manyu-karri-ja, [ngati-nyanu-**rlu** karla-nja-rlarni.]*
child-PASTIMPF play-stand-PAST [mother-POSS-**ERG** dig-INFIN-OBVC]
“The child was playing, while his mother was digging (for something).” (Laughren 1987:[44a])
- b. *Nyalali-rli ka warlu yarrpi-rni, [karnta-**ku** kurdu-ku*
girl-ERG PRESIMPF fire.ABS kindle-PAST [woman-**DAT** child-DAT
miyi yi-nja-rlarni.]
food.ABS give-INFIN-OBVC]
“The girl is building a fire, while the woman is giving food to the baby.” (Hale 1982:[139b])

The presence of dative case on the subject of these nonfinite clauses also supports the gerundive status of these nonfinite clauses. The possessive subjects of nominals may bear the possessive suffix *-kurlangu*, or they may bear dative case:

- (185) Nangala-**ku** jaja-nyanu
 Nangala-**DAT** maternal.grandmother-REFLEX
 “Nangala’s granny” (Warlpiri Dictionary Project 1993)

In corpus data, intransitive subjects are only rarely found bearing absolutive case, and such examples are routinely judged ungrammatical (Simpson 1991:107).⁸ Instead, intransitive subjects must bear dative case:

- (186) Kurdu ngaju-nyangu-lu paka-rnu, [ngaju-**ku** jarda-nguna-nja-rlarni.]
 child 1SG-POSS-3PL hit-PAST [I-**DAT** sleep-lie-INFIN-OBVC]
 “They hit my child, while I was asleep.”

Transitive objects, on the other hand, uniformly bear absolutive case in nonfinite clauses, and may not bear dative case:

- (187) Ngarrka-patu-rlu ka-lu-jana puluku turnu-ma-ni,
 man-PAUC-ERG PRESIMPF-3PL-3PLOBJ bullock muster-NPAST
 [karnta-patu-rlu miyi/*miyi-**ku** purra-nja-puru.]
 [woman-PAUC-ERG food.**ABS**/*food-**DAT** cook-INFIN-TEMPC]
 “The men are mustering cattle while the women are cooking the food.”

To summarize, ergative case is available in nonfinite clauses, absolutive case for intransitive subjects is not available (see footnote 8), whereas absolutive case for transitive objects is available. In addition, dative case is available for transitive and intransitive subjects.

The first point to notice about this pattern of data is that it reveals two distinct sources of absolutive case—one for intransitive subjects and a second for transitive objects, since

⁸ The existence of rare examples in which an intransitive subject does bear absolutive case may be due to speech error, or may be related to the status of absolutive as the default case, see above.

absolute case is licensed in nonfinite clauses for transitive objects but not for intransitive subjects. Second, this pattern of data demonstrates that the source of absolute case on intransitive subjects is dependent on finiteness, or at minimum dependent on a functional head above the verb phrase; the source of absolute case on transitive objects, on the other hand, is independent of finiteness and functional projections above the verb phrase. This pattern is thus exactly as predicted on the present analysis whereby absolute case on the intransitive subject is nominative case, whereas absolute case on the transitive object is accusative case. On the alternative whereby absolute case is uniformly nominative, the pattern is simply puzzling.

This pattern of data is also partially revealing of the source of ergative case in Warlpiri. Absolute case on intransitive subjects and ergative case on transitive subjects must have a distinct source, since the former is licensed in nonfinite clauses and the latter is not. This rules out an alternative analysis whereby both ergative case and absolute case on subjects are licensed by finite T, with the distinction in case marking being a purely morphological fact. See Bobaljik & Branigan (2002) for such an analysis of ergativity in Chukchi. More generally, ergative case licensing in Warlpiri must be accomplished independently of finite T and functional projections above the verb phrase, since it is available in gerundive nonfinite clauses. The proposed analysis, whereby ergative case is licensed within the verb phrase by a transitive light verb, meets these criteria.⁹

In conclusion, the case patterns in nonfinite clauses provide strong support for the proposed analysis, indicating distinct sources for absolute case on intransitive subjects, ergative case on transitive subjects, and absolute case on transitive objects. Furthermore, they reveal that only absolute case on intransitive subjects is dependent on finiteness or

⁹The ability for the transitive subject in a nonfinite clause to bear ergative case is explained, as is the availability of dative case for the subject (the nonfinite clause is nominalized, and the subjects of DPs bear dative case, see discussion around (185) above). However, a question remains: how does the optionality between ergative and dative case in nonfinite clauses obtain? Further research is needed on this point.

functional projections above the verb phrase.

The following two sections identify two additional pieces of empirical evidence for the proposed analysis.

Person-based Split

This section provides an additional argument for two distinct sources for absolutive case in Warlpiri. The argument comes from a person-based ergative split in Warlpiri. The split consists of the pronouns *ngaju* “I” and *nyuntu* “you (singular)” when used as thematic subjects optionally appearing without ergative case marking:

- (188) *Ngaju ka-rna yankirri nya-nyi.*
I(ABS) PRESIMPF-1SG emu(ABS) see-NPAST
“I see an emu.”

This type of split is common in ergative languages (see for example Dixon 1994). What is interesting about the Warlpiri instantiation is the resulting case pattern. As can be observed in (188), the split results in two DPs bearing absolutive case in a single clause.

Person-based splits are typically attributed to functional concerns—first and second person make “good” thematic subjects and so do not need explicit marking as such, see Dixon (1994). Independent of any functional explanation, the split necessarily involves the failure of ergative case to be assigned to first and second person thematic subjects. Again, this may be encoded in the features of the light verb heads.¹⁰

On the proposed analysis, nothing more need be said about the split. The object receives accusative case as usual, morphologically realized as absolutive because Warlpiri lacks an accusative case suffix. Finite T licenses nominative case on *ngaju/nyuntu*; nominative case licensing by finite T is always an option, as required for intransitive subjects.

¹⁰A variety of options for this encoding suggest themselves; at present, I have no reason to prefer one over another.

Again, since Warlpiri lacks a nominative case suffix, the nominative case on *ngaju/nyuntu* is morphologically realized in the unmarked absolutive case.

On an alternative analysis, whereby absolutive case is uniformly nominative case licensed by finite T (or C), the explanation must involve more than simply the failure of ergative case assignment to *ngaju/nyuntu*. In addition, and concomitantly, the higher functional projection that licenses absolutive case, finite T or C, must license two occurrences of absolutive case, and this only when the thematic subject is *ngaju* or *nyuntu* and the lexical verb is transitive.¹¹

I conclude that the person-based split is more plausibly explained on the present split absolutive analysis.

Dative Objects

In this section, I focus on the source of absolutive case on the transitive object. One aspect of my proposal, whereby the object bears accusative case, in contrast to the alternative whereby the object bears nominative case, is that on my proposal the case borne by the object is determined within the verb phrase. Section 3.2.2 supported this aspect of the proposal by demonstrating that absolutive case on the object remains available in gerundive nonfinite clauses. Here I provide additional evidence from selectional restrictions.

The majority of transitive verbs in Warlpiri take absolutive objects; a few examples of such verbs are given in (189).

(189) *nyurlami* “knead”, *purami* “follow”, *purrami* “burn”, *turlkami* “pinch”, *kijirni* “throw”,

¹¹Transitivity is an issue, for example, for intransitive verbs combining with an applicative object. The thematic subject appears with absolutive case and the applicative object with dative; the applicative may never bear absolutive case regardless of the person of the thematic subject. See section 3.3 below for analysis of applicative constructions in Warlpiri, where this type of applicative is analysed as merged into the specifier of an applicative light verb phrase dominating the intransitive lexical verb phrase.

mardarni “hold”, *parntarni* “withdraw from fire”, *pakarni* “hit”, *wardirni* “straighten”, *yilyiwirrpirni* “slurp up”, *yurrrparni* “grind”, ...

However, a class of verbs in Warlpiri select for a dative object; examples of such verbs are provided in (190).¹²

- (190) *warrirni* “seek”, *kurriyi-mani* “entrap, ambush”, *riwarri-mani* “consume completely”, *wurru-mardarni* “ambush”, *ngurru-ngarni* “desire strongly”, *pun-pun-ngarrirni* “advise”, *lawa-nyanyi* “fail to see”, *wapal-nyanyi* “search for”, *yarnta-yarntarlunya* “stare angrily at with an intent to harm”, *wapalpa-pangirni* “search by digging”, *pulka-pinyi* “praise”, *pututu-pinyi* “warn”, ...

These datives behave as objects rather than prepositional phrases with respect to the standard tests for objecthood in Warlpiri; thus they trigger object switch reference morphology and object agreement.¹³

- (191) Kurdu-ku kapu-rna-**rla** warri-rninji-ni pirnki-ngka
 child-DAT FUT.C-1SG-**3DAT** seek-ASSOC.MOTION-NPAST cave-LOC
 warru-wapa-nja-**kurra**-ku
 around-go-INFIN-**OBJ.C**-DAT

¹²This is independent of the “conative” construction, whereby a verb which normally takes an absolutive object appears with a dative object with the semantics of an unachieved goal:

- (1) a. Ngarrka-ngku ka marlu luwa-rni
 man-ERG PRES.IMPF kangaroo shoot-NPAST
 “The man is shooting the kangaroo.”
 b. Ngarrka-ngku ka-rla-jinta marlu-ku luwa-rni
 man-ERG PRES.IMPF-3DAT-3DAT kangaroo-DAT shoot-NPAST
 “The man is shooting at the kangaroo.” (Hale et al 1995:1439)

¹³A typo from Simpson (1991) in the segmentation and gloss of the verb *warriminjini* has been corrected in (191); thank you to Mary Laughren, pc, for the corrected version.

“I’ll go and look for the child while he’s walking around in the cave.” (Simpson 1991:327)

The analysis proposed here may be naturally extended to account for these data, by positing an additional light verb:

(192) $v_{TRANS-DAT}$:

- assigns a θ -role to the thematic subject
- assigns inherent ergative case to the thematic subject
- licenses structural dative case
- has unvalued ϕ -features
- combines with a transitive verb from the class exemplified in (190)

On an analysis whereby absolutive case on the object is nominative, on the other hand, such data are problematic. First, the dative case cannot be licensed identically to the absolutive by finite T (or C); the verb is not in a selectional relationship with finite T (or C), and so cannot ensure that these objects are correctly assigned dative rather than absolutive case. Second, if the dative case on objects were licensed by V or v , while the absolutive case on objects is licensed by finite T (or C), we would expect the two classes of objects to exhibit differences in behaviour. However, as noted above, both types of object trigger object switch reference morphology and object agreement. In addition, both retain their case marking in nonfinite clauses: objects that are dative in finite clauses must also appear as dative in nonfinite clauses, and objects that are absolutive in nonfinite clauses must also appear as absolutive in nonfinite clauses. Indeed, no distinction between the two classes of objects has been found.

To summarize, case on the dative objects must be determined in the verb phrase; since dative objects and absolutive objects behave identically, case on the absolutive objects must be determined in the verb phrase as well.

Conclusions

In this section, I have presented an analysis of the case licensing and agreement patterns in Warlpiri. I have argued for a split absolutive analysis, whereby absolutive case in Warlpiri is a morphological default, masking structural nominative and structure accusative cases, and ergative case is inherent case licensed by the light verb that introduces the external argument. I presented evidence from the case patterns in nonfinite clauses, as well as evidence from selectional restrictions and a person-based split. In the following section, I consider the place of Warlpiri within a broader typology of case/agreement systems.

3.2.3 Typology

The previous sections developed an analysis of Warlpiri split ergativity using standard mechanisms of case and agreement licensing. An advantage of such an analysis is that it allows Warlpiri to be placed within a broader typology of case-agreement systems. Also, by claiming that ergative case is inherent case borne by thematic subjects, we place ergativity within the broader context of non-nominative subjects. This section outlines a partial typology of ergative languages.

One aspect in which ergative languages differ, which I will not discuss, is in the licensing conditions for ergative case. Thus, in some languages, the light verb assigns ergative case only to certain types of DPs (cf section 3.2.2 above); or only in the presence of certain tenses/aspects. Synchronically, this phenomenon may be encoded in the grammar through selectional restrictions. Whether the ultimate explanation for the existence of such restrictions is historical, functional, or synchronic must await further research.

Perhaps the most significant point of variation among ergative languages, and among non-nominative subject languages in general, is in the behaviour of the object. In some non-nominative subject languages or constructions, when the subject bears non-nominative case the object bears nominative case and triggers (partial) subject agreement (see *inter alia*

Andrews 1976, Thráinsson 1979, Zaenen et al 1985, Sigurdsson 1989, 1996, 2002; Holmberg & Hróarsdóttir to appear). In other languages or constructions, when the subject bears non-nominative case the object bears accusative case and cannot trigger subject agreement.

(193) *Nominative object*

- a. Mér finnst tölvurnar ljótar (Icelandic)
me.DAT find.PL the.computers.NOM ugly.NOM
“I find the computers ugly.” (Holmberg & Hróarsdóttir to appear)
- b. Kumaar-ukku cila ninaivu-kal-∅ va-nt-ana (Tamil)
Kumar-DAT a.few memory-PL-NOM come-PAST-3PL.N
“Kumar got some memories” (Ura 1996:355, citing Lehmann 1993)
- c. Siitaa-ko laRke pasand the (Hindi)
Sita-DAT boys.NOM like be.PAST.MASC.PL
“Sita likes the boys” (Mahajan 1991:[7])
- d. Saše nraŋjatsja knigi (Russian)
Sasha.DAT like.3PL book.PL
“Sasha likes books” (Bailyn 1991:81)

(194) *Accusative object*

- a. Kumaar-ukku raajaav-aip pitikk-um (Tamil)
Kumar-DAT Raja-ACC like-3SG.N
“Kumar likes Raja” (Ura 1996:352, citing Lehmann 1993)
- b. Maer líkar henda filmin (Faroese)
me.DAT likes this film.ACC (*NOM)
“I like this film” (Woolford 2003, citing Barnes 1986:[12])

This variation is replicated in ergative languages. The class of languages in which objects bear accusative case when the subject is non-nominative, is instantiated by so-called “three-way” case systems, showing ergative/ nominative/ accusative case pattern. Dixon (1994) catalogues a number of such systems, including Dyirbal, Kuku-Yalanji, Ngiyambaa, Waga-Waga, Warrgamay, Yidin^y (all Australian), and Cashinawa (Panoan from Peru).

Bittner (1994:13-14) also discusses such languages, citing Nez Perce (see discussion below), Kham (West Tibetan), and Hindi (with human/specific-animate/definite-inanimate objects).

- (195) a. no-e nga-lay cyu:-na-ke-o (Kham)
 he-ERG me-ACC watch-1SG-PAST-3SG
 “He watched me” (Bittner 1994:13, citing Watters 1973)
- b. niinaa-ne kuttoN-ko khariid-aa hai (Hindi)
 Nina-ERG me-ACC buy-PERF.SG.M be.3SG
 “Nina has bought the dogs” (Bittner 1994:13)

Woolford (1997) considers the four-way case systems of Nez Perce, including a second case for objects. Subsequent work by Cash Cash & Carnie (under review) demonstrates that Nez Perce is in fact a three-way system—ergative/ nominative/ accusative, but that like Turkish non-specific objects may fail to trigger agreement and appear unmarked for case due to pseudo-incorporation into the verb (see Massam 2000, 2001 on pseudo-incorporation in Niuean; pseudo-incorporation differs from standard incorporation in involving phrasal objects). Crucial for our purposes is that again we find ergative and accusative co-occurring and overtly marked with distinct morphemes:¹⁴

- (196) a. Háama-**nm** pée-’wi-ye wewúkiye-**ne** (Nez Perce)
 man-**ERG** 3/3-shoot-ASP elk-**ACC**
 “The man shot the elk”
- b. cf: Háama hi-’wi-ye wewúkiye (Nez Perce)
 man 3-shoot-ASP elk
 “A man shot an elk” (Carnie 2002)

Further, Woolford discusses the Australian language Thangu (based on the data in Schebeck 1976), which shows a three-way system with co-occurrence of ergative and accusative case

¹⁴I use “accusative” to refer to the overtly marked case used on specific objects, which trigger agreement; Woolford refers to this as “objective”, reserving “accusative” for the unmarked pseudo-incorporated objects.

marking:¹⁵:

- (197) a. Yūlngu-Tu taykka-Na puyan (Thangu)
man-ERG woman-ACC hit
“Man hit woman”
- b. cf: Taykka ɾakkun^yTin (Thangu)
woman(NOM) died
“Woman died” (Schebeck 1976, cited in Woolford 1997:214)

Indeed, I have argued in this paper that Warlpiri instantiates a three-way case system, although accusative case is not morphologically realized.

The pattern of nominative objects in the presence of a non-nominative subject is also instantiated in the ergative languages. In Hindi, ergative subjects may co-occur with nominative objects, the nominative triggering subject agreement:

- (198) aurat-ko santare pasand hāĩ (Hindi)
woman-DAT oranges.NOM like be-PRES-3PL.M
“The woman likes oranges” (Nevins & Arnand 2002)

Bittner (1994:14-16) also discusses ergative/ nominative patterns, including Archi (North-east Caucasian), in which the nominative object triggers subject agreement:¹⁶

- (199) dija-mu x_oalli b-ar-si b-i (Archi)
father(I)-ERG bread(III) III.SG-bake-GER III.SG-AUX
“Father is baking the bread” (Bittner 1994:15, citing Kibrik 1979)

¹⁵In the Thangu data I represent the velar nasal as ng; *T* and *N* should be marked dental.

¹⁶Bittner also includes Warlpiri, which we have seen is more appropriately analysed as ergative/ nominative/ accusative, and Enga (Papuan), in which the ergative triggers subject agreement. Further research is needed to determine if Enga is truly ergative/ nominative, or rather disguised ergative/ nominative/ accusative like Warlpiri.

The case borne on the object–nominative or accusative, is thus a crucial point of variation among ergative case systems.¹⁷

A point in which ergative case systems perhaps do not vary is in the source of ergative case as inherent case licensed by a light verb.¹⁸ To date, no convincing example of structural ergative case has been identified. Previous arguments for structural ergative case will be examined in the following section.

In sum, ergative case systems form part of a larger typological class of non-nominative subject constructions. Apart from the variation in the conditions of availability of inherent ergative case, variation among ergative languages is to be traced to variation among the larger class of non-nominative subject constructions, for example whether the object bears nominative or accusative case, and variation in the morphological realization of case and

¹⁷ Another often cited point of variation among ergative systems is whether the language is “syntactically ergative”, or not, that is whether the intransitive subject (S) and transitive object (O) pattern together for syntactic processes. Dyirbal is the most cited exemplar of a syntactically ergative language, in that S and O pattern together for relativization and clause coordination (interestingly, regardless of case marking as ergative/absolutive or nominative/accusative). It should not be thus concluded, however, that S and O occupy the grammatical subject position in Dyirbal. Standard tests for grammatical subjecthood yield do not suggest that the specifier of TP is occupied by S/O (see e.g. Manning 1996, although his interpretation of the facts differs slightly).

¹⁸This claim is potentially partially definitional. Consider the class of languages Dixon (1994) refers to as “split S” languages, in which the subjects of one class of intransitive predicates (perhaps unergatives) bear case marking identical to transitive subjects, while subjects of the other class of intransitive predicates (perhaps unaccusatives) bear case marking identical to transitive objects. This pattern has two clear potential analyses. The first is that inherent ergative case is assigned to the thematic subject of unergatives, either because of an underlying transitive structure for unergatives (see e.g. Hale & Keyser 1991, Laka 1993), or because inherent ergative case is independent of transitivity in these languages. The second is that structural accusative case is not dependent on the presence of a thematic subject, so that the object of unaccusatives also receives accusative case. The first would thus be appropriately labelled an ergative language, whereas the second would not.

agreement found in all languages. Other macroparametric variation specific to ergative languages is not posited.

In the next sections, I consider previous alternative analyses of ergativity.

3.2.4 Previous Analyses

Ergative = Nominative

Bobaljik (1993) (following earlier proposals by Levin & Massam 1985) presents an analysis of ergativity whereby ergative is structural nominative case, and absolutive is structural accusative case. On this theory ergative/ absolutive languages differ from nominative/ accusative on a parameter of obligatory case assignment. In ergative/ absolutive languages accusative case must be assigned, and so is borne by the argument of an intransitive, whereas in nominative/ accusative languages nominative case must be assigned, and so is borne by the argument of an intransitive.

Bobaljik (1993) presents two arguments for this proposal. The first argument is based on data illustrating that the ergative c-commands the absolutive in Basque, Abkhaz (Caucasian), and Inuit languages. Section 3.2.1 above illustrated that Warlpiri fits this pattern as well. However, this type of evidence demonstrates only that the thematic subject raises to TP to satisfy the EPP feature of T; it is not revealing about the source of case licensing.

Bobaljik's second argument comes from nonfinite clauses in Inuit languages. By claiming that ergative case is nominative and absolutive case is accusative, he predicts that ergative case should be unavailable in nonfinite clauses, while absolutive case should be available. As confirmation of this prediction, he shows that ergative agreement disappears in nonfinite clauses, while absolutive agreement remains:

(200) a. *West Greenlandic*

Miiqqat [Junna ikiu-ssa-llu-gu]	niriursui-pput
children Junna help-FUT-INFIN-3SG.ABS	promise-IND.3PL.ABS

“The children promised to help Junna.” (Bobaljik 1993:64)

b. *Labrador Inuttut*

[taku-tlu-**gu**] tusâ-laut-taga
see-**INFIN-3SG.ABS** hear-PAST-PART.1SG/3SG

“While I saw it, I heard it.” (Johns & Smallwood 1999:[5a])

We should not conclude, however, that the prediction is thus borne out. Overt thematic subjects of nonfinite clauses do bear ergative case (Johns & Smallwood 1999):

(201) a. *Labrador Inuttut*

Alana-up uagak atja-tlu-gu ani-vuk
Alana-ERG rock(**ABS**) carry-**INFIN-3SG.ABS** go.out-**INDIC.3SG.ABS**

“While Alana was carrying the rock, she went out.”

b. **arna-p** atisassat irrur-lu-gitirinarsur-puq
woman-ERG clothes wash-**INFIN-3SG.ABS-INDIC.3SG.ABS**

“While the woman was washing the clothes...” (Johns & Smallwood 1999:[8a,b])

Bobaljik (1993:64) disregards data from case marking of DPs on the following grounds:

Inuit having generally free word order and rampant pro-drop, we will focus primarily on the agreement morphology, assuming that the relations expressed by this morphology are the essential relations of the clause. In this I am obviously learning towards the view that Inuit is typologically akin to “polysynthetic” languages such as Warlpiri, (Jelinek 1984) or Mohawk (Baker [1996]). This view would maintain that the agreement morphemes are themselves the arguments of the verb ..., or that they license a null pro in the argument position.

However, simply ignoring the case data because the language is polysynthetic (or nonconfigurational) is inappropriate—if the data are to be accounted for by the polysynthetic nature of the language, this must be explained. Jelinek’s (1984) theory is shown in section 3.2.5

- (204) será difícil [eles aprovarem a proposta]
be.FUT difficult they approve.INFIN.3PL the proposal
“It will be difficult for them to approve the proposal” (Raposo 1987)

Therefore, the nonfinite data from Inuit languages does not in fact provide evidence for the hypothesis that ergative case is equivalent to nominative case.

Let us now consider a second class of analyses that equate ergative with nominative case, exemplified by Bobaljik & Branigan (2002). Under this approach, both ergative case and absolutive case on intransitive subjects correspond to structural nominative case; the morphology simply spells out nominative case differently if the main predicate is transitive or intransitive.

A technical problem with this approach is its non-locality. The morphological spell-out of the nominative case marking on the grammatical subject in the specifier of TP must be determined non-locally—by the status of the main predicate as transitive or intransitive, where the main predicate may be separated from TP by a number of aspect/auxiliary/agreement projections.²⁰

As mentioned above, the approach is also clearly incorrect for Warlpiri. As we saw, ergative case on the transitive subject is available in nonfinite clauses in Warlpiri, whereas absolutive for the intransitive subject is not. If ergative and absolutive case are simply two morphological spellouts of structural nominative case, this fact is unexplained.

In the next section, I consider another previous approach to ergativity, which equates ergative case with accusative case rather than nominative.

²⁰On the now-standard assumption that the thematic subject is introduced by a separate light verb, the computation of transitivity only becomes more complicated—it must be verified that the main verb merges with a complement, and that a light verb introducing a thematic subject is present.

Ergative = Accusative

In this section I examine another previous approach to ergativity, instantiated by Marantz (1991) and Ura (2001), which equates ergative case with accusative case.

Marantz (1991) argues for a link between accusative and ergative case, while maintaining a positional difference between the DPs that bear these cases. 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.²¹ Ergative and accusative case differ in directionality—ergative case is assigned upwards (to the subject in [spec, IP]), whereas accusative case is assigned downwards (to the object).

Marantz's 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. Therefore, case marking is determined entirely in the morphology.

Marantz specifically discusses split ergativity of the Warlpiri type in which agreement shows a nominative/ accusative pattern, while case marking shows an ergative/ absolutive pattern. He claims that agreement is also a morphological phenomenon, AGR being added in the morphological component; the realization of AGR follows similar principles to case realization. However, since case and agreement are separate, 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)

²¹provided this second DP doesn't receive quirky case.

(205) *Ergative/ absolutive case, nominative/ accusative agreement*

Case	Agreement
case assigned up to subject when V+I governs a distinct position	agreement copied down from object when V+I governs a distinct position

However, on this point the theory is too permissive. In allowing the directionality of case and agreement to vary independently, it does not predict 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 seems just as easily described:

(206) *Nominative/ accusative case, ergative/ absolutive agreement*

Case	Agreement
case assigned down to object when V+I governs a distinct position	agreement copied up from subject when V+I governs a distinct position

Ura (2001) also equates ergative and accusative case. For Ura, ergative languages differ from nominative/accusative in allowing case checking in θ -positions. Thus, the thematic subject checks structural accusative case with the light verb *v* in situ, later raising via the EPP to the specifier of TP. The thematic object then checks nominative case with T. Although this analysis allows for an ergative derivation, in making available a derivation in which accusative case is checked by the thematic subject, it does not rule out an alternative derivation in which accusative case is checked by the object. Thus, as it stands, Ura's system predicts free variation between ergative/absolutive and nominative/accusative patterns in ergative languages. Augmentations to the system to make the correct predictions would

be required. It is perhaps also worth noting that the system is incompatible with the theory of grammar assumed here in which a head merged into the structure searches immediately down the tree into its complement for an element to enter into an agreement relationship with (see Chomsky 2000). Therefore, the thematic subject could never check features with the light verb both because it is not present in the derivation when the light verb is searching, and because once it is merged into the structure, it appears in the specifier of the light verb rather than its complement.

A deeper problem with this class of analyses, which equates ergative and accusative case, is that ergative and accusative commonly co-occur within a clause, bearing distinct morphology. This is standardly found in three-way case systems (ergative/ nominative/ accusative) discussed above, and indeed I have argued that ergative and accusative co-occur in Warlpiri as well. Thus, it seems we cannot simply posit a parameter whereby ergative/ absolutive languages differ from nominative/ accusative by (something akin to) directionality of accusative case assignment. To maintain the ergative = accusative hypothesis would require both allowing multiple case checking of accusative in all languages that allow co-occurrence of ergative and accusative, and differential morphological realization of this accusative case based on the θ -role borne by the DP. I thus consider the hypothesis untenable.

Bittner & Hale 1996a,b

A third class of analyses of ergativity equate absolutive case uniformly with nominative case. As discussed in section 3.2.2 and 3.2.3, I consider this type of analysis correct for one subclass of ergative languages, but not for Warlpiri.

A related analysis of ergativity that addresses Warlpiri directly is Bittner & Hale (1996a, b).²²

²²Bittner & Hale's paper are very rich in examining a wide range of data; some of these data are discussed

For Bittner & Hale, absolutive case is equivalent to nominative case, and both correspond to the absence of a case projection KP dominating the DP. Due to the lack of a KP, absolutive/nominative DPs must be licensed by C under government. Thus, for shorthand we may say that for Bittner & Hale, absolutive/nominative case is assigned by C under government.

When it is the object that bears absolutive/nominative case, government of the object by C may be 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 forms a discontinuous head rendering the whole clause transparent for government from C. Thus, absolutive case is assigned in situ.

DPs bearing structural ergative and accusative cases are dominated by a KP, however this KP is empty and so will violate the ECP if not antecedent governed at S-structure. In order to be antecedent governed, the KP must be locally governed by an X^o and a “case competitor” (cf Marantz 1991), whereby Bittner & Hale mean a distinct nominal (N/NP/D/DP) that does not bear inherent case.²³ 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 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

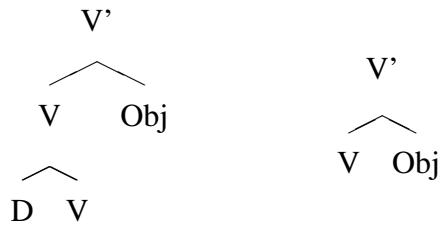
in Chapter 1, some are discussed in sections 3.2.1-3.2.2, some will be discussed in section 3.3, and some will not be discussed in this dissertation.

²³or ergative or accusative case.

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:

(207)

Nominative/ accusative Ergative/ absolutive



In that the presence of D head adjoined to V in nominative/ accusative languages is largely a stipulation (although they do equate this D with pronominal object agreement in some languages), we may abstractly summarize their theory as follows. Nominative/ absolutive case is licensed by C. In nominative/ accusative languages, the transitive verb has the ability to license accusative case to the object, and does so. 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. 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 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.

In 3.2.2, I argued that analyses that equate absolutive with nominative are problematic for Warlpiri, in that absolutive case must have two distinct sources, one for absolutive subjects, which is not available in nonfinite clauses, and another for absolutive objects, which is available in nonfinite clauses. Bittner & Hale's analysis is also problematic on this point, although the details are slightly different. They claim that absolutive case on the object in nonfinite clauses is licensed not by C, as in finite clauses, but rather by K (the head of the KP that dominates the nominalized nonfinite clause). Therefore, they allow for a source of absolutive case on the object in nonfinite clauses, despite the absence of clausal projections above VP. However, by the same token, they cannot explain the impossibility of absolutive case on intransitive subjects in nonfinite clauses.

In addition, Bittner & Hale do not consider the possibility for ergative/ marked transitive subjects in nonfinite clauses, focusing instead only on the dative subjects (1996b:563-565). Ergative-marked subjects in nonfinite clauses are also problematic for them since they claim ergative case in Warlpiri is licensed only by I, which is standardly, and in their analysis, argued to be absent in these gerundive nonfinite clauses. Therefore, it should not be licensed in nonfinite clauses.

I conclude that Bittner & Hale's analysis of Warlpiri split ergativity faces empirical difficulties.

In the following section, I consider a final previous analysis of ergativity, that of Jelinek (1984) which is based on a pronominal argument analysis of nonconfigurationality in Warlpiri.

3.2.5 Ergativity and Nonconfigurationality

In this section, I consider the implications of my analysis for Warlpiri nonconfigurationality. Most obviously, split ergativity in Warlpiri no longer need be considered indicative of a

nonconfigurational syntax. However, we may push the point further. Not only is a configurational analysis adequate, it fares better than the previous nonconfigurational analysis of Warlpiri split ergativity, Jelinek (1984). Recall that according to Jelinek, the agreement clitics in Warlpiri, which show a nominative/ accusative paradigm, are the true arguments of the predicate. The ergative/ absolutive DPs, on the other hand, are optional adjuncts, which receive semantic case suffixes and are linked to the clitics through case compatibility rules. These rules are as follows:²⁴

- (208) 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). (Jelinek 1984:53)

One obvious difficulty with this approach is that nonfinite clauses have no agreement clitics to serve as the arguments of the verb and to license the adjuncts through the rules in (208). A number of possibilities arise. One is that the overt DPs are arguments of the verb in nonfinite clauses but not in finite clauses. This seems unattractive. Under such an account, in finite clauses nominative/ accusative case would be licensed on arguments, whereas in nonfinite clauses ergative/ dative/ absolutive case would be licensed on arguments. Furthermore, the fact that overt DPs interpreted as the subject appear in ergative

²⁴ These are supplemented with lexical specifications that ACC is compatible with DAT (for first and second person clitics) in a sentence with a member of the class of verbs that take dative objects. In all rules, the reference to person is due to the fact that object agreement with a third person dative DP has a designated agreement clitic, whereas first and second person do not. This is informally illustrated below:

- (1) *Object Agr Morphemes*: -rla ↔ 3sg dative; -∅ ↔ 3 sg; -ju ↔ 1sg; -ngku ↔ 2sg; ...

case and overt DPs interpreted as the object appear in absolutive case (or dative case, for the class of dative-object verbs) in both finite and nonfinite clauses would be accidental.

More generally, Jelinek's claim that overt DPs are adjuncts in Warlpiri is designed to account for all four core nonconfigurational properties: split ergativity, free word order, discontinuous constituents, and free pro-drop of all arguments. By claiming that Warlpiri DPs are arguments in nonfinite clauses, Jelinek could thus account for the lack of discontinuous DPs and fixed word order in nonfinite clauses, but not the fact that pro-drop is still available:

- (209) Purra-nja-rla nga-rnu
 cook-*INFIN-PRIOR.C* eat-*PAST*
 “Having cooked (it), (he/she/it) ate (it).” (Laughren 1989:326)

The other option is that overt DPs remain adjuncts in nonfinite clauses, and that there are null clitics filling the argument positions. Regarding the core nonconfigurational properties, such a proposal would have the inverse problem from above. The lack of discontinuous DPs and the fixed word order would be surprising and unexplained. This is a general problem with any analysis of Warlpiri nonconfigurationality that links the core nonconfigurational properties to a single source: one of the four (pro-drop) is maintained in nonfinite clauses, two others (free word order and discontinuous constituents) are not, and the fourth is only partially maintained (split ergative case-agreement patterns); this clearly indicates that these must have a distinct source.²⁵

Regarding the case patterns, the case compatibility rules for objects could be maintained, under the assumption that nonfinite clauses contained unpronounced clitics.

²⁵See sections 2.7 and 3.2.1-3.2.2, and Legate 2003a,b for configurational analyses of the nonconfigurational properties of Warlpiri that do not suffer from this problem. Under my analyses, free word order and discontinuous constituents require the presence of functional projections above the verb phrase, and are thus unavailable in nonfinite clauses. Since *pro*-drop is not linked to any functional projection, it is available in nonfinite clauses.

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

However, in the rules for finite clauses, ergative case and absolutive case on the subject are licensed identically, by compatibility with nominative. Since in a nonfinite clause, absolutive is not licensed but ergative (optionally) is, we must posit a new rule, perhaps the following:

- (211) NOM²⁶ is compatible with DAT in a nonfinite intransitive sentence, and with ERG or DAT in a nonfinite transitive sentence.

Although this rule is adequate, it leaves a number of issues unexplained. First, since the overt DPs are adjuncts rather than arguments, there seems to be no motivation for their case patterns to differ between finite and nonfinite clauses at all. Second, there is no explanation for why the case patterns would change in this manner, i.e. why the ergative may be (optionally) present on adjuncts in nonfinite clauses, whereas the absolutive may not. Recall that ergative and absolutive have the same status in Jelinek's theory, being cases reserved for adjuncts, and being licensed through compatibility with nominative. These considerations in fact point to an overall difficulty with Jelinek's system. The case compatibility rules are language-specific, and unconstrained. Thus, although adequate rules may be written to describe the observed patterns, adequate rules could also be written to describe unattested alternative patterns (see Baker 1996:96 for a related point). The system does not seem to make any predictions about possible case-agreement patterns crosslinguistically.

²⁶ Alternatively, the null clitic could bear dative rather than nominative morphology, given the above discussion that nonfinite clauses are gerunds, thus nominalized, and that the subjects of nominals may be dative. However, this alternative raises difficulties when taken with the case compatibility rules for objects, which also involve a dative clitic. Thus, ergative case should optionally appear on dative objects in nonfinite clauses, contrary to fact. In addition, the discussion in the text largely carries over to this option.

In fact, Jelinek did intend the system to make predictions about possible case-agreement patterns. Specifically, she identifies as a strength of her analysis its ability to rule out a language with ergative/ absolutive case marking on arguments and nominative/ accusative case marking on adjuncts (i.e., ergative/ absolutive agreement and nominative/ accusative case marking). As mentioned previously, this pattern is unattested (Dixon 1994:93). However, Jelinek explicitly allows for languages with ergative/ absolutive case marking on arguments (1984:69-70) and for languages with nominative/ accusative case marking on adjuncts (1984:69-70). Furthermore, case compatibility rules relating the two are easily formulated:

- (212) a. ERG is compatible with NOM.
b. ABS is compatible with NOM in an intransitive sentence, and with ACC in a transitive sentence.

Therefore, the desired restriction on possible case-agreement patterns is not made under her system.

Under the current proposal, the desired restriction does seem to be predicted. In order to derive an ergative/ absolutive agreement pattern on the current system, the morphological realization of subject agreement must be sensitive to the case features of the DP; that is agreement with an ergative DP triggers a distinct set of agreement morphemes. Such morphological sensitivity is theoretically unremarkable, and is in fact empirically attested in Warlpiri. As mentioned in footnote 24, third person singular object agreement morphology is sensitive to the case borne by the object, appearing as $-\emptyset$ if the object is accusative, and as *-rla* if the object is dative.²⁷ Therefore, in a system with nominative/ accusative case

²⁷This pattern does not refute my previous claim that dative DPs behave as objects with respect to object agreement. Note that object agreement morphology is indeed triggered by third person singular datives, although it is morphologically distinct from third person singular accusatives. In addition, first and second person dative objects trigger identical agreement morphology to first and second person accusative objects.

morphology, ergative agreement cannot arise; in such a system, there is no case distinction between transitive and intransitive subjects for the agreement morphology to be sensitive to. Therefore, in a nominative/ accusative case system, any agreement morphology must follow a nominative/ accusative pattern.²⁸

I conclude that the case-agreement patterns in Warlpiri split ergativity are most appropriately analysed in a configurational rather than nonconfigurational structure.²⁹

3.2.6 Conclusions

In this section I analysed Warlpiri split ergativity in terms of structural case-agreement mechanisms. First, I demonstrated that the grammatical subject position in Warlpiri is occupied by the highest argument in the verb phrase, regardless of case. Next, I developed and motivated an analysis whereby ergative case in Warlpiri is inherent case licensed by a light verb, whereas absolutive case is a morphological default, corresponding to structural

²⁸This raises a question regarding the analysis of languages with ergative/ absolutive agreement, but no overt case marking. One possibility of course is inherent ergative case unexpressed morpho-phonologically, although this would require empirical support. Another possibility is that such systems in fact do not exist. Woolford (1999) argues that the type of ergative agreement patterns found in languages with no overt case marking are observationally distinct from true ergative agreement patterns, and have a distinct syntactic source, which is independent of case. See that work for details.

²⁹Notice that the criticisms levelled in the text apply to any account whereby the split ergative pattern in Warlpiri is taken as evidence for a nonconfigurational syntactic structure, in which the agreement morphemes are arguments and the overt DPs are adjuncts. On an alternative nonconfigurational analysis whereby the arguments are null pros, and the agreement is true agreement (see Baker 1996, although Baker explicitly does not extend his analysis to Warlpiri-style nonconfigurationality), the analysis of split ergativity proposed here could carry over, on the assumption that the DP adjuncts must agree with the null pros in number and case. On such an alternative, the split ergative pattern in Warlpiri would not provide evidence for the nonconfigurational nature of Warlpiri. Rather, the pattern would be neutral between the two approaches, with the decision between the two theories made elsewhere. See section 2.5 for arguments against such a nonconfigurational analysis of Warlpiri.

nominative (on intransitive subjects), and structural accusative (on transitive objects). I considered the broader typology of ergative languages, arguing that they form a subset of non-nominative subject languages. I noted that Warlpiri exemplifies the subtype in which the object bears accusative case in the presence of a non-nominative subject, patterning with the nominative/ accusative languages Faroese in this respect. Further research is needed to determine how many other ergative/ absolutive languages are actually ergative/ nominative/ accusative languages like Warlpiri. Finally, I demonstrated that the proposed analysis compares favourably to previous analyses of ergativity, including the nonconfigurational approach of Jelinek (1984).

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 raise 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.

(213) *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. 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”:

- (214) Warnapari-rli ka-rla kurdu-ku ngapurlu yi-nyi.
dingo-Erg PresImpf-3Dat child-Dat milk give-Npast
“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 (213), 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:

- (215) Ngajulu-rlu kapi-rna-**ngku** karli-patu yi-nyi nyuntu-ku
 I-Erg FutC-1sg-**2sgObj** boomerang-pauc give-Npast 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 (216) below.

(216) *Embedded complementizers*

- a. Karnta ka-ju wangka-mi [yarla karla-nja-**karra**]
 woman PresImpf-1sg speak-Nonpast [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-Nonpast 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-Past woman-Dat [sleep-lie-Inf-**ObjC**]
 “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.³⁰

- (217) a. Karnta-ngku ka-ju kurdu miliki-yirra-rni nguna-nja-**kurra**-(ku)
 woman-Erg PresImpf-1sgObj child show-put-Npast lie-Infin-**ObjC**-(Dat)

³⁰Simpson annotates (217b) 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 (217a) is clear.

“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-Past-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)

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):

(218) *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:

- (219) Yu-ngu-**ju**-lu Jakamarra-kurra
 give-Past-**1sgObj**-3pl Jakamarra-All

“They gave me to Jakamarra” (Laughren 1985)

An interesting example in this light is (220), in which the allative variant is used in order to express coreference between the subject and the absolutive object.³¹

- (220) Yu-ngu-lu-nyanu yurrkunya-kurra
give-Past-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, (221a) is an attempt to render (220) with reflexive agreement in the ERG-DAT-ABS case frame, and the sentence is ungrammatical; (221b) 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.

- (221) a. * Yu-ngu-lu-nyanu-rla yurrkunya-ku.
give-Past-3pl-3Dat police-Dat
“They gave themselves to the police”
b. * Yu-ngu-lu-rla nyanungu-rra yurrkunya-ku.
give-Past-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 (222),

³¹I would like to thank Mary Laughren for this example, which she recorded from Darby Jampinjinpa Ross.

- (222) a. Ngarrka-ngku ka-rla kurdu-ku japujapu kiji-rni
 man-Erg PresImpf-3Dat child-Dat ball throw-Npast
 “The man is throwing the child the ball”
- b. Ngarrka-ngku ka japujapu kurdu-kurra kiji-rni
 man-Erg PresImpf ball child-All throw-Npast
 “The man is throwing the ball to the child” (Hale 1982:253)

Hale (1982) remarks that “[the] dative in [(222a)] implies that the child is the recipient of the ball, not merely the endpoint of motion. The allative in [(222b)], 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.

- (223) a. Purturlu kala-**rla** yilya-ja.
 backbone PastC-**3Dat** send-Past
 “He sent her the backbone”
- b. Marnkurrrpa-rna yilya-ja Yalijipiringi-**kirra**
 three-1sg send-Past 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 (224):³²

- (224) Karli yinga-rla paka-rni jinta-kari-rli **nyanungu-ku**
 boomerang RelC-3Dat chop-Npast one-other-Erg **3-Dat**
 “Because the other one will chop a boomerang for him”
 (Simpson 1991:381)

Examining the construction, we discover that it exhibits distinct behaviour from the double objects considered above, behaviour typical of symmetric applicative constructions crosslinguistically, (213). First, both the ethical dative (AO) and the object of the verb (VO) trigger object agreement.³³ Thus, in (225), *warri-rni* “seek” selects a dative object, and the auxiliary agrees with both this VO object and the dative AO.

- (225) Ngarrka-ngku ka-**ju-rla** ngaju-ku karli-ki warri-rni
 man-Erg PresImpf-**1sgObj-3Dat** me-Dat boomerang-Dat seek-Npast
 “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.³⁴

³²Simpson (1991) develops an LFG analysis of this construction, which requires both a new grammatical function “EXTERNAL OBJECT”, and an optional process promoting the ethical dative to the “OBJECT” function.

³³This 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.

³⁴Simpson notes that examples like (226a) with control by the AO are rare, and Mary Laughren, pc, raised the possibility of a covert verb “give” in this example. This issue does not arise with (226b), which contrasts with the minimally different (227), with control by the absolutive.

(226) *Control by DAT*

- a. Kamina-rlu ka-rla mangarri purra ngati-nyanu-ku
girl-Erg PresImpf-3Dat food cook.Npast 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-Past sleep-lie-Infin-**ObjC**
“I accidentally hit Jakamarra_i’s dog while he_i was sleeping.”

(227) *Control by ABS*

- Maliki-rna ramparl-luwa-rnu Jakamarra-ku parnka-nja-**kurra**
dog-1sg accident-hit-Past Jakamarra-Dat run-Infin-**OBJC**
“I accidentally hit Jakamarra’s dog while it was running.”

Second, unlike asymmetric applicatives, there is no transitivity restriction on the ethical dative construction:

- (228) a. Karnta ka-rla kurdu-ku parnka-mi
woman PresImpf child-Dat run-Npast
“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-Npast
“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 and an event or process” (Hale 1982:254), including at least benefactive, malefactive, and possessive:³⁵

³⁵Indeed, Mary Laughren, personal communication, notes that additional possible interpretations of (229a) include “The horse with Japanangka is tiring”, “The horse is tiring because of Japanangka”, and “The horse

- (229) a. Nantuwu ka-rla Japanangka-ku mata-jarri-mi
horse PresImpf-3Dat Japanangka-Dat tired-Inch-Npast
“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-Npast
“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

In this section, I develop an argument against the dual-structure account of nonconfigurationality in Warlpiri, based on the applicative data. I consider the standard LFG analysis of symmetric and asymmetric applicatives, Bresnan & Moishi (1990), and illustrate why the Warlpiri applicative data are problematic for this account, and indeed any account that shares its essential properties. I outline why a structural account would not face these difficulties, before developing a structural account in the following section.

Recall that the LFG dual-structure analysis of Warlpiri nonconfigurationality claims that the syntactic structure of Warlpiri consists of an n-ary branching S, rather than a hierarchical verb phrase. Thus, to account for subject-object asymmetries in Warlpiri, appeal is made to the f-structure, at which grammatical functions are primitives, and necessarily

is tiring and it’s a potential danger to Japanangka”.

uniquely defined:

(230) *Function-Argument Biuniqueness*

Each expressed lexical role must be associated with a unique function, and conversely. (Bresnan & Moishi 1990, attributed to Bresnan 1980)

Returning to applicative constructions, let us consider the standard LFG analysis of the symmetric/asymmetric applicative distinction: Bresnan & Moishi (1990), which concentrated applicatives in Bantu. Because grammatical functions for them are uniquely defined, Bresnan & Moishi cannot claim that in symmetric applicatives both the VO and AO bear the OBJECT function, even though both show object properties. Instead, they claim that in both types of applicatives, the AO bears the OBJECT function, and the VO bears the “RESTRICTED OBJECT” function (defined as an object that is like an oblique in bearing one of a restricted set of θ -roles, and that may not appear in subject position).

To account for the fact that the VO may raise to subject position in symmetric applicatives, but not asymmetric applicatives, they posit an “Asymmetrical Object Parameter”. This parameter distinguishes two types of languages, one type that has symmetric applicatives and another that has asymmetric applicatives. It has for effect that in asymmetric applicative languages, the RESTRICTED OBJECT (VO) may never be promoted to object position in the presence of an AO. In symmetric applicative languages, on the other hand, the VO may be promoted to OBJECT if the AO does not bear the OBJECT function, i.e. if a lexical rule has applied to suppress the AO (unspecified object deletion, reciprocalization), or to promote it to the SUBJECT function (passivization).

To account for agreement patterns in symmetric applicative languages like Kichaga, whereby either or both of the VO and AO may trigger object agreement, Bresnan & Moishi propose that agreement in these languages is a property of the class of the functions OBJECT and RESTRICTED OBJECT,³⁶

³⁶This natural class is defined by the feature [+o], according to the following featural system (Bresnan &

rather than OBJECT alone.

See Bresnan & Moishi (1990) for details of their analysis. In sum, in symmetric applicatives, the AO may exhibit primary object behaviour because it bears the OBJECT function, while the VO may exhibit object behaviour either, (i) because a lexical rule has applied with the result that the AO no longer bears the object function; or (ii) because the property in question is a property of objects and restricted objects, rather than just objects.

Warlpiri is of course problematic in that the parameter that Bresnan & Moishi use to drive the analysis distinguishes symmetric and asymmetric *languages*, while Warlpiri has both symmetric and asymmetric applicatives. More crucially, however, the methods they use to allow the VO to exhibit primary object behaviour in symmetric applicative constructions are inadequate for Warlpiri applicatives. In Warlpiri symmetric applicatives, as we have seen, agreement and switch reference morphology treat both the AO and VO as objects without application of lexical rule, and indeed simultaneously. Furthermore, agreement and switch reference morphology cannot be sensitive to the larger class of OBJECT and RESTRICTED OBJECT in Warlpiri, because of the asymmetric applicative construction in Warlpiri in which only the AO behaves as an object for agreement and switch reference.

The difficulty here lies not just in the specific methods Bresnan & Moishi use to allow the VO to show object behaviours in symmetric applicative constructions. The key problem is the conception of grammatical functions as primitives, leading to the necessity for one DP to be identified as bearing the OBJECT function to the exclusion of all others. In the

Moishi 1990:167) (OBJ θ is the restricted object):

- (1) SUBJ OBJ OBJ θ OBL θ
[-r] [-r] [+r] [+r]
[-o] [+o] [+o] [-o]
where *r* = semantically restricted
o = object

Warlpiri symmetric applicative construction, both the VO and the AO behave as objects.

An alternative approach to grammatical functions, in which grammatical functions are derived notions based on various syntactic properties, promises to be more successful. On such a theory, the VO and AO in symmetric applicatives may both have syntactic properties associated with objecthood, and thus both behave as objects. Since the grammar does not need to define a single DP as the primary object, no difficulty arises.

In the following section, I develop such a structural analysis of Warlpiri applicatives, based on a hierarchical syntactic structure and a conception of grammatical functions as derived rather than primitive.

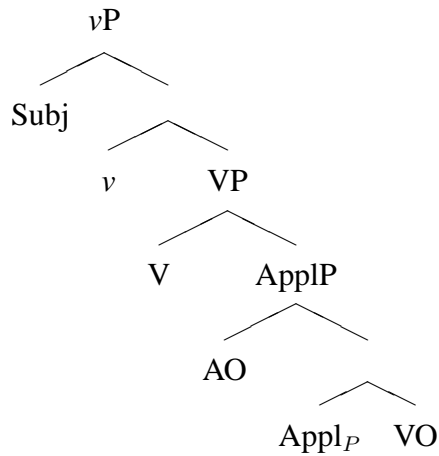
3.3.4 A Structural Account

In this section, I show that a difference in syntactic structure between symmetric and asymmetric applicatives in Warlpiri accounts for their essential properties.

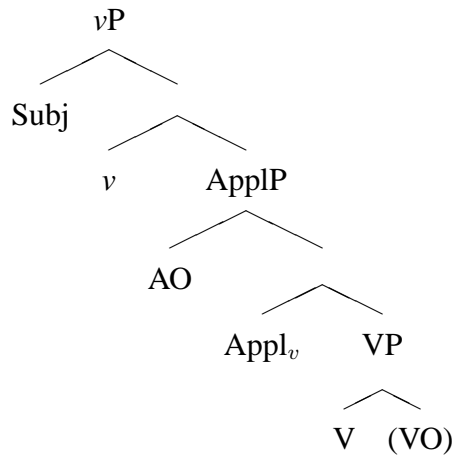
The account here builds on the work of Pylkkänen (2000, 2002). Pylkkänen adopts two competing proposals for the structure of applicatives, and argues that each is correct for a distinct construction. Thus, she uses Pesetsky's (1995) structure to account for the semantics of asymmetric applicatives, and Marantz's (1993) structure for the semantics of symmetric applicatives.³⁷

(231) *Asymmetric Applicative (cf Pesetsky 1995)*

³⁷Marantz's structure is modernized to include a *v* introducing the external argument.



(232) *Symmetric Applicative* (cf Marantz 1993):



I also adopt Pesetsky's and Marantz's structures, and in addition provide an account of the differences in syntactic object properties between the two types of applicative constructions.³⁸

³⁸See McGinnis, to appear 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, to appear c, 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, the account here eliminates some unnecessary complexity and ancillary assumptions.

In the asymmetric applicative, the phrase headed by the applicative morpheme appears as the complement to the verb. I follow Pesetsky (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.³⁹ The structure 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.⁴⁰ In the symmetric applicative, the VO checks case and *φ*-feature agreement with the

³⁹In 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”.

⁴⁰Whether 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.

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 (235). In asymmetric applicatives, on the other hand, only the AO may become the subject, as illustrated by the Chicheŵa examples in (236).

(235) a. \dot{M} -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 m-kà
 7-food 7S-Pres-eat-Appl-Pass 1-wife
 “The food is being eaten for/on the wife.” (Bresnan & Moshi 1990:150)

(236) a. Mbidzi zi-na-gul-ir-idw-a nsapato (ndi kalulu)
 zebras SP-Past-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-Past-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 ν losing its ability to license case. If we make the minimal assumption that this can affect either ν head in the symmetric applicative, we predict that either object may raise to subject position. Thus, if the ν that introduces the external argument cannot license case, the AO will raise to subject position; if instead the applicative ν cannot license case, the VO will raise to subject position. In contrast, the asymmetric applicative has only a single ν 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.⁴¹

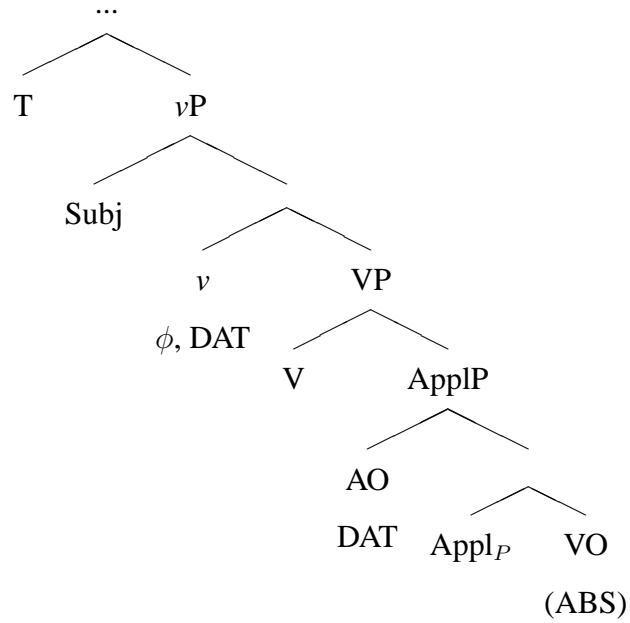
⁴¹The result will hold as long as a pseudopassive derivation in which the preposition is reanalysed with the

Returning to Warlpiri, recall that Warlpiri is a split ergative language in which overt nominals inflect according to an ergative/ absolute pattern, whereas agreement morphology shows a nominative/ accusative paradigm. In section 3.2 above, I proposed an analysis of this pattern. I argued that absolute case in Warlpiri is a morphological default, disguising structural nominative case licensed by finite T to the intransitive subject, and structural accusative case licensed by transitive *v* to the transitive object. Ergative case, I analysed as inherent case assigned by transitive *v* to the thematic subject in its specifier.

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, and licenses its case. Note that the case licensed is dative rather than accusative, thus, these double object verbs belong to the class of verbs that select for a *v* licensing dative case rather than accusative, see (190) above. The VO is licensed internally to the ApplP as the object of the applicative preposition, and its case is realized as the morphological default absolute.

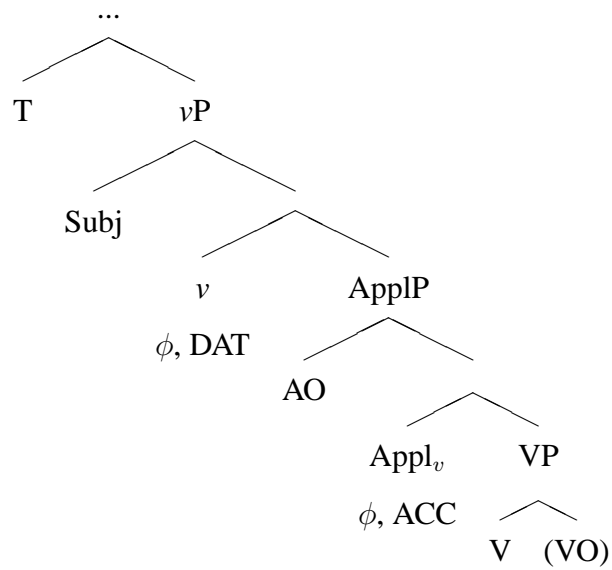
(237) *Asymmetric Applicative*

verb (e.g. *This bed has been slept in*) is not available.



In symmetric applicatives, the v that introduces the external argument again enters ϕ -feature agreement with the AO, and licenses its dative case. The applicative v enters ϕ -feature agreement with the VO, and licenses its accusative case.

(238) *Symmetric Applicative*



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 ν , and both trigger object agreement morphology. In the asymmetric applicatives, however, only the AO undergoes ϕ -feature agreement with a ν (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:

- (239) a. Kamina-rlu ka-rla mangarri purra ngati-nyanu-ku
 girl-Erg PresImpf-3Dat food cook.Npast 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. Maliki-rna ramparl-luwa-rnu Jakamarra-ku parnka-nja-**kurra**
 dog-1sg accident-hit-Past Jakamarra-Dat run-Infin-**ObjC**
 “I accidentally hit Jakamarra’s dog while it was running.”
- (240) a. Karnta-ngku ka-ju kurdu miliki-yirra-rni nguna-nja-**kurra**-(ku)
 woman-Erg PresImpf-1sgO child show-put-npast 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-past-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 proposed of the symmetric/asymmetric applicative distinction explains the object properties in Warlpiri. Thus, object agreement and object switch reference morphology are analysed as reflexes of agreement with a v head. In the ethical dative construction there are two v heads, therefore two DPs show these object properties. In the ditransitive construction, on the other hand, there is only one v , therefore only one DP shows these object properties.

I conclude that the behaviour of agreement and switch reference morphology in applicatives reveal a structural distinction between verbal arguments in Warlpiri. This supports the present analysis of Warlpiri that assumes a hierarchical verb phrase, rather than a dual-structure analysis that assumes an n-ary branching S .

3.3.5 Additional Evidence

In this section I present additional evidence for the proposed analysis of applicative constructions in Warlpiri, and for the existence of a hierarchical verb phrase in Warlpiri.

Recall that the AO in symmetric applicatives may receive a range of interpretations, based on a set of possible thematic roles assigned by the applicative v . One of these is a possessor interpretation:

- (241) Ngarrka-ngku ka-rla kurdu-ku karli jarnti-rni
 man-Erg PresImpf-3Dat child-Dat boomerang trim-Npast
 “The man is trimming the child’s boomerang” (Hale 1982:254)

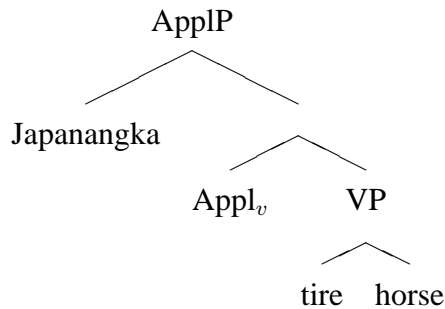
There seems to be a restriction on the possessor reading: it may be related to the subject of an intransitive predicate if the subject is interpreted as a theme, (242a), but it cannot

be related to a subject interpreted as an agent, (242b). This provides the first evidence for unaccusativity in Warlpiri—the subject of these intransitive verbs pattern syntactically with objects rather than thematic subjects on this test.⁴²

- (242) a. Nantuwu ka-rla Japanangka-ku mata-jarri-mi
 horse PresImpf-3Dat Japanangka-Dat tired-Inch-Npast
 “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)

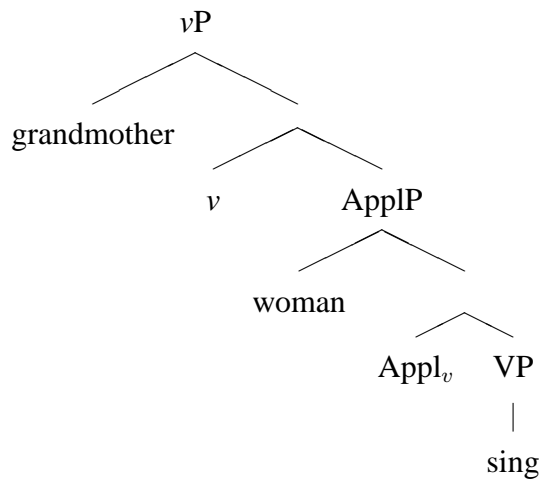
Assuming that the subject in (242a) is generated as the object of the verb, whereas the subject in (242b) is generated as the thematic subject, and adopting my analysis of symmetric applicative constructions, the pattern of grammaticality in (242) is expected. Consider the related structures:

(243) *Symmetric Applicative, Unaccusative Verb:*



(244) *Symmetric Applicative, Unergative Verb:*

⁴²Contrasting examples with intransitive verbs that are plausibly unergative on crosslinguistic and thematic grounds are being sought.



In (243), 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 (244), 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”. Thus, the proposed structures provides a possible explanation for the contrast in grammaticality.

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 (242) is replicated in the possessor dative construction (Borer & Grodzinsky 1986), and both approaches to the possessor dative construction provide an explanation for

the contrast.⁴³ (245) is an illustrative example from Hebrew:

- (245) 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 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 signifi-

⁴³Borer & 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.

cant 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:

- (246) 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 ≠ 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 ap-

plicatives. 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 (247) that it “does imply that something is lost: the *privacy* of the intimate piece of clothing in question” (2002:47).

- (247) 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 (248), remains to be determined.

- (248) 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 absolute theme are encoded as control by a matrix object. The examples are repeated below:

- (249) Jakamarra-ku-rna-rla maliki ramparl-luwa-rnu jarda-nguna-nja-**kurra**
 Jakamarra-Dat-1sg-3Dat dog accident-hit-Past 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-Past Jakamarra-Dat run-Infin-**OBJC**
 “I accidentally 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:

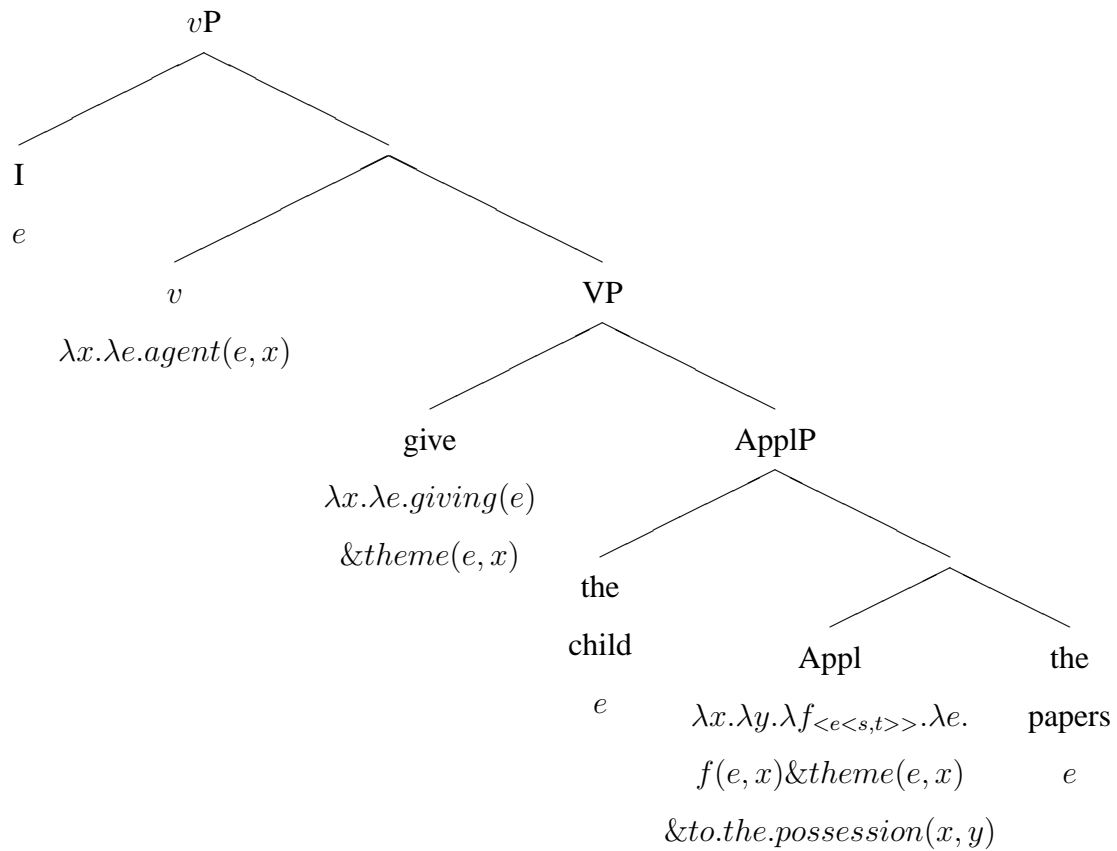
- (250) Alla holisso chim-im-a:-li-tok.
 child paper 2DAT-3DAT-give-1NOM-Past
 “I gave your papers to the child.” (Davies 1981:[21b])

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, (250) 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. (251) illustrates the basic asymmetric applicative, with the sentence *I gave the child the papers*.

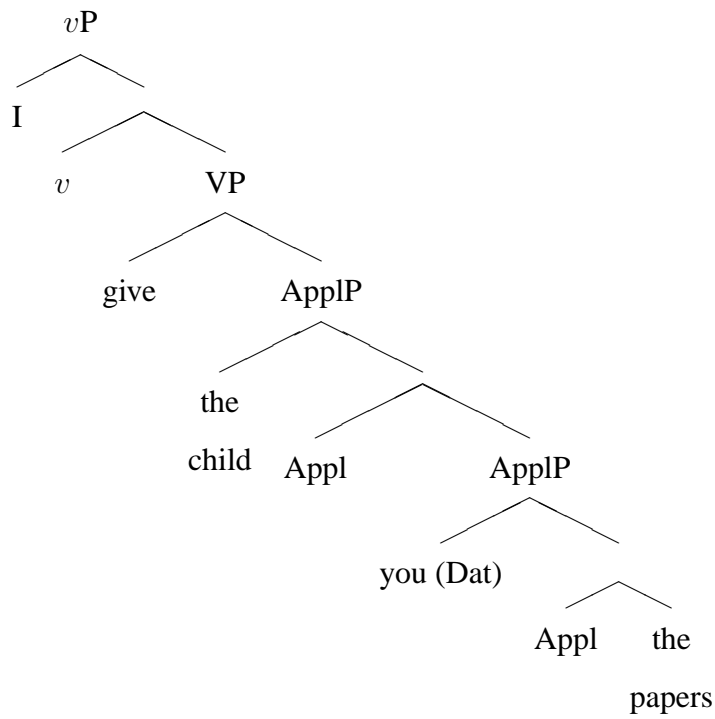
- (251) *I gave the child the papers*

$\lambda e.giving(e)\&agent(e, I)\&theme(e, thepapers)\&to.the.possession(thepapers, thechild)$

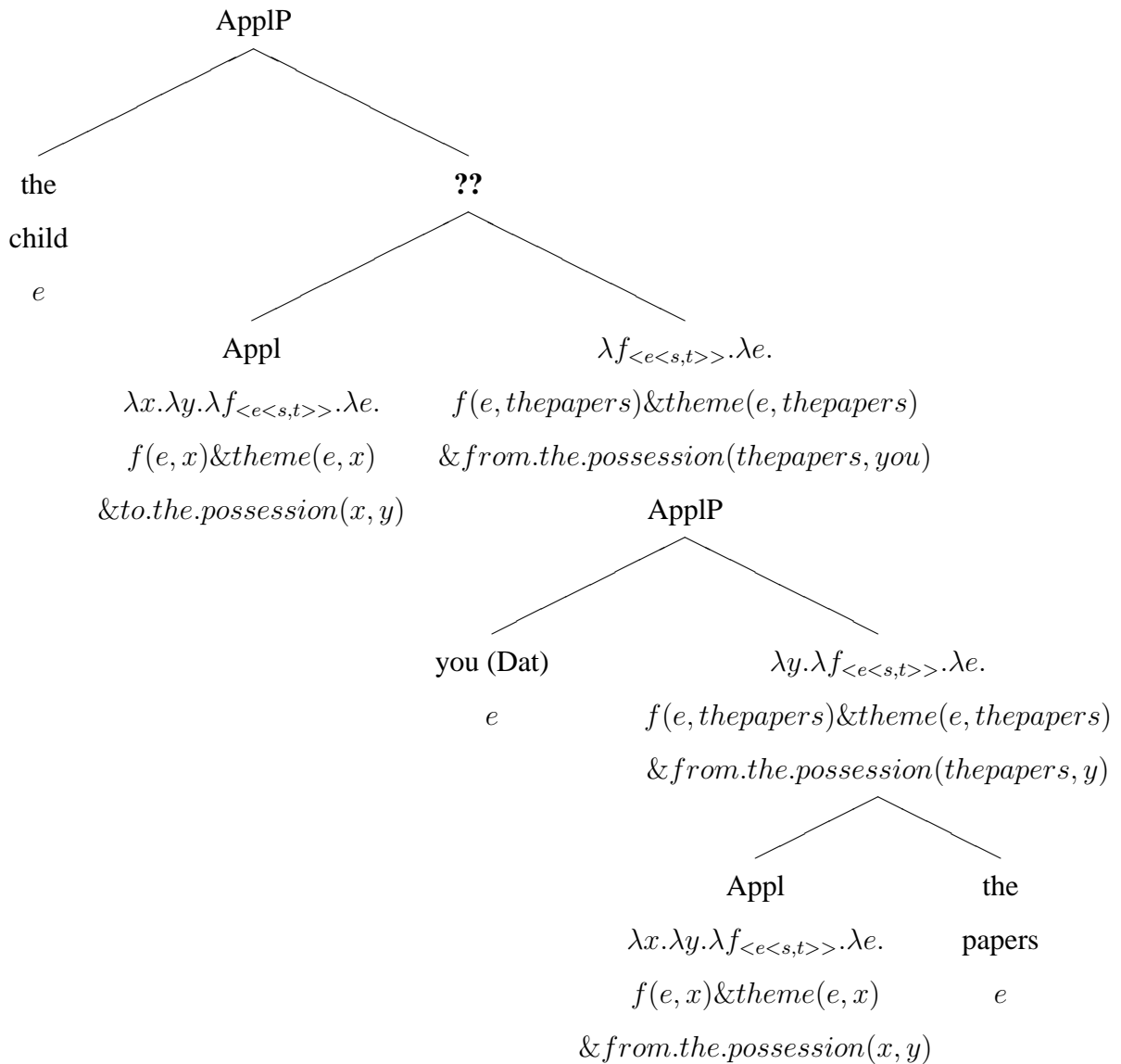


(252) and (253) shows the impossibility of iterating asymmetric applicative projections. (252) illustrates the full structure, and (253) the semantic composition until it can no longer proceed.

(252) *I gave the child your papers

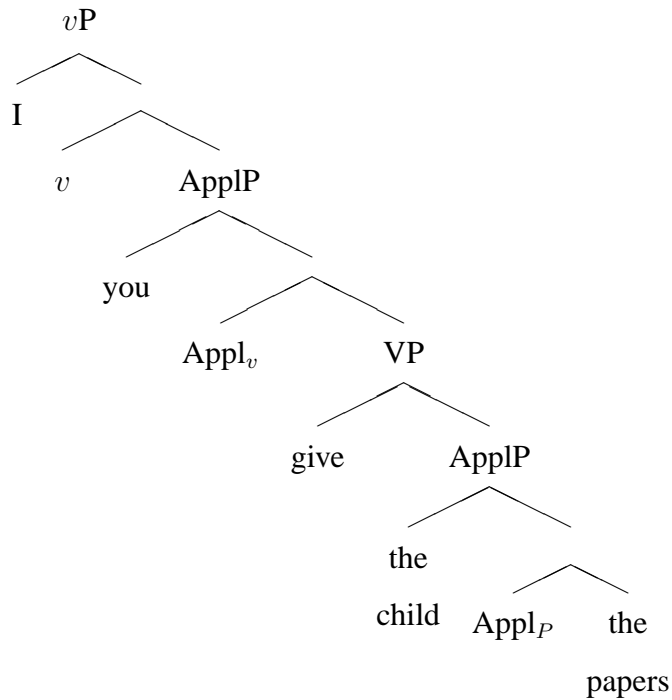


(253) **I gave the child your papers*



On the present analysis, the example in (250) consists of a symmetric applicative and an asymmetric applicative, which co-occur without difficulty. In addition, the agreement patterning in (250) 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.

(254) *I gave the child your papers*



Let me return to the key points of this section. The AO in the symmetric applicative in Warlpiri may be interpreted as the possessor of an object or of the subject of an unaccusative, but cannot be interpreted as the possessor of a thematic subject. This supports a structural distinction between the grammatical subject of unaccusatives, originating as the object of the verb, and thematic subjects, originating in the specifier of *v*P. 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 microparametric, configurational analysis of Warlpiri in the following ways. First, I provided a configurational analysis of split ergativity 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 mechanisms 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 syntactic unaccusativity in the language.

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, furthering the configurational analysis of Warlpiri clause structure. 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 positions, and two focus positions, and consider the syntax 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 analysis.

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:

(255) [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. The articulated left periphery has since been extended to a wide range of languages. The structure in (255) 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:

- (256) 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-Past
“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

¹Topicalized 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

- (257) **Pikirri-ji-npa** **nyarrpara-rla** warungka-ma-nu-rnu?
spearthrower-Top-2sg **where-Loc** forget-cause-Past-hither
 “Where did you forget the spearthrower on your way here?” (Laughren, 2002:[27])

Additional exemplars can be found, for example the final sentence in the following conversation fragment:

- (258) **A:** Kapi-rna-ngku – kakarda-lku yarda-rni paka-rni.
 FutC-1sg-2sgObj – nape.of.neck-then more-hither hit-Npast
 “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
 “Then with a boomerang”
- M:** Karli-ngki-lki. **Kuturu-ju** ka-npa-nyanu **nyarrpara-wiyi**
 boomerang-Erg-then **nullanulla-Top** PresImpf-2sg-Reflex **where-first**
 marda-rni?
 have-Npast
 “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,

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.

see (255) above, and documented for other languages in much subsequent work. Providing evidence for such a structure is the topic of the following sections.

Before proceeding, I would like to consider the placement of the second position clitic in Warlpiri in more detail. My account of the left periphery assumes, with Laughren (2002) that the second position clitic raises to occupy the highest (active) functional head in the structure, which results in second placement. However, a number of alternative accounts of the second position clitic cluster in Warlpiri have been proposed. A previous syntactic approach, mentioned in section 2.3.1, is Austin & Bresnan (1996), which maintains that the clitic occupies a unique position, the head of IP, second positioning being achieved by the uniqueness of the specifier of IP (the highest projection they posit for Warlpiri). Other accounts of Warlpiri clitic placement tend to be phonological. Hale (1983) assumes the clitic is phonologically placed in second position, and Anderson (2000) develops a phonological account in the OT framework. Anderson proposes that a violable constraint favours leftmost placement of the clitic, while a bisyllabic requirement on the “minimal word” results in second positioning. This is supported by the ability of the second position clitic to be initial when the base is bisyllabic.

However, the second position clitic cluster occupies neither a unique syntactic position, nor a unique phonological position. The data in (257) and (258) above already attest to the non-uniqueness of the syntactic positioning. In Warlpiri, *wh*-phrases must occupy a left-peripheral position, otherwise they are interpreted as indefinites:

- (259) a. Ngaju ka-rna jaaljaal-jarri-mi **nyiya**-kurra.
 1 PresImpf-1sg feeling-Incho-Npast **what**-All
 “I have a feeling about something”
- b. Kaji-lpa-ngku wanti-yarla **nyiya-rlangu** milpa-kurra ...
 NfactC-PastImpf-2sg fall-Irr **what-e.g.** eye-All
 “If something were to fall into your eyes ...”
- c. Ngula-rla **nyiya** wanti-ja langa-kurra karnta-ku-ju jarda-kurra-ku.
 Then-3Dat **what** fall-Past ear-All woman-Dat-Top sleep-ObjC-Dat

“Then something fell into the woman’s ear while she slept.” (Warlpiri Dictionary Project 1993)

This requirement often results in the wh-phrase occupying the initial position before the second position clitic cluster, as in (256) above, and in the following:

- (260) a. **Nyiya-janka** ka nyampu-ju jarnti-mi warru?
what-El Pres.Impf this.one-Top limp-Npast around
 “Why does this one limp around?”
- b. **Nyarrpara-kurra** ka-npa ya-ni?
where-All Pres.Impf-2sg go-Npast
 “Where are you going?”
- c. **Ngana-ngku**-nyarra jangku-ka-ngu?
who-Erg-2pl.Obj reply-take-Past
 “Who scooped you all (as in a card game)?”
- d. **Nyangurla-rlu**-npa-nyanu paka-rnu warlkurru-rlu-ju?
when-Erg-2sg-Reflex strike-Past axe-Erg-Top
 “When did you cut yourself with the axe?” (Warlpiri Dictionary Project 1993)

However, in wh-questions containing a topicalized phrase, the topic appears initially and the second position clitic cluster must now precede the wh-phrase, and follow the topic. The examples are repeated below:

- (261) a. **Pikirri-ji**-npa **nyarrpara-rla** warungka-ma-nu-rnu?
spearthrower-Top-2sg **where-Loc** forget-cause-Past-hither
 “Where did you forget the spearthrower on your way here?” (Laughren, 2002:[27])
- b. **Kuturu-ju** ka-npa-nyanu **nyarrpara**-wiyi marda-rni?
nullanulla-Top PresImpf-2sg-Reflex **where**-first have-Npast
 “Where do you have this nullanulla of yours?” (Hale 1960:7.20-7.21)

Therefore, in these examples the clitic must be occupying a position higher than in (260). These results are in accord with data in other clitic second languages, which also show that the clitics occupy a non-uniform syntactic position (cf Boskovic 1995 for Serbo-Croatian).

Furthermore, the Warlpiri clitic cluster does not occupy a uniform phonological position. The clitic cluster may also appear in third position, as illustrated in the following examples:

- (262) a. **Wawirri**, ngula ka nyina walya-ngka-jala.
kangaroo, that PresImpf be.Npast ground-Loc-actually
 The kangaroo, it lives on the ground. (Warlpiri Dictionary Project 1993)
- b. Miiirnta-janka **mayi** ka-npa kiri-jarri-mi waninja
 flu-El **presumably** Pres.Impf-2sg striped-Incho-Npast throat
 “Presumably your throat is sore from the flu” (Nash 1980:187)
- c. Nyuntu-ku **marda** kapu-ngku turaki-ji yi-nyi
 you-Dat **perhaps** Fut.C-2sg.Obj car-Top give-Npast
 “To you perhaps he will give the car” (Warlpiri Dictionary Project 1993)

Crucially, the conditioning environment for clitic third is syntactic, not phonological. Elements base-generated in adjoined positions high in the clause result in clitic third: hanging topics (discussed below), (262a), and sentential adverbs (see Legate, to appear b, for discussion of adverb types and placement in Warlpiri), (262b), (262c). Such data are problematic for a phonological account, but expected under the proposed analysis whereby the clitic raises to occupy the head of the highest projection. Given this positioning, only the specifier of the projection, and any adjoined element will precede the clitic, resulting in second or third position.²

In the next section, I begin analysing the Warlpiri left periphery with a consideration of topics.

²Multiple adjoined elements will potentially give rise to clitics in later positions.

4.2.1 Topics

In this section, I discuss two types of topics in Warlpiri: topicalized elements, and hanging topics. As mentioned above, Warlpiri exhibits topicalization to a left peripheral position above wh-phrases. The examples are repeated below.

- (263) a. **Pikirri-ji-*npa*** **nyarrparla-*rla*** warungka-*ma-nu-rnu*?
spearthrower-Top-2sg **where-Loc** forget-cause-Past-hither
 “Where did you forget the spearthrower on your way here?” (Laughren, 2002:[27])
- b. **Kuturu-*ju*** *ka-npa-nyanu* **nyarrpara-*wiyi*** marda-*rni*?
nullanulla-Top PresImpf-2sg-Reflex **where-first** have-Npast
 “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 also undergo topicalization:³

³The suffix *-nya* in (264) is defined in the Warlpiri Dictionary (Warlpiri Dictionary Project 1993) as a “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 (256) above. The examples in (264) 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-PastImpf boomerang-**Foc** carve-Past 1-PastImpf-1sg spear straighten-Past
 “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-Past
 “Did Japanangka go?” (Mary Laughren, pc)
- b. Kaji-*lpa-rna-rla* yapa-*ku* wangka-*yarla*, kaji-*ka-rna-rla* ngaju-*lu-rla*
 NfactC-PastImpf-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-Npast Jangala-example-Dat Lajamanu-All-**Foc** go-Past
 Japaljarri-*ki* japun-*nyanu*, yangka Jangala-*pardu*?” “Yuwayi, pirrarni kulpa-*ja* nyanungu-*ju*.”
 Japaljarri-Dat uncle-Reflex that Jangala-Dimin yes yesterday go-Past 3-Top

- (264) **Nyampu-ju** ka-rlipa **ngalipa-rlu-ju** palya-nya ngarri-rni.
this-Top PresImpf-1plIncl **we.Incl-Top** ‘palya’-Foc call-Npast
Walypali-rli ka-lu taya-nya ngarri-rni.
white-Erg PresImpf-3pl tar-Foc call-Npast
 “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, illustrating that the focus position (like the position for wh-phrases) follows the topic positions in Warlpiri.

“Should I be talking to someone, I, Japanangka, might ask him about Jangala, say. ‘Has Japal-jarri’s uncle gone to Lajamanu?’ ‘Yes, he went back yesterday.’” (Warlpiri Dictionary Project 1993)

Perhaps the most common usage of *-nya* is for 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
 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-Npast 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.

Further analysis of this particle must be left to future research.

In addition to topicalization, Warlpiri displays hanging topic left dislocation (HTLD), illustrated in (265).

- (265) **Wawirri**, ngula ka nyina walya-ngka-jala.
kangaroo, that PresImpf be.Npast 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 (263) and (265), as well as (268) below. A hanging topic does not serve as a host for the second position clitic cluster, whereas a topicalized phrase does. I take this as evidence that hanging topics are merged in an adjoined position, whereas topicalization targets a specifier position, see discussion surrounding (262) above. 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. (265) is typical in this regard, and illustrates further that when HTLD and topicalization cooccur, the hanging topic precedes the topicalized phrase. Finally, hanging topics are intonationally set off from the remainder of the clause, while topicalized elements are not. The Warlpiri data seem typical of 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:

- (266) 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)

Puskas (2000) replicates the pattern for Hungarian:

(267) a. **A:** Hát Attilával miről beszéltek?

“So what did they speak about with Attila?”

B: Attilával semmiről nem beszéltek.
Attila-INSTR [TOP] nothing-DELAT NEG speak-PAST-3PL
“With Attila they didn’t speak about anything.”

* **B’:** Attilával, vele semmiről 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 miről beszéltek?

“So what did they speak about with Attila?”

?? **B:** Semmiről. 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’: Semmiről. 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, illustrating with the following:

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.

He argues that HTLD is used here if the speaker feels that the mockingbird needs to be reestablished as a topic, whereas topicalization is used if the mockingbird is still felt to be topical.

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 (268).

- (268) a. Jalyirrupa, ngula-ji parla watiya-jangka manu pinkirrupa jurlpu-kurlangu.
'jalyirrupa', that-Top leaf tree-from or feather bird-possessive
"Jalyirrupa is a leaf from a tree or a bird's feather."
- b. Yalypilyi ngula-ju pama kuja-ka nguna manja-ngawurru.
'yalypilyi' that-Top delicacy FactC-PresImpf lie-Npast mulga-belonging.to

“*Yalypilyi* is a sweet scale found on mulga trees.

- 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.

(269) a. *Initial reference through HTLD*

Jaalypa, jaalypa yangka kaji-ka kanunju wangka
‘**jaalypa**’, whisper aforementioned NFactC-PresImpf down speak-Npast
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.Npast
yangka kanunju kuja-ka-lu jaaly-ma-ni – jaalypa
aforementioned down FactC-PresImpf-3pl plot-Npast – soft
kuja-ka-lu wangka-mi.
FactC-PresImpf-3pl speak-Npast

“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)

More research is required to precisely delimitate 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 referring 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.⁴ Furthermore, we have seen the targets of HTLD and topicalization are distinct, with hanging topics appearing in an adjoined position, above the projection that hosts topicalized phrases in its specifier.

4.2.2 Wh-phrases and Foci

This section turns to the position of wh-phrases and focused phrases in the Warlpiri left periphery.

As mentioned previously, 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 (270).

- (270) a. **Ngana-patu** ka-lu wangka-mi?
who-PI PresImpf-3pl speak-Npast
 “Which ones are speaking?”
- b. **Yurntumu-wardingki-patu** ka-lu wangka-mi
Yuendumu-habitant-PI PresImpf-3pl speak-Npast
 “Yuendumu people are speaking”
- c. **Nyarrpa-jarri-mi** ka-lu Yurntumu-wardingki-patu?
how-Incho-Npast PresImpf Yuendumu-habitant-PI
 “What are the Yuendumu people doing?”

⁴See section 4.3 below for evidence that placement of wh-phrases in Warlpiri involves movement.

- d. **Wangka-mi** ka-lu Yurntumu-wardingki-patu
speak-Npast PresImpf-3pl Yuendumu-habitant-Pl
 “The Yuendumu people are speaking” (Laughren 2002:[14a,b,d,e])

Notice that in (270d), 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:

- (271) **Jurnta**-ju-lu ya-nu ngaju-ku
away-1sgO-3plS go-Past 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.⁵

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

⁵For related claims, see Legate 1996 for Irish predicate movement, Massam & Smallwood 1997 for Niuean predicate movement, and Alexiadou & Anagnostopoulou 1998.

after the second position clitic. The syntax of verb-initial and, particularly, preverb-initial 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:

(272) (I don't care where the children were playing. ...)

Ya-nu-pala nyarrpara-kurra kurdu-jarra?
go-Past-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.⁶

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.⁷ When they do co-occur, the focused phrase must precede the wh-phrase:

(273) a. Mi domando A GIANNI che cosa abbiano detto (non a Piero)

“I wonder TO GIANNI what they have said (not to Piero)

⁶Constructions like those in (272) require further examination to rule out the possibility that *yanu* “went” here is functioning as a contrastive topic. One suggestive piece of evidence against the contrastive topic analysis is that verbs in Warlpiri cannot generally function as topics (Laughren 2002).

⁷He notes, however, additional unexplained restrictions. A PP wh-phrase may not co-occur with a focused direct object.

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”:

(274) Raarlku-raarlku-wapa-mi yangka ka-lu **nantuwu-rlangu**
have.stripes-Npast 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-Npast mucous-having FactC-PresImpf flow.out-Npast 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:⁸⁹

(275) **A:** Nyiya kaji-ka-lu nyina wampana-piya-ju,
what PotC-PresImpf-3pl be.Npast spectacled.hare.wallaby-like-Top
nyiya-rlangu?
what-e.g.
“What ones might be like the spectacled hare wallaby, what for example?”

⁸Note that the wh-phrase *nyiya* “what” marked with *-rlangu* in the question in (275) is an intonationally dislocated sluiced second clause, as reflected in the translation.

⁹Non-exhaustive focus will be further considered in section 4.4.

B: Kala ka-lu nyina wampana-piya-ju
 well PresImpf-3pl be.Npast 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. (276) illustrates a wh-phrase marked with *-rlangu* moved to the left peripheral position and interpreted as a wh-phrase. (277) 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.

(276) **Nyiya-rlangu** kaji-ka-lu nyina wampana-piya-ju?
what-e.g. PotC-PresImpf-3pl be.Npast spectacled.hare.wallaby-?-Top
 “What ones for example might be like the spectacled hare wallaby?” (Hale field notes)

(277) Kaji-lpa-ngku wanti-yarla **nyiya-rlangu** milpa-kurra ...
 NfactC-PastImpf-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:

- (278) a. **Pikirri-ji**-npa **nyarrparla-rla** warungka-ma-nu-rnu?
spearthrower-Top-2sg **where-Loc** forget-cause-Past-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-Npast
 “Where is this nullanulla of yours?” (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.¹⁰ Consider the following dialogue:

- (279) **A:** Jampijinpa-rlu ka nga-rni kuyu manu Jungarrayi-rli
 Jampijinpa-Erg PresImpf consume-Npast meat and Jungarrayi-Erg
 ka nga-rni miyi
 PresImpf consume-Npast vegetable.food
 “Jampijinpa is consuming meat and Jungarrayi is consuming vegetables.”
- B:** Japaljarri-rli-ji ka nyiya nga-rni?
 Japaljarri-Erg-Top PresImpf what consume-Npast
 “What is Japaljarri consuming?”
- A:** **Japaljarri-rli-ji** ka **pama** nga-rni
Japaljarri-Erg-Top PresImpf **beer** consume-Npast
 “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.

¹⁰Thanks to Carol Neidle for raising this issue.

“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

(284) *(Finite) Complementizers in Warlpiri*

<i>kuja, ngula</i>	Fact
<i>kapu, ngarra</i>	Future
<i>kaji</i>	Nonfact
<i>kala</i>	Past habitual
<i>kala</i>	Potential
<i>yungu, yinga, yi</i>	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:

(285) $\text{Fin} > \text{T(Past)} > \text{T(Future)} > \text{Mood}_{\text{irrealis}} > \text{Mod}_{\text{possibility}} > \text{Asp}_{\text{habitual}}$

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

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-Npast
“I’m not *going/don’t go*” (Laughren 2002 [31])

AspP_{habitual} is combined into a single head in Warlpiri, which is morphologically non-divisible. 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 makes 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 understanding of the rare cases in which *kuja* is found in matrix clauses. In these cases, *kuja* follows the wh-phrase:

- (286) **Nyarrpara-rlu kuja** panti-rni?
How-Erg FactC spear-Npast
 “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”.

- (287) yankirri-**japa**-rna panti-rni?
 emu-**Q**-1sg spear-Npast
 Is it an emu I’ll spear? (Warlpiri Dictionary Project 1993)

However, *japa* is also found in wh-questions:

¹²There 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.

- (288) Jakamarra-rlu-ju payu-rnu, nyiya **japa** Japanangka-rlu pantu-rnu
 Jakamarra-Erg-1sgObj ask-Past what **Q** Japanangka-Erg spear-Past
 “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 (287) and below the wh-phrase *nyiya* “what” in (288). 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 (288) 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 referred 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 structure in the Warlpiri left periphery:

(289) [(Top_{HTLD}) [ForceP [(TopP*) [(FocP) [(FocP_{wh}) [(QuP) [FinP]]]]]]]]

4.3 Movement versus Base-generation

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.

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 (290), 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.

(290) **Ngana-ngkajinta**-ngku yimi-ngarru-rnu Jakamarra-rlu, kuja ya-nu wirlinyi
who-with-2sgObj speech-tell-Past Jakamarra-Erg, CFact go-Past 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):

(291) 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 nonfinite clause can appear in the matrix focus position, forming a long-distance question.

- (292) **Nyiya-kurra** ka-npa wawirri nya-nyi [e nga-rinja-kurra]
what-ObjC PresImpf-2sg kangaroo see-NPast [e eat-Infin-ObjC]
“What do you see a kangaroo eating?”

How do approaches without movement account for these data? Simpson (1991) argues that nonfinite 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, (293), the sub-constituents of the nonfinite clause may also be base-generated in discontinuous parts.

- (293) *Discontinuous DPs*

Maliki-rli-ji yarlku-rnu **wiri-ngki**
dog-Erg-1sgObj bite-Past **big-Erg**

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

The alternative approach advocated here, in contrast, attributes the contrast between (290) and (292) to constraints on movement. Thus, extraction from finite clauses is impossible or difficult in many languages, whereas extraction from nonfinite clauses (and subjunctives) greatly improves.

Support for the movement-based approach comes from two sources: nonfinite adjunct clauses, and Weak Crossover effects. First, the two approaches make different predictions for nonfinite adjunct clauses. Under a non-movement account we expect nonfinite adjunct clauses, as nominal, should also be able to appear discontinuously. Under a movement-based account, on the other hand, we expect nonfinite 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 nonfinite adjunct clause; the (b) examples are ungrammatical attempts to extract from the adjunct.¹³

¹³The relationship of the adjunct to the main clause is encoded in the non-matrix complementizer. For

- (294) 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]
“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-NPast woman-Dat
[e purra-nja-rlarni]?
[e cook-Infin-ObvC]
“What is the child chasing the woman’s dog around while she is cooking?”
- (295) a. Wati-ngki-nyanu jurnarrpa ma-nu, [wurna ya-ninja-kungarnti-rli].
man-Erg-Reflex belongings get-Past, [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-Past, [e
ya-ninja-kungarnti-rli]?
go-Inf-PrepC-Erg]
“Where did the man pick up his things before going?”
- (296) a. Karnta-ngku warlu yarrpu-rnu [kuyu purra-nja-kungarnti].
woman-Erg fire light-Past [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-Past [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 nonfinite adjunct clauses form movement islands, whereas nonfinite argument clauses do not.

example, *-kungarnti* indicates that the clause is prior to, in preparation for the main clause (translated as “before” in (295) and “in order to” in (296)).

This movement effect is also found in relative clauses; these too form islands to wh-movement, as illustrated by the following:

- (297) a. * Ngana kapu Jakamarra-rlu maliki luwa-rni, kuja yarlku-rnu?
 who Fut.C Jakamarra-Erg dog shoot-Npast Fact.C bite-Past
 “Who_i will Jakamarra shoot the dog that bit *t_i*?” (Granites et al 1976)
- b. cf: Jakamarra-rlu kapu maliki luwa-rni, kuja Japalyi yarlku-rnu.
 Jakamarra-Erg Fut.C dog shoot-Npast that Japalyi bite-Past
 “Jakamarra will shoot the dog that bit Japalyi.”

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:

- (298) Ngana ka nyanungu-nyangu maliki-rli wajili-pi-nyi?
 who PresImpf he-Poss dog-Erg chase-Npast
 “Who_i is his_i dog chasing?” (Hale et al 1995:1447)

However, Weak Crossover effects re-appear in long distance questions:

- (299) * **Ngana_i-kurra**-npa nyanungu_i-nyangu maliki nya-ngu [*e* paji-rninja-kurra]?
who_i-ObjC-2sg 3_i-Poss dog see-Past [*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:

- (300) **Ngana_i**-npa nya-ngu [kuja-lpa maliki nyanungu_i-nyangu-rlu paju-rnu?]
who_i-2sg see-Past [FactC-PastImpf dog 3_i-Poss-Erg bite-Past]
 “Who did you see that his dog was biting him?” (Mary Laughren, pc)

¹⁴These data were also considered in Chapter 2, section 2.7.

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*:

(301) *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.

“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:

(302) *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 (302b). Short distance scrambling¹⁵ is claimed to be base generated without an empty category in the θ -position; whereas long distance scrambling does require an

¹⁵where “scrambling” is taken in the broad sense of any word order variation, including for example the initial placement of wh-phrases.

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 (302b). 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 (302b) is not violated. Hence, Weak Crossover effects appear with long distance scrambling but not local scrambling.¹⁶

This analysis requires that constraint (302b) 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 (302a) and (302b) 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:

- (303) a. dass seine Mutter jeder mag
 that his mother everyone.NOM likes
 “that everyone_i likes his_i mother”

¹⁶In 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 (302b) with the following:

- (1) a. An operator O is more prominent than a pronoun P if and only if $CoargOp$ f-precedes P.
 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.

- 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”

(303a) is grammatical by virtue of not violating constraint (302a), since the operator “everyone” (the subject) functionally outranks the DP containing the pronoun (the object). (303b) is grammatical because it does not violate constraint (302b), since the operator linearly precedes the pronoun. In (303c), both constraints are violated and the sentence is ungrammatical.

However, the Warlpiri equivalent of (303c), 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, as illustrated with examples following. In fact, constraint (302b) 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”:

- (304) a. Jakamarra ka wajirli-pi-nyi maliki nyanungu-nyangu-rlu
 Jakamarra PresImpf chase-NPast 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-NPast
 “His_i dog chases Jakamarra_i.” (Simpson 1991:181)

However, these examples admittedly may 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

¹⁷Simpson notes that in Wakirti Warlpiri this suffix may appear as *-karinyanu*, cf (307) below.

suffix behaves as a reflexive in requiring an antecedent in its clause, (305), and, for some speakers of the Wakirti Warlpiri dialect, allowing a logophoric use, (306).

- (305) a. Ngarrka-ngku karnta nya-ngu karnta-karinyinyanu paka-rninja-kurra.
 man-Erg woman see-Past 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-Past man-other.self hit-Infin-ObjC
 “The man saw the woman hitting another man.” (Granites et al 1976, cited
 in Simpson 1991:186-7)

- (306) Jangala-rlu purda-nya-ngu kuja: “Wara! Nangala-rlu ka paka-rni
 Jangala-Erg think-Past thus hey Nangala-Erg PresImpf hit-Npast
 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:

- (307) Maliki-karinyanu-rlu nya-ngu Rocky.
 dog-other.self-Erg see-Past Rocky
 “Another dog like himself saw Rocky.” (Simpson 1991:184)

Therefore, constraint (302b) cannot be active in Warlpiri, and cannot be used to explain the presence of long distance WCO effects in Warlpiri. Furthermore, appeal to constraint (302a) or constraint (302c) 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, (302a) and (302c) 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

(308) 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:

- (309) 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-Past 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

¹⁸The exact formulation of the WCO constraint (which should ultimately follow from deeper principles) is beyond the scope and needs of this discussion. Although the characterization of the constraint is cited from Ruys (2000), note that Ruys argues against this, and other, standard formulations of Weak Crossover.

not. Thus, the derivation of (309a) involves movement of the subject to the grammatical subject position. (309b), on the other hand, may be generated through movement of the subject to the grammatical subject position, scrambling of the object over the subject, and then 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 in German and Warlpiri. Long distance A-scrambling may be universally unavailable (see for example Mahajan 1990).¹⁹ Instead, long distance scrambling is A'-movement, which cannot create new binding possibilities and thus cannot 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:

¹⁹However, both short-distance and long-distance scrambling in Japanese remedy WCO violations:

- (1) a. ?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)
- b. ?Dare_i-o soitu_i-no hahaoya-ga Hanako-ga aisiteiru to omotteru no?
 who-ACC guy-GEN mother-NOM Hanako-NOM loves COMP think Q
 ‘‘Who does his mother think that Hanako loves?’’ (Saito 1992:109)

See Saito (1992) for discussion.

(310) *Identificational Focus*

An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds. (Kiss 1998:245)

(311) *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:

(312)

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 entities 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].

- (313) a. *Chi ha rotto il vaso?*
who has broken the vase
“Who 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)
- (314) 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, (313) is a neutral *wh*-question, since *chi* “who” does not typically refer to a closed set of individuals salient in the discourse. Therefore, unless (313) is embedded in a context which makes such a set of entities salient, the question cannot be appropriately answered by an identificational focus. In (314), 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 find that Warlpiri is clearly [-contrastive]. The standard use of the focus position in Warlpiri is to host the answers to neutral wh-questions:

- (315) 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-Past
“The child probably fell into the water.” (Warlpiri Dictionary Project 1993)

In (315), 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 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:

- (316) **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:²⁰

(317) **A:** Nyiya kaji-ka-lu nyina wampana-piya-ju,
 what PotC-PresImpf-3pl be.Npast spectacted.hare.wallaby-like-Top
 nyiya-rlangu?
 what-e.g.
 “What ones might be like the spectacted hare wallaby, what for example?”

B: Kala ka-lu nyina wampana-piya-ju
 well PresImpf-3pl be.Npast spectacted.hare.wallaby-like-Top
purdaya-rlangu
burrowing.bettong-e.g.
 “Ones that are like the spectacted 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).

(318) **A:** Nyiya-rlangu kaji-ka-lu nyina wampana-piya-ju?
 what-e.g. PotC-PresImpf-3pl be.Npast spectacted.hare.wallaby-like-Top
 “What ones for example might be like the spectacted hare wallaby?”

B: Kala – **purdaya-rlangu** ka-lu nyina
 well **burrowing.bettong-e.g.** PresImpf-3pl be.Npast
 wampana-piya-ju
 spectacted.hare.wallaby-like-Top
 “Well, burrowing bettongs for example are like the spectacted hare wallaby.”
 (Hale field notes)

²⁰In 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.

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:

- (319) * 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 occupy the focus position in Warlpiri:

- (320) **Palya-yijala** ka-rla kanunjumparra nguna-mi, yi-ka-nyanu
wax-also PresImpf-3Dat underneath lie-Npast, 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 counterexample 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 (321a) *ngaju* “I” is interpreted as a topic and *yani* “go” as focused, while in (321b), *ngaju* “I” is focused.

- (321) a. (Ngaju) kula-ka-rna ya-ni ...
 (I) Neg-PresImpf-1sg go-Npast

“I’m not *going*/don’t *go*” (Laughren 2002:[31a])

- b. Kula-ka-rna ngaju ya-ni
Neg-PresImpf-1sg I go-Npast
“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 incompatible with *kula*. Thus, the only interpretation of *nyarrpara* “where” in (322) is as an indefinite rather than a wh-phrase.

- (322) Kula-ka-rna nyarrpara-kurra ya-ni
Neg-PresImpf-1sg where-All go-Npast
“I’m not going anywhere” (Laughren 2002:[33b])
*“Where am I going?”

To ask a negative wh-question, an indirect strategy must be used:

- (323) Ngana ka nyina ya-ninja-wangu?
who Pres.Impf be.Npast go-Infin-without
“Who is not going?”
lit: ‘who is staying without going?’ (Laughren 2002:ftn 36,[i])

One explanation for the ungrammaticality of (322) 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 notable recent contributions include Beck (1996) and Rizzi (2002). Beck (1996) (discussed in more detail in section 4.5.2) 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:

- (324) 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 (322), this suggests that focus in Warlpiri must not be quantificational, since it fails to exhibit the intervention effect, (321) above.

Another explanation is possible for the data in (318) and (320) 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:

- (325) a. Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja-ka
 how-2sgObj speech-tell-Past Jakamarra-Erg FactC-PresImpf
 nyarrpara-kurra ya-ni Jampijinpa?
 where-to leave-Npast Jampijinpa
 “Where did Jakamarra tell you Jampijinpa is going?”
- b. Jampijinpa ka ya-ni kurli-rra
 Jampijinpa PresImpf go-Npast south-All
 “Jampijinpa is going south.”
- c. Ngarru-rnu-ju kuja-ka kurli-rra ya-ni
 tell-Past-1sgObj FactC-PresImpf south-All go-NPast

“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, Miller, & 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).

- (326) 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, Miller, & 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 *ngarrirmi* “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 (327) below would not be more properly translated as “What did Jakamarra tell you? What did Japanangka spear?”.

- (327) Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu [kuja nyiya pantu-rnu
 how-2sg speech-tell-Past Jakamarra-Erg [FactC what spear-Past
 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 dependent clause in (327). This complementizer has an extremely limited distribution in matrix questions, appearing if the wh-phrase is clefted, (328a), and in rare futurate questions like (328b):

- (328) a. Wayipurru-rnu-lpa-lu miyi yawakiyi. Nyiya-kurra kuja-lu ma-nu?
 gather-Past-PastImpf-3pl fruit wild.currant what-All FactC-3pl get-Past
 “They gathered up the wild currants. What was it that they gathered them into?”
 b. Nyarrpara-rlu kuja panti-rni?
 How-Erg that spear-Npast
 “How to spear it?” (Warlpiri Dictionary Project 1993)

Even in these cases, the wh-phrase precedes the complementizer *kuja*, whereas in (327) the wh-phrase follows *kuja*. Thus the dependent clause in (327) is not interpretable as an

independent question:

- (329) * *Kuja nyiya pantu-rnu Japanangka-rlu*
FactC what spear-Past Japanangka-Erg
“What did Japanangka spear?”

The ordering in which the wh-phrase follows the complementizer is rather that found in non-matrix questions:

- (330) *Jakamarra-rlu-ju payu-rnu, kuja nyiya pantu-rnu Japanangka-rlu*
Jakamarra-Erg-1sgObj ask-Past FactC what spear-Past 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 instead of the one long and complex one. Old people would use sentences like this. I would make a series of short statements with ‘mayi’ tagged on as a question marker.” (Bess Nungarrayi Price, pc)

I conclude that the Warlpiri case is indeed a wh-scope marking construction rather than a sequence of questions.

The wh-phrase that appears in the matrix clause of the wh-scope marking construction in Warlpiri is *nyarrpa* “how”. This is the wh-phrase used to question the dependent clause of verbs of speaking in Warlpiri, i.e. the matrix verbs found in the wh-scope marking construction.²¹ Compare (331a) and (331b).

- (331) a. **Nyarrpa-rlu**-ngku yimi-ngarru-rnu
how-Erg-2sgObj speech-tell-Past
“What did (s)he tell you?”

²¹The usage of *nyarrpa* will be further considered in section 4.5.3 below.

- b. **Nyiya** ka nga-rni
what PresImpf eat-Npast
 “What is (s)he eating?”

Warlpiri resembles (at least) Hungarian in this respect. In Hungarian the *wh*-phrase found in the matrix clause of the *wh*-scope marking construction appears to be determined by the matrix verb:

- (332) 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** számitasz, hogy melyik fiúval 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)

Warlpiri also resembles (at least) Hindi and certain German dialects; in these languages, the *wh*-scope marking construction is the preferred manner of asking a long distance question, long distance *wh*-movement being highly restricted. Likewise, in Warlpiri the *wh*-scope marking construction does not alternate with a long-distance *wh*-movement strategy. As illustrated in (333), finite clauses are islands in Warlpiri, and so a *wh*-phrase must be interpreted as originating in the clause in which it appears.

- (333) Ngana-ngkajinta-ngku yimi-ngarru-rnu Jakamarra-rlu, kuja ya-nu wirlinyi
 who-with-2sgObj speech-tell-Past Jakamarra-Erg, FactC go-Past 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 *wh*-scope marking construction 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:

- (334) a. Nyiya ngarra ka nya-nyi parntarri-nja-karra-rlu?
 what indeed PresImpf see-Npast crouch-Inf-SubjC-Erg
 “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-Npast
 “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 wh-scope marking construction from more general principles of the language, without ever having to encounter it during acquisition.²²

²²An 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.

In the following section, I consider previous analyses of the wh-scope marking construction in other languages.

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*.²³ 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 referred 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 is 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.

²³Mahajan 2000 develops an apparently mixed approach which upon further inspection reduces to the direct dependency approach (see Dayal 2000 and von Stechow 2000).

For concreteness, consider a standard 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 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.

- (335) a. Ngula-rla **nyiya** wanti-ja langa-kurra karnta-ku-ju jarda-kurra-ku.
 Then-3Dat **what** fall-Past 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-Npast **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:

- (336) * Nyarrpa-ngku yimi-ngarru-rnu Japaljarri-rli kuja ngana nyarrpara-kurra
 how-2sgO speech-tell-Past Japaljarri-Erg FactC who where-to
 ya-nu?
 go-Past
 “Who did Japaljarri tell you went where?”

McDaniel et al (1995) propose a different explanation of the distinction 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 appear in wh-scope marking constructions but cannot appear in relative clauses. Warlpiri has adjoined relative clauses, as shown in (337) (see Hale 1976, Larson 1985), which allow no wh-phrases or relative pronouns, but rather uniformly display the complementizer *kuja* “that”.²⁴

- (337) a. Jarntu-ngku kuja ngarrka yarlku-rnu, kapu paka-rni
 dog-Erg FactC man bite-Past FutC strike-Npast
 “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-Past that-Erg FutC strike-Npast
 “The man whom the dog bit, he is going to belt it.”

Generalizing beyond these specific proposals, there are several difficulties with the di-

²⁴Or rather the same range of complementizers found in finite clauses; for example, (1) illustrates a relative clause with 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-Npast-hither, that-Erg-Top yesterday-Erg give-Past money
 “The man who will come tomorrow, he gave me money yesterday” (Granites et al 1976)

rect dependency proposal for Warlpiri. To begin, such an approach cannot explain the choice of matrix wh-phrase in Warlpiri as *nyarrpa* “how”, which is not a default in Warlpiri. The basic use of *nyarrpa* is as a manner adverb:

- (338) “**Nyarrpa-rlu** ka-nkulu yiri-ma-ni?” “Kala palya-ngku
how-ERG PRES.IMPF-2PL sharpen-NPAST well adze-ERG
ka-rnalu yiri-ma-ni.”
PRES.IMPF-1PL.EXCL sharpen-NPAST
“How do you sharpen it?” “Well we sharpen it with an adze.” (Warlpiri Dictionary Project 1993)

It is also used with the inchoative verb formative *-jarrimi*:

- (339) Nyarrpa-jarri-rlipa?
how-INCH.NPAST-1PLINCL
“What will we become?” (Warlpiri Dictionary Project 1993)

In contrast, *nyarrpara* “where” is more plausibly a default, being used for “where”, “how”, “what”, “who”, “which”, and “why not”.

- (340) “*where*”

Nyarrpara nyuntu-nyangu kurlarda-ji?
where you-POSS spear-TOP

“Where are your spears?” (Warlpiri Dictionary Project 1993)

- (341) “*which*”

“**Nyarrpara-ku** ka-npa-rla ngarrka-ku piirr-pardi-mi?”
which-DAT PRES.IMPF-2SG-3DAT man-DAT wait.for-NPAST
“Yangka-ku ka-rna-rla ngarrka-ku piirr-pardi-mi ngula-ji
that-DAT PRES.IMPF.1SG-3DAT man-DAT wait.for-NPAST that-1SG.OBJ
paka-rnu.”
hit-PAST

“Which man are you waiting for?” “I am waiting for that man who hit me.” (Warlpiri Dictionary Project 1993)

(342) “*how*”

Nyarrpara-rlu kuja panti-rni yali japa-rna panti-rni? Kari
how-ERG FACT.C spear-NPAST that.yonder Q-1SG spear-NPAST EVID
yampi-mi-rni-rna yalumpu-juku.
leave.alone-NPAST-THITHER-1SG there-STILL

“How to spear that one? Can I spear it? I think I’ll leave it there just as it is.”
(Warlpiri Dictionary Project 1993)

The key to understanding the use of *nyarrpa* in wh-scope marking constructions is the observation that it is used to question the dependent clause of verbs of speaking and communicated message independently of the wh-scope marking construction (see section 4.5.3 below):

(343) 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:

(344) ravi-ne kyaa kaha 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 (345b) is the desired answer set, and (345c) is the predicted answer set:²⁵

- (345) 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])

(346) illustrates that a yes/no question may also appear as the dependent clause in Warlpiri.

²⁵However, their conclusion only holds if we accept their semantics for “whether”. If instead, “whether” 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.

- (346) Nyarrpa-ngku Jangala-rlu yimi-ngarru-rnu yankirri-japa Japanangka-rlu
 how-2sg Jangala-Erg speech-tell-Past emu-Q Japanangka-Erg
 pantu-rnu?
 spear-Past
 “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 explain its acquisition in the absence of construction-specific data. The direct dependency approach does not meet this criterion; under this analysis, the construction is not reduced to other properties of the language. Worse, this analysis 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. Therefore, it is doubtful on this analysis that the construction could ever be learned.

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. The embedded question serves as the semantic restriction of the matrix *wh*-phrase.

Here I present a version of analysis that varies in detail but not in spirit from other proposals. The matrix *wh*-phrase and the dependent clause are merged as a constituent in object position of the matrix verb, with the embedded clause serving as the semantic restric-

tion of the matrix wh-phrase. Subsequently, the embedded clause is (perhaps optionally) postposed and the matrix wh-phrase undergoes wh-movement.

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:

- (347) a. * Was glaubst du nicht, mit wem Maria gesprochen 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 (347a) 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.

- (348) 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])

- (349) 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 (347a) 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 (347a) forms a barrier to this movement. (347b), 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 (347)] in terms of the direct dependency analysis, while, ... it is not clear that the same can be said for the 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 (347a) is equivalent to the ungrammaticality of (349a), 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. Thus, (350a) is uninterpretable as a *wh*-question, whereas (350b) allows a focused reading for *ngaju* “I” (as discussed in footnote 11 above, the negative marker *kula* obligatorily raises above the focus position).

- (350) a. Kula-ka-rna nyarrpara-kurra ya-ni
 Neg-PresImpf-1sg I where-All go-Npast
 “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-Npast
 “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.

The resulting meaning for *ravi-ne kyaa kaha 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?”.²⁶

The application of such an analysis to Warlpiri must face a number of issues. The first 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.

²⁶One 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 impossibility of the constituent *it + CP* in the *it* extraposition construction (Stowell 1981), and an explanation of one should carry over to the other. The issue is avoided for independent reasons in Warlpiri, see section 4.5.4 below.

4.5.3 Warlpiri Background

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. However, no evidence has been given for this claim, and it has been left open what sort of adjunct they may be. In this section, I examine this claim for verbs of speaking in Warlpiri, paying particular attention to the verb used most frequently in *wh*-scope marking constructions, *ngarrirni* “tell”,²⁷ I provide evidence that this claim is partially correct, and demonstrate that the dependent finite clauses may function as manner adjuncts and relational adjuncts. However, I argue that dependent clauses may also be merged as an internal argument of the matrix verb of speaking, before undergoing obligatory extraposition.

Ngarrirni

In this section I consider the range of complementation possibilities for the verb *ngarrirni* “tell”, and other verbs of speaking in Warlpiri. To begin, I note DP argument possibilities include a DP that is the goal/recipient of the message, either appearing in the dative case, or the unmarked absolutive. Additionally, a DP argument in absolutive case may appear and be interpreted as “about DP” in English. Examples follow:

- (351) a. (Payu-rnu-jana panu-kari: ”Nyarrpara-rla ka Japangardi nyina?”)
ask-Past-3plObj many-other where-Loc PresImpf Japangardi sit-Npast
Ngula-lu-**rla** ngarru-rnu panu-kari-rli: ”Yatijarra.”
then-3pl-**3Dat** tell-Past 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-PastImpf-2pl like person several go-Irr one PotC-PastImpf

²⁷*ngarrirni* is also used to mean “call”, and has extended meanings similar, but not identical, to *say* and *tell* in English, including “indicate” and “swear at”.

kulkurru karri-yarla,) kaji-ka-palangu ngarri-rni-lki **jirrama-kari-ji**:
 partway stand-Irr PotC-PresImpf-3Dual tell-Npast-then **two-other-Top**
 ”Nyumpala-pala ya-nta, kamparru, wangka-nja-rlarni, ngaju
 you.two-Dual go-Imperative ahead speak-Infin-ObjC I
 ka-rna-rla nyampu-ku ya-ni – yapa-ku wangka-nja-ku.”
 PresImpf-1sg-3Dat here-Dat go-Npast 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-jarrangu **ngajarra** ngarru-rnu-rra lawa. (Kula-ju
 Neg-1DualExcl **we.Dual.Excl** tell-Past-thither no Neg-1sgObj
 ngaju-rlangu jakuru-rra pu-ngu lawa ya-nu wurulypa.)
 1-for.eg bye-thither hit-Past no go.Past 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-Past **Jangala** 1-Dat
 “Japanangka told me about Jangala.” (anonymous reviewer AJL, pc)

Turning to dependent clauses appearing with these verbs, I begin by providing evidence that the dependent clauses may be manner adjuncts.

First, as mentioned above, the wh-phrase used to question the clause is not *nyiya* “what”, but rather *nyarrpa* “how”.²⁸

- (352) a. Kaji-lpa-ngku yapa-kari nyarrpa wangka-yarla,
 NfactC-PastImpf-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-Npast **how**
 Pina wangka-ya-rni-ji! Kula-rna-ngku pina-nya-ngu.”
 again talk-Imper-hither-1sg NegC-1sg-2sgObj hear-Past

²⁸This fact will be discussed further below.

“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-Past-hither little.brother-Erg
 ngaju-ku-pirdangka-rlu?” “Kala-ju yimi-ngarru-rnunjunu-rnu
 I-Dat-sibling-Erg PastC-1sgObj speech-tell-Assoc.motion-Past-hither
 yungu-lpa-npala wapa-ja wurnturu ngurrara-kari-rla
 RelC-PastImpf-2Dual walk-Past 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)

(353) illustrates the basic function of *nyarrpa* as the manner “how”, both as a wh-phrase, (353a) and an indefinite, (353b).

- (353) a. “**Nyarrpa-rlu** ka-nkulu yiri-ma-ni?” “Kala palya-ngku
how-Erg PresImpf-2pl sharpen-Npast PotC adze-Erg
 ka-rnalu yiri-ma-ni.”
 PresImpf-1plExcl sharpen-Npast
 “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-Past mud-Loc-then
 marlu nyanungu-ju – kula **nyarrpa** parnka-yarla – yalumpu-juku kala
 kangaroo that-Top Neg **anyhow** run-Irr that-still PastC
 ngirnti-ngki-li ma-nu, kala pu-ngu.
 tail-Erg-2pl get-Past PastC hit-Past
 “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)

The use of *nyarrpa* with *ngarrirni* and similar verbs appears to be a standard use of the wh-phrase in that it shows indefinite usages as well:

- (354) a. Kaji-lpa-ngku yapa-kari **nyarrpa** wangka-yarla,
 NfactC-PastImpf-2sgObj person-other **somehow** say-Irr
 pina-nya-nja-wangu kaji-ka-npa-rla kuja wangka-mi, “Nyarrpa?
 hear-Infin-without NfactC-PresImpf-2sg-Dat thus say-Npast how
 Pina wangka-ya-rni-ji! Kula-rna-ngku pina-nya-ngu.”
 again talk-Imp-hither-1sgObj NegC-1sg-2sgObj hear-Past
 “If someone says something to you, then not hearing it you might say, “What?
 Say it to me again! I didn’t hear you.””
- b. Kula-lpa-rna **nyarrpa** wangka-yarla.
 PAST.C-PAST.IMPF-1SG **anyhow** say-IRR
 “I can’t say anything.” (Warlpiri Dictionary Project 1993)

Second, the manner pro-form *kuja* “thus” may be used to fill the position of the dependent clause when the latter is dislocated:

- (355) ngula kaji-ka ngati-nyanu-rlu-ju ngarri-rni **kuja-rlu**, ”Lawa-ngka
 then NfactC mother-Reflex-Erg-Top say-Npast **thus-Erg** no-Loc
 ka-ngku yimirri-nyi marda,
 PresImpf-2sg trick-Npast maybe
 “then the mother might tell him thus, ”That’s not true he is probably tricking you.””

Interestingly, this appears to be true even when the dependent clause is not a quote:

- (356) “Nyarrpa-rlu-ngkupala yarda ngarru-rnu-rnu?” Kala **kuja-rlu**-jarrangu
 how-Erg-2DUALOBJ more tell-PAST-HITHER well **thus-ERG**-1DUAL.OBJ
 yarda ngarru-rnu-rnu – yi-ka nyina-mi
 more tell-PAST-HITHER REL.C-PRES.IMPF sit-NPAST
 pipi-puka-wiyi.
 breaved.father-BEFORE
 “Then what else did he tell you two?” “Well he told us like this, that he was staying
 as he has lost his child.” (Warlpiri Dictionary Project 1993)

Notice the agreement in the dependent clause in (356) is third person, *yika nyinami* “he is staying”, rather than first person, *yikarna nyinami* “I am staying”, clearly indicating that this is reported speech rather than a direct quote.

Third, manner adverbs in Warlpiri agree with the subject of the clause in case. This is illustrated in the following for both absolutive and ergative subjects:²⁹

(357) a. *Absolutive subject*

Yaruju, ngula-ji yangka kuja-ka ya-ni yapa **kapanku**
 quickly, that-TOP like FACT.C-PRES.IMPF go-NPAST person **rapidly**
 manu **kilji** ngurra nyanungu-nyangu-kurra
 and **quickly** camp 3-POSS-ALL

“Yaruju is like when a person goes along rapidly and quickly to his place”

b. *Ergative subject*

“**Yaruju-rlu**-lu palyarru-ngka!” “Yuwayi, **yaruju-rlu** ka-rna
quickly-ERG-PL paint-IMPER yes **quickly-ERG** PRES.IMPF-1SG
 mapa-rni.”
 paint-NPAST

“Paint it quickly!” “Yes, I am painting it quickly.”

c. *Ergative subject*

Nga-rnu-lu muku kurdu-kurdu-rlu **yarnunjuku-rlu**
 eat-PAST-3PL all child-child-ERG **hungrily-ERG**
 miyi-wangu-jangka-rlu.
 food-WITHOUT-PROP-ERG

“The children ate it all hungrily because they had had no food.” (Warlpiri Dictionary Project 1993)

²⁹ The explanation for why manner adverbs must agree with the subject in case 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 2001). 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 work.

Both *kuja* and *nyarrpa* behave as manner adverbs in this respect, agreeing with case with the subject of *ngarrirni* and like verbs:

(358) a. *Absolutive subject*

Kurdiji-mardarnu-ku kaji-lpa-rla waku wanti-wanti-yarla,
 senior.kin-DAT POT.C-PAST.IMPF-3DAT arm twitch-IRR
 wangka jampu-pirdinypa nyampu, waku, kaji-ka **kuja**
 like left.side here arm POT.C-PRES.IMPF **thus**
 wangka-mi: “Waku ka-rna-rla wanti-wanti. ...”
 speak-NPAST arm PRES.IMPF-1SG-3DAT twitch.NPAST

“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. *Ergative subject*

“Nyarrpa-rlu-ngkupala yarda ngarru-rnu-rnu?” Kala
 how-Erg-2DUALOBJ more tell-PAST-HITHER well
kuja-rlu-jarrangku yarda ngarru-rnu-rnu – yi-ka
thus-ERG-1DUAL.OBJ more tell-PAST-HITHER REL.C-PRES.IMPF
 nyina-mi pipi-puka-wiyi.
 sit-NPAST breaved.father-BEFORE

“Then what else did he tell you two?” “Well he told us like this, that he was staying as he has lost his child.” (Warlpiri Dictionary Project 1993)

(359) a. *Absolutive subject*

Nyarrpa wangka-ja?
how say-PAST
 “What did he say?”

b. *Ergative subject*

“**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu kukurnu-rlu
how-ERG-2SG.OBJ tell-ASSOC.MOTION-PAST little.brother-ERG
 ngaju-ku-pirdangka-rlu?”
 I-DAT-sibling-ERG

“What did my young brother come and tell you?” (Warlpiri Dictionary Project 1993)

I conclude that finite clauses in Warlpiri related to verbs of speaking may function as manner adjuncts.

In addition to clausal manner adjuncts, clausal relational adjuncts also appear with verbs of speaking in Warlpiri. These are introduced by the relational complementizer *yinga/yingi/yungu*, and are typically used for reported speech:

- (360) a. “Kala-ju yimi-ngarru-rnunjunu-rnu **yungu**-lpa-npala
 PastC-1sgObj speech-tell-Assoc.motion-Past **RelC**-PastIMpf-2Dual
 wapa-ja wurnturu ngurrara-kari-rla yapa-kurlu-kurlu-wangu-rla
 walk-Past far country-other-Loc person-having-having-without-Loc
 kulkurru-kulkurru.”
 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. Ngarri-rinja-ya-nta-jana ngangkayi-kirli **yungu**-lu ya-ni-rni.
 tell-Infin-go-Imperative-3pl.Obj medicine.man **Rel.C**-3pl go-Npast-Hither
 “Go and tell the medicine men to come.”
- c. Ngaju-ku-pirdangka-rlu-ju ngarru-rnu **yungu**-nganta ya-ntarla-rni; wali
 1-Dat-sibling-Erg-1sg tell-Past **RelC**-allegedly go-Infin-Hither well
 lawa-juku ka-rla karri.
 no-still PresImpf-3Dat stand.Npast
 My brother told me that he intended on coming, but he is still not here. (Warlpiri
 Dictionary Project 1993)

Dependent clauses introduced by the relational complementizer are not limited to appearing with speech verbs, and are associated with a range of interpretations, commonly “in order to” and “because”:

- (361) a. Jaka-jaka-ma-ni ka-nyanu-rla
 singing.spell-singing.spell-VF-Npast Pres.Impf-Reflex-3Dat
 kulu-kungarnti-rli kuturu-ku **yungu** yapa-kari paka-rni, manu
 anger-Prep.C-Erg fighting.stick-Dat **Rel.C** person-other strike-Npast and
yungu-nyanu marda-rni nyanungu-rlu – ngarlkin-ma-ni.
Rel.C-Reflex protect-Npast 3-Erg blocker-VF-Npast
 “Someone will sing their fighting stick before a fight to guarantee hitting the
 other person and so that it will protect the singer – block (any blows).”
- b. Kinki-ji yakarra-pardi-ja-lku **yungu**-palangu kurlarda
 monster-Top wake.up-Past-then **Rel.C**-3Dual.Obj spear
 jangkardu-ma-nu.
 attack-VF-Nomic
 “The monster got up then to get his spear to attack those two.”
- c. Maliki, warna-jangka pali-ja, **yinga** warna-ngku paju-rnu.
 dog snake-El die-Past **Rel.C** snake-Erg bite-Past
 “The dog died from a snake (bite), because a snake bit him.”
- d. Nyuntu pirntirri-kirra warrka-ka; **yinga**-npa-rla pirntirri-ngirli
 you tree.top-All climb-Imperative **Rel.C**-2sg-3Dat tree.top-El
 nya-nyi.
 see-Npast
 “You climb up the tree, so you can look out for him from the top”

Thus, the clauses containing reported speech in (360) are not embedded under the speech verbs, but rather are adjuncts marked as related to the main clause. With verbs of speaking, these adjuncts are typically interpreted as the message intended to be communicated.

Similar is the addition of a nominal adjunct marked with dative case to a clause containing a verb of speaking, which is interpreted as the goal of the request.³⁰

³⁰The adjunct status of the dative is supported by its failure to trigger object agreement. In (362b) and (362c) dative object agreement is lacking. In (362a) the dative object agreement is triggered by the dative object *to him* (notice that this agreement is the only indication of an addressee in the sentence; without it the interpretation would be “I spoke (i.e. asked) for meat”).

- (362) a. Wangka-ja-rna-rla kuyu-ku.
 speak-Past-1sg-3Dat meat-Dat
 “I spoke to him for meat. (i.e. I asked him for meat).”
- b. Japi-ka kuyu-ku – yinga-ngku yi-nyu.
 ask-Imperative meat-Dat Rel.C-2sg.Obj give-Npast
 “Ask him for meat – that he give it to you.”
- c. Ngurlu-ku-lku, miyi-ki-rlipa-jana ngarri-ya-ni.
 seed-Dat-now vegetable.food-Dat-1pl.Incl-3pl.Obj tell-go-Npat
 “Let’s go to them to ask for some seeds now, for some food.”

Nonfinite purpose clauses are also used:

- (363) Kala-lu-nyanu jawirri-ngarru-rnu miyi-ki, maniyi-ki yi-nja-ku, kala
 PastC-3pl-Reflex leave-tell-Past 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.”

Although relational adjuncts are commonly used for reported speech, they are not employed in the wh-scope marking construction. Indeed, attempts to formulate a wh-scope marking construction with a relational adjunct result in ungrammaticality:

- (364) * Nyarrpa jinjinyi-ma-nu ngarrka-ngku kurdu yungu nyiya ma-ni?
 how request-VF-Past man-Erg child Rel.C what get-Npast
 “What did the man order the child to get?” (Granites et al 1976)

Reported speech may also be rendered with a dependent finite clause often introduced by the complementizer *kuja* “that” (or other finite complementizers, including the future *kapu*):

- (365) a. Jakamarra-rlu-ju yimi-ngarru-rnu kuja Japanangka-rlu marlu
 Jakamarra-Erg-1sg.Obj speech-tell-Past Fact.C Japanangka-Erg kangaroo
 pantu-rnu
 spear-Past

“Jakamarra told me that Japanangka speared a kangaroo.”

- b. Ngarrka-ngku-rla karnta-ku yimi-ngarru-rnu kapu nganta ngapa
man-Erg-3Dat woman-Dat speech-tell-Past Fut.C supposedly water
wanti-mi
fall-Npast

“The man told the woman that it was going to rain”

- c. Ngaju-rna purdanya-ngu kuja Japanangka wanti-ja nantuwu-ngurlu
I-1sg heard-Past Fact.C Japanangka fall-Past horse-El

“I heard that Japanangka fell off the horse” (Granites et al 1976)

This is the construction that gives rise to the wh-scope marking construction:

- (366) Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja nyiya pantu-rnu
how-2sg.Obj speech-tell-Past Jakamarra-Erg Fact.C what speared
Japanangka-rlu?
Japanangka-Erg

What did Jakamarra tell you Japanangka speared?” (Granites et al 1976)

Thus, we need to determine what the relationship is between the dependent clauses in (365) and their matrix clauses.

There are several pieces of suggestive evidence. First, as noted previously, these clauses form islands for extraction, as do adjunct clauses and relative clauses in Warlpiri. The examples are repeated below:

- (367) **Ngana-ngkajinta**-ngku yimi-ngarru-rnu Jakamarra-rlu, kuja ya-nu wirlinyi
who-with-2sgObj speech-tell-Past Jakamarra-Erg, CFact go-Past 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?”)

- (368) * **Nyiyar-larni** ka kurdu-ngku jarntu warru-wajili-pi-nyi karnta-ku, [e
what-ObvC PresImpf child-Erg dog around-chase-NPast woman-Dat [e
purra-nja-rlarni]?
cook-Infin-ObvC]

“What is the child chasing the woman’s dog around while she is cooking?”

- (369) * Ngana kapu Jakamarra-rlu maliki luwa-rni, kuja yarlku-rnu?
who Fut.C Jakamarra-Erg dog shoot-Npast Fact.C bite-Past
“Who_i will Jakamarra shoot the dog that bit *t_i*?” (Granites et al 1976)

This suggests that the dependent clauses are not simply embedded clauses appearing in complement position.

Another piece of evidence that these dependent clauses are not in complement position comes from their interpretation. As is well known, the truth conditions of clauses embedded under intensional verbs do not contribute to the truth conditions of the whole. Thus, *Robin said that Kim speared a kangaroo* can be true even if *Kim speared a kangaroo* is false. This pattern is not replicated in Warlpiri. The *kuja* dependent clause is presupposed true by the speaker, unless specifically marked otherwise (Granites et al 1976). A couple of examples from Granites et al (1976) follow:

- (370) a. Jakamarra-rlu-ju yimi-ngarru-rnu kuja Japanangka-rlu marlu
Jakamarra-Erg-1sg.Obj speech-tell-Past Fact.C Japanangka-Erg kangaroo
pantu-rnu
spear-Past
“Jakamarra told me that Japanangka speared a kangaroo.”
→ speaker presupposes that “Japanangka speared a kangaroo” is true
- b. Jakamarra-rlu-ju yimi-ngarru-rnu kuja nganta Japanangka-rlu
Jakamarra-Erg-1sg.Obj speech-tell-Past Fact.C supposedly Japanangka-Erg
marlu pantu-rnu
kangaroo spear-Past
“Jakamarra told me that Japanangka supposedly speared a kangaroo.”
→ speaker does not presuppose that “Japanangka speared a kangaroo” is true
- (371) a. Ngarrka-ngku-rla karnta-ku yimi-ngarru-rnu, kuja-ka Japanangka
man-Erg-3Dat woman-Dat speech-tell-Past Fact.C-PresImpf Japanangka
ya-ni Yalijipiringi-kirra
go-Npast Alice.Springs-All

“The man told the woman that Japanangka is going to Alice Springs.”

→ speaker presupposes that “Japanangka is going to Alice Springs” is true

- b. Ngarrka-ngku-rla karnta-ku yimi-ngarru-rnu, Japanangka nganta
man-Erg-3Dat woman-Dat speech-tell-Past Japanangka supposedly
ka ya-ni Yalijipiringi-kirra
Pres.Impf go-Npast Alice.Springs-All

“The man told the woman that Japanangka is supposedly going to Alice Springs.”

→ speaker does not presuppose that “Japanangka is going to Alice Springs” is true

This suggests that the *kuja* clauses do not appear in the scope of the matrix intensional verb at LF.

The fact that dependent clauses that are clearly adjuncts cannot be used in the wh-scope marking, see (364) above, suggests that these dependent clauses are not simply adjuncts either.

Furthermore, there does seem to be a selectional relationship between the main verb and the type of dependent clause. Thus, *ngarrirni* “tell”, *wangkami* “say”, etc, appear with a declarative dependent clause. The verbs *japirni* “ask” (Warnayaka dialect) and *payirni* “ask” (Ngaliya dialect), on the other hand, behave similarly in having the possibility of appearing with an object interpreted as “about DP”, a dative that is the goal of the request, a nonfinite clause, or a direct quote:

- (372) a. Kapi-rna-ngku payi-rni wampana-ku
Fut.C-1sg.2sg.Obj ask-Npast spectacled.hare.wallaby-Dat
“I am going to ask you about the spectacled hare wallaby”
- b. Japi-ka kuyu-ku
ask-Imperative meat-Dat
“Ask him for meat”
- c. Japi-rni ka-rna-ngku kuyu ma-ninja-ku
ask-Npast Pres.Impf-1sg-2sg.Obj meat get-Infin-Dat

“I am asking you to get the meat”

- d. Kala-jana purlka-ngku japu-rnu: “Nyarrpara-kurra ka-nkulu
Past.C-3pl.Obj old.man-Erg ask-Past where-All Pres.Impf-2pl
ya-ni?”
go-Npast
“The old man asked them: ‘Where are you going?’” (Warlpiri Dictionary
Project 1993)

however, they appear with dependent clauses that are interrogative rather than declarative:

- (373) a. Payi-ka, [nyarrpara-rla ka nyina]
ask-Imperative [where-Loc Pres.Impf live.Npast]
“Ask him where he lives”
- b. Jinta-kari-rli kaji-ka-jana yangka – kuja-ka nyina
one-other-Erg PotC-PresImpf-3plObj that FactC-PresImpf be.Npast
ngurrpa, ngapa-ku, ngula-ngku kaji-ka-jana payi-rni [ngapa
ignorant water-Dat that-Erg PotC-PresImpf-3plObj ask-Npast [water
nyanungu kutu japa]: ”Nyangurla-karra-rlipa rdakurlpa-rra pi-nyi?”
that close Q] when-SubjC-1plIncl arrive-Thither arrive-Npast

(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?””

In (373a), the agreement morphology indicates that this is reported speech rather than a direct quote: *ka nyina* “he lives” rather than *kanpa nyina* “you live”. In (373b), the (non-verbal) dependent clause appears in addition to a direct quote. This type of selectional relationship between the matrix verb and the type of dependent clause again suggests that these dependent clauses are not merely adjuncts.³¹

³¹Although a selected adjunct would be compatible with these data.

I propose that these clauses are generated as complements of the verb, but are obligatorily extraposed. This accounts for both their status as islands, their interpretation as outside the scope of the intensional matrix verb, and their selection by the matrix verb.

In obligatorily extraposing, they are similar to relative clauses in Warlpiri, which do not appear clause-internally. Instead, either the DP appears as a hanging topic (indicating that the relative clause is generated with the noun it modifies), (374a), or the relative clause is postposed, (374b), (Hale 1976):

- (374) a. Yankirri-rlu kuja-lpa ngapa nga-rnu, ngula-rna pantu-rnu
 emu-Erg Fact.C-Past.Impf water consume-Past, that-1sg spear-Past
 ngajulu-rlu.
 I-Erg
 “The emu which was drinking water, that one I speared.”
- b. Ngajulu-rlu-rna yankirri pantu-rnu, kuja-lpa ngapa nga-rnu
 I-Erg-1sg emu spear-Past Fact.C-Past.Impf water consume-Past
 “I speared the emu which was drinking water.” (Hale 1976:78-79, spelling modernized)

Note that the dependent clauses cannot be identified with relative clauses, since relative clauses must appear with an overt complementizer, whereas the dependent clauses need not:

- (375) Jakamarra-rlu-ju yimi-ngarru-rnu, Japanangka-rlu nganta marlu
 Jakamarra-Erg-1sg.Obj speech-tell-Npast Japanangka-Erg supposedly kangaroo
 pantu-rnu.
 spear-Npast
 “Jakamarra told me that Japanangka speared the kangaroo. (Granites et al 1976)

In sum, a number of types of dependent clauses appear with Warlpiri verbs of speaking, including nonfinite clauses, manner adjuncts, and relational adjuncts. In addition, a dependent clause may be merged as a selected argument, and subsequently undergo obligatory extraposition. This latter option is that which is used in the wh-scope marking construction.

Before returning to the *wh*-scope marking construction, I consider in the next section the use of *nyarrpa* “how” with verbs of speaking.

Nyarrpa

In this section I consider the uses of *nyarrpa* “how” with verbs of speaking. As we have seen, the content of an utterance in Warlpiri may be conveyed in a number of ways: through a manner adjunct, a relational adjunct, or an extraposed complement clause. The use of *nyarrpa* to question a manner adjunct is expected, since the core meaning of *nyarrpa* is a manner *wh*-word/indefinite.

However, the question remains why *nyarrpa* is uniformly used to question the dependent clause of a verb of speaking, even though the syntax of a selected complement clause is available. I believe this is explained through an independent distinction between Warlpiri and other languages.

The word *what* in English has a wide range of uses, being used at least to question an (inanimate) individual, (376a), a verb phrase, (376b), a proposition, (376c), a set of propositions, (376d), and a reason, (376e):

- (376) 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:

- (377) a. Nyiya-*npa*-ju ka-*ngu*-*rnu*?
 what-2sg-1sgObj bring-Past-Hither
 “What have you brought me?”
- b. Nyiya-*ngurlu* ka-*npa*-*jana* paka-*rni*?
 what-El PresImpf-2sg-3plObj hit-Npast
 “Why (lit. what from) are you hitting them?”

To question a verb phrase, *nyarrpa* is used:

- (378) a. “**Nyarrpa**-*jarri*-*ja*-*npa* *ngurra*-*ngka*-*ju*?” “*Ngayi*-*lpa*-*rna* *nyina*-*ja*.”
how-Incho-Past-2sg home-Loc-Top only-PastImpf-1sg be-Past
 “*Ngari*-*wangu*. “**Nyarrpa**-*jarri*-*ja*-*wurru*-*lpa*-*npa*?” “*Ngayi*-*lpa*-*rna*
 only-without **how**-Incho-Past-regardless-PastImpf-2sg only-PastImpf-1sg
nyina-*ja*. **Nyarrpa**-*jarri*-*nja*-*wangu* *ngayi*-*lpa*-*rna* *nyina*-*ja*.”
 be-Past **how**-Incho-Infin-without only-PastImpf-1sg be-Past
 “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-Npast 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-Npast 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 (378c).

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. (359) above, repeated in (379) below, illustrated use of the ergative case marking.

- (379) “**Nyarrpa-rlu**-ngku ngarru-rnunjunu-rnu kukurnu-rlu
how-Erg-2sgObj tell-Assoc.motion-Past little.brother-Erg
 ngaju-ku-pirdangka-rlu?”
 I-Dat-sibling-Erg
 “What did my young brother come and tell you?” (Warlpiri Dictionary Project 1993)

The examples in (380) illustrate failure to use the ergative case marking.

- (380) a. **Nyarrpa** ka-npa manngi-nya-nyi wayinpa wita?
how PresImpf-1sg think-Npast 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-Past 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*.³²

³²Whether 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?”
how-Erg-2sgObj tell-Assoc.motion-Past little.brother-Erg I-Dat-sibling-Erg
 “Kala-ju yimi-ngarru-rnunjunu-rnu yungu-lpa-npala wapa-ja wurnturu
 PastC-1sgObj speech-tell-Assoc.motion-Past RelC-PastImpf-2Dual walk-Past far
 ngurrara-kari-rla yapa-kurlu-kurlu-wangu-rla kulkurru-kulkurru.”
 country-other-Loc 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

It is worth noting that manner wh-phrases appear associated with propositions in a number of little investigated constructions crosslinguistically. A few examples follow:

(381) *English*

Kim told me **how** she is doing well.³³

“Kim told me that she is doing well.”

(382) *Spanish*

a. A: (inaudible)

b. B: **Como** dices?

how say.2sg.Pres

“What did you say?”

(383) *French*³⁴

(Mon amie a arrete une autre femme qui s’en allait en leur direction, les a points et ...)

lui a dit **comment** elle avait reu un e-mail au boulot l’
3.DAT have said **how** she had received an email at.the work 3.ACC
avertissant que quelqu’un se presentait vous dans un centre d’achat
warning that someone 3.reflex introduced to you in a centre of shopping
ou un stationnement, en vous demandant de SENTIR UN PARFUM qu’ils
or a parking.lot in 2.ACC asking to smell a parfum that they
vendent pas cher.
sell not expensive

long way in another country where there were no people – all by yourselves.” (Warlpiri Dictionary Project 1993)

³³See Legate 2002b for discussion of this construction, where it is argued that the embedded clause is nominalized. Greek exhibits a similar use of “how” to introduce an embedded proposition, which differs from the English construction in that in the Greek case the embedded clause is not nominalized. The pattern in (382) is also replicated in Greek. I thank Sabine Iatridou for discussion, and for help with the Greek data.

“... told her how she had received an email at work warning her about someone introducing themselves to you in a shopping centre or parking lot and asking you to smell a perfume that they were selling inexpensively.”

(http://www.secuser.com/hoax/2001/parfum_ether.htm)

Also in Kiowa “what are you thinking?” is rendered as ‘how are you thinking?’ (Daniel Harbour, pc). Further research is needed on the use of manner phrases for propositions crosslinguistically.

To summarize, I have argued that a dependent clause associated with verbs of speaking may have a number of functions. It may be a relational adjunct, in which case the syntax is not specific to verbs of speaking, but rather is found with any matrix verb. More specific to verbs of speaking, the dependent clause may be a manner adjunct, reporting the manner in which the message was communicated, and thus may often reveal the content of the message. Alternatively, it may be an embedded clause, which undergoes obligatory extraposition. 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

Recall the form of the wh-scope marking construction in Warlpiri:

³⁴Thank you to Valentine Hacquard for assistance with the French data.

- (384) Nyarrpa-ngku yimi-ngarru-rnu Jakamarra-rlu kuja-ka nyarrpara-kurra
 how-2sgObj speech-tell-Past Jakamarra-Erg FactC-PresImpf where-to
 ya-ni Jampijinpa?
 leave-Npast Jampijinpa
 “Where did Jakamarra tell you Jampijinpa is going?” (Granites et al 1976)

Following the discussion of the syntax of verbs of speaking in the previous section, a natural analysis of the construction suggests itself.

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.

I also argued that the type of dependent clause found in this construction originates as the complement of the verb and obligatorily extraposes. The conflict is resolved on the version of the indirect dependency style analysis I proposed above. The clause 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.

This option for a wh-word to appear with or without an overt restriction is largely limited to *what* in English—*What did you read?* versus *What book did you read?*, however it is generally available in Warlpiri:

- (385) a. **Nyarrpara-ngurlu** ka-npa wapa **kirri-ngirli-ji**
where-EL PRES.IMPF-2SG be-NPAST **camp-EL-TOP**
 “What camp are you from?”
- b. **Nyiya karli** ka-pala paka-rni?
what boomerang Pres.Impf-3Dual chop-Npast
 “What (sort of) boomerang are they chopping?” (Warlpiri Dictionary Project 1993)

- c. **Ngana-ku** ka-npa-rla **ngarrka-ku** piirr-pardi-mi?
who-DAT PRES.IMPF-2SG-3DAT **man-DAT** wait.for-NPAST
 “Which man are you waiting for?” (anonymous AJL reviewer, pc)

Thus, the ability of *nyarrpa* to appear with an overt restriction is entirely expected. The meaning derived for (384) 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):

- (386) Nyarrpa-ngku Jangala-rlu yimi-ngarru-rnu yankirri-japa Japanangka-rlu
 how-2sg Jangala-Erg speech-tell-Past emu-whether.or.not Japanangka-Erg
 pantu-rnu?
 spear-Past
 “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:

- (387) **Maliki-rli**-ji yarlku-rnu **wiri-ngki**
dog-Erg-1sgObj bite-Past **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:

- (388) a. **Nyarrpara-ngurlu** ka-npa wapa **kirri-ngirli**-ji
where-El PresImpf-2sg be-Npast **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-Npast
 “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-Npast
 “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. The child has independent evidence that *nyarrpa* may be used as a quantifier over propositions, that wh-words may take restrictions, and that wh-words may be separated from their restrictions. This is sufficient to render the wh-scope marking construction grammatical.

Before concluding, I would like to address one remaining question. The restriction of most wh-words may appear in a number of syntactic positions; for example, it may form a constituent with the wh-word, (385b), it may appear in a neutral position, (388b), or it may appear in the post-verbal backgrounded position, (388a). The clausal restriction of *nyarrpa*, however, uniformly appears on the right periphery.³⁵ Fortunately, this is not unique to the wh-scope marking construction, but also follows from independent properties of the language. Recall that dependent finite clauses do not appear clause-internally in Warlpiri, for reasons that are yet unclear. Thus, relative clauses obligatorily extrapose, and so do the finite clauses that are merged as complements of matrix verbs of speaking. Therefore, it is expected that when the dependent finite clause is merged as the restriction of a wh-phrase, it will also undergo obligatory extraposition.

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

³⁵Thank you to Noam Chomsky for raising this issue.

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-word and the dependent clause form a constituent, the matrix wh-word undergoing wh-movement, and the dependent clause extraposing.

Chapter 5

Conclusion

This dissertation has attempted to demonstrate that Warlpiri, and by extension other non-configurational languages, should be analysed not through the lens of nonconfigurationality, but rather using standard mechanisms of configurational syntax. In chapter one I argued extensively against previous proposals of a nonconfigurational macroparameter. Chapter two and chapter three then began the task of analysing Warlpiri syntax configurationally, examining A and A'-syntax respectively. Much more such work remains to be done.

For now, I end this dissertation in the way of Warlpiri narratives:

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.

(Popeye Jangala, Lajamanu May 30, 1990)

References

- Alexiadou, A. & Anagnostopoulou, E. 1998. Parametrizing AGR: Word-order, V-movement and EPP checking". *Natural Language and Linguistic Theory* 16:491-539.
- Anagnostopoulou, E., H. Van Riemsdijk, and F. Zwarts, eds. 1997. *Materials on Left Dislocation*. (= *Linguistik Aktuell / Linguistics Today*, 14) Amsterdam: John Benjamins.
- Arregi, Karlos. 2001. "Person and Number Inflection in Basque." In P. Albizu & B. Fernández (eds.), *On Case and Agreement. Kasu eta komunztaduraren gainean*, 71-111. Euskal Herriko Unibertsitatea, Bilbo.
- Arregi, Karlos. to appear. "Clitic Left Dislocation is Contrastive Topicalization." In *Proceedings of the 26th Annual Penn Linguistics Colloquium, U. Penn Working Papers in Linguistics* 9.1.
- Arregui, Ana & Lisa Matthewson. 2001. "A Cross-linguistic Perspective on the Expression of Manner." *Proceedings of SALT XI*, Rachel Hastings, Brendan Jackson & Zsolia Zvolenszky (eds). Ithaca, NY: CLC Publications.
- Austin, Peter & Joan Bresnan. 1996. "Non-configurationality in Australian Aboriginal Languages". *Natural Language and Linguistic Theory* 14.2, 215-268.
- Baker, Mark. 1988a. "Theta Theory and the Syntax of Applicatives in Chiche^wa". *Natural Language and Linguistic Theory* 6, 353-389.

- Baker, Mark. 1988b. *Incorporation*. Chicago: University of Chicago Press.
- Baker, Mark. 1991. "On some subject/object non-asymmetries in Mohawk." *Natural Language and Linguistic Theory* 9:4, 537-575.
- Baker, Mark. 1996. *The Polysynthesis Parameter*. Oxford: Oxford University Press.
- Baker, Mark. 2001. "The Natures of Nonconfigurationality." In Mark Baltin & Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 407-438. Malden, MA: Blackwell Publishers.
- Beck, Sigrid. 1996. "Quantified structures as barriers for LF-movement." *Natural Language Semantics* 4:1-56.
- Beck, Sigrid & Stephen Berman. 2000. "Wh-Scope Marking: Direct vs Indirect Dependency. In Lutz U, G Mller and A von Stechow (eds.) *Wh-Scope Marking*. Amsterdam/Philadelphia: John Benjamins.
- Bittner, Maria & Kenneth Hale. 1995. "Remarks on definiteness in Warlpiri." In Emmon Bach, Eloise Jelinek, Angelika Kratzer & Barbara Partee (eds.), *Quantification in Natural Language*, 81-106. Dordrecht: Kluwer.
- Bittner, Maria & Kenneth Hale. 1996a. "The structural determination of case and agreement." *Linguistic Inquiry* 27:1, 1-68.
- Bittner, Maria & Kenneth Hale. 1996b. "Ergativity: towards a theory of a heterogeneous class." *Linguistic Inquiry* 27:4, 531-604.
- Bobaljik, Jonathan. 1993. "On Ergativity and Ergative Unergatives." In Colin Phillips (ed.), *Papers on Case and Agreement II, MIT Working Papers in Linguistics volume 19*, 45-88.
- Bonet, Eulalia. 1991. "Morphology after Syntax: Pronominal Clitics in Romance." MIT dissertation.

- Borer, Hagit & Yosef Grodzinsky, 1986. "Syntactic cliticization and lexical cliticization: The case of Hebrew dative clitics." In Hagit Borer (ed.), *Syntax and Semantics 19*, 175-217. New York: Academic Press.
- Breen, J. G. 1976. "Ergative, locative, and instrumental case inflections – Wangkumara." In R. M. Dixon (ed.), *Grammatical Categories in Australian Languages*, 336-339. Canberra: Australian Institute of Aboriginal Studies, and New Jersey: Humanities Press.
- Bresnan, Joan. 1973. "Syntax of the comparative clause construction in English." *Linguistic Inquiry* 4, 275-343.
- Bresnan, Joan. 1975. "Comparative deletion and constraints on transformations." *Linguistic Analysis* 1, 25-74.
- Bresnan, Joan. 1980. "Polyadicity: Part I of a Theory of Lexical Rules and Representations". *Lexical Grammar* ed. by T. Hoekstra, H. van der Hulst, and M. Moortgat. Dordrecht: Foris.
- Bresnan, Joan. 2000. *Lexical-Functional Syntax*. Basil: Blackwell.
- Bresnan, Joan & Lioba Moshi. 1990. "Object Asymmetries in Comparative Bantu Syntax". *Linguistic Inquiry* 21:2, 147-185.
- Büring, Daniel. 1997. *The Meaning of Topic and Focus – The 59th Street Bridge Accent*. London: Routledge.
- Ćavar, Damir & Gisbert Fanselow. 2000. "Discontinuous constituents in Slavic and Germanic Languages". Universitt Potsdam ms. Chomsky, Noam. 1980. "On Binding". *Linguistic Inquiry* 11:1, 1-46.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Foris Publications, Dordrecht.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.

- Chomsky, Noam. 1999. Derivation by Phase. In *MIT Occasional Papers in Linguistics 18*. Cambridge, MA: MITWPL.
- Chomsky, Noam. 2000. Minimalist Inquiries: The Framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, Martin, R. D. Michaels, and J. Uriagereka (eds.). Cambridge, Mass.: MIT Press.
- Cinque, Guglielmo. 1990. *Types of A-bar Dependencies*. Cambridge, Mass.: MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads*. Oxford: Oxford University Press.
- Dayal, V.S. 1994. "Scope Marking as Indirect Wh Dependency". *Natural Language Semantics* 2: 137-170.
- Cornilescu, Alexandra. 1999. "On Focusing and Wh-Movement in Romanian". Abstract accepted at the *Third Conference on Formal Approaches to South Slavic and Balkan Languages*. University of Plovdiv, Bulgaria.
- Dayal, V.S. 2000. "Scope-Marking: In Defence of Indirect Dependency". In Lutz U, G Mller and A von Stechow (eds.) *Wh-Scope Marking*. Amsterdam/Philadelphia: John Benjamins.
- Davies, William D. 1981. "Possessor Ascension in Choctaw," *Proceedings of the Eleventh Annual Meeting of the North Eastern Linguistic Society*, 38-57.
- Fanselow, Gisbert. to appear. "Features, Theta-roles, and free constituent order." *Linguistic Inquiry*.
- George, L. and J. Kornfilt. 1981. "Finiteness and Boundedness in Turkish". In F. Heny (ed) *Binding and Filtering*. Cambridge, MA: MIT Press.
- Giorgi, Alessandra & Fabio Pianesi. 1997. *Tense and Aspect: from Semantics to Morphosyntax*. New York: Oxford University Press.
- Guéron, Jacqueline. 1985. Inalienable possession, PRO-inclusion and lexical chains. In

- H.-G. Obehauer, Jean-Yves Pollock & Jacqueline Guéron (eds.), *Grammatical Representations*, 43-86. Dordrecht: Foris.
- Granites, Robin Japanangka, Kenneth L. Hale, & David Odling-Smee. 1976. "Survey of Warlpiri Grammar". MIT ms.
- Hale, Kenneth L. 1959. "WalpiRi field notes." Australian Institute of Aboriginal and Torres Strait Islander Studies MS 865 tape Nos A4540-6, A4589, Ngaliya A4599.
- Hale, Kenneth L. 1966-7. "WarlpiRi field notes." Australian Institute of Aboriginal and Torres Strait Islander Studies MS 3171 tape Nos A272-82, A429-32, A493-504, A523-34.
- Hale, Kenneth L. 1967. "Eastern Warlpiri. Stephen Simpson Japangardi. Warrabri." Australian Institute of Aboriginal and Torres Strait Islander Studies pMS 3211 tape No. A506b.
- Hale, Kenneth L. 1976. "The adjoined relative clause in Australia." In R. M. W. Dixon (ed), *Grammatical Categories in Australian Languages*, 78-105. Canberra: Australian Institute of Aboriginal Studies.
- Hale, Kenneth L. 1981. *On the position of Walbiri in a typology of the base*. Distributed by Indiana University Linguistics Club, Bloomington.
- Hale, Kenneth L. 1982. "Some essential features of Warlpiri main clauses". *Papers in Warlpiri grammar: in memory of Lothar Jagst* (= *Work Papers of SIL-AAB, Series A Volume 6.*) ed. by Stephen M. Swartz, 217-315. Berrimah, N.T.: SIL-AAB.
- Hale, Kenneth L. 1983. "Warlpiri and the grammar of non-configurational languages". *Natural Language and Linguistic Theory* 1.1:5-47.
- Hale, Kenneth L. 1994. "Core structures and adjunctions in Warlpiri syntax." In Novert Corver & Henk van Riemsdijk (eds), *Studies in Scrambling. Movement and Non-Movement Approaches to Free Word-Order Phenomena.*, 185-219. Hawthorne, NY:

Walter de Gruyter.

Hale, Kenneth L. & Samuel Jay Keyser. 1993. "On argument structure and the lexical expression of syntactic relations." In Kenneth L Hale & Samuel Jay Keyser (eds.), *The View from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, 53-109. Cambridge, MA: MIT Press.

Hale, Kenneth L, Mary Laughren, & Jane Simpson. 1995. "Warlpiri Syntax". *Syntax. Ein internationales Handbuch zeitgenössischer Forschung An International Handbook of Contemporary Research*, ed by Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld & Theo Vennemann, 1430-51. Berlin New York: Walter de Gruyter.

Halle, Morris & Alec Marantz. 1993. "Distributed Morphology and the Pieces of Inflection." In Kenneth Hale & S. Jay Keyser (eds.), *The View from Building 20*, 111-176. Cambridge, MA:MIT Press.

Halle, Morris & Alec Marantz. 1994. "Some Key Feature of Distributed Morphology." In Andrew Carnie & Heidi Harley (eds.), *MITWPL 21: Papers on phonology and morphology*, 275-288. Cambridge, MA:MITWPL.

Halpern, Aaron. 1995. *On the Placement and Morphology of Clitics*. Stanford, CA:CSLI Publications.

Heim, Irene & Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Blackwell.

Hornstein, Norbert. 2001. *Move! A Minimalist Theory of Construal*. Oxford: Blackwell.

Horvath, J. 1997. "The Status of 'Wh-Expletives' and the Partial Wh-Movement Construction of Hungarian". *Natural Language and Linguistic Theory* 15: 509-572.

Iatridou, Sabine. 1988. "Clitics, anaphors, and a problem of coindexation." *Linguistic Inquiry* 19:698-703.

- Iatridou, Sabine. 1995. "Clitics and Island Effects." *Penn Working Papers in Linguistics* Vol 2, 11-38.
- Jelinek, Eloise. 1984. "Empty categories, case, and configurationality". *Natural language and Linguistic Theory* 2, 39-76.
- Jelinek, Eloise. 1988. "The case split and pronominal arguments in Choctaw." In Lázló Marácz & Pieter Muysken (eds.), *Configurationality: the typology of asymmetries*. Dordrecht: Foris.
- Johns, Alana & Carolyn Smallwood. 1999. On (non)-finiteness in Inuktitut. *Toronto Working Papers in Linguistics* 17.
- Karttunen, L. 1977. "Syntax and Semantics of Questions." *Linguistics and Philosophy* 1: 3-44.
- Kiss, Katalin È. 1998. "Identificational focus versus information focus." *Language* 74:245-273.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck and Laurie Zaring (eds), *Phrase structure and the lexicon*, 109-137. Dordrecht: Kluwer.
- Krifka, Manfred. 1998. "Scope inversion under the rise-fall pattern in German". *Linguistic Inquiry* 29.1, 75-112.
- Lahiri, U. 2002. "On the proper treatment of "expletive wh" in Hindi. *Lingua* 112:7, 501-540.
- Landau, Idan. 1999. "Possessor Raising and the Structure of VP." *Lingua* 107:1-37.
- Lasnik, Howard & Tim Stowell. 1991. "Weakest Crossover." *Linguistic Inquiry* 22, 687-720.
- Laughren, Mary. 1984. "Some focus strategies in Warlpiri". Paper presented to the annual meeting of the *Australian Linguistics Society*, Alice Springs.

- Laughren, Mary. 1985. "Warlpiri reflexives, 'inherent' reflexives and grammatical relations". MIT ms.
- Laughren, Mary. 1989. "The configurationality parameter and Warlpiri". In Laci K Maracz & Pieter Muysken (eds), *Configurationality: the Typology of Asymmetries*, 319-353. Dordrecht: Foris.
- Laughren, Mary. 1991. "Grammatical Relations and Binding in Warlpiri." Paper presented at the annual meeting of the *Australian Linguistic Society*, University of Queensland, Australia.
- Laughren, Mary. 1991. "Some data on pronominal disjoint reference in Warlpiri". MIT ms.
- Laughren, Mary. 2001. "The Complex Genitive Construction in Northern Pama-Nyungan Languages." University of Queensland ms.
- Laughren, Mary. 2002. "Syntactic constraints in a 'free word order language". *Language Universals and Variation*, (= *Perspectives on Cognitive Science Series*) ed by Mengistu Amberber. Ablex Publishing Corp.
- Launey, Michel. 1981. *Introduction à la langue et à la littérature aztèques*. Paris: L'Harmattan.
- Lebeaux, David. 1995. "Where does Binding Theory Apply?" In *Maryland Working Papers in Linguistics*, Vol 3, 63-88. College Park, MD: University of Maryland.
- Lechner, Winfried. 1999. *Comparatives and DP-structure*. University of Massachusetts, Amherst dissertation.
- Legate, Julie Anne. 1996. Irish non-verbal predication: A reanalysis. *Toronto Working Papers in Linguistics* 15:1.
- Legate, Julie Anne. 1999. "Verb phrase types and the notion of a phase." MIT ms.
- Legate, Julie Anne. 2001. "Warlpiri Datives: A High Applicative, A Low Applicative,

and an "Applicative"". Paper presented at *Appl Fest: a workshop on the syntax and semantics of applicative constructions*, MIT.

Legate, Julie Anne. 2002a. "Non-Configurationality as a Microparametric Phenomenon." Talk given at Yale University.

Legate, Julie Anne. 2002b. "The Hows of Wh-Scope Marking in Warlpiri." Paper presented at *NELS 33*, MIT, Boston, MA.

Legate, Julie Anne. 2002c. "Split Absolute." Paper presented at the *Ergativity Workshop*, University of Toronto.

Legate, Julie Anne. 2003a. "Adjuncts and Arguments in Warlpiri." *Linguistics Colloquium Series*, New York University, and University of Connecticut.

Legate, Julie Anne. 2003b. "What and how in Warlpiri." *Linguistics Colloquium Series*, McGill University.

Legate, Julie Anne, to appear a. "Discontinuous Constituents and the Warlpiri Scope-Marking Construction". *Australian Journal of Linguistics*.

Legate, Julie Anne, to appear b. "The Configurational Structure of a Nonconfigurational Language" In Johan Rooryck and Pierre Pica (eds), *Linguistic Variation Yearbook*. Philadelphia: John Benjamins.

Legate, Julie Anne, to appear c. "Some interface properties of the phase." *Linguistic Inquiry*.

Levin, B. 1993. *English Verb Classes and Alternations*. Chicago: University of Chicago Press.

Lutz U, G Mller and A von Stechow (eds.) 2000. *Wh-Scope Marking*. Amsterdam/Philadelphia: John Benjamins.

Macswan, J. 1999. "The argument status of NPs in Southeast Puebla Nahuatl: Comments on the Polysynthesis Parameter." *Southwest Journal of Linguistics* 17:2, 101-114.

- Mahajan, Anoop. 1990. *The A/A-bar Distinction and Movement Theory*. MIT Dissertation.
- Marácz, László & Pieter Muysken. 1989. "Introduction". Marácz and Muysken 1989. 1-38.
- Marácz, László & Pieter Muysken, eds. 1989. *Configurationality: The typology of asymmetries*. Dordrecht: Foris.
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. Cambridge, MA:MIT Press.
- Marantz, Alec. 1991. "Case and Licensing." In Germán F. Westphal, Benjamin Ao, & Hee-Rahk Chae (eds.), *Proceedings of the Eighth Eastern States Conference on Linguistics*, 234-253.
- Marantz, Alec. 1993. "Implications of asymmetries in double object constructions". *Theoretical aspects of Bantu grammar* ed by Sam Mchombo, 113-150. Stanford: CSLI Publications.
- Massam, Diane & Carolyn Smallwood. 1997. "Essential Features of Predication in English and Niuean." *Proceedings of NELS27*, Amherst: GLSA.
- McDaniel, Dana. 1989. "Partial and multiple wh-movement". *Natural Language and Linguistic Theory* 7: 565-604.
- McDonald, M. & S. A. Wurm. 1979. *Basic materials in Wankumara (Galali): grammar, sentences and vocabulary*. Canberra: Pacific Linguistics.
- McGinnis, Martha. to appear. "Variation in the phase structure of applicatives". *Linguistic Variation Yearbook*.
- Miyagawa, S. 1997. "Against optional scrambling". *Linguistic Inquiry* 28, 1-26.
- Mohanan, K. P. 1983. Lexical and configurational structure. *The Linguistic Review* 3.2, 113-141.

- Murasugi, Kumiko G. 1992. *Crossing and Nested Paths: NP movement in accusative and ergative languages*. MIT Dissertation.
- Ndayiragije, Juvénal. 2000. "The Ergativity Parameter". *MIT Linguistics Colloquium*, November 3.
- Ortiz de Urbina, Jon. 1989. *Parameters in the Grammar of Basque – a GB approach to Basque syntax*. Dordrecht: Foris.
- Payne, John. 1980. "The Decay of Ergativity in Pamir Languages." *Lingua* 51: 147-186.
- Pesetsky, David. 1987. "Wh-in situ: Movement and Unselective Binding." In Eric J. Reuland & Alice G. B. ter Meulen (eds.), *The Representation of (In)definiteness*, 98-129. Cambridge, MA:MIT Press.
- Pesetsky, David. 1995. *Zero syntax: Experiencers and cascades*. Cambridge, MA: MIT Press.
- Pollock, Jean-Yves. 1989. "Verb movement, universal grammar, and the structure of IP". *Linguistic Inquiry* 20:3, 365-424.
- Puskas, Genoveva. 2000. *Word Order in Hungarian: the Syntax of A' positions*. (= *Linguistik Aktuell / Linguistics Today*, v. 33). Amsterdam / Philadelphia: John Benjamins.
- Pylkkänen, Liina. 2000. "What Applicative Heads Apply To." In Minnick, M., A. Williams and E. Kaiser (eds.), *Proceedings of the 24th Annual Penn Linguistics Colloquium, UPenn Working Papers in Linguistics, Volume 7.1*
- Pylkkänen, Liina. 2001. "Possessor Dative Constructions are Double Object Constructions." *MIT Appl Fest: a workshop on the syntax and semantics of applicative constructions*, MIT.
- Pylkkänen, Liina. 2002. *Introducing Arguments*. MIT dissertation.
- Quizar, R. & S. M. Knowles-Berry. 1988. "Ergativity in Cholan Languages." *IJAL* 54:73-95.

- Richards, Novin. 1997. *What moves where when in which language?*. MIT dissertation.
- Ruys, E.G. 2000. "Weak Crossover as a Scope Phenomenon." *Linguistic Inquiry* 31:3, 513-539.
- van Riemsdijk, Henk. 1989. "Movement and Regeneration". *Dialect Variation and the Theory of Grammar. Proceedings of the GLOW Workshop on Linguistic Theory and Dialect Variation*, ed. by P. Beninc, 105-136. Dordrecht: Foris.
- Ritter, Elizabeth & Heidi Harley. 1998. "Sorting out you, me and the rest of the world: A feature-geometric analysis of person and number." Paper presented at the *21st meeting of Generative Linguistics of the Old World*, Tilburg, the Netherlands.
- Rizzi, Luigi. 1997. "The Fine Structure of the Left Periphery". *Elements of Grammar* ed. by L. Haegeman. Dordrecht: Kluwer.
- Rodman, R. 1997. "On left dislocation". Anagnostopoulou, van Riemsdijk, and Zwarts 1997. 31-54.
- Rouveret, Alain & Jean-Roger Vergnaud. 1980. "Specifying reference to the subject." *Linguistic Inquiry* 11:97-202.
- Saito, Mamoru. 1989. "Scrambling as semantically vacuous A'-movement". *Alternative conceptions of phrase structure*, ed. by Mark R. Baltin and Anthony S. Kroch, 182-200. Chicago: University of Chicago Press.
- Saito, Mamoru. 1992. "Long distance scrambling in Japanese." *Journal of East Asian Linguistics* 1:69-118.
- Saito, Mamoru, and Hajime Hoji. 1983. "Weak crossover and move α in Japanese." *Natural Language and Linguistic Theory* 1, 245-259.
- Seidl, Amanda. 2000. *Minimal Indirect Reference: A theory of the syntax-phonology interface*. University of Pennsylvania dissertation.

- Shibatani, Masayoshi. 1990. *The Languages of Japan*. Cambridge: Cambridge University Press.
- Shibatani, Masayoshi. 1994. "An integrational approach to possessor raising, ethical datives, and adversative passives." *Proceedings of the Twentieth Annual Meeting of the Berkeley Linguistics Society*, 461-485.
- Shopen, Tim. 2001. "Explaining typological differences between languages: de facto topicalisation in English and Warlpiri". *Forty Years On: Ken Hale and Australian Languages*, ed. by Jane Simpson, David Nash, Mary Laughren, Peter Austin, and Barry Alpher, 187-197. Canberra: Pacific Linguistics.
- Simpson, Jane. 1991. *Warlpiri Morpho-Syntax. A Lexicalist Approach*. Dordrecht: Kluwer Academic Publishers.
- Swartz, Stephen M. 1988. "Pragmatic structure and word order in Warlpiri". *Papers in Australian Linguistics* 17, 151-66.
- Ura, Hiroyuki. 1996. *Multiple Feature Checking: A theory of grammatical function splitting*. MIT Dissertation.
- Ura, Hiroyuki. 2001. "Case." In Mark Baltin & Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 334-373. Malden, MA: Blackwell.
- Vergnaud, Jean-Roger & Marie-Louise Zubizarreta. 1992. "The definite determiner and the inalienable constructions in French and English". *Linguistic Inquiry* 23:595-652.
- Warlpiri Dictionary Project. 1993. "Warlpiri Dictionary". Ongoing work with numerous contributors. Machine-readable data files, deposited at ASED, AIATSIS.
- Watkins, Laurel J. 1984. *A Grammar of Kiowa*. Lincoln: University of Nebraska Press.
- Webelhuth, Gert. 1989. *Syntactic Saturation Phenomena and the Modern Germanic Languages*. University of Massachusetts dissertation.

- Woolford, Ellen. 2003. "Nominative Objects and Case Locality". To appear in *FASL 11*, Ann Arbor: Michigan Slavic Publications.
- Woolford, Ellen. 1999. "Ergative Agreement Systems." Paper presented at *Maryland Mayfest*, University of Maryland.
- Woolford, Ellen. 1997. "Four-way Case Systems: Ergative, Nominative, Objective, and Accusative." *Natural Language and Linguistic Theory* 15: 181-227.
- Yang, Charles D. 2002. *Knowledge and Learning in Natural Language*. Oxford: Oxford University Press.