Split Ergativity in Warlpiri*

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1 Introduction

This paper has two goals. The first is to provide a structural analysis of Warlpiri split ergativity, in lieu of an analysis based on nonconfigurationality as in Jelinek (1984). The second is to demonstrate that morphological absolutive case may mask distinct structural cases within a single language. Thus, I will argue that absolutive case on intransitive subjects in Warlpiri corresponds to structural nominative case, while absolutive case on transitive objects in Warlpiri corresponds to structural accusative case. The realization of both nominative and accusative as absolutive is argued to result from the status of the absolutive as a morphological default.

The paper is organized as follows. Section 2 introduces the split ergative pattern in Warlpiri. Section 3 demonstrates that the external subject position is occupied by the highest argument in the clause rather than by the absolutive. Section 4 argues that absolutive case in Warlpiri should be split into nominative case and accusative case. Section 5 considers the implications for nonconfigurational analyses of Warlpiri, and section 6 concludes.

*I would like to thank Noam Chomsky, the late Ken Hale, Irene Heim, Sabine Iatridou, Mary Laughren, Charles Yang, the audience at the *Ergativity Workshop* (University of Toronto, October 2002), and the audiences at the linguistic colloquia at New York University (2003), the University of Connecticut (2003), and McGill University (2003) for comments and discussion. Special thanks to Ken Hale, Helen Napurrurla Morton, Bess Nungarrayi Price, Theresa Napurrurla Ross, and Christine Nungarrayi Spencer for immeasurable help teaching me about the Warlpiri language. Glosses for examples from the Warlpiri Dictionary (Warlpiri Dictionary Project 1993) and examples from the Survey of Warlpiri Grammar (Granites et al 1976) are my own. To aid the reader, glosses in examples from other sources have been regularized. This work, which was largely completed during my time at MIT, was partially funded by a Ken Hale Fellowship for Linguistic Field Research.

2 Warlpiri Split Ergativity

Warlpiri exhibits a split ergative pattern whereby agreement clitics supplete according to a a nominative-accusative pattern, as in (1), whereas independent pronouns and DPs inflect according to an ergative-absolutive pattern, (2).

(1) a. Nya-ngu-**rna**-ngku
see-PAST-**1SG**-2SG.OBJ
"I saw you"

b. Parnka-ja-**rna**
run-PAST-**1SG**
"I am running"

c. Nya-ngu-npa-**ju**
see-PAST-2SG-**1SG.OBJ**
"You saw me"

(2) a. **Ngajulu-rlu**-rna-ngku nyuntu nya-ngu
1-ERG-1SG-2SG.OBJ 2.ABS see-NPAST
"I saw you"

b. **Ngaju**-rna parnka-ja
1.ABS-1SG run-PAST
"I ran"

c. Nyuntu-rlu-npa-ju **ngaju** nya-ngu
2-ERG-1SG-2SG.OBJ 1.ABS see-NPAST
"You saw me"

This pattern is taken by Jelinek (1984) as a reflection of the nonconfigurational structure of Warlpiri whereby, according to her analysis, the agreement clitics function as the arguments of the verb, while the overt DPs are sentential adjuncts related to the clitics by language-specific case-compatibility rules.

In this paper, I provide a configurational analysis of the Warlpiri split-ergative pattern. 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, Dixon 1994, Mahajan 1994, Bittner & Hale 1996a,b, among others), as is the crosslinguistic variation shown by ergative languages. Here, I limit myself to consideration of the Warlpiri case, an instance of morphological ergativity; however, the analysis proposed has implications for other ergative languages (see Legate, in preparation).

To begin, I examine the nature of the external subject position in Warlpiri.

3 The External Subject Position

A controversial and crucial question when considering ergative case systems is whether the ergative or the absolutive functions as the subject.[1] We take the now-standard approach in assuming that the answer differs from language to language; that is, there is does not exist a single model of ergativity applicable to all ergative case systems. Furthermore, we take subjecthood to consist of two distinct notions–(i) an underlying or thematic subject, to be identified with the DP generated in the specifier of vP and receiving the external theta-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 we will refer to as the specifier of TP (see for example McCloskey 1997 for discussion). It has indeed been proposed (noteably in Marantz 1984) that ergative case systems differ from nominative 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 languages is not provided for by universal grammar, noting when appropriate data from Warlpiri that argue against this type of "deep ergative" 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

[1]The issue is in fact broader, arising for non-nominative subject constructions in general; see for example Sigurdsson 2002, and references therein.

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, rather than the absolutive subject.

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:

(3) 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. (Legate 2002)

It is important to realized 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 ftn 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 (see below for discussion of the switch reference system); (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):

(4) 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 (3) 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:[2]

(5) 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$_i$." (Legate 2002)

In (5a), the overt R-expression is marked with ergative case, as the thematic subject; whereas in (5b) the overt R-expression is in the (unmarked) absolutive case, as the transitive object. The grammaticality of (5a) as opposed to the ungrammaticality of (5b), then, may be explained in terms of Condition C. In (5a), 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 (5b), on the other hand, the absolutive 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.[3]

One additional point about (5b) should be mentioned. Consider the alternative analysis whereby the absolutive is generated in object position and then raises to the grammatical subject position. In its merged position within the verb phrase, the absolutive R-expression is c-commanded by the coreferent pronominal thematic subject. Could this be the source of the Condition C violation in (5b)? 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:

[2] The reflexive/reciprocal agreement clitic *-nyanu* is used in (5b) 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, (5b) 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 (4b) above.

[3] Note that in (5b) the ergative *pro* is pronominal rather than anaphoric, as indicated by the 3rd dual subject agreement *-pala* rather than the reflexive/reciprocal agreement *-nyanu*. Therefore Condition A is not implicated. See (3b) and footnote 2.

(6) 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, the ungrammaticality of (5b) cannot be explained by the existence of a configuration before A-movement that would violate Condition C. Rather, (5b) 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 absolutive subject of an intransitive pattern together on tests of grammatical subjecthood, to the exclusion of absolutive objects. Furthermore, I will demonstrate that this is equally true of intransitive absolutive subjects that, on thematic and crosslinguistic grounds, are plausibly generated as the object of an (unaccusative) intransitive predicate.

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

(7) a. *Ergative Subject*
Nya-ngu-**rna**-ngku
see-PAST-**1SG**-2SGOBJ
"I saw you"

b. *Absolutive Subject of Unergative*
Parnka-ja-**rna**
run-PAST-**1SG**
"I ran"

c. *Absolutive Subject of Unaccusative*
Mata-jarri-ja-lku nganta-**rna**
tired-INCH-PAST-NOW supposedly-**1SG**
"I seem to be tired" (Warlpiri Dictionary Project 1993)

d. *Object*
Nya-ngu-npa-**ju**
see-PAST-2SG-**1SGOBJ**
"You saw me"

Second, ergative and absolutive subjects are treated as a natural class for switch reference morphology. Thus, 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,[4] *-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:

(8) 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$_i$
man-3DAT away-go-PAST woman-DAT$_i$ [PRO$_i$
jarda-nguna-nja-**rlarni**]
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 *-kurra* is used for control by a matrix ergative subject, or absolutive subject of an unergative verb, as illustrated in (9).

(9) a. *Ergative Subject*

[4]For 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 wurna-rlangu yinga-lu ya-ni
or go-NPAST that.one travel-ALSO REL.C-3PL
munga-puru-**rlarni-karra**-ju.
night-during-**OBV.C-while**-TOP
"Or like when people travel to another place while it's still dark."

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

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. *Absolutive Subject of Unergative*

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.

(10) *Absolutive Subject of Unaccusative*

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 (11):

(11) a. *Clausal pro-form*

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

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

b. *Object of elided nonfinite verb*

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. *Temporal adjunct*

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 (12), where the interpretation involving control of the object is impossible.

(12) Ngana-kurra-npa 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$_i$ you see Jakamarra's dog$_j$ PRO$_j$ t_i biting
NOT: "Who did you see Jakamarra's dog being bitten by?"
= who$_i$ you see Jakamarra's dog$_j$ t_i PRO$_j$ biting

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

(13) a. *Ergative Subject*

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

"You others surround it so I can spear him while (he's) still drinking the water."

b. *Absolutive Subject of Unergative*

Luurnpa-jarra-lpa-pala-rla ngarlarri-ja kalwa-ku
kingfisher-DUAL-PASTIMPF-3DUAL-3DAT laugh-PAST heron-DAT
wirntinja-kurra-ku.
dance-INFIN-OBJC-DAT

"The two kingfishers laughed at the heron while (the latter was) dancing."

c. *Absolutive Subject of Unaccusative*

Yapa-kari ka-rla yapa-ku yaarlpa-nyina
person-other PRESIMPF person-DAT on.top-sit.NPAST
kankarla-rni-nginti – miyalu-rla marda, pawiyi-rla marda –
above-HITHER-side belly-LOC maybe back-LOC maybe
nguna-nja-kurra-ku.
lie-INFIN-OBJC-DAT

"Another person sits on top of someone – either on the belly, or on the back – as (he is) lying down." (Warlpiri Dictionary Project 1993)

To summarize, we have seen that the ergative thematic subject behaves as though it asymmetrically c-commands the absolutive object for Condition A and Condition C, indicating that the absolutive object does not raise over the ergative thematic subject to the specifier of TP. We have also seen that ergative and absolutive subjects are treated as a natural class for agreement, switch reference morphology, and control, to the exclusion of the absolutive object. These data are naturally accounted for if the grammatical subject position in the specifier of TP in Warlpiri hosts the highest argument, be it ergative or absolutive.

As discussed above, this result, important independently, also impacts on the source of absolutive case in Warlpiri. Thus, the data discussed to this point is compatible with an analysis whereby absolutive case in Warlpiri is licensed by finite T; however, only if this licensing relationship is not accomplished through (or accompanied by) movement of the absolutive to the specifier of TP. In the following section, I examine the issue of case source in Warlpiri in detail.

4 Split Absolutive

In this section, I examine the source of absolutive case licensing in Warlpiri split ergativity, and argue for a distinction between absolutive case borne by intransitive subjects and absolutive case 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 the alternative whereby absolutive case is uniformly licensed by a high functional head, be it finite T (see *inter alia* Murasugi 1992, Bittner 1994, Ura 2001) or C (see *inter alia* Bittner & Hale 1996a,b). 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.

(14) a. Nungarrayi-rli
Nungarrayi-ERG

b. Nungarrayi-ki
Nungarrayi-DAT

c. Nungarrayi-rla
Nungarrayi-LOC

d. Nungarrayi-kirra
Nungarrayi-ALL

e. Nungarrayi-ngirli
Nungarrayi-EL

f. Nungarrayi-rlajinta
Nungarrayi-COMIT

g. Nungarrayi
Nungarray(ABS)

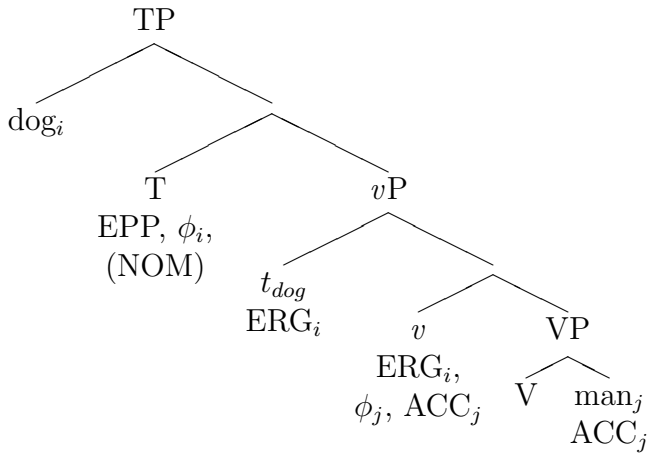
Thus, whereas all other cases are morphologically represented as a suffix, the absolutive consists solely of the bare stem. It is important to note that my claim is that the absolutive in Warlpiri is the *morphological* default, used when no suffix expressing the specific case is available, as distinct from the *syntactic* default case, assigned when no appropriate syntactic case licenser is available.[5] 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). Arguments from the Warlpiri data for this position and against alternative conceptions of ergative case licensing are noted when appropriate.

[5]Indeed, I do not have clear data bearing on the issue of the default syntactic case in Warlpiri.

To exemplify how this case licensing system works, and its interaction with agreement, consider the derivation of a transitive sentence.[6]

(15) 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 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 umarked 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:

[6]The tree in (15) ignores irrelevant details, including the head-final nature of the Warlpiri verb phrase. The tree also assumes that Warlpiri has a hierarchical verb phrase; see Legate 2002 for supporting evidence.

(16) a. v_{TRANS}:
-assigns a θ-role to the external argument
-assigns inherent ergative case to the external argument
-licenses structural accusative case
-has unvalued ϕ-features
-combines with a transitive verb

b. $v_{INTRANS}$:
-assigns a θ-role to the external argument
-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.

4.1 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, indicating that both the functional categories above the verb phrase to which scrambled phrases adjoin, and the functional projections in the left periphery which host elements based on their discourse status are absent (see Legate 2002, 2003a,b for arguments that Warlpiri word order is determined by scrambling and discourse-motivated movement to the left periphery). This observation again supports the status of nonfinite clauses as gerunds rather than nonfinite TPs.

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

(17) a. Kurdu-lpa manyu-karri-ja, [ngati-nyanu-rlu
child-PASTIMPF play-stand-PAST [mother-POSS-ERG
karla-nja-rlarni.]
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:

(18) 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).[7] Instead, intransitive subjects must bear dative case:

(19) 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:

(20) 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 only marginally available, if at all (see footnote 7), 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 absolutive case is licensed in nonfinite clauses for transitive objects

[7] 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.

but not for intransitive subjects. Second, this pattern of data demonstrates that the source of absolutive case on intransitive subjects is dependent on finiteness, or at minimum dependent on a functional head above the verb phrase; the source of absolutive 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 absolutive case on the intransitive subject is nominative case, whereas absolutive case on the transitive object is accusative case. On the alternative whereby absolutive 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. Absolutive 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 absolutive 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.[8]

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

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

4.2 Person-based Split

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

(21) Ngaju ka-rna yankirri nya-nyi.
I(ABS) PRESIMPF-1SG emu(ABS) see-NPAST

[8] A question remains: why is ergative case licensing optional in nonfinite clauses, alternating with dative case? Further research into the structure of nonfinite clauses in Warlpiri is needed.

"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 (21), 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.[9]

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

On an alternative analysis, whereby absolutive case is uniformly nominative case licensed by finite T (or C), the innovation must involve more than simply the loss of ergative case assignment to *ngaju/nyuntu*. In addition, and concomitantly, the higher functional projection that licenses absolutive case, finite T or C, must become able to license two occurrences of absolutive case, and this only when the thematic subject is *ngaju* or *nyuntu* and the lexical verb is transitive.[10]

I conclude that the innovation is more plausibly explained on the present split absolutive analysis.

4.3 Dative Objects

In this section, I focus on the source of absolutive case on the transitive object. A clear feature 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 4.1 supported this

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

[10] Transitivity 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 Legate 2002 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.

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 (22).

(22) *nyurlami* "knead", *purami* "follow", *purrami* "burn", *turlkami* "pinch", *ki-jirni* "throw", *mardarni* "hold", *parntarni* "withdraw from fire", *pakarni* "hit", *wardirni* "straighten", *yilyiwirrpirrni* "slurp up", *yurrparni* "grind", ...

However, a class of verbs in Warlpiri select for a dative object; examples of such verbs are provided in (23).[11]

(23) *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-yarntarlu-nyanyi* "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:[12]

(24) 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
"I'll go and look for the child while he's walking around in the cave." (Simpson 1991:327)

[11]Note that this 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)

[12]A typo from Simpson (1991) in the segmentation and gloss of the verb *warrirninjini* has been corrected in (24); thank you to Mary Laughren, pc, for the corrected version.

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

(25) $v_{TRANS-DAT}$:
-assigns a θ-role to the external argument
-assigns inherent ergative case to the external argument
-licenses structural dative case
-has unvalued ϕ-features
-combines with a transitive verb from the class exemplified in (23)

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.

4.4 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 compelling 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 discuss the implications of the analysis of Warlpiri split ergativity developed in this paper to the issue of nonconfigurationality.

5 Implications for a Nonconfigurational Analysis

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, the previous nonconfigurational analysis of Warlpiri split ergativity, Jelinek (1984), can be shown to be inadequate. 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:[13]

(26) *Case Compatibility Rules (Jelinek 1984:53)*

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).

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 (26). 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 case and overt DPs interpreted as the object appear

[13] 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*

a. -rla $\leftrightarrow$ 3sg dative

b. -$\emptyset$ $\leftrightarrow$ 3 sg

c. -ju $\leftrightarrow$ 1sg

d. -ngku $\leftrightarrow$ 2sg

e. ...

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:

(27) 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.[14]

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

(28) 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:

(29) NOM[15] is compatible with DAT in a nonfinite intransitive sentence, and with ERG or DAT in a nonfinite transitive sentence.

[14]See Legate 2002, 2003a,b for configurational analyses of the core nonconfigurational properties of Warlpiri.

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. This is particularly true if the associated clitic remains nominative (but see footnote 15). Second, there is no explanation for why the case patterns would change in this manner, i.e. why the 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 though 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. This is despite the fact that Jelinek intended her analysis to rule out out a language with ergative-absolutive case marking on arguments and nominative-accusative case marking on adjuncts, in other words, nominative-accusative case marking and ergative-absolutive agreement. Such a pattern appears unattested crosslinguistically:

> 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)

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:

(30) 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.

[15] 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.

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 13, 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.[16] Therefore, in a system with nominative-accusative case 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.

I conclude that the case-agreement patterns in Warlpiri split ergativity are most appropriately analysed in a configurational rather than nonconfigurational structure.[17]

6 Conclusions

In this paper I have argued for a structural analysis of Warlpiri split ergative case-agreement patterns. 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 nominative case (on intransitive subjects), and structural

[16]This 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.

[17]Notice 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. Arguments against such a nonconfigurational analysis of Warlpiri are provided in Legate 2002.

accusative case (on transitive objects). Finally, I showed how the proposed analysis compares favourably to the nonconfigurational approach of Jelinek (1984). Further research is required to determine the placement of Warlpiri within the typology of ergative languages.

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