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Raising to ergative: remarks on applicatives of unaccusatives

Amy Rose Deal
ardeal@berkeley.edu

Applicatives of unaccusatives provide a crucial test case for the inherent case view of ergativity. If ergative is assigned only to external arguments, in their theta-positions, there can be no "raising to ergative" in applicative unaccusatives; an internal argument subject can never receive ergative case. In this paper I present evidence from Nez Perce (Sahaptian) that this prediction is false. In Nez Perce applicative unaccusatives, the theme argument raises over the applicative argument and is accordingly marked with the ergative case. Nez Perce thus demonstrates raising to ergative. Building on Baker's (2014) study of similar phenomena in Shipibo (Panoan), I argue that apparently nonlocal movement of the theme in the raising-to-ergative pattern involves not a covert adpositional structure, but rather a response to independently motivated constraints on antilocal movement and remnant movement.

1 Introduction

The inherent case view of ergativity holds that ergative case is assigned to an external argument in its θ-position by the *v* or Voice head that introduces it.[1] A central prediction is therefore that ergative may only be assigned to external arguments – a prediction that Marantz (1991) had dubbed the *Ergative Case Generalization*:

(1) *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)

As Legate (2012) notes:

> The reference [by Marantz] 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. (Legate 2012, 183; emphasis added)

[1] See Woolford (1997), Aldridge (2004), Legate (2008), and references in Deal (2015a, 2016). Hereafter, I refer to the head that introduces external arguments as *v*.

In this paper I argue, building on work by Baker (2014, 2015), that the Ergative Case Generalization does not hold, and that applicatives of unaccusatives provide crucial evidence against it. In the applicative unaccusatives of Nez Perce (Sahaptian), I demonstrate that the theme argument raises over the applicative argument and is marked with the ergative case. This "raising to ergative" pattern shows that ergative case cannot be restricted to external arguments, and thus that the inherent case view cannot be the (only) proper analysis of ergativity.

The new evidence from Nez Perce replicates and expands on Baker's argument from applicative unaccusatives in Shipibo (Panoan). Shipibo shows a canonical ergative-absolutive case alignment; all intransitive subjects bear absolutive case. Contrary to the Ergative Case Generalization, however, applicatives of unaccusatives in Shipibo feature ergative case on the theme argument – a derived (transitive) subject. Compare the applicative unaccusative in (2a), where the subject is ergative, to the basic unaccusative in (2b), where the subject is absolutive.

(2) a. Bimi-n-ra Rosa joshin-xon-ke.
fruit-ERG-EV Rosa.ABS ripen-APPL-COMPL
'The fruit ripened for Rosa.' (Baker, 2014, 346)

b. Kokoti-ra joshin-ke.
fruit.ABS-EV ripen-COMPL
'The fruit ripened.' (Baker, 2014, 345)

On the basis of the Shipibo facts, Baker (2014) motivates a "configurational" analysis of case assignment: ergative is a dependent case in Shipibo, rather than an inherent one.[2] Baker (2015) and Baker and Bobaljik (To appear) go one step further, arguing that the inherent case view should be abandoned in favor of the dependent case view not just for Shipibo, but for ergativity altogether.

The Nez Perce facts introduced here cast light on two types of questions raised by this argument. First, what is the cross-linguistic distribution of raising to ergative in applicative unaccusatives? If Baker (2015) and Baker and Bobaljik (To appear) are right that ergative is never inherent, then raising to ergative should be possible across the full range of languages with ergative case systems, notwithstanding the variety of ways in which this class is internally diverse. On the other hand, if Coon (2016) is right and ergative languages can be divided into an inherent-ergative class and a dependent-ergative class, we might expect to find correlations between raising-to-ergative in applicative unaccusatives and other distinctive characteristics of the two types of ergativity. Nez Perce proves useful in probing for correlations of this type, as it is is unrelated to its fellow raising-to-ergative language Shipibo, and the two languages differ along several axes of variation in ergativity. Nez Perce, for instance, has a three-way ergative case system (ergative/nominative/accusative) whereas Shipibo has an ergative-absolutive case system (Rude 1985; Valenzuela 2010); Nez Perce has a syntactically-based person split whereas Shipibo has no person split at all (Deal To appear b; Valenzuela 2000); Nez Perce has agreement with both subjects and objects whereas Shipibo has agreement only with subjects (Deal 2015d; Valenzuela 2010). Both languages, however, show ergative case on the theme in applicative unaccusatives. In Nez Perce, subjects of simple unaccusative clauses are nominative, (3). Applicative unaccusatives, in contrast, show ergative marking on the theme subject in Nez Perce, (4), just as in Shipibo.

[2] On dependent case approaches to ergative, see Yip, Maling, and Jackendoff (1987), Marantz (1991), Baker (2014, 2015), Baker and Bobaljik (To appear).

(3) Ha-'aayat hi-pa-pay-no'-kom.
PL-woman.NOM 3SUBJ-S.PL-come-FUT-CIS
'The women will come.'

(4) Ha-'aayat-om nuun-e hi-pa-naas-pay-noo-yo'-kom.
PL-woman-ERG 1PL-ACC 3SUBJ-S.PL-O.PL-come-APPL-FUT-CIS
'The women will come to us.'

If there is a split between inherent-ergative and non-inherent-ergative languages, then, all differences between Nez Perce and Shipibo must represent diversity internal to the non-inherent class.

Second, what is the mechanism by which raising to ergative takes place in applicative unaccusatives? In particular, how does raising of the theme over the applicative argument avoid a violation of relative locality? Baker (2014) advocates a solution involving a covert adpositional structure. The Shipibo applicative argument, he proposes, is actually a PP, not a DP. The applicative argument remains in situ because the PP cannot raise to an A-position and the DP subconstituent cannot be extracted from within PP. The theme, on the other hand, is able to move to an A-position above the applicative argument because the latter, as a PP, does not constitute an intervener for A-movement. This proposal for the structure of (2a) is shown in (5).[3]

(5) $[_{TP}$ fruit.ERG$_i$ [T $[_{ApplP}$ $[_{PP}$ P Rosa.ABS] [Appl $[_{VP}$ t$_i$ ripen]]]]]

This structure leads us to expect that applicative arguments should behave systematically different from other objects, and similar to PPs, in respects independent of raising-to-ergative. In Shipibo, for instance, PPs show overt adpositional structure, constitute opaque domains for case-assignment, and behave unlike objects for switch-reference. Applicative arguments, however, show none of these PP behaviors (Baker, 2014, fn 23). They lack any visible adpositional marking and behave like ordinary DP objects for case-assignment and switch-reference. Such facts raise the suspicion that applicative arguments are really just DPs after all – in which case a different explanation will have to be found for the locality behavior of raising-to-ergative. The alternative I propose, based on Erlewine's (2016) Spec-to-Spec Antilocality, motivates raising of the theme argument because the applicative argument is too close to the immediate landing site (Spec,*v*). In addition to the core locality facts of raising to ergative, this proposal combines with Müller's (1996) constraint on remnant movement to provide a natural account of possessor raising from applicative arguments in Nez Perce – a pattern which proves challenging for the covert-PP proposal.

The paper is structured as follows. In the next section, I lay out the basics of case and agreement, unaccusativity, and applicative constructions in Nez Perce. In section 3, I argue that the theme argument indeed raises above the applicative argument in applicative unaccusatives, and that Nez Perce exemplifies raising to ergative (*contra* the Ergative Case Generalization). Section 4 is devoted to the theoretical questions raised by this movement: why does the theme argument move, and why can't the applicative argument move instead? I advance an antilocality-based solution, drawing on evidence from possessor raising (Deal, 2013). In section 5, I conclude by considering the consequences of raising to ergative for the analysis of ergative case. Are there indeed inherent ergative languages alongside non-inherent ones? And how should ergativity be analyzed in raising-to-ergative languages – as a dependent case, or as a merely structural case assigned in a derived position?

[3] For readability, I have modified Baker's original proposal to show head-initiality.

2 Ergativity, unaccusativity, and applicatives in Nez Perce

Nez Perce is a Sahaptian language spoken by no more than 30 native speakers in Idaho, Washington, and Oregon, USA. Except where otherwise indicated, the data here come from fieldwork on the Nez Perce Reservation in Lapwai, Idaho. Data are presented in the practical orthography used by the language program of the Nez Perce Tribe. A table of correspondences to IPA is given in the appendix to Deal (To appear b).

As demonstrated by Rude (1985, 1992) and Deal (2010b), the language allows considerable word order freedom at the clausal level, and pronominal subjects, objects, and possessors of all persons are often omitted. Omitted arguments are indicated here by *pro* in Nez Perce examples, with the gloss line reflecting the person and number features conveyed by the speaker's translation. For ease of reading, I follow a convention of placing *pro*s in SVO order.

2.1 Case and agreement

Nez Perce is well-known for its tripartite ergative case alignment: intransitive subjects, transitive subjects, and transitive objects are all marked distinctly in the third person. Nominative is unmarked; accusative is marked by *ne* and allomorphs; and ergative is marked by *nim* and allomorphs. The case-marking system is described and analyzed by Rude (1985, 1986), Woolford (1997), Carnie and Cash Cash (2006), and Deal (2010a,b, To appear b).

(6) Angel hi-pnim-se.
Angel.NOM 3SUBJ-sleep-IMPERF
'Angel is sleeping.'

(7) Angel-nim hi-naas-wapayata-ca mamay'as-na.
Angel-ERG 3SUBJ-O.PL-help-IMPERF children-ACC
'Angel is helping the children.'

In contrast to 3rd persons, local persons show a nominative/accusative alignment – a fact that Deal (To appear b) shows to be syntactic, rather than morphological, in nature. Accordingly, the clearest examples of raising-to-ergative will feature 3rd person arguments undergoing raising.

The case system co-exists with a nominative-accusative system of verb agreement. Verbal affixes directly distinguish 3rd from non-3rd person and plural from non-plural number. Non-plural number and local person are not marked on the verb overtly; however, restrictions on the use of plural agreement partially distinguish 1st from 2nd person. The overt markers consist primarily of the five prefixes listed in (8).[4] Restrictions on the co-occurrence of agreement affixes are described in Deal (2015d).

(8) Agreement prefixes

hi-	3rd person subject	*pe-*	plural subject
'e-	3rd person object	*nees-*	plural object
pee-	3rd person subject and 3rd person object		

[4] Subject number may also be marked as part of the TAM system, in a portmanteau with aspect (depending on the aspect); see Deal (2015d).

Subject agreement is present in all clauses in Nez Perce, regardless of the case-marking of the subject (nominative or ergative). In both (9) and (10), the subject controls 3rd person subject agreement prefix *hi* and plural subject agreement prefix *pe*.[5] [6] (The object, being local and singular, controls no overt agreement in (10).)

(9) Háama kaa ’áayat hi-pa-’ác-∅-a.
man.NOM and woman.NOM 3SUBJ-S.PL-enter-P-REM.PAST
‘A man and a woman came in.’

(10) Matt kaa George-nim hi-pa-’yáaxˆ-n-a ’iin-e cepéeletp’et-pe.
Matt.NOM and George-ERG 3SUBJ-S.PL-find-P-REM.PAST 1SG-ACC picture-LOC
‘Matt and George found me in the picture.’

The generalization is that subject agreement is controlled by the highest argument in the c-command domain of T, regardless of its case value (Deal, 2010b).[7]

Object agreement and accusative case are tightly correlated in Nez Perce. As discussed by Deal (2013), a single *v*P may contain only one accusative-marked DP, and it is always the second-highest DP that is marked in this way. It is this DP, furthermore, which controls object agreement. In a simplex monotransitive, the theme is marked accusative and the agent is marked ergative. The theme controls object agreement (in (11), plural object agreement prefix *nees*).

(11) Angel-nim$_{agent}$ hi-nees-cewcew-téetu nuun-e$_{theme}$.
Angel-ERG 3SUBJ-O.PL-call-HAB.PRESENT 1PL-ACC
‘Angel calls us.’

In a simplex ditransitive, the goal c-commands the theme, and the goal is marked accusative. The agent is ergative, and the theme is unmarked (nominative).[8]

(12) ’Aayat-onm$_{agent}$ pe-’eny-∅-e haacwal-a$_{goal}$ tam’aamiin$_{theme}$.
woman-ERG 3/3-give-P-REM.PAST boy-ACC cake.NOM
‘The lady gave the boy cake.’

In a ditransitive, just as the goal receives the only accusative case, it alone controls object agreement on the verb (in (13), plural object agreement prefix *nees*).

(13) *pro* ’e-**nees**-peˆxˆwi-∅-ye nukt **’imuu-ne**.
1SG 3OBJ-O.PL-steal-P-REM.PAST meat.NOM 3PL-ACC
‘I stole meat from them.’ (Aoki, 1994, 530)

The generalization is that the DP bearing accusative case and controlling object agreement is the highest DP in the c-command domain of *v* (Deal, 2013).

[5] *Pe* harmonizes to *pa* in these examples. On Nez Perce vowel harmony, see Nelson (2013).

[6] Example (10) demonstrates ‘unbalanced coordination’ (Johannessen, 1998), where the case marker appears only once, at the end of the coordinate structure; see discussion of Nez Perce coordinations in Deal (2015a, To appear b). This pattern is possible both for ergative and for accusative in Nez Perce.

[7] This generalization sets aside potential A-scrambling of the object over the subject, which does not affect the agreement system. See Deal (2015b) for discussion and analysis.

[8] Nez Perce has no dative case. See Deal (2013) for condition C evidence that the goal c-commands the theme in Nez Perce simplex ditransitives.

2.2 Diagnosing unaccusativity

Case and agreement in Nez Perce behave identically for all intransitive predicates: the subject is nominative (unmarked), and controls subject agreement for person and number. Unergatives may nevertheless be distinguished from unaccusatives via a pattern of participle formation. The participle in question, formed by suffixation of *-iin'* to a verb stem, has been described as a passive (Rude, 1985). Semantically, the *-iin'* participle forms a one-place predicate that holds of the verb's internal argument. If the verb is transitive, the participle describes the object.

(14) a. *pro* 'a-lawlimq-∅-a piskis-ne.
1SG 3OBJ-fix-P-REM.PAST door-ACC
'I fixed the door'

b. Piskis hii-we-s lawlimq-iin'.
door.NOM 3SUBJ-be-PRES fix-PART
'The door is fixed.'

(15) Situation under discussion: a boy has climbed a ladder.

a. Hiicanwaas hii-we-s hicay-iin'.
ladder.NOM 3SUBJ-be-PRES climb-PART
'The ladder is climbed.'

b. # Haacwal hii-we-s hicay-iin'.
boy.NOM 3SUBJ-be-PRES climb-PART
'The boy is climbed.'

Some intransitive verbs form *-iin'* participles as well. In this case, the sole argument position of the verb is abstracted over; thus, the subjects of these verbs are treated like the objects of transitives. This commonality between transitive objects and a subclass of intransitive subjects allows us to diagnose unaccusativity. The examples below contrast unaccusatives, which form *-iin'* participles, with unergatives, which do not.

(16) *pro* hii-we-s pay-niin' / *kuu-yiin'.
3SG 3SUBJ-be-PRES come-PART / *go-PART
'He is come / *gone.'

(17) *pro* lilooy-niin' / *tiy'-iin' wee-s.
2SG be.glad-PART / *laugh-PART be-PRES
'You are happy / *laughed.'

A partial list of Nez Perce intransitives which may be categorized as unergative or unaccusative using this diagnostic is given below.[9]

[9] Nez Perce verbs come in two morphological classes, "S class" and "C class" (Aoki 1994; see discussion in Deal and Wolf In press). In the only previous proposal for an unaccusativity diagnostic in Nez Perce, Cash Cash (2004) proposes, based on semantic properties, that C class intransitives are unaccusative. This proposal largely lines up with (18) and (19), but there are exceptions: e.g. *tiyexˆti* 'belch' is an unaccusative S-class verb, whereas *wii* 'cry' is an unergative C-class verb.

(18) Unaccusatives (form *-iin'* participles)
k'oomay be sick, *lilooy* be happy, *moolat* boil over, *pay* come/arrive, *peeleey* be lost, *tiyexˆti* belch, *wiyoos* stretch out (e.g. of clothing), *wuy* run away, *'eys* be glad, *'ilece* make noise

(19) Unergatives (cannot form *-iin'* participles)
kuu go/do, *misemi* tell lies, *tiy'e* laugh, *weec'ey* jump, *wehi* bark, *wewiiti* travel downstream, *wii* cry, *'imisq'uleey* make a verbal mistake, *'ipsqikey'k* walk around

This unaccusativity test is an instance of the broadly-attested attributive participle diagnostic, discussed by Hoekstra (1984) for Dutch and subsequently replicated in a range of languages (i.a. Haspelmath 1994). The distribution of *-iin'* can be straightforwardly captured on Kratzer's (1996) proposal for *v*P structure, according to which theme arguments alone are arguments of the verb root. An unaccusative or transitive verb root is of type $< e,st >$ (where s is the type of events); *-iin'* combines with the root and returns a property of individuals (type $< e,t >$). An unergative root, on the other hand, is of type $< s,t >$, and therefore barred by a type mismatch from combining with *-iin'*.[10]

2.3 The structure of applicatives

Nez Perce has several productive applicative suffixes (Rude 1985, Deal 2010b, §1.7.4.2): *aapiik* 'away from DP', *aatk* 'as DP passes', and *uu* 'toward DP'.[11] Here and throughout, I exemplify with *uu*. In the typology of Pylkkänen (2008), this and other Nez Perce applicatives are high ap-

[10]Syntactically, the *-iin'* participle is an adjective, like its crosslinguistic correlates. There are several indications that *-iin'* participles are not (passive) verbs. First, they may appear in prenominal position, between a noun and a numeral or quantifier. This position is not available to relative clauses (which are never prenominal; Deal To appear a) or to verbs in Nez Perce.

(i) a. lepit lawlimq'-in 'aatamoc
two fix-PART car
'two repaired cars'

b. naaqc liloy-nin' haacwal
one be.happy-PART boy
'one happy boy'

Similarly, like adjectives, they require copulas when used predicatively. Nez Perce does not use auxiliary verbs. Contrast (ii), featuring an *-iin'* participle and an obligatory copula, with (iii), where the same root is used verbally and no copula is present.

(ii) Haacwal *(hiiwes) liloynin'.
boy.NOM 3SUBJ-be-PRES be.happy-PART
'The boy is happy.'

(iii) Haacwal hi-lloy-ca.
boy.NOM 3SUBJ-be.happy-IMPERF
'The boy is happy.'

[11]Rude and Deal (2010b) also analyze an additional affix, *ey'*, as an affectee/benefactive applicative; see however Deal (2013) for evidence that this element is not an applicative but rather a case-assigning head μ (cf. Johnson 1991).

plicatives. Crucially, they may attach to unergative verbs, such as *kuu* ‘go’ and *wii* ‘cry’. Compare the simplex predicates in the (a) examples to their applicative counterparts in the (b) examples.

(20) a. Haacwal hi-kuu-∅-ye Harold-∅-px.
boy.NOM 3SUBJ-go-P-REM.PAST Harold-OBL-to
‘The boy went over to Harold.’

b. Haacwal-nim pee-k-yuu-∅-ye Harold-ne.
boy-ERG 3/3-go-APPL-P-REM.PAST Harold-ACC
‘The boy went over to Harold.’

(21) a. Kitic hi-wii-qa-na.
Kitic.NOM 3SUBJ-cry-HAB.PAST-REM.PAST
‘Kitic used to cry.’

b. Kitic-nim pee-wii-nuu-qa-na Besi-ne.
Kitic-ERG 3/3-cry-APPL-HAB.PAST-REM.PAST Bessie-ACC
‘Kitic used to cry at Bessie.’

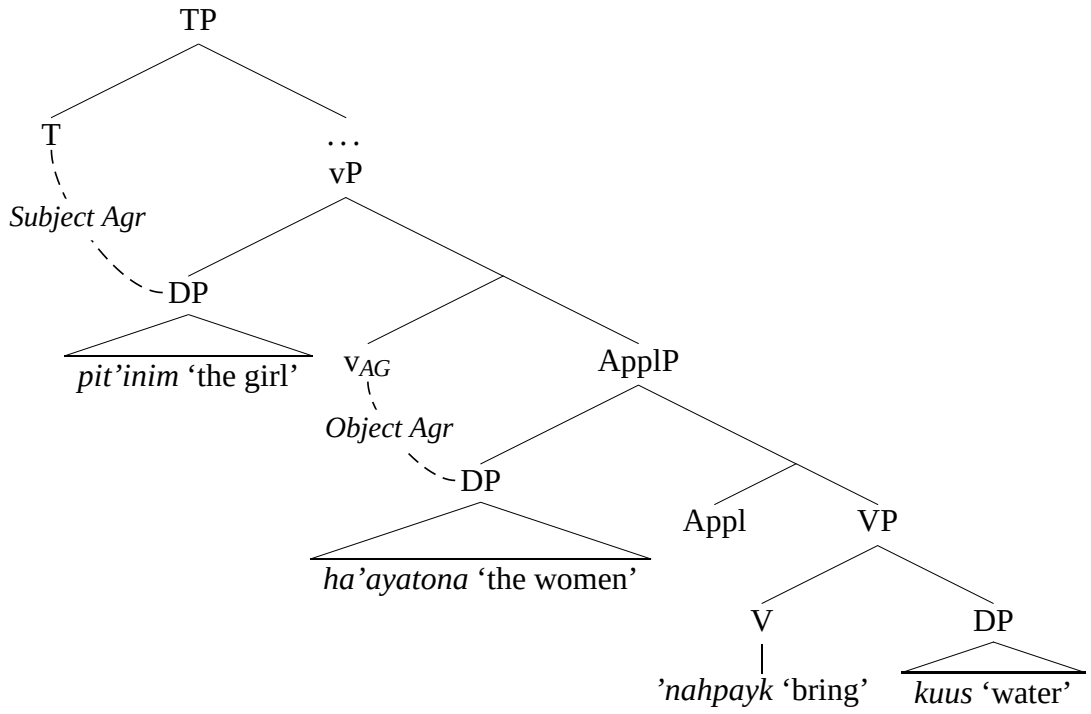
The argument introduced by the applicative occupies a structural position between the agent and the theme. This position may be diagnosed by accusative case and object agreement. Recall that both agreement and accusative case are restricted to the highest object within *v*P. When an applicative is added to a transitive verb, the applicative argument bears accusative case and controls object agreement. The theme argument is nominative (unmarked) and controls no agreement. Contrast the nominative case of the theme in applicative transitive (22) to the accusative case of the theme in the basic transitive (23):

(22) Pit’in-im hi-naac-’nahpayk-oo-∅-ya ha-’ayato-na kuus.
girl-ERG 3SUBJ-O.PL-bring-APPL-P-REM.PAST PL-woman-ACC water
‘The girl brought water to the women.’

(23) Kaa *pro* wex̂weqe-ne paa-’nahpayk-sa-na.
then 3PL frog-ACC 3/3-bring-IMPERF-REM.PAST
‘Then they brought Frog Woman.’ (Aoki and Walker, 1989, 579)

In the basic transitive, the theme is local to *v*, and shows object case and agreement. The addition of an applicative disrupts this relationship, placing the applicative argument closest to *v*. This indicates that the applicative projection sits above VP, but below *v*P, as shown in (24). Agreement relations holding in this structure are indicated with dashed lines.

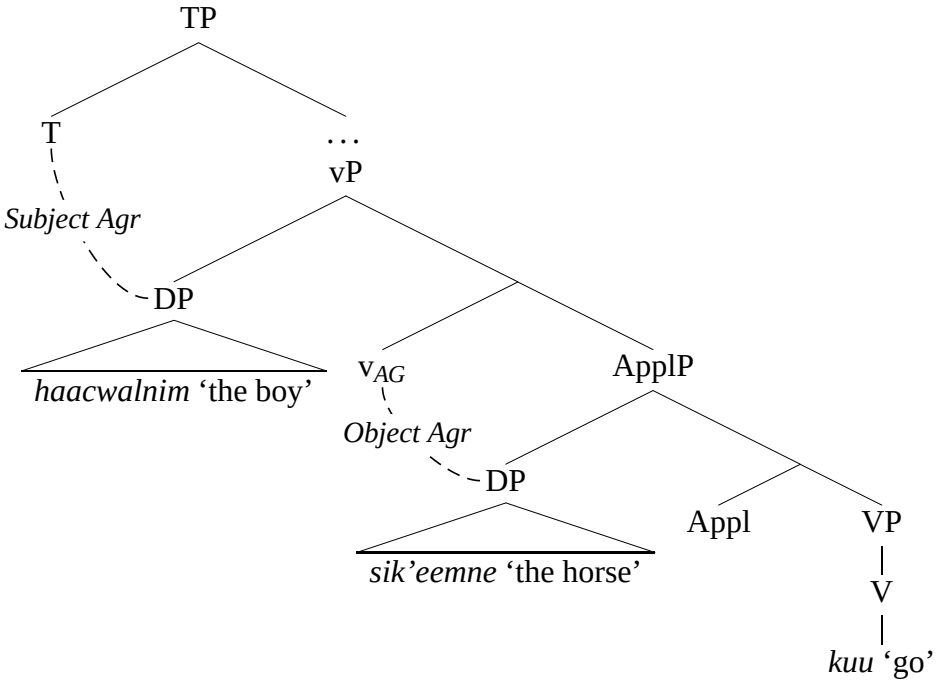
(24)



This structure extends straightforwardly to applicatives of unergatives, where VP simply lacks an internal argument.

(25) Haacwal-nim pe-k-yúu-∅-ye sik'eem-ne.
boy-ERG 3/3-go-APPL-P-REM.PAST horse-ACC
'The boy went to the horse.'

(26)



3 Raising to ergative

From the perspective of transitive applicative structure (24), the behavior of applicative unaccusatives is perhaps surprising. In the applicative of a transitive, the theme argument is strictly nominative, but in the applicative of an unaccusative, the theme argument is ergative. The applicative argument remains accusative. This pattern is exemplified in (4) and in (27)-(28). In the examples below, theme arguments are bolded, and applicative arguments are italicized. (These examples demonstrate the word order flexibility generally characteristic of Nez Perce.)

(27) **Taamsas-nim** pee-'leese-nuu-∅-ye *Harold-ne*.
Taamsas-ERG 3/3-make.noise-APPL-P-REM.PAST Harold-ACC
'Taamsas made noise at Harold.'

(28) *Angel-na* pa-pay-noo-∅-ya **sik'eem-nim**.
Angel-ACC 3/3-come-APPL-P-REM.PAST horse-ERG
'The horse came to Angel.'

Theme arguments behave importantly differently in terms of agreement, in addition to case, in applicative unaccusatives versus applicative transitives. In the applicative of a transitive, the theme argument controls no agreement. In the applicative of an unaccusative, on the other hand, the theme argument controls subject agreement, whereas the applicative argument controls object agreement. In (29), the theme is third person and the applicative argument is first person. Accordingly, the verb bears overt agreement only with the third person theme subject; recall that there is no direct marking of local person features on the verb.[12]

(29) a. K'olalk'olal-nim hi-'leese-nuu-∅-ye *pro*.
bell-ERG 3SUBJ-make.noise-APPL-P-REM.PAST 1SG
'The bell rang at me.'

b. 'Eetee-x pexwiy'ew'eet-unm hi-pay-noo-sa *pro*!
INFER-1 thief-ERG 3SUBJ-come-APPL-IMPERF 1SG
'Surely a thief is coming in on me!'

In (30), the theme is first person and the applicative argument is third person. Accordingly, the verb bears overt agreement only with the third person applicative object.

(30) *pro* 'a-pay-noo-toq-∅-a pit'ini-ne.
1SG 3OBJ-come-APPL-REST-P-REM.PAST girl-ACC
'I came back to the girl.'

Finally, in (31), the theme is third person singular and the applicative argument is first person plural. The verb shows plural object agreement with the applicative argument and 3rd person subject agreement with the theme.

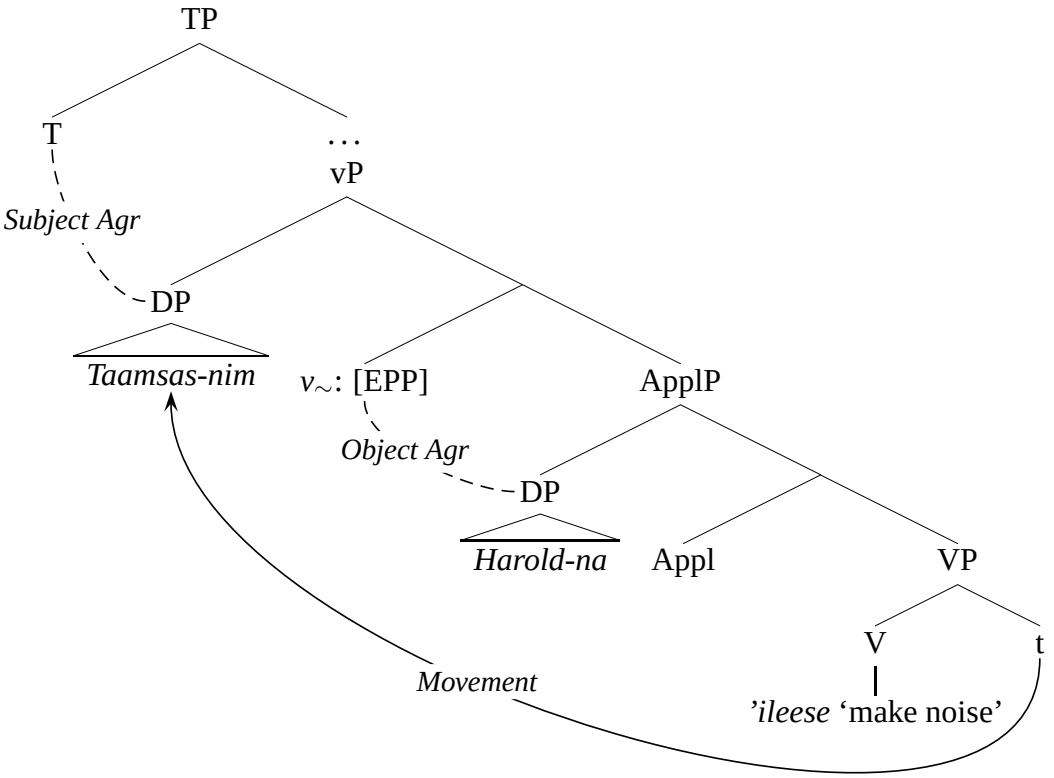
[12]The presence of a 1st person argument is marked in (29b) on the inferential evidential *'eete*. As discussed in Deal (2015c), this item participates in a system of omnivorous person agreement which, in Nez Perce, is characteristic of the C system.

(31) ’Inpe’weet-um kiye hi-nees-pay-noo-yo’!
policeman-ERG 1PL.INCL.CLITIC 3SUBJ-O.PL-come-APPL-FUT
‘A cop will come to us!’

Across these examples, theme arguments participate in subject agreement in exactly the same way as external argument subjects do in unergatives and transitives. Supposing, as above, that subject agreement is controlled by the highest DP in the c-command domain of T, this suggests that the theme argument raises over the applicative argument.

What is the landing site of this movement? Legate (2003) and Deal (2009) argue that all verbal projections contain a phasal *v*P layer, even when the verb is passive or unaccusative. If this is so, then the theme argument must first raise to the specifier of a nonthematic *v*P (whether or not it raises further, e.g. into the TP layer). I indicate the nonthematic *v* head characteristic of unaccusatives as $v_{\sim}$, following the convention of Deal (2009); I assume that this head obligatorily bears an [EPP] feature in Nez Perce. The structure of example (27) is thus as shown in (32). (The motivation for movement of the theme, rather than the applicative argument, is taken up in the next section.)

(32)



Movement of the theme to the nonthematic specifier of $v_{\sim}$ produces the standard configuration for subject and object agreement: both T and *v* agree with the highest DPs in their domains.

The structure in (32) receives further support from two types of binding phenomena. The first involves condition C. In examples (33) and (34), the theme contains a possessor R-expression coindexed with a pronominal applicative argument. These examples are well-formed.[13]

[13]Independent of applicative constructions, the presence of an overt, genitive-marked possessor phrase within the subject DP optionally blocks the expression of ergative (Rude 1985, Deal 2010a). In example (33), a genitive possessor does not interfere with ergative; in example (34), it does.

(33) Harold-nim$_i$ k'olalk'olal-nim pee-'leese-nuu-∅-ye *pro*$_i$.
Harold-GEN bell-ERG 3/3-make.noise-APPL-P-REM.PAST 3SG
'Harold$_i$'s bell made noise at him$_i$.'

(34) Angel-nim$_i$ sik'em pa-pay-noo-∅-ya *pro*$_i$.
Angel-GEN horse(ERG) 3/3-come-APPL-P-REM.PAST 3SG
'Angel$_i$'s horse came to her$_i$.'

If the theme argument remained *in situ*, this configuration would be expected to produce a condition C violation, given that applicatives attach above VP. Indeed, in a simplex ditransitive, coindexation of a theme possessor R-expression with a higher internal argument produces ungrammaticality.

(35) Pinooc-nim pee-kiwyek-∅-e 'ip-ne$_{*j}$ [Elwit'et-nim$_j$ hipt].
Pinooc-ERG 3/3-feed-P-REM.PAST 3SG-ACC Elwit'et-GEN food.NOM
'Pinooc fed him/her/it$_{*j}$ Elwit'et$_j$'s food.' (Deal, 2013)

The absence of a parallel condition C effect in (33) and (34) therefore supports the claim that the theme subject moves out of the c-command domain of the applicative argument.

The second argument draws on the interaction of binding and case. As discussed by Rude (1985) and Deal (2010a,b), ergative and accusative case-marking are obligatorily absent in Nez Perce when the subject binds the (highest) object's possessor. Both arguments become nominative (unmarked) and only the subject agrees with the verb. This pattern is dubbed the 'extended reflexive' by Deal (2010a); see the analysis there and in Deal (2010b, 187-338). This pattern extends to instances of subjects binding possessors of applicative arguments, as shown in (36b).

(36) a. Angel$_i$ [*pro*$_i$ pike] hi-muu-n-e.
Angel.NOM [3SG(GEN) mother.NOM] 3SUBJ-call-P-REM.PAST
'Angel$_i$ called her$_i$ mother.'

b. Angel$_i$ hi-k-yuu-∅-ye [*pro*$_i$ sik'em].
Angel.NOM 3SUBJ-go-APPL-P-REM.PAST [3SG(GEN) horse.NOM]
'Angel$_i$ went over to her$_i$ horse.'

Coindexation between the *subject* possessor and the *object* (or applicative argument), on the other hand, does not affect case or agreement. Observe the ergative suffix and object agreement (in the form of 3-on-3 portmanteau *pee*) reappearing in (37).

(37) a. [*pro*$_i$ pike-pim] pee-muu-n-e *pro*$_i$
[3SG(GEN) mother-ERG] 3/3-call-P-REM.PAST 3SG
'Her$_i$ mother called her$_i$.'

b. [*pro*$_i$ sik'eem-nim] pee-k-yuu-∅-ye *pro*$_i$
[3SG(GEN) horse-ERG] 3/3-go-APPL-P-REM.PAST 3SG
'Her$_i$ horse went over to her$_i$.'

The contrast between (36) and (37) shows that the case and agreement patterns are affected only when a possessor is c-commanded by a coindexed argument. Coindexation itself is insufficient – it is binding that crucially matters.

Both sentences were provided by the same consultant. Among the speakers I have consulted, there seems to be free variation on this point.

Against this backdrop, observe that applicatives of unaccusatives give rise to the extended reflexive pattern: when the theme argument binds the possessor of the applicative argument, ergative and accusative case and object agreement are lost.

(38) Waaqo' 'im-'toot$_i$ hi-pay-noo-∅-ki-ka [*pro*$_i$ yoxˆ
now 2SG-father.NOM 3SUBJ-come-APPL-P-TRANS-REM.PAST [3SG(GEN) DEM
xˆayxˆayxˆ pineexsin].
white daughter.in.law.NOM]
'Now [your father]$_i$ went to his$_i$ white (duck) daughter-in-law.' (Aoki and Walker, 1989, 14)

(39) *pro*$_i$ ['ip-nim$_i$ sik'em] hi-pay-noo-∅-ya.
3SG [3SG-GEN horse.NOM] 3SUBJ-come-APPL-P-REM.PAST
'She$_i$ went to her$_i$ horse.'

The extended reflexive pattern would not be expected if the theme remained in situ in these examples. There is no c-command relation between the possessor of the applicative argument and the base position of the theme; therefore, there can be no binding. When the theme moves past the applicative argument to Spec,$v_{\sim}$, however, it comes to c-command the possessor of the applicative argument. This c-command relation establishes the binding configuration that proves crucial to determining the extended reflexive pattern.

Overall, both for binding and for agreement, the theme of an applicative unaccusative behaves exactly like any other subject, and the applicative argument itself behaves exactly like any other (highest) object. These facts receive a straightforward analysis in view of the structure in (32), in which the theme raises past the applicative argument.

Returning now to the Ergative Case Generalization, it can hardly be a coincidence that theme movement occurs in exactly those structures in which the theme argument also receives ergative case. Ergative case in transitives is always assigned to the highest DP in the clause; this generalization, we now see, applies to applicative unaccusatives as well. The generalization would not be captured if (for instance) the theme argument were assigned case in its base position, and subsequently, independently moved to Spec,$v_{\sim}$.[14] The facts suggest instead that ergative case in Nez Perce is assigned to the highest DP by a mechanism independent of θ-assignment. The theme receives ergative case no lower than its derived position on the *v*P edge.

In conclusion: Nez Perce demonstrates raising to ergative.

4 Inversion, locality, and anti-locality

We turn now to the question of locality in the raising-to-ergative structure (32). Why does the theme move over the applicative argument? Why isn't it the applicative argument which raises to *v*P to satisfy the [EPP] feature of $v_{\sim}$?

[14] This type of proposal would presumably require the theme to move iff it previously obtained ergative. (If themes could generally move above other objects, we would expect this movement to bleed Condition C in (35), for instance.) Note that even on theories that allow movement processes to be sensitive to case assignment (Otsuka 2006, Preminger 2014, Deal 2016), it is not possible for a movement rule to apply only to an ergative-marked theme but not to a nominative-marked theme. Any movement that applies to ergatives must also apply to nominatives (though not vice versa).

For Baker (2014), as discussed above, the solution to the parallel puzzle in Shipibo goes by way of a covert adpositional structure present in the specifier of the applicative. His proposal for the structure of (40) is repeated in (41). The PP structure, Baker proposes, prevents the applicative argument from undergoing movement and from interfering in movement of the theme.

(40) Bimi-n-ra Rosa joshin-xon-ke.
fruit-ERG-EV Rosa.ABS ripen-APPL-COMPL
'The fruit ripened for Rosa.' (Baker, 2014, 346)

(41) $[_{TP}$ fruit.ERG$_i$ [T $[_{ApplP}$ $[_{PP}$ P Rosa.ABS] [Appl $[_{VP}$ t$_i$ ripen]]]]]

Yet there is a curious shortage of independent evidence for the proposed PP structure in Shipibo, and the same can be said about a potential counterpart PP structure in Nez Perce. In Nez Perce, like in Shipibo, the applicative argument has the surface morphosyntax of a DP, not a PP. The best candidates for PPs in Nez Perce are oblique phrases formed with a series of bound morphemes, e.g. *ki* 'with (an instrument)', *-kin'ix* 'from', *laykin* 'near', *pe* 'on/at', *-wecet* 'because of', *-x* 'to/than', *-'ayn* 'for'. These elements assign oblique case to their complements; oblique case is overtly marked only for pronouns.

(42) a. 'ip-ním-x
3SG-OBL-to
'to him/her/it'

b. 'ip-ním-wecet
3SG-OBL-because
'because of him/her/it'

c. 'ip-nim-pé
3SG-OBL-near
'on him/her/it'

Oblique phrases do not participate in agreement and do not count as arguments for the determination of transitivity; e.g. their presence does not render the subject ergative.

(43) Haacwal hi-kuu-∅-ye Harold-∅-px.
boy.NOM 3SUBJ-go-P-REM.PAST Harold-OBL-to
'The boy went over to Harold.'

In all of these respects, applicative arguments behave unlike obliques. If the applicative argument were a PP, we would expect the DP subconstituent thereof to be marked with oblique case (even if the adposition itself were covert); however, the the applicative argument is marked accusative. Compare the form of the pronoun in applicative unaccusative (44) to its PP counterparts in (42).

(44) Wa'yaat-kin'ix wi-weepcux-nim **'ip-ne** pa-pay-noo-∅-ya.
far-from PL-wise-ERG 3SG-ACC 3/3-come-APPL-P-REM.PAST
'From afar, the wise ones came to him.' (Nez Perce Methodist Songbook)[15]

Furthermore, we would not expect the applicative argument to participate in object agreement or to render the clause transitive for the purposes of ergative case assignment. These facts show that the challenges for the PP analysis in Shipibo are also challenges in Nez Perce.

Nez Perce also allows us to mount an additional argument against the PP analysis, from the interaction of applicative unaccusatives with possessor raising. Movement of the applicative DP is

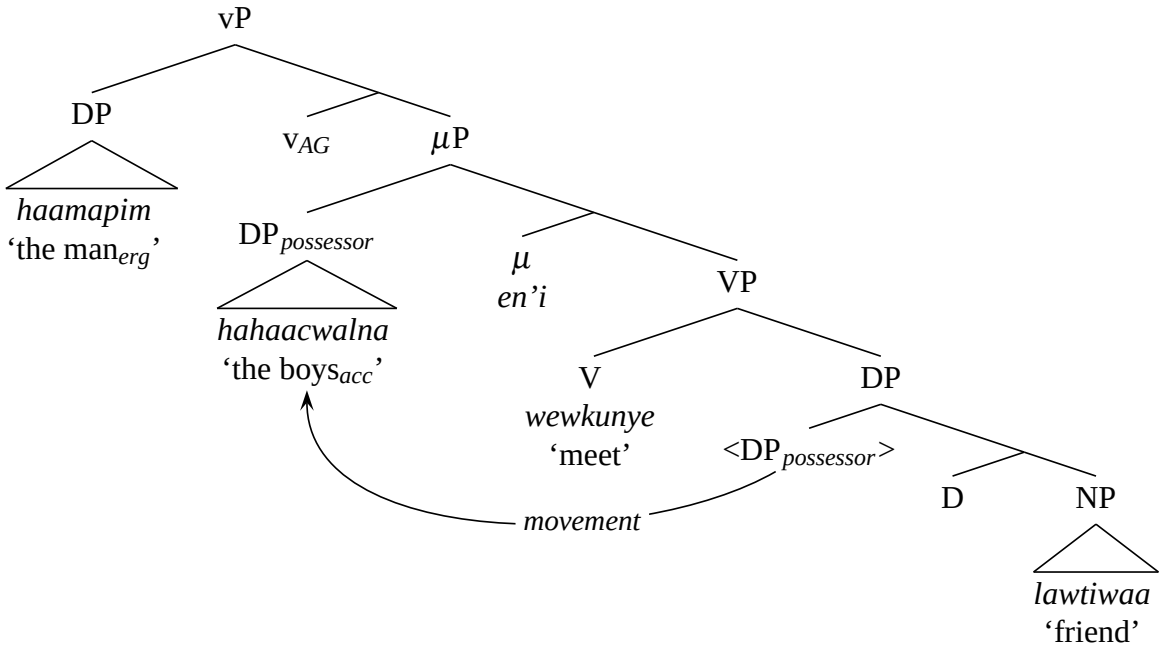
[15]The plural subject here does not control plural subject agreement, as is typically the case in 3pl/3sg sentences (Deal, 2015d).

presumably prevented on the PP analysis by the phasal status of PP.[16] If PP is a phase, we expect both that the DP complement of P will not be able to move out of PP and that material internal to this DP will not be able to move out of PP. Yet Nez Perce not only permits but indeed requires subextraction from applicative arguments under certain circumstances. In particular, when the applicative argument contains a (free) possessor, the possessor must undergo possessor raising.

Possessor raising in Nez Perce is described in Deal (2013). When the highest DP in the c-command domain of *v*P contains an unbound possessor in Spec,D, the possessor obligatorily moves to the specifier of a functional head, μ, which attaches directly below *v*P. The μ head is realized morphologically as a suffix on the verb, *ey'/en'i*.[17] In its raised position, the possessor is the highest DP in the c-command domain of *v*, and so receives accusative and controls object agreement. The structure of possessor raising in simplex transitive (45) is shown in (46).

(45) Háama-pim hi-nées-wewkuny-en'y-∅-e ha-háacwal-na láwtiwaa.
man-ERG 3SUBJ-O.PL-meet-μ-P-REM.PAST PL-boy-ACC friend.NOM
'The man met the boys' friend.'

(46)



In addition to possessor raising from a theme, as in (45), it is perfectly possible to have possessor raising out of an applicative argument, even in the applicative of an unaccusative. In (47) and (48), formed from unaccusative roots, the suffix *ey'* realizes μ. Example (47) shows that the raised possessor may be discontiguous with the possessum, as is standardly the case in possessor raising (Deal 2013, 399). The structure of (47) is shown in (49).

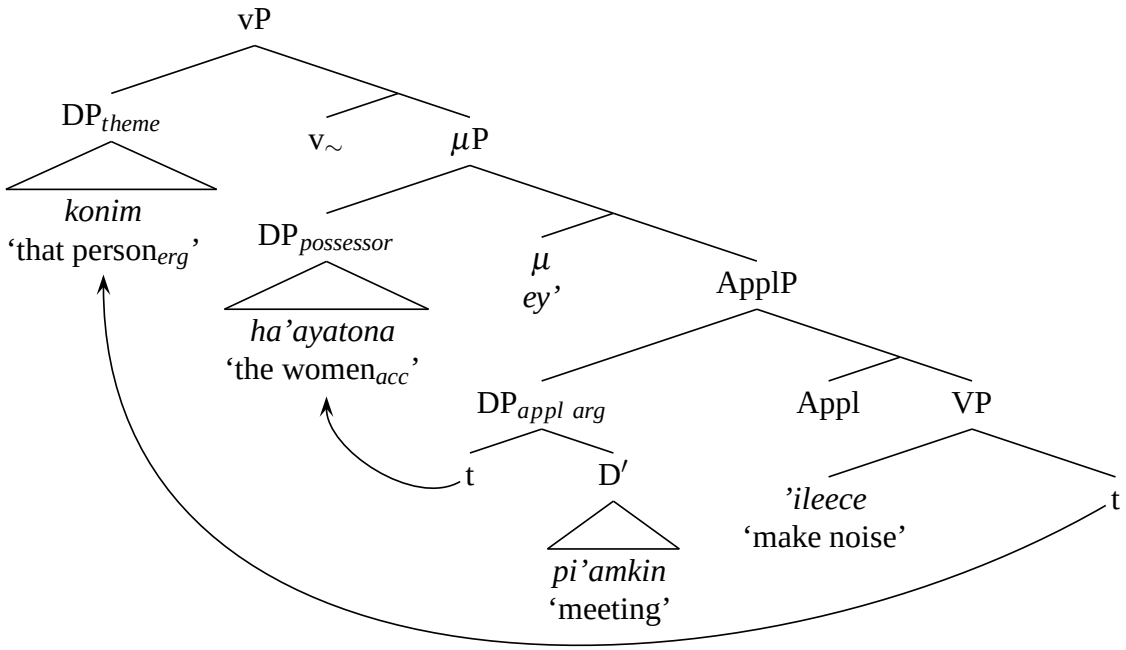
[16] An alternative analysis might appeal to a morphological ban on P-stranding. Such a ban could prevent overt movement of the applicative DP, but presumably not covert movement. See Deal (2013) for evidence of covert A-movement in Nez Perce.

[17] On the allomorphy of μ, see Deal and Wolf (In press).

(47) Ko-nim ha-'ayato-na hi-nees-'ilese-nuu-ey'-se pi'amkin.
DEM-ERG PL-woman-ACC 3SUBJ-O.PL-make.noise-APPL-μ-IMPERF meeting.NOM
'That person is making noise at the ladies' meeting.'

(48) *pro* pe-'eys-nuu-ey'-se B.-ne miy'ac.
3SG 3/3-be.glad-APPL-μ-IMPERF B-ACC child.NOM
'She is being nice to B's child.'

(49)



These examples show that the motivation for theme movement cannot be a phasal PP in the applicative specifier. The applicative possessor is able to move out to Spec,μ, but the theme argument nevertheless moves over both the applicative argument *and* the raised possessor to obtain Spec,$v_{\sim}$.

If the applicative argument is indeed a DP, then, rather than a PP, what prohibits it from moving to satisfy the [EPP] feature on $v_{\sim}$? I would like to propose that it is the height of this argument, rather than its categorial status, which imposes the crucial constraint. In particular, because the applicative argument attaches immediately subjacent to *v*, movement from Spec,Appl to Spec,*v* is too short. It violates an antilocality constraint, (50), independently motivated on the basis of $\bar{\text{A}}$ extraction data by Erlewine (2016).

(50) *Generalized Spec-to-Spec Antilocality*: Movement of a phrase from the Specifier of XP must cross a maximal projection other than XP.[18]

(51) *Definition of crossing*: Movement from position A to position B crosses C if and only if C dominates A but does not dominate B.

Movement from Spec,Appl to Spec,$v_{\sim}$ crosses ApplP, but no other maximal projection. This violates Generalized Spec-to-Spec Antilocality. I suggest that the inability of the applicative argument to undergo movement frees the theme argument to move in its stead: because the applicative argument, in virtue of its position, cannot move, it also does not serve as an intervener for movement.

[18]This constraint is 'generalized' in that I take it to apply both to A- and to $\bar{\text{A}}$-movement, expanding on the formulation by Erlewine.

For possessor-raised applicative unaccusatives, Generalized Spec-to-Spec Antilocality plays a role in blocking movement not of the applicative argument, but of its raised possessor. In structure (49), the raised possessor in Spec,μ is too close to Spec,$v_{\sim}$ to undergo movement. The remnant applicative argument itself is far enough from $v_{\sim}$ to move there, but may only move in keeping with general constraints on remnant movement. One such constraint is proposed by Müller (1996) under the heading of *Unambiguous Domination* (presented here in its derivational version, p 376):

(52) *Unambiguous Domination*: In a structure $\ldots[_A \ldots[_B \ldots] \ldots] \ldots$, A and B may not undergo the same kind of movement.

It should be noted here that movement to Spec,μ and to Spec,$v_{\sim}$ both are A-movement: each plays a decisive role in determining the case, agreement, and binding behavior of the moving DP. Given that a subconstituent of the applicative argument undergoes A-movement, Unambiguous Domination implies that the applicative argument will not itself be able to undergo A-movement. This means that both the highest *and* second-highest DPs in structure (49) are unable to satisfy the [EPP] feature on $v_{\sim}$. Again we see that DPs incapable of undergoing movement do not serve as interveners. Only the theme argument is capable of undergoing movement, and therefore there is no obstacle to theme movement into the *v*P specifier position.

The resulting analysis, like Baker's PP analysis before it, comes with consequences for the theory of (defective) intervention. I have argued that applicative arguments are DPs, not PPs, in Nez Perce; one DP nevertheless fails to intervene on the movement of another DP if it is itself blocked from movement by antilocality or by the Unambiguous Domination requirement on remnant movement. These results suggest either (less radically) that defective intervention is possible only on the basis of other properties of the intervener, such as PP status (i.a. Preminger 2014), or (more radically) that defective intervention does not exist in grammar (Bruening 2014) – a choice point whose resolution must await fuller attention in subsequent work.

5 Ergativity: larger consequences

The elimination of the inherent case analysis for Nez Perce – a raising-to-ergative language – raises two types of further questions, with which I conclude this paper. One concerns the underlying typology of ergativity: how many mechanisms give rise to ergative systems? The second concerns the nature of ergativity in languages to which the inherent case analysis cannot be applied.

5.1 Are there inherent-ergative languages?

There is substantial agreement in the ergativity literature that ergativity is not one but many phenomena.[19] The most basic question is *how many* phenomena are involved. For instance, is there more than one way to assign an ergative case? Applicative unaccusatives have the potential to show that indeed there is – that some languages call for an inherent case analysis, whereas others cannot be so analyzed.

Some initial evidence that there are indeed inherent ergative languages comes from Massam's (2006) work on applicative unaccusatives in Niuean. In contrast to the Shipibo/Nez Perce pattern,

[19] See Levin 1983, Bittner and Hale 1996a,b, Johns 1992, 2000, Paul and Travis 2006, Wiltschko 2006, Aldridge 2008, Legate 2008, Deal 2015a.

the applicative of an unergative in this language features ergative on the agent subject, (53), but the applicative of a (putative) unaccusative does not allow ergative on the theme subject, (54).

(53) Ne tohitohi aki [e Sione] [e pene]
PAST writing with.APPL [ERG.PROPER Sione] [ABS.COMMON pen]
'Sione was writing with a pen.' (Massam, 2006, 33)

(54) Fakamafana aki [e poko] [e hita].
CAUSE-warm with.APPL ABS.COMMON room ABS.COMMON heater
'The room is warm with the heater.' (Massam, 2006, 34)

Does this constitute the required evidence that ergativity arises by an inherent case-based mechanism in some languages? While I can contribute nothing decisive about Niuean, I would like to suggest (in keeping with remarks by Massam herself), that the presence of the causative in the potentially unaccusative example poses a potential confound. As Massam (1998) discusses, the *aki* applicative is not possible for an unaccusative verb in the absence of the causative marker: "*aki* cannot attach to a semantically nonagentive verb" (p. 12). If examples like (54) were not unaccusative, then, but in fact transitive, with a null ergative causer argument, then there would be no strong reason to think Niuean is different from Shipibo and Nez Perce after all. Syntactic testing for hidden arguments is needed to assess whether a covert ergative DP is indeed present in such examples, in spite of their English translations.

Pending the results of this test, the case remains open on the inherent ergative proposal. While it is certainly true that the inherent ergative view is broadly compatible with evidence from many languages (see e.g. Legate 2012 on Warlpiri), the best argument for crosslinguistic variation in the origin of ergative case will come from apples-to-apples comparison of applicative unaccusatives in languages where the theme subject does and does not receive the ergative case. For the time being, pending further investigation of examples like (54), there is no clear case of a language that shows the second type of pattern.

5.2 Is ergative dependent or (merely) structural?

For Baker (2014), the inapplicability of the inherent case analysis to Shipibo constitutes core evidence for an alternative, dependent-case analysis, based on rules of case-assignment like (55).

(55) If there are two distinct argumental NPs in the same phase such that NP_1 c-commands NP_2, then value the case feature of NP_1 as ergative unless NP_2 has already been marked for case.

The dependent case proposal for ergative (and accusative) case has garnered considerable attention in recent years, in a development that should be of interest to all who are concerned with the nature of crosslinguistic variation. Given that case systems vary, rules like (55) must hold in some languages and not in others, but notably, these rules are not themselves properties of any lexical item. Thus, the endorsement of a dependent case theory brings as a consequence a retreat from the Chomsky-Borer conjecture about linguistic variation – a retreat which, of course, Baker himself

has advocated for many years (e.g. Baker 1996, 2008).[20]

Yet the dependent case analysis is not the only non-inherent approach to ergative case remaining on the table; a variety of proposals for a merely structural ergative are also compatible with the raising to ergative pattern.[21] Deal (2010a,b), for instance, proposes a reductionist view of ergative case in Nez Perce, according to which the ergative suffix is essentially a portmanteau of subject and object agreement features transferred onto a DP: it is inserted on DPs which agree with T and which occupy the specifier of a *v* head that participates in object agreement. This configuration holds for themes raised to *v*P just as it holds for agents that originate there. Deal (2010a,b) shows how this view explains the connection between case and binding ("extended reflexive") discussed in section 3; Deal (To appear b) shows how it may be extended to capture the syntactic nature of person-based split ergativity. Unlike on the dependent case view, the properties of Nez Perce which differentiate it from other types of case systems may be stated on this view in relatively quotidian terms: they concern properties of agreement probes and of vocabulary items. Empirically, the choice between this 'merely structural' approach to ergativity and the dependent case approach should be made on the basis of properties beyond raising-to-ergative, such as the interaction of case with binding and with person. To my knowledge, the dependent case view does not at present provide a natural way for these phenomena to be accommodated.

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[20]The term 'Chomsky-Borer conjecture' is Baker's (2008), with reference to Borer (1984) and Chomsky (1995). Baker's formulation is given in (i).

(i) *Borer-Chomsky Conjecture:* All parameters of variation are attributable to differences in the features of particular items (e.g., the functional heads) in the lexicon.

[21]On structural approaches to ergative case, see, for instance, Bobaljik and Branigan (2006) and Rezac, Albizu, and Etxepare (2014).

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