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## Types of ergativity

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### ABSTRACT

This paper makes two main contributions to our understanding of ergativity. First, it supports the claim that ergative is an inherent case, through a study of the Warlpiri lexicon: no ergative-marked subjects are derived, in accordance with Marantz' Generalization. Second, it reanalyses syntactic ergativity in Dyirbal. It demonstrates that the language underlyingly has an ergative–nominative–accusative case system, with imperfect morphological realization of these cases. It further shows that syntactic ergativity in Dyirbal is not sensitive to the absolutive, but rather underlying nominative and accusative, regardless of morphological realization.

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## 1. Introduction<sup>1</sup>

In Legate (2008a)<sup>2</sup> I motivate an approach to ergativity in a typologically diverse range of languages that exploits the dissociation between syntactically assigned case and the morphological case that realizes it (see Vergnaud, 1977/2008 and subsequent work). Specifically, I propose that while the traditional equation of absolutive case with nominative is appropriate for certain ergative languages, for many others absolutive is in fact a morphological default inserted for syntactically assigned nominative on the intransitive subject (S) and syntactically assigned accusative on the transitive object (O).<sup>3</sup> I demonstrate that this analysis of the absolutive accounts for a cluster of properties of ergative–absolutive languages (see Legate (2008a) for examples and discussion):

- (1) a. ABS = NOM & ACC: lacks NOM & ACC morphology  
       ABS = NOM: may have independent ACC morphology  
       b. ABS = NOM & ACC: caseless DPs (e.g. hanging topics) bear ABS  
       ABS = NOM: (no prediction)

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<sup>1</sup> The following glosses are used: ABS, absolutive; ACC, accusative; ANAPH, anaphoric; APASS, antipassive; APPL, applicative; C, complementizer; DAT, dative; DECL, declarative; EL, elative; ERG, ergative; FUT, future; IMPER, imperative; IMPF, imperfective; INCL, inclusive; INFIN, infinitive; LOC, locative; N, non; NC, noun class; NEG, negative; NOM, nominative; OBJ, object; PL, plural; POSS, possessive; PRES, present; PREV, preverb; Q, question; REL, relational (Warlpiri examples); REL, relative (Dyirbal examples); SG, singular; SUBJ, subject; TOP, topic; WIT, witnessed.

<sup>2</sup> See also Legate (2002, 2006).

<sup>3</sup> See also Goddard (1982), as well as Aldridge (2004) for a related approach to several Austronesian languages.

- c. ABS = NOM & ACC: if nonfinite allow for only a subset of cases, ABS is unavailable for S but available for O  
ABS = NOM: if nonfinite allow for only a subset of cases, ABS is unavailable for both S and O
- d. ABS = NOM & ACC: multiple absolutes are possible (e.g. indirect/applicative/adpositional objects)  
ABS = NOM: absolute is unique
- e. ABS = NOM & ACC: A/S agreement, or S agreement  
ABS = NOM: S/O agreement

In addition, this approach allows ergative constructions to be assimilated to other non-nominative subject constructions, which also bifurcate into those that show nominative objects (e.g. in Icelandic and Russian) and those that show accusative objects (e.g. in Faroese and Tamil). Finally, this approach allows for three distinct cases – ergative on A, nominative on S, and accusative on O – which three-way systems like that in Wangkumara (Breen, 1976) demonstrate are necessary.

As for ergative on the transitive subject (A), I treat this as an inherent case assigned by the functional head that assigns the external  $\theta$ -role, which I refer to as  $\nu$  (although this head is sometimes also referred to as Voice).<sup>4</sup> Other proponents of inherent ergative case include Anand and Nevins (2006), Butt (1995), Laka (2006), Massam (2002), Mohanan (1994), Nash (1996), Woolford (1997, 2006). As with nominative and accusative cases, ergative case may fail to be faithfully realized in the morphology, yielding apparent nominative–accusative or core-oblique patterns within an otherwise ergative–absolute system. I demonstrate that this provides a simple analysis of person-based split ergativity, which both accounts for the dependency of the case marking on the lexical item being marked, and allows for the complexities of the attested patterns.<sup>5</sup>

This paper takes this approach as its starting point. In this section, I discuss the notion of ergative as an inherent case, first clarifying and correcting misconceptions regarding the predictions of this approach, and providing new support for it through a study of the Warlpiri lexicon. In section 2, I discuss the notion of absolute as nominative and accusative, illustrating that apparent syntactic ergativity in Dyirbal is in fact syntactic sensitivity to the nominative and the accusative; I outline possible approaches to this phenomenon.

## 2. Inherent ergative

In this section, I provide additional data and argumentation supporting the analysis of ergative as an inherent case. I reconsider the generalization (due to Marantz, 1991) that ergative does not appear on derived subjects, and examine the role of higher functional projections in the appearance of ergative case. Throughout, I adopt Woolford's (2006:12) characterization of inherent case as "Case inherently associated with certain  $\theta$  positions" and typically assigned by a  $\nu$  head to the DP base-generated in its specifier. Thus, I take the primary distinction between inherent and structural case to be the distinction in assignment mechanisms: inherent case is assigned to a DP in its  $\theta$ -position, while structural case is assigned to a DP based on closest c-command by the assigning head (i.e. Chomsky's, 2000 Agree operation).

### 2.1. Ergative case and $\theta$ -roles

Before proceeding to the heart of our study, I must first mention an oft-repeated argument against ergative as an inherent case. It is claimed that ergative cannot be inherent since it is insufficiently linked to the agent  $\theta$ -role.<sup>6</sup> This argument takes two different forms. On the one hand, the common transitivity restriction on ergative case (only transitive subjects bear ergative case, not intransitive) is raised as problematic, as it entails that intransitive agents are not marked ergative.<sup>7</sup> This argument was already rebutted in Woolford (1997), which showed that other inherent cases (notably dative) may also exhibit a transitivity restriction, thus demonstrating that transitivity restrictions are not incompatible with the status of a case as inherent. It remains an interesting issue how best to encode such restrictions in the grammar; however, the restriction should not be taken as an argument against ergative as an inherent case. On the other hand, the possibility in many languages for ergatives bearing causative, instrumental, or experiencer  $\theta$ -roles is raised as a difficulty for the inherent case analysis. The following illustrate an ergative causer in Tsez, an ergative instrument in Basque, and an ergative experiencer in Chukchi:

- (2) a. Tsez  
aħ-ā meši b-esu-r-si  
shepherd-ERG calf.ABS III-find-Cause-PastWIT  
'The shepherd found the calf (by looking for it)'  
Lit: The shepherd caused the calf to show up.

<sup>4</sup> In this paper, I assume that the notion of "ergative" as used in various language families has a common analysable core. If it were revealed that what has been called "ergative" in a particular language does not share this core, I would take this to indicate that the relevant case had been mislabelled. This approach simply allows for the delimitation of a single phenomenon of investigation.

<sup>5</sup> Unlike alternative approaches, see e.g. Garrett (1990), Kiparsky (2008), Carnie (2005), Alexiadou and Anagnostopoulou (2006), Aissen (2003).

<sup>6</sup> See, for example, Comrie (1978), Plank (1979), Davison (2004), Bobaljik and Branigan (2006), Otsuka (2006).

<sup>7</sup> For some researchers, this transitivity restriction is considered definitional in the identification of ergative case. On my approach, an inherent case in a split-S language assigned to the external argument regardless of transitivity would also be considered ergative.

- b. cf: meši b-esu-s  
calf.ABS III-find-PastWIT  
'The calf turned up' (Comrie, 2001:65)
- c. Basque  
Giltza-k atea ireki zuen.  
key-ERG door.NOM open AUX  
'The key opened the door.' (Uriagereka n.d.:(30b), cited in Woolford, 2006:124)
- d. Chukchi  
ətłəy-e pičyə-pič korɣ-o ɬəŋ-ərkən-en  
father-ERG food-ABS.sg delight aux-Prog-3sg > 3sg  
'Father is happy about the food' (Nedjalkov, 1976:194, cited in Bobaljik and Branigan, 2006)

However, such examples only illustrate that ergative (in the relevant languages) is not tied to the agent  $\theta$ -role in particular.<sup>8</sup> Rather, external  $\theta$ -roles are treated as a natural class for case assignment – an unremarkable state of affairs. Recalling that  $\theta$ -roles are syntactic constructs which gloss over finer-grained semantic distinctions in thematic relations, we should conclude from such patterns that the relevant relation for ergative assignment in many languages is more coarse-grained still, perhaps along the lines envisioned by Baker (1997) (who argued that in general only three roles are required syntactically). In this vein, note also the recent use of *initiator* as a more inclusive  $\theta$ -role to abstract away from distinctions among  $\theta$ -roles assigned to external arguments (Ramchand, 2008, inter alia). Or, from a slightly different perspective, following Hale and Keyser's (2002) reduction of  $\theta$ -roles to structural configurations, we may conclude that the various flavours of  $\nu$  that introduce the external argument share the ergative-case assigning feature. Again, this does not undermine the inherent case analysis of ergative case (see also Woolford, 2006).

Turning to the heart of the matter, I note that an important assumption of the discussion to this point is that ergative only appears on those surface subjects that are also thematic subjects, that is to say that Marantz's (1991) *Ergative Case Generalization* holds:

- (3) Ergative case generalization: Even when ergative case may go on the subject of an intransitive clause, ergative case will not appear on a derived subject. (Marantz, 1991:236)

The reference to the subject of an intransitive clause is to circumvent the confound of the transitivity restriction: in general, transitive verbs have a thematic subject that becomes the surface subject, making it impossible to test whether a derived subject could bear ergative case. An additional way around the confound would be a two-argument verb in which both arguments are internal, for example, the passive of a double object verb, or the applicative of a unaccusative verb. If the Ergative Case Generalization holds, the subject of such verbs would not bear ergative case, despite the presence of two DP arguments. Importantly, if the Ergative Case Generalization holds, it constitutes a powerful argument for the inherent analysis of ergative case – since this analysis predicts the generalization to hold. Ergative is assigned by  $\nu$  to thematic subjects, and thus should not appear on derived subjects. Non-inherent analyses do not make this prediction without additional stipulation, since ergative case is triggered simply by the number of arguments that require licensing. For example, Murasugi, 1992 proposes that in an ergative language, AgrS is activated only when there are two arguments which require licensing. In an intransitive clause, the subject receives accusative (i.e. absolutive) case from AgrO, while in a transitive clause, the subject receives nominative (i.e. ergative) case from AgrS, while the object receives accusative (i.e. absolutive) case from AgrO. No distinction between thematic and derived subjects is predicted. Bittner and Hale (1996a,b) tie ergative case to the presence of a "case competitor": I assigns ergative case to the subject in the presence of a distinct nominal that does not bear inherent case<sup>9</sup>; the thematic status of the subject is again irrelevant. Bobaljik and Branigan (2006) propose that T licenses both the subject and the object in an ergative language. When T licenses only a single argument, absolutive case results; however, when T licenses two arguments, the first one is marked ergative and the second one absolutive. Again, no distinction between thematic and derived subjects is predicted.<sup>10</sup> The validity of the generalization would therefore serve as an argument for the inherent case analysis.

The generalization has been generally assumed to hold since Marantz's formulation, and certainly there are examples conforming to it. Consider, for example, instrumental applicatives in Niuean; Massam (2006) provides the following example, in which the subject is *vaka* 'canoe', the verb is marked by the instrumental applicative morpheme *aki* 'with', and the applicative object is *tau lauakau* 'leaves'. Crucially, as Massam points out, despite the presence of two DP arguments, the subject is marked absolutive rather than ergative, because the subject receives an internal  $\theta$ -role:

<sup>8</sup> Although ergative may be tied to the agent  $\theta$ -role for example in those split-S languages in which agentivity is the primary determinant of subject case marking. See Mithun (1991) for various determinants of subject case marking in split-S languages.

<sup>9</sup> This is a simplification, but one that preserves the core properties of the system. More accurately, they state that a DP bearing structural ergative case is dominated by a KP (KasePhrase) that is empty and will violate the ECP if not antecedent governed at S-structure. In order to be antecedent governed, the KP is case-bound by I, i.e. I locally c-commands the KP and also governs a case competitor. I return to the notion of case competitor below.

<sup>10</sup> Indeed, despite being the source of the generalization, Marantz (1991) does not predict the generalization to hold. See Legate (2008a) for discussion.

- (4) Ne faka-kofu aki e vaka e tau lauakau  
 Past cause-cover with ABS canoe ABS Pl leaves  
 'The canoe is covered with leaves.' (Massam, 2006:35)

However, the argument structure for testing the generalization is infrequent enough that uncertainty remains. To add to our knowledge in this domain, I investigate the validity of the generalization for Warlpiri. Warlpiri provides a particularly fertile testing ground due to the behaviour of dative objects in the language. Part of the difficulty in testing the Ergative Case Generalization is that in many languages the needed second DP bears dative case, making it difficult to interpret the data: if a derived subject does not bear ergative case, is it due to the Ergative Case Generalization, or is it because the dative DP fails to satisfy the transitivity restriction? This difficulty is avoided in Warlpiri, since the language allows two-argument verbs with an ergative-dative case frame, indicating that a dative DP can satisfy the transitivity restriction. However, the language also exhibits verbs with an absolutive-dative case frame. For some of these, the dative does not pattern as an object and thus ergative on the subject is not predicted on any account<sup>11</sup>; for some absolutive-dative verbs, though, the dative does pattern as an object. A well-established test for objecthood in Warlpiri is in the selection of suffixes on nonfinite clauses (typically referred to as complementizers) (see Hale, 1983; Simpson and Bresnan, 1983): control by the matrix subject triggers *-karra*, by the matrix object triggers *-kurra*, and control by an adjunct or lack of control triggers *-rlarni*. Simpson and Bresnan (1983) demonstrate that control by dative DPs trigger the object control complementizer, both with ergative and with absolutive subjects:

- (5) a. ERG-DAT  
 Ngarrka-ngku-rla-jinta marlu-ku pantu-rnu, [marna nga-rninja-kurra(-ku)].  
 man-ERG-3DAT-DAT kangaroo-DAT spear-PAST, grass-ABS eat-*INFIN-C*-(DAT)  
 'The man speared at the kangaroo eating grass.' (Simpson and Bresnan, 1983:54)
- b. ABS-DAT  
 Karnta ka-rla wangka-mi ngarrka-ku [jarnti-rninja-kurra(-ku)].  
 woman-ABS *PRESIMPF*-3DAT speak-*NPAST* man-DAT trim-*INFIN-C*-(DAT)  
 'The woman is speaking to the man trimming it.' (Simpson and Bresnan, 1983:54)

Thus, I investigated ergative-dative and absolutive-dative verbs in Warlpiri to determine to what extent the thematic status of the subject plays a role in the case marking. Specifically, Marantz's Ergative Case Generalization predicts that derived subjects should not appear with ergative-dative verbs, but may with absolutive-dative verbs.<sup>12</sup> I used the Warlpiri dictionary (Laughren et al., 2007) as the primary source of verbs and examples of their use, and supplemented this with material from Swartz's (1996) Warlpiri-English dictionary. I examined 192 verbs,<sup>13</sup> of which 65 followed the ergative-dative pattern and 127 the absolutive-dative.

A number of findings emerged from this collection. First, for 61 out of 65 of the ERG-DAT verbs, the ergative is clearly agentive or causative. Typical examples follow:

- (6) a. *jinkami* 'support, help to walk'  
 Ngati-nyanu-rlu ka-rla kurdu-ku nyanungu-nyangu-ku warru jinka-mi.  
 mother-Anaph-ERG *PresImpf*-3Dat child-DAT 3-Poss-DAT around help.to.walk-*NPast*  
 'The mother is propping up her child as he walks around.'
- b. *punun-ngarrirni* 'advise'  
 Wati-ngki ka-rla punpun-ngarri-rni kurdu-ku, yinga ngurrju nyina-mi.  
 man-ERG *PresImpf*-3Dat advice-tell-*NPast* child-DAT *RelC* good sit-*NPast*  
 'The man is advising the child to be good.'

<sup>11</sup> For example, datives introduced by preverbs like *jurnta* 'away' pattern as adjuncts in triggering the *rlarni* complementizer (see discussion of complementizer selection in the text immediately below)

(i) Wati-rla jurnta-ya-nu karnta-ku [jarda-nguna-nja-rlarni].  
 man-3Dat away-go-Past woman-Dat [sleep-lie-*Inf*-C]  
 'The man went away from the woman while she was sleeping.' (Hale et al., 1995:1442)

For discussion of these, see e.g. Simpson (1991).

<sup>12</sup> Absent independent tests for derived vs. thematic subjects in the language, I relied on thematic role.

<sup>13</sup> Note that there is some difficulty in determining what counts as a verb in Warlpiri. The language exhibits a large number of preverb + verb combinations, whereby a semantically contentful preverb combines with a lexical verb; these combinations vary in productivity and semantic transparency (see Nash, 1982). Any preverb-verb combinations listed in the dictionary (Laughren et al., 1997) were included. In addition, Warlpiri has a construction whereby an absolutive patient is realized in the dative to express the meaning of unattained goal (cf. English *hit the ball* versus *hit at the ball*). Again, only those verbs with dative objects listed in the dictionary were included.

- c. *riwarrimani* 'consume all of'  
Kurdu-ngku ka-rla miyi-ki riwarri-ma-ni warrarda.  
child-ERG PresImpf-3Dat plant.food-DAT finish-get-NPast always  
'The child always eats up all the food.'
- d. *warrirni* 'seek'  
Wati-ngki ka-rla kurduku warri-rni.  
man-ERG PresImpf-3Dat child-DAT seek-NPast  
'The man is looking for the child.'
- e. *yarungka-mani* 'retaliate against'  
Wita-ngku-jala-lpa-rla yarungka-ma-nu wiri-jarlu-ku ...  
small-ERG-actually-PastImpf-3Dat retaliation-get-Past big-very-DAT  
'It was the small one who was retaliating against the much bigger person'

Of the remaining four, three have an experiencer subject: *ngara-mani* 'dislike camp, not be able to sleep', *ngurru-ngarni* 'desire strongly, be starving for', and *pulka-pinyi* 'approve of, praise'. (7a) is an explanation of the meaning of *ngara-mani* given by a native speaker, which also includes use of the term itself.<sup>14</sup> (7b) is an explanation of *ngurru-ngarni*, and (7c) is an illustration<sup>15</sup>; (7d) is an explanation of *pulka-pinyi* and both it and (7e) illustrate its use.

- (7) a. Ngara-ma-ni kuja-ka wangka – ngula ngurra maju  
PreV-get-NPast DeclC-PresImpf say.NPast aforementioned camp bad  
nyanungu-ku. Ngurra-ngka yi-ka-rla karri maju. Punku  
3-DAT camp-LOC RelC-PresImpf-3Dat stand.NPast bad bad  
ka ngarri-rni. Kapati ka-rla.  
PresImpf call-NPast dislike.NPast PresImpf-3Dat  
'When one says *ngara-mani* that means that one doesn't like the camping place,  
that the camping place is bad, rotten. It means that one dislikes it.'
- b. Ngurru-nga-rni, ngula-ji yangka kuja-ka-rla  
belonging.to.another-eat-NPast that-Top like DeclC-PresImpf-3Dat  
yapa-ngku yarnunjuku-rlu kuyu-ku nga-rninja-ku yangka  
person-ERG hungry-ERG meat-DAT eat-Infin-Dat like  
lirra-lirra-rlu manu kuyu-wangu-jangka-rlu,  
desperate.for.food-ERG and meat-without-EL-ERG  
'*Ngurru-ngarni* is how a hungry person feels desperate to eat meat like when he is starving and hasn't  
had any meat.'
- c. Ngurru-lpa-rla nga-rnu. "Kula-ka-ngalpa yi-nyi yarnunjuku-ku."  
belonging.to.another-PastImpf-3Dat eat-Past NegC-PresImpf-1plInclObj give-NPast hungry-Dat  
'He was starving for it. "He doesn't give us any who are hungry."'
- d. Pulka-pi-nyi ngula-ji yangka kuja-ka-rla-jinta  
approval-hit-NPast that-Top like DeclC-PresImpf-3Dat-Dat  
ngati-nyanu-rlu manu kirda-nyanu-rlu kulu-parnta-ku,  
mother-Anaph-ERG or father-Anaph-ERG anger-having-DAT  
kurdu-nyanu-ku, ngula yangka kuja-ka-jana yapa-kari  
child-Anaph-DAT that like DeclC-PresImpf-3plObj person-other

<sup>14</sup> Note that Swartz's (1996) Warlpiri-English dictionary lists this verb as absolutive-dative. Many of the examples in both dictionaries are ambiguous because their subjects are null (the agreement clitics are identical for ergative and absolutive subjects). However, the following from the Warlpiri dictionary (Laughren et al., 1997) suggests an ergative-dative case frame: both *munga-wiri-rlangu-rlu* 'all night' and *jarda-wangu-rlu* 'without sleep' bear ergative case marking in agreement with the (unexpressed) ergative subject (see Simpson, 1991 for discussion of adverb case-agreement with the subject).

(ii) Yangka yi-ka-rla ngara-ma-ni munga-wiri-rlangu-rlu, jarda-wangu-rlu,  
that RelC-PresImpf-3Dat PreV-get-NPast dark-big-for.example-ERG sleep-without-ERG  
'Like when one is unable to sleep all night,'

<sup>15</sup> Unfortunately, although both dictionaries list this as an ergative-dative verb, none of the examples unambiguously show an ergative subject. Note that in (7c) the clitic cluster appears between the preverb and verb; see Nash (1982), Laughren (2002), Legate (2008b).

pi-nyi kulu-parnta-rlu  
hit-NPast anger-having-ERG

'Pulka-pinyi is when a mother or father gives approval to their child who fights, like when he fights and beats up other people'

- e. Turnu-turnu-ma-ntalu-jana kartaku, kurdu-kurdu, tiringki-jangka.  
group-group-get-Imperative-3plSubj can.ABS child-child.ABS drink-EL

Yaruju-rlu, kurdu-kurdu, yungu-rna-nyarra-rla pulka-pi-nyi, nyurrarla-ku.  
quickly-ERG child-child RelC-1sgSubj-2plObj-3Dat approval-hit-NPast you.PI-DAT

'Gather up all the drink cans, children. Quickly, children, so I can be pleased with you for doing it.'

The remaining one is *paya-pi-nyi* 'stand over, be taller than, surpass':

- (8) Wati-ngki ka-ju-rla paya-pi-nyi.  
man-ERG PresImpf-1sgObj-3Dat further-hit-NPast  
'The man is taller than me.'

Although the provided translation 'be taller than' would suggest that the subject is derived, 'stand over' and 'surpass' do not. Furthermore, the morphological composition of this verb supports a thematic subject, consisting of the verb *pi-nyi* 'hit, knock, fight, attack' and the preverb *paya* 'over, away, distant, further'. Thus, I conclude that all 65 ergative-dative verbs in Warlpiri exhibit thematic subjects, as predicted by the Ergative Case Generalization.

For comparison, consider the absolutive-dative verbs. A substantial number of these have derived absolutive subjects:

- (9) a. *wiirr-parntarrimi* 'be a white film over'  
Wiirr-parntarri-mi ka-rla kurdu-ku yurlkurrpa palka-juku.  
white-over.top-NPast PresImpf-3Dat child-DAT soap.ABS body-still  
'The soap is still plastered over the child.'
- b. *ngunami* 'belong to'  
Ngaju-ku-ju ka-ju kuturu-pinki panu-yijala nguna.  
1-DAT-Top PresImpf-1sgObj nulla.nulla.ABS-and.such many.ABS-also lie.NPast  
'I have a lot of nulla-nullas and such like.'
- c. *ngurlkurr-ngurlkurr-wantimi* 'go down in a gulp'  
Yarnunjuku-ku ka-rla ngurlkurr-ngurlkurr-wanti-mi miyi manu kuyu.  
hungry-DAT PresImpf-3Dat gulping-gulping-fall-NPast plant.food.ABS and meat.ABS  
'Both vegetable food and meat are gulped down by a hungry (person).'
- d. *rdipimi* 'come upon'  
Pardany-para-ja ngula-ji yangka kuja-ka-rla yapa  
chance.meeting-follow-Past that-Top like DeclC-PresImpf-3Dat person.ABS  
– wati marda, karnta marda, kurdu marda – rdipi-mi  
man.ABS maybe woman.ABS maybe child.ABS maybe encounter-NPast  
warna-ku marda, wardap-iki marda, lungkarda-ku marda,  
snake-DAT maybe goanna-DAT maybe blue.tongued.lizard-DAT maybe  
ngurrpa marda, yangka marna-ngka-ku marda, ngulya-ngka-ku marda.  
ignorant.ABS maybe like grass-LOC-DAT maybe burrow-LOC-DAT maybe  
'Pardany-paraja is like when someone – a man or a woman or a child – comes across a snake or a goanna or a Blue Tongue lizard perhaps without knowing it was there – like in the grass or in a burrow.'

Many psychological predicates also belong to this class, both subject experiencer and object experiencer; examples follow:

- (10) a. *kapati-mi* 'dislike'  
Warrki-ki ka-rla kapati-mi yangka yapa.  
work-DAT PresImpf-3Dat dislike-NPast that.ABS person.ABS  
'That person doesn't like work.'

- b. *yulkami* 'like'  
 Yapa panu kala-lu-rla yulka-ja-nyayirni manu  
 person.ABS many.ABS PastC-plSubj-3Dat like-Past-very and  
 kala-lu-rla kururr-ma-nu nyanungu-ku-ju.  
 PastC-plSubj-3DatObj hug-get-Past 3-DAT-Top  
 'Everyone loved her very much and they cherished her.'
- c. *yukami* 'please'  
 Yuka-mi ka-ju ngurrju nguru nyampu-ju.  
 enter-NPast PresImpf-1sgObj good country.ABS this.ABS-Top  
 'This country is appealing to me.'

In addition, we find agentive absolutive subjects in this class, for example:

- (11) a. *jaka-yirrarni* 'plan, plot'  
 Napanangka-rla jaka-yirra-rnu Napaljarri-ki. Kapu nganta paka-rni kulu-ngku.  
 Napanangka.ABS-3Dat plan-put-Past Napaljarri-DAT FutC perhaps hit-NPast anger-ERG  
 'Napanangka threatened Napaljarri that she would hit her in anger.'
- b. *jurrurru-yarnkami* 'seize'  
 Kulu ka-rla karnta jinta-kari-ki-rlangu-ku  
 fight.ABS PresImpf-3Dat woman.ABS one-other-DAT-for.example-DAT  
 jurrurru-yarnka-mi watiya-ku karlangu-ku.  
 grabbing-grab-NPast wood-DAT digging.stick-DAT  
 'In a fight a woman grabs hold of the other woman's stick.'
- c. *ngirrily-(ngirrily)-wangkami* 'provoke'  
 Jinta-kari ka-rla ngirrily-ngirrily-wangka  
 one-other.ABS PresImpf-3Dat aggressive-aggressive-speak.NPast  
 jinta-kari-ki, kulu-kungarnti.  
 one-other-DAT fight-in.preparation.for  
 'One is provoking another to fight.'

Such examples lend themselves to two explanations. One is that the dative is not an object. The preverbs involved are not among those known to introduce non-object datives (see Simpson, 1991 and footnote 11), and do trigger agreement, however this explanation cannot be conclusively ruled out. The other is that they reveal the role of lexical selection in the determination of the subject case. Although Woolford (2006) argues that inherent case, as assigned by a functional head, in general shows a greater degree of predictability than lexical case, there remains a degree of lexical selection in inherent case. Indeed, this type of selectional relationship between choice of lexical predicate and features of *v* is straightforward, given the local relationship between *v* and VP. Furthermore, this type of selectional relationship would serve as a clear argument against ergative as a structural case licensed by a higher functional projection, T or C – on such an analysis, no effect of lexical predicate is expected.

In summary, this section has considered the relationship between ergative case and the thematic status of the subject. I have rebutted several arguments against the inherent case analysis that were based on thematic considerations. In addition, I have provided additional evidence from Warlpiri supporting Marantz's (1991) Ergative Case Generalization, a generalization which is predicted by the inherent case analysis.

In the next section, I return to the analysis of absolutive as nominative on S and accusative on O.

### 3. Absolutive as nominative and accusative

Given the distinction between languages in which the absolutive is nominative on S and O, and those in which the absolutive is nominative on S and accusative on O, one may prima facie expect that the former could show syntactic ergativity (based on the nominative), while the latter could not. Interestingly, however, syntactic ergativity does appear in absolutive as nominative and accusative languages.

Dyirbal, famous for its syntactic ergativity, is such a language. Although the crucial facts have been available throughout (see e.g. Dixon, 1972, 1994; Goddard, 1982), discussion of syntactic ergativity in Dyirbal has tended to leave them aside. Dyirbal case morphology is at first glance nominative–accusative for pronominals and ergative–absolutive elsewhere.



However, three distinct cases must be recognized. For example, the word ‘who’ shows full specification of ergative–nominative–accusative<sup>16</sup>:

- (12) wanydyu / wanya / wanyuna  
 who.ERG who.NOM who.ACC (Dixon, 1972:53)

For other human nouns and proper names, ergative–nominative–accusative is optional, alternating with ergative–absolutive:

- (13) Burbula-gu / Burbula / Burbula OR Burbula-nya  
 Burbula-ERG Burbula.ABS/NOM Burbula.ABS Burbula-ACC (Dixon, 1972:43)

Dialect variation (among the closely related Dyirbal, Giramay, and Mamu, all three of which serve as source material for Dixon, 1972) provides further examples: e.g. Giramay differs from Dyirbal in using an ergative–absolutive paradigm for ‘who’, but ergative–nominative–accusative for the first and second singular pronouns:

- (14) a. ngadya / ngayba / nganya  
 I.ERG I.NOM me.ACC  
 b. nginda / nginba / ngina  
 you.ERG you.NOM you.ACC (Dixon, 1972:50)

Furthermore, in the nominative–accusative and ergative–absolutive parts of the paradigm, agreeing modifiers diagnose an ergative–nominative–accusative system with morphological syncretism between ergative and nominative in one part of the paradigm, and between nominative and accusative in the other.<sup>17</sup> Consider, for example, relative clauses, which agree in case with the nominal they modify. A nominative pronoun as the subject of a transitive clause is modified by a relative clause marked as ergative, as indicative of underlying ergative case on the pronoun, (15a). The same nominative pronoun as the subject of an intransitive clause (underlyingly nominative) is modified by an (unmarked) absolutive relative clause, (15b). Finally, an accusative pronoun in object position illustrates the underlying case, but is again modified by an (unmarked) absolutive relative clause, (15c).

- (15) a. Nyada [waynydyi-ngu]-ru balan dyugumbil buɾa-n.  
 I.NOM go.uphill-Rel-ERG NCI.there.ABS woman.ABS see-NFut  
 ‘I saw woman as I was going uphill’  
 b. Nyada [waynydyi-ngu] miyanda-nyu.  
 I.NOM go.uphill-Rel.ABS laugh-NFut  
 ‘I laughed as I went uphill’  
 c. Ngayguna [waynydyi-ngu] banggul yaɾa-nggu buɾa-n.  
 I.ACC go.uphill-Rel.ABS NCI.there.ERG man.ERG see-NFut  
 ‘man saw me going uphill’ (Dixon, 1972:133)

Identical patterns emerge from the combination of nominals/adjectives and pronouns. A pronoun in the transitive subject position bears nominative morphology, while the modifier bears ergative, (16a); a pronoun in the intransitive subject position again bears nominative morphology, but the modifier bears absolutive, (16b); and a pronoun in the transitive object position bears accusative, but the modifier again bears absolutive, (16c).

<sup>16</sup> Glosses have been added and regularized for clarity. rC indicates a retroflex consonant, Ch indicates a dental consonant, Cy indicates a palatal consonant, ng is the velar nasal, NC is noun class. Glosses for case are based on morphological patterning, not the abstract case underlying the morphology. Dixon’s (1972) translations have been maintained, although they are often not grammatical sentences of English; in addition, the reader should be warned that Dixon often uses passives in English to translate forms that are not passive in Dyirbal.

<sup>17</sup> See Legate (2008a) for support of a morphological syncretism analysis of split ergativity based on the nominal hierarchy.

- (16) a. Nginda wuygi-nggu, bam mirany babi.  
 you.NOM old-ERG NCI.there.ABS bean.ABS slice.Imper  
 'You, old [person], slice the beans!'
- b. Nginda bayi yaɾa bani.  
 you.NOM NCI.there.ABS man.ABS come.Imper  
 'You, man, come here!'
- c. Ngayguna mambu banggul yaɾa-nggu balga-n.  
 me.ACC back.ABS NCI.there.ERG man-ERG hit-NFut  
 'Man is hitting my back' (Dixon, 1972:63)

In sum, Dyirbal has an underlyingly ergative–nominative–accusative case system, with the nominative pronouns representing syncretism between an ergative and a nominative, and the absolutive nominals representing syncretism between a nominative and an accusative.

Syntactic ergativity in Dyirbal, found in the availability for relativization,<sup>18</sup> selects not the absolutive or the nominative, neither as an underlying case nor as a surface morphological case, but rather the set of underlying nominative and underlying accusative. Thus, only the intransitive subject, which is underlyingly nominative, and the transitive object, which is underlyingly accusative, can be relativized. The morphological realization of these cases is immaterial. This is illustrated in (17) and (18). The examples in (17) involve relativization of DPs from the ergative–absolutive part of the paradigm, thus the case of the relativized DPs would be morphologically realized as absolutive. In (17a), the intransitive subject of 'sit' is relativized and in (17b), the transitive object of 'cut' is relativized. (17c) illustrates the use of antipassivization (creating an intransitive verb) to relativize an agent, and (17d) the use of applicativization (creating a transitive object) to relativize an instrument.

(17) Ergative-Absolutive

- a. Intransitive Subject  
 Ngadya balan dyugumbil [nyina-ngu] buɾa-n.  
 I.NOM NCI.there.ABS woman.ABS sit-Rel see-NFut  
 'I am watching the woman who is sitting down' (Dixon, 1972:100)
- b. Transitive Object  
 Ngadya nyina-nyu yugu-ngga [yaɾa-nggu nudi-ngu]-ra.  
 I.NOM sit-NFut tree-LOC man-ERG cut-Rel-LOC  
 'I am sitting on the tree the man felled' (Dixon, 1972:102)
- c. Transitive Subject – only through antipassivization  
 Bayi yaɾa [bagal-nga-ngu bagul yuɾi-gu] banaga-nyu.  
 NCI.there.ABS man.ABS spear-APass-Rel NCI.there.DAT kangaroo-DAT return-NFut  
 'man who speared kangaroo is returning' (Dixon, 1972:101)
- d. Instrumental – only through applicativization  
 Ngadya bala yugu banggul [yaɾa-nggu  
 I.NOM NCIV.there.ABS stick.ABS NCI.there.ERG man-ERG  
 bagul dyugumbil-gu balgal-ma-ngu] nyima-n.  
 NCI.there.DAT woman-DAT hit-Appl-Rel hold-NFut  
 'I caught hold of the stick the man was beating the woman with' (Dixon, 1972:100)

The examples in (18) involve relativization of DPs from the nominative–accusative part of the paradigm, thus the case of the relativized DPs would be morphologically realized as nominative on the subject and accusative on the object. Again, only intransitive subjects and transitive objects can be relativized, despite the difference in morphological case realization from examples like (17), and despite the fact that only a subset of the nominals with morphological case realization as nominative can be relativized (those that are intransitive subjects). In (18a) the intransitive subject of 'go uphill' is relativized, and in (18b) the transitive object of 'hit' is relativized.

<sup>18</sup> Subject omission in coordination and control are also standardly cited as evidence of syntactic ergativity in Dyirbal, but both are problematic. See Legate, 2008c, 2009, for details.

## (18) Nominative–Accusative

## a. Intransitive Subject

Nyada [waynydyi-ngu]-ru balan dyugumbil buɾa-n.  
 I.NOM go.uphill-Rel-ERG NCII.there.ABS woman.ABS see-NFut  
 'I saw woman as I was going uphill' (Dixon, 1972:133)

## b. Transitive Object

Ngayguna [banggul yaɾa-nggu balga-ngu] banggun dyugumbi-ɾu buɾa-n.  
 me.ACC NCI.there.ERG man-ERG hit-Rel NCII.there.ERG woman-ERG see-NFut  
 'woman saw me being hit by man' (Dixon, 1972:100)

What are we to conclude from this syntactic ergativity based on underlying nominative and accusative case? First, and most obviously, syntactic ergativity cannot be taken as an argument for a unified analysis of the case marking of intransitive subjects and transitive objects in a language. Second, the analysis of syntactic ergativity (at least for languages like Dyirbal in which absolutive is nominative and accusative) cannot depend upon a unified case for the intransitive subject and the transitive object. Instead, two avenues for analysis suggest themselves. One exploits the fact that nominative and accusative form a natural class as the *phasal* cases, that is those that are associated with the phase heads *C* and *v* respectively (Chomsky, 2007, 2008). In this vein, it may also be fruitful to note that A-bar movement, e.g. relativization, is also triggered by the phase heads. For example, Legate (2008c) proposes that the relativization feature may only appear on the phase head when bundled with case, thus requiring case and relativization to be checked together (similarly to the  $\phi$ -feature bundle). The second avenue relies on the inherent analysis of ergative case, which results in a configuration whereby the nominative and accusative are the highest structurally case marked DPs within the *vP*. For example, if only structurally case marked DPs are accessible to relativization in syntactically ergative languages, then locality would succeed in identifying the relativizable DPs. Developing and testing these alternative approaches for Dyirbal is hindered by the paucity of data and extreme freedom of word order, but could be pursued in other syntactically ergative languages.

#### 4. Conclusions

In this paper, I have developed further the approach to ergativity presented in Legate (2008a). I provided further support for the inherent analysis of ergative case, and explored further the analysis of absolutive as nominative and accusative as it applies to syntactic ergativity.

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#### References

- Aissen, J., 2003. Differential object marking: iconicity vs. economy. *NLLT* 21, 435–483.
- Aldridge, E., 2004. Ergativity and Word Order in Austronesian Languages. Doctoral Dissertation. Cornell University.
- Alexiadou, A., Anagnostopoulou, E., 2006. From Hierarchies to features. In: Boeckx, C. (Ed.), *Agreement Systems*. John Benjamins, Amsterdam, pp. 41–62.
- Anand, P., Nevins, A., 2006. The locus of ergative case assignment: evidence from scope. In: Johns, A., Massam, D., Ndayiragije, J. (Eds.), *Ergativity: Emerging Issues*. Springer, Dordrecht, pp. 3–25.
- Baker, M., 1997. Thematic roles and syntactic structure. In: Haegeman, L. (Ed.), *Elements of Grammar*. Kluwer, Dordrecht, pp. 73–137.
- Bittner, M., Hale, K., 1996a. The structural determination of case and agreement. *Linguistic Inquiry* 27, 1–68.
- Bittner, M., Hale, K., 1996b. Ergativity: towards a theory of a heterogeneous class. *Linguistic Inquiry* 27, 531–604.
- Bobaljik, J., Branigan, P., 2006. Eccentric agreement and multiple case checking. In: Johns, A., Massam, D., Ndayiragije, J. (Eds.), *Ergativity: Emerging Issues*. Springer, Dordrecht, pp. 47–77.
- Breen, J.G., 1976. Wangkumara. In: Dixon, R.M.W. (Ed.), *Grammatical Categories in Australian Languages*. Australian Institute of Aboriginal Studies, Canberra, pp. 336–339.
- Butt, M., 1995. The Structure of Complex Predicates in Urdu. CSLI Publications, Stanford, CA.
- Carnie, A., 2005. A phase-geometric approach to multiple marking systems. In: McGinnis, M., Richards, N. (Eds.), *Perspectives on Phases*. MITWPL, Cambridge, MA, pp. 87–102.
- Chomsky, N., 2000. Minimalist inquiries. In: Martin, R., Michaels, D., Uriagereka, J. (Eds.), *Step by Step: Essays on Minimalism in Honor of Howard Lasnik*. MIT Press, Cambridge, MA, pp. 89–155.
- Chomsky, N., 2007. Approaching UG from below. In: Sauerland, U., Gartner, H-M. (Eds.), *Interfaces + Recursion = Language?* Mouton de Gruyter, Berlin, pp. 1–29.
- Chomsky, N., 2008. On phases. In: Freidin, R., Otero, C.P., Zubizarreta, M.L. (Eds.), *Foundational Issues in Linguistic Theory*. MIT Press, Cambridge, MA, pp. 133–166.
- Comrie, B., 1978. Ergativity. In: Lehmann, W.P. (Ed.), *Syntactic Typology: Studies in the Phenomenology of Language*. University of Texas Press, Austin and London, pp. 329–394.
- Comrie, B., 2001. Love your enemies: affective constructions in two Daghestanian languages. In: Kenesei, I., Harnish, R.M. (Eds.), *Perspectives on Semantics, Pragmatics, and Discourse*. John Benjamins, Amsterdam, pp. 59–72.

- Davison, A., 2004. Non-nominative subjects in Hindi/Urdu: VP structure and case parameters. In: Bhaskararao, P., Subbarao, K.V. (Eds.), *Non-Nominative Subjects*. John Benjamins, Amsterdam, pp. 141–168.
- Dixon, R.M.W., 1972. *The Dyirbal Language of North Queensland*. Cambridge University Press, Cambridge.
- Dixon, R.M.W., 1994. *Ergativity*. Cambridge University Press, Cambridge.
- Garrett, A., 1990. The origin of NP split ergativity. *Language* 66, 261–296.
- Goddard, C., 1982. Case systems and case marking in Australian languages: a new interpretation. *Australian Journal of Linguistics* 2, 167–196.
- Hale, K.L., 1983. Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1, 5–47.
- Hale, K., Keyser, J., 2002. *Prolegomena to a Theory of Argument Structure*. MIT Press, Cambridge, MA.
- Hale, K.L., Laughren, M., Simpson, J., 1995. Warlpiri syntax. In: Jacobs, J., von Stechow, A., Sternefeld, W., Vennemann, T. (Eds.), *Syntax. Ein internationales Handbuch zeitgenössischer Forschung (An International Handbook of Contemporary Research)* Walter de Gruyter, Berlin/New York, pp. 1430–1451.
- Kiparsky, P., 2008. Universals constrain change; change results in typological generalizations. In: Good, J. (Ed.), *Linguistic Universals and Language Change*. Oxford University Press, Oxford, pp. 23–53.
- Laka, I., 2006. On the nature of case in Basque: structural or inherent? In: Broekhuis, H., Corver, N., Huybregts, R., Kleinherz, U., Koster, J. (Eds.), *Organizing Grammar*. Mouton de Gruyter, New York, pp. 374–382.
- Laughren, M., 2002. Syntactic constraints in a free word order language. In: Amberber, M., Collins, P. (Eds.), *Language Universals and Variation*. Praeger Publishers, Westport, CT, pp. 83–130.
- Laughren, M., Warlpiri Lexicography group, 2007. Warlpiri-English Encyclopaedic Dictionary. Electronic files, University of Queensland, deposited at ASEDA, AIATSIIS.
- Legate, J.A., 2002. Warlpiri: Theoretical Implications. Doctoral Dissertation. Massachusetts Institute of Technology.
- Legate, J.A., 2006. Split absolutive. In: Johns, A., Massam, D., Ndayiragije, J. (Eds.), *Ergativity: Emerging Issues*. Springer, Dordrecht, pp. 143–171.
- Legate, J.A., 2008a. Morphological and abstract case. *Linguistic Inquiry* 39, 55–101.
- Legate, J.A., 2008b. Warlpiri and the theory of second position clitics. *Natural Language and Linguistic Theory* 26, 3–60.
- Legate, J.A., 2008c. Dyirbal ergativity. Paper Presented at the Linguistic Society of America Annual Meeting. Chicago, IL.
- Legate, J.A., 2009. On case and syntactic ergativity in Dyirbal. University of Pennsylvania manuscript.
- Marantz, A., 1991. Case and licensing. In: Westphal, G. (Ed.), *Proceedings of the Eighth Eastern States Conference on Linguistics*, pp. 234–253. Reprinted in Reuland, E., (Ed.), *Arguments and Case. Explaining Burzio's Generalization*. John Benjamins, Philadelphia, pp. 11–30.
- Massam, D., 2002. Fully internal cases: surface ergativity can be profound. In: Rakowski, A., Richards, N. (Eds.), *Proceedings of AFLA 8, MITWPL*, Cambridge, MA, pp. 185–196.
- Massam, D., 2006. Neither absolutive nor ergative is nominative or accusative. In: Johns, A., Massam, D., Ndayiragije, J. (Eds.), *Ergativity: Emerging Issues*. Springer, Dordrecht, pp. 143–171.
- Mithun, M., 1991. Active/agentive case marking and its motivations. *Language* 67, 510–546.
- Mohanan, T., 1994. *Argument Structure in Hindi*. CSLI, Stanford, CA.
- Murasugi, K.G., 1992. *Crossing and Nested Paths: NP Movement in Accusative and Ergative Languages*. Doctoral dissertation. MIT, Cambridge, MA.
- Nash, D., 1982. Warlpiri preverbs and verb roots. In: Swartz, S. (Ed.), *Papers in Warlpiri Grammar: In Memory of Lothar Jagst*. Work papers of SIL-AAB, series A (vol. 6). SIL-AAB, Berrimah, N.T., pp. 165–216.
- Nash, L., 1996. The internal ergative subject hypothesis. In: Kusumo, K. (Ed.), *Proceedings of NELS 26*. Harvard University and MIT, MITWPL, pp. 195–209.
- Otsuka, Y., 2006. Syntactic ergativity in Tongan. In: Johns, A., Massam, D., Ndayiragije, J. (Eds.), *Ergativity: Emerging Issues*. Springer, Dordrecht, pp. 79–107.
- Plank, F., 1979. Ergativity, syntactic typology and universal grammar: some past and present viewpoints. In: Plank, F. (Ed.), *Ergativity: Toward a Theory of Grammatical Relations*. Academic Press, London/New York, pp. 3–36.
- Ramchand, G.C., 2008. *Verb Meaning and the Lexicon: A First-Phase Syntax*. Cambridge University Press, Cambridge.
- Swartz, Steve, 2006. Warlpiri dictionary. Available online through: <http://aiatsis.gov.au/aseda/docs/index.html>.
- Simpson, J., 1991. *Warlpiri Morpho-Syntax. A Lexicalist Approach*. Kluwer, Dordrecht.
- Simpson, J., Bresnan, J., 1983. Control and obviation in Warlpiri. *Natural Language and Linguistic Theory* 1, 49–64.
- Vergnaud, J.-R., 2008. Letter to Noam Chomsky and Howard Lasnik on 'Filters and Control,' April 17, 1977. In: Freidin, R., et al. (Eds.), *Foundational Issues in Linguistic Theory*. MIT Press, Cambridge, MA, pp. 3–15.
- Woolford, E., 1997. Four-way case systems: ergative, nominative, objective, and accusative. *Natural Language and Linguistic Theory* 15, 181–227.
- Woolford, E., 2006. Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37, 111–130.