Ergative-marked internal arguments in Choctaw*

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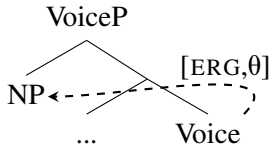
Abstract: Generative approaches to ergative case fall into two main camps: *inherent* ergative, where ergative is tied to a particular thematic role, or *dependent* ergative, where it emerges only in the presence of a clausemate NP, serving as its 'case competitor'. I show that in Choctaw, some internal arguments are marked as ergative—a known problem for inherent ergative—and that this may happen even in the absence of a case competitor, making these configurations problematic for dependent ergative too. To show that ergative-marked internal arguments exist, I identify some tests for internal-argumenthood, and show that the ergative subjects of some verbs pass these tests.

Keywords: syntax, Choctaw, case, agreement, ergativity

1 Introduction

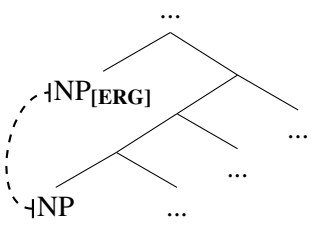
Generative approaches to ergative case fall into two main camps. On the one hand, there is the *inherent* approach, which holds that ergative case is associated with a particular (proto)-agentive thematic role (Aldridge 2008; Legate 2006, a.o.). In one implementation of this idea, both ergative case and its characteristic thematic role are strictly associated with the syntactic position in which the external argument is merged, e.g. Spec-VoiceP, as in (1).

(1)



On the other hand, there is the *dependent* approach, where NPs receive case under particular structural relations with other NPs (Marantz 1991/2000 a.o.). A standard dependent ergative approach holds that, given two NPs in an asymmetric c-command relation within a local domain, ergative is assigned to the higher of the two, as in (2). In such theories there is no link between the case of an argument and its thematic role or syntactic position—it just happens that the higher of two arguments in a clause *tends* to be an agentive external argument, but we expect to find exceptions.

(2)



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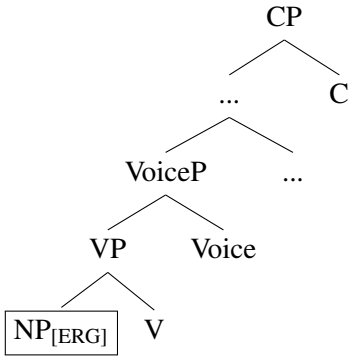
In this article, I show that for at least one language—Choctaw (Muskogean)—neither approach is sufficient. Specifically, Choctaw has a class of ergative subjects which are predicted to be impossible under both an inherent *and* dependent approach to ergative case. These are *unaccusative subjects* which nonetheless pattern as ergative, schematized in the tree in (3).

(3)



The ergative subject in (3) cannot have inherent ergative, because it is not an external argument, and it cannot have dependent ergative either, because it has no clausemate NPs.

This purpose of this paper is to show that the structure in (3), containing what I term a *low ergative* argument, really exists in Choctaw. First, section 2 introduces the basics of clitic-doubling in Choctaw, which is how the (non)-ergativehood of arguments is determined. Then, section 3 provides four diagnostics for internal argument status which have nothing to do with clitic-doubling. Finally, section 4 uses these diagnostics to show that, for four particular classes of verb, their ergative subjects nonetheless pattern as internal arguments, and thus I propose that these verbs instantiate the 'low ergative' structure in (3). Section 5 concludes with some remarks about what these findings could reveal about the nature of ergative case.

2 Clitic-doubling in Choctaw

Choctaw is a Muskogean language indigenous to the southeastern United States, spoken today in Mississippi and Oklahoma. All data reported here comes from fieldwork conducted in 2018 and 2019 with speakers who grew up and reside in Mississippi, unless otherwise noted. The language has fairly rigid SOV order, free argument drop and complex verbal morphology—see Broadwell (2006) for a detailed description of Choctaw grammar. A monoclausal transitive sentence with two overt arguments is given in (4).

(4) Alíkchi-yat alla-m-a̲ masaali-ch-aachi̲-h-o̲?
doctor-NOM child-DEM-OBL heal-CAUS-FUT-TNS-Q
'Will the doctor cure that kid?'

In addition to showcasing Choctaw's default SOV order and complex verbal morphology, this sentence also shows how adnominal case-marking works. Overt subjects are obligatorily marked with nominative case, and some objects, such as *alla-m-a̲* 'that kid' in (4), are marked with oblique case.

The focus of this article, however, is Choctaw's system of argument-doubling clitics, whose alignment is *mismatched* with the nominative-oblique alignment of the adnominal case-marking system (see Tyler 2019b and Broadwell and Martin 1993 for discussion of clitic-doubling in Choctaw).

Argument-doubling clitics come in three classes, and the choice of clitic used to double a particular argument is *typically* determined by the thematic role of the argument—the caveat is crucial here, however, since this paper is about the exceptions to this principle. The full table of clitics is given in (5)—note that the NEG.ERG class replaces the ERG class for verbs in the negated grade, so does not constitute a separate syntactic class.

(5)

	ERG	ABS	DAT	NEG.ERG
1SG	-li	sa-/si-	(s)am-	ak-
2SG	ish-	chi-	chim-	chik-
1PC	ii-/il-	pi-	pim-	kii-
1PL	ii-/il-	hapi-	hapim-	kii-
2PL	hash-	hachi-	hachim-	hachik-
3	–	–	im-	ik-

It is also worth noting that there are no 3rd-person ERG or ABS clitics. 3rd-person arguments that would be ERG or ABS if they were 1st/2nd-person are not doubled by any clitic.

To illustrate how nominal and clitic alignments mismatch, consider the sentences in (6). (6a) shows an ABS clitic *sa-* being used to double an oblique-marked object, and (6b) shows the same clitic being used to double a nominative-marked subject.

(6) a. Issoba-yat an-aak-o̲ sa-lhiyohli-tok.
horse-NOM me-FOC-OBL 1SG.ABS-chase-PST
'It was me that the horse chased.'

b. An-aak-oosh sa-ttola-tok.
me-FOC-NOM 1SG.ABS-fall-PST
'It was me who fell.'

In this article, I assume that clitic choice reveals case features of NPs which are not marked in the adnominal case-marking system.[1]

Turning now to the distribution of the clitics, they exhibit an *active* alignment. Prototypical agents are doubled by ERGative clitics, as shown in (7).

(7) a. **Ii**-hilh-aachi̲-h.
1PL.ERG-dance-FUT-TNS
'We will dance.'

b. Aka̲ka **ii**-lhiyohli-tok.
chicken **1PL.ERG**-chase-PST
'We chased the chicken.'

Themes and experiencers tend to be cross-referenced by ABSolutive clitics, as in (8) (note that they can be objects, as in (8a), or subjects, as in (8b-c)).

(8) a. Issoba-yat **hapi**-lhiyohli-tok.
horse-NOM **1PL.ABS**-chase-PST
'The horse chased us.'

b. **Hapi**-ttola-tok.
1PL.ABS-fall-PST
'We fell.'

1. Tyler (2019a) suggests that Choctaw NPs may need to be valued for multiple case features, to account for mismatched case-marking and clitic alignment.

c. Ofi **sa**-nna-h.
dog **1SG.ABS**-want-TNS
'I want a dog.'

And a heterogeneous class of arguments, including all applied oblique arguments, are cross-referenced by DATive clitics, as in (9) (they too can be objects (9a) or subjects (9b-c)).

(9) a. Mary-yat **a**-paya-tok.
Mary-NOM **1SG.DAT**-call-PST
'Mary called me.'

b. **A**-ponna-h.
1SG.DAT-skilled-TNS
'I'm skilled.'

c. Chi-holisso **am**-ittola-tok.
2SG.DAT-book **1SG.DAT**-fall-PST
'I dropped your book.'

Thus the thematic role of an argument correlates quite closely with whether it is doubled by an ERG or non-ERG (ABS/DAT) clitic. Some previous authors have therefore taken clitic choice to exceptionlessly diagnose verb class—Davies (1981, 1986) proposes that intransitive verbs can be classified as unaccusative vs. unergative on the basis of the clitic used to double the subject. Other authors, however, have pointed out that this strict mapping is inadequate on various grounds (e.g. Munro and Gordon 1982).

In this article I build on Munro and Gordon's insight, and look at a particular class of verbs where this mapping breaks down—verbs whose subject is doubled by an ERG clitic but which still pattern, in other ways, like unaccusatives. I argue that the subjects of these verbs should be understood syntactically as internal arguments which receive ergative case, as in (3). In the next section, I begin to construct the case for this analysis. I lay out four diagnostics for internal argumenthood which are independent of the choice of clitic used to cross-reference the argument. Then, in section 4, these diagnostics are applied to several intransitive verbs with ERG subjects, to show that these subjects nonetheless pattern like internal arguments.

3 Diagnosing internal arguments

In this section, I describe four properties, *other* than clitic choice, which correlate with internal-argumenthood. These properties can then be adapted as diagnostics for internal-argumenthood. They are: surviving the causative alternation (§3.1), auxiliary selection (§3.2), conditioning plural allomorphy (§3.3) and compatibility with applied dative subjects (§3.4). Three of these properties function as unidirectional implicational statements: *if* a particular property holds of a verb or its subject, than that verb is unaccusative (i.e. its subject is an internal argument). However, if the property does not hold, then we cannot make any inferences about the argument structure of the verb (the auxiliary selection diagnostic works a little differently, to be discussed). Therefore these diagnostics need to be deployed in tandem to justify decisions about verb classification.

3.1 Surviving the causative alternation

A large number of Choctaw verbs come in transitive/intransitive pairs, where the transitive ('ACTive') form has a causative interpretation and intransitive ('Non-ACTive') form has an inchoative or passive-

like interpretation. The most common morphological marker for the transitive member of a pair is a *-li* suffix, and for the intransitive member it is *-a*. Some representative pairs are given in (10).

(10) a. fakoh-**li**-h — she peeled it off
fakooh-**a**-h — it peeled off

b. koo-**li**-h — she smashed it
koow-**a**-h — it smashed

c. fam-**mi**-h — she whipped him
fam-**a**-h — he was whipped

Another common morphological pattern for transitive/intransitive pairs is the presence/absence of the morphological causative suffix *-chi*, as in (11).

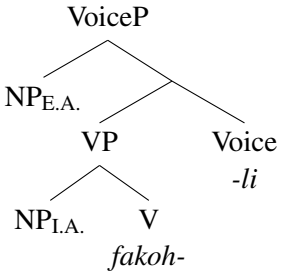
(11) a. haksi-h — 'he is confused/drunk'
haksi-**chi**-h — 'she tricked him'

b. shila-h — 'it dried'
shilaa-**chi**-h[2] — 'she dried it'

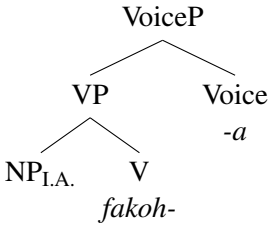
c. nona-h — 'it is cooked'
nonaa-**chi**-h — 'she cooked it'

Regardless of how the causative alternation is exponed, the argument which is maintained in both the transitive and intransitive alternants is the internal argument. The external argument appears only with the transitive alternants. Following work on the causative alternation by Alexiadou, Anagnostopoulou, and Schäfer (2015); Schäfer (2007) and others, I model the alternation as simply stacking different Voice heads on top of the same 'common base' constituent, which includes the verb root and the internal argument.[3] The transitive Voice head is realized as *-li* or *-chi* and obligatorily introduces a specifier; the intransitive Voice head is realized as *-a* or Ø and obligatorily lacks a specifier. The structures for *fakohli*/*fakooha* 'peel off' (cf. (10a)) are shown in (12).

(12) a.



b.



Therefore, if an argument survives the causative alternation, we can take that as evidence that the argument is an internal argument. However, it is worth pointing out that if an intransitive verb does not participate in the causative alternation, this property will not help us determine the internal vs. external status of its subject argument.

2. Some speakers have *shiliili* as the transitive alternant of *shila*, other speakers use both *shiliili* and *shilaachi*.
3. I do not separate out the root from its categorizing head as in Marantz (1997) and much subsequent work, though to do so would not affect the analysis.

3.2 Auxiliary selection

The auxiliaries *taha* and *tahli* indicate that an event has been completed, or that an argument is completely affected. Broadwell (1988, 2006) shows that the choice of *taha* vs. *tahli* is determined in part by the thematic role of the subject of the main verb. Verbs with agent subjects, indexed by ERG clitics, generally appear with *tahli*, as in (13a), while those with theme subjects, indexed with ABS or DAT clitics, generally appear with *taha*, as in (13b).[4]

(13) a. Taloowa-t **tahli**-li-h.
sing-PTCP complete.ACT-1SG.ERG-TNS
'I'm done singing.'

b. Hapi-faama-t **taha**-h/*tahli-h.
1pl.ABS-whip.NACT-PTCP complete.NACT-TNS/*complete.ACT-TNS
'We were all whipped.'/'We got completely whipped.'

Verbs with psych experiencer subjects also take *taha*-class auxiliaries, as in (14), as do verbs with dative subjects, as (15).

(14) a. Nokshoopa-t taha-h/*tahli-h.
scare.NACT-PTCP complete.NACT-TNS/*complete.ACT-TNS
'She's terrified.'

b. Bill-at hapi-nokshoopa-t taha-h/*tahli-h.
Bill-NOM 1PL.DAT-scare.NACT-PTCP complete.NACT-TNS/*complete.ACT-TNS
'Bill is terrified of us.'

(15) a. I-takoobi-t taha-h/*tahli-h.
DAT-lazy-PTCP finish.NACT-TNS/*complete.ACT-TNS
'He's too lazy.'

b. Im-ahchiba-t taha-h/*tahli-h movie-p-a.
DAT-tired-PTCP finish.NACT-TNS/*complete.ACT-TNS movie-this-OBL
'He's tired of this movie.'

This follows if auxiliary selection in Choctaw distinguishes internal-argument subjects from external-argument subjects, as it is known to do cross-linguistically—see McFadden (2007); Sorace (2000) and J. Baker (2018) for discussion of typological and theoretical issues in auxiliary selection.

4. *Taha* seems to have a wider range of interpretations than its counterpart *tahli*. In addition to being able to express completed events and completely affected participants, *taha* can also be used to indicate something like the progressive, as in (i).

(i) John-at hina chanálli i-hikíya-t piih i-toshbi-t taha-h.
John-NOM car DAT-stand.NG-PTCP just DAT-rust-PTCP AUX-TNS
'John's ride is standing there just getting rusty.'

Broadwell (1988:124) also notes that *taha* can mean something like 'finally', in which case it can appear with any verb. The speakers I consulted gave varying judgments on the acceptability and interpretation of *taha* with canonical ERG-subject verbs, and as such I leave it out of example (13a).

Employing auxiliary selection as a diagnostic for argument structure, we can say that if a verb can select for a *tahli*-class auxiliary, its subject is an external argument—if it cannot, its subject is likely an internal argument. However we cannot make the same inferences from (in)compatibility with *taha*-class auxiliaries, owing to the complications outlined in footnote 4.

3.3 Pluractional allomorphy

Many Choctaw verbs exhibit allomorphy conditioned by *pluractionality* (Broadwell 1988, 1993, 2006). Broadly, the pluractional form appears whenever the verb meaning is construed as involving multiple events *or* when the internal argument is plural (see Cusic 1981; Henderson 2012; Wood 2007 for discussion on pluractionality cross-linguistically).

The pairs of verbs in (16) illustrate one common stem alteration for transitive change-of-state verbs (Broadwell 2006:135): in non-pluractional environments, the stem ends in *-ffi*; in pluractional environments, the stem ends in *-hchi* (or *-hlichi*).[5]

(16) a. Tanapo-m-a tokaffi-li-tok.
gun-DEM-OBL fire.ACT-1SG.ERG-PST
'I fired the gun.'

b. Tanapo-m-a tokahchi-li-tok.
gun-DEM-OBL fire.ACT.PL-1SG.ERG-PST
'I fired the gun several times.'

A large number of *in*transitive verbs exhibit pluractional allomorphy too. The pair of verbs in (17) illustrates a common stem alternation for intransitive change-of-state verbs (Broadwell 2006:135): the non-pluractional stem ends in *-fa* and the pluractional stem ends in *-hli*.

(17) a. Balloon-at bokaafa-tok.
balloon-NOM pop.NACT-PST
'The balloon popped.'

b. Firecracker-m-at bokahli-h.
firecracker-DEM-NOM pop.NACT.PL-TNS
'The firecracker is popping.'

Most verbs that undergo this *-fa*/*-hli* alternation *also* have causative counterparts, which participate in the *-ffi*/*-(hli)chi* alternation in (16). As per the diagnostic outlined in section 3.1, these verbs can therefore be classified as unaccusative. To my knowledge there are no clearly-unergative verbs showing pluractional allomorphy. We are thus led to the generalization that a verb must have an internal argument in order to participate in the pluractional alternation. To frame this as a diagnostic, we can say that if an intransitive verb displays pluractional allomorphy, it is unaccusative.

The validity of this diagnostic is supported by work on plurality-conditioned verb allomorphy in a cross-linguistic perspective: generally only internal arguments (transitive objects and unaccusative subjects) are capable of conditioning stem allomorphy or suppletion (Bobaljik 2015; Durie 1987; Harley 2014, and references cited therein).

5. Broadwell (2006:135) documents the *-hlichi* form but not the *-hchi* form. The *-hchi* form was preferred by my consultants.

3.4 Compatibility with applied dative subjects

Many intransitive verbs with ABS subjects can have an applied DAT subject added to them, causing the original ABS subject to become the grammatical object. This is shown by the pairs of sentences in (18-19). In the (b) examples, the added DAT clitic and the applied subject that it doubles are bolded (unless absent via *pro*-drop).

(18) a. Chi-holisso-at ittola-tok
2SG.DAT-book-NOM fall-PST
'Your book fell down.'

b. Chi-holisso **am**-ittola-tok
2SG.DAT-book **1SG.DAT**-fall-PST
'I dropped your book.'

(19) a. Ofi-yat abiika-h.
dog-NOM sick-TNS
'The dog is sick.'

b. **Alíkchi-yat** ofi **im**-abiika-h.
doctor-NOM dog **DAT**-sick-TNS
'The doctor's dog is sick.'

By contrast, unergative verbs are incompatible with applied dative subjects:[6]

(20) a. *Hoshi **a**-taloowa-tok.
bird **1SG.DAT**-sing-PST
('My bird sang.')

b. #**Alíkchi-yat** ofi **i**-wohwa-tok.
doctor-NOM dog **DAT**-bark-PST
'The doctor barked for the dog.'
(intended:'The doctor's dog barked.')

Thus we can use the (in)compatibility of a verb with applied dative subjects as a test for the internal vs. external status of its subject: if a verb admits an applied dative subject, the subject of that verb is an internal argument.

To sum up, in this section we have seen four properties which which can be used to diagnose internal argumenthood, as well as the outline of an explanation for why each property behaves the way it does. They are: surviving the causative alternation (§3.1), selecting a *taha*-class auxiliary (and being unable to select a *tahli*-class auxiliary) (§3.2), conditioning pluractional allomorphy (§3.3), and being compatible with an applied dative subject (§3.4). And for most verbs, these properties correlates well with the whether the argument is indexed by an ERG clitic or an ABS/DAT clitic. However, in the next section I focus on a set of verbs where this correlation breaks down. I argue, on the basis of the diagnostics provided here, that there is a distinct set of unaccusative verbs whose internal-argument subjects are nonetheless indexed by ERG clitics—i.e. *low ergatives*.

6. Generally, verbs with applied dative subjects have traditionally been analyzed as emerging from two different syntactic operations. Sentences such as (19b) are seen as the consequence of a process of 'possessor raising', while most other dative-subject transitives are seen as the consequence of a process of 'dative raising' (also known as 'III-subjectivalization', the 'III' referring to the traditional terminology for DAT clitics). See Davies (1986); Munro and Gordon (1982) and Broadwell (2006) for previous description and analysis of these constructions. However, I have proposed in previous work that they all have the same syntactic structure (Tyler 2019a, accepted).

4 ERG internal arguments

In this section, I examine four kinds of subject that are indexed with an ERG clitic, but which nonetheless pattern like an internal argument (subject of an unaccusative) by at least some of the diagnostics provided in section 3. The subjects of these verbs are thus low ergatives, instantiating the structure in (3). They are: motion verbs (§4.1), positional verbs (§4.2), quantifier verbs (§4.3), and transitive psych verbs in PCC repair contexts (§4.4).

4.1 Motion verbs

Choctaw motion verbs cross-reference their subject with ERG clitics, as shown in (21) (*ish-* is the 2SG.ERG clitic).

(21) ish-baliili-h 'you run'
ish-okshinilli-h 'you swim'
ish-la-h 'you arrive'
ish-chokkowa-h 'you enter'

There are (at least) two pieces of evidence that they are low ergatives.

First, motion verbs typically co-occur with *taha*-class auxiliaries (§3.2, see also Broadwell 1988 and Broadwell and Martin 1993). This is shown in (22) (although note that the *tahli*-class auxiliary, which is disallowed with ABS-subject verbs, is acceptable too, though dispreferred).

(22) a. Baliili-t taha-h.
run-PTCP finish.NACT-TNS
'He's finished running.'

b. Aayala-t taha-h.
arrive.PL-PTCP finish.NACT-TNS
'They have arrived.'

Second, a number of motion verbs show allomorphy or suppletion for plural or dual subjects (§3.3), as shown in (23).

(23) a. baliili-h 'she runs'
tilhaaya-h 'they two run'
yilhiipa-h 'they run'

b. iya-h 'she goes'
itt-iyaa-chi-h 'they two go'
ilhkooli-h 'they go'

In addition to these two properties, which hold for all speakers, for some speakers motion verbs are compatible with applied dative subjects (§3.4). Broadwell (2006) provides the example in (24) (see also Carden, Gordon, and Munro 1986 on Chickasaw). However, the speakers I have consulted generally find motion verbs to be incompatible with dative subjects.

(24) **Pam-at** katos-at **i**-baliili-h.
Pam-NOM cat-NOM **DAT**-run-TNS
'Pam's cat is running.' (Broadwell 2006:307)

In summary, motion verbs are like unaccusatives in their auxiliary selection, the fact that some show plural allomorphy or suppletion, and their (dialectal) acceptance of applied dative subjects.[7]

4.2 Positional verbs

Many positional verbs cross-reference their subjects with ERG clitics, such as those in (25) (*ii-* is the 1PL.ERG clitic, *ish-* is the 2SG.ERG clitic).

(25) ii-binohmą́ya-h 'we're sitting'
ish-hikíya-h 'you're standing'

There are four pieces of evidence that they are low ergatives.

Firstly, they participate in the causative alternation (§3.1). Some alternating pairs of positional verbs are shown in (26).[8]

(26) a. binii-li-h 'it is sitting'
binii-chi-h 'she sat it down'

b. takaa-li-h 'it is hanging up'
takaa-chi-h 'she hung it up'

Secondly, they select only *taha*-class auxiliaries (§3.2), as in (27).

(27) Talohmą́ya-t taha-tok/*tahli-tok.
lie(inanimate).PL.NG-PTCP finish.NACT-PST/*finish-ACT-PST
'They are all there now.'

The third piece of evidence comes from the stem allomorphy diagnostic (§3.3): a large number of intransitive positional verbs (possibly all) exhibit allomorphy or suppletion conditioned by the number of the subject (Broadwell 2006:336). Some examples are given in (28).[9]

(28) a. biniili-h 'she sits'
chiiya-h 'they two sit'
binohli-h/binohmą́ya-h 'they sit'

b. takaali-h 'it hangs'

7. Regarding the remaining diagnostic for internal argument status—surviving a causative alternation (§3.1)—motion verbs tend not to participate in causative alternations. However, there is at least one exception: *yilhiipa* 'run (pl.)' alternates with *yilhibli* 'run off/rout (pl. obj.)'.

8. The verbs in (26) end in *-chi*, and thus could be analyzed as productively-derived syntactic causatives rather than lexical causatives (Broadwell 2006:128–34). However, the fact that they encode direct causation rather than indirect causation suggests that they are lexical causatives (see Miyagawa 1984 for discussion of this distinction in Japanese causatives). One example of a positional verb with a clear direct causation reading is shown in (i).

(i) Chi-fokka lobo achíifa-cha aba **takaachi**-h.
2SG.DAT-shirt round wash.ACT.LG-and.SS up **hang.CAUS**-TNS
'Wash your shirt and hang it up.'

9. The plural verbs that end in *-mą́ya* are in the n-grade ('NG'), and consequently have a result-state interpretation. In contrast, those that end in *-li* need not be in the n-grade, and receive an eventive interpretation.

takooha-h ‘they two hang’
takohli-h/takohmáya-h ‘they hang’

The fourth piece of evidence for the internal-argument status of the ERG subjects of positional verbs is that they are compatible with applied dative subjects (§3.4). When dative subjects are added to positional verbs, the result is a predicative possession interpretation, as in (29).

(29) a. **Alíkchi-yat** ofi **i**-kahmáya-h.
doctor-NOM dog **DAT**-lie.PL.NG-TNS
‘The doctor has dogs.’

b. Car palhki-t **a**-hikíya-h-aatok-oosh nokoowa-chi-tok.
car fast-NOM **1SG.DAT**-stand.NG-TNS-because-SS angry-CAUS-PST
‘I had a fast car, so that made people mad.’

In summary, we have seen that positional verbs are like unaccusatives in their pluractional allomorphy and suppletion, their auxiliary selection, their participation in the causative alternation, and the fact that they accept applied dative subjects.

4.3 Quantifier verbs

Quantifier verbs in Choctaw uniformly take ERG subjects, as shown in (30) (*ii-* is the 1PL.ERG clitic).

(30) ii-lawa-h ‘there’s a lot of us’
ii-tóchchina-h ‘there’s three of us’

There are three pieces of evidence that they are low ergatives.

First, quantifier verbs participate in the causative alternation (3.1), marked by the presence/absence of *-chi*. Some examples are given in (31).

(31) a. moma-h ‘they are all’
momi-chi-h

b. lawa-h ‘they are many’
lawaa-chi-h

c. toklo-h ‘they are two’
tokli-chi-h

There is a lot to be said about the syntax of quantifier verbs—see Broadwell (2006:ch.14) for an overview of the Choctaw facts. However, it is relevant that the argument that gets quantified is the *subject* of the intransitive verbs, as in (31) but the *object* of the transitive verbs, as in (32), implying that the ERG subject of the intransitive quantifier verbs is nonetheless an internal argument (by the logic in section 3.1).

(32) a. Alíkchi-yat alla momichi-t masaali-chi-tok.
doctor-NOM child all.CAUS.NG-PTCP heal-CAUS-TNS
‘The doctor cured all the kids.’
(lit. ‘The doctor cured the kids, doing it to all of them.’)

The second piece of evidence that the subjects of quantifier verbs are low ergatives is that they associate with *taha*-class auxiliaries, and cannot go with *tahli*-class auxiliaries (§3.2), as shown in (33).

(33) Okla ii-lawa-t taha-h/*tahli-h
PL 1PL.ERG-be.many-PTCP finish.NACT-TNS/*finish.ACT-TNS
'There are now a lot of us.'

The third piece of evidence for the internal-argument status of the subjects of quantifier verbs comes from their ability to take applied dative subjects (§3.4). Like positional verbs (§4.2), quantifier verbs with applied dative subjects receive predicative possession interpretations, as shown in (34).

(34) a. **Hattak-m-at** na atakláma **i**-lawa-h.
man-DEM-NOM thing bother.NMLZ **DAT**-many-TNS
'That man has a lot of troubles.'

b. Alla **a**-tóchchina-h.
child **1SG.DAT**-three-TNS
'I have three children.'.

In summary, quantifier verbs are like unaccusatives in that they participate in the causative alternation, they select ABS-class auxiliaries, and they are compatible with applied dative subjects.[10]

4.4 Psych verbs undergoing absolutive promotion

Subject-experiencer psych verbs usually mark their subject with DAT or ABS clitics. The relevant class here are those with ABS subjects, as in (35), discussed in detail by Tyler (2019a) (*sa-* is the 1SG.ABS clitic).

(35) **sa**-nokshoopa-h 'I'm scared'
sa-hoofahya-h 'I'm ashamed'
sa-noklhakacha-h 'I'm shocked'

ABS-subject psych verbs may also take a dative object argument, which is interpreted as a stimulus or subject-matter argument in the sense of Pesetsky (1996), as in (36).

(36) Alla-m-at a-nokshoopa-h.
child-DEM-NOM 1SG.DAT-scare.NACT-TNS
'That kid is scared of me.'

Notably, in the presence of an object, the experiencer subject, which is usually indexed by an ABS clitic, may exceptionally be indexed by an ERG clitic. The outcome of this process (*absolutive promotion*, Tyler 2019a), is shown in (37).

10. Regarding the remaining diagnostic for internal argument status—plural allomorphy/suppletion—there is no evidence for this in the quantifier verbs. However, this is perhaps not surprising since quantifier verbs are themselves used to indicate the plurality of arguments, and therefore many of them are restricted to appearing with, singular arguments, plural arguments or arguments with particular cardinalities (e.g. *talhappi* 'be five').

(37) Chi-nokshoopa-**li**-h.
2SG.DAT-scare.NACT-1SG.ERG-TNS
'I'm scared of you.'

I propose that psych verbs undergoing absolutive promotion constitute another instance of low ergative—see Tyler (2019a) for syntactic details. There are two pieces of evidence that lead to this conclusion.

Firstly, many subject-experiencer psych verbs take part in the causative alternation (§3.1), with the experiencer-subject of the transitive corresponding to the object of the intransitive, as in (38).

(38) Shokka anopa-m-at sa-nokshoobli-tok.
pig word-DEM-NOM 1SG.ABS-scare.ACT-PST
'The story scared me.'

Secondly, even in absolutive promotion environments, where the subject of the psych verb is doubled by an ERG clitic, the verb still associates with *taha*-class auxiliaries and not *tahli*-class ones (§3.2), as in (39).

(39) Mary ish-i-nokshoopa-t taha-h/*tahli-h.
Mary 2SG.ERG-DAT-scare.NACT-PTCP finish.NACT-TNS/*finish.ACT-TNS
'You're terrified of Mary.'

In summary, psych verbs are like unaccusatives in that they participate in the causative alternation, and even in absolutive promotion contexts consistently associate with a *taha*-class auxiliary. In addition, the subjects of psych verbs are indexed by ABS clitics (e.g. (35)) in all non-promotion environments, which constitutes evidence for their internal argument status more generally.[11]

5 Conclusion

I have shown that some subjects in Choctaw show the characteristic morphological profile of internal arguments, despite the fact that they are cross-referenced by ERG clitics, which are generally used to cross-reference external arguments. The evidence came from applying the diagnostics in section 3 to four classes of verbs. The table in (40) summarizes the results of section 4.

(40)

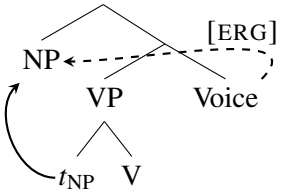
verb type	Subj. agr.	Caus. alt.	ERG-class aux.	Pl. all.	DAT subj.
unaccusative	ABS	Y	N	Y	Y
quantifier	ERG	Y	N	N	Y
positional	ERG	Y	N	Y	Y
motion	ERG	N	dispreferred	Y	%
psych	ABS/ERG	Y	N	N	N
unergative	ERG	N	Y	N	N

11. Regarding the other two tests for internal argument status, psych experiencers do not, to my knowledge, ever condition plural allomorphy, nor do they admit applied dative subjects. The former property is a simple property of the lexicon and does not argue against the analysis presented here. The latter property is unexplained on the current analysis and merits further investigation.

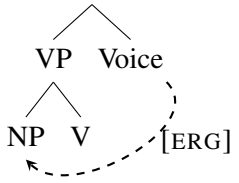
Not every cell on this table is neatly explained (motion verbs in particular have at least some unergative-like properties), but taken together I believe that there is evidence that the subjects of certain ERG-subject verbs are in fact internal arguments. Thus the structure in (3) which, recall, is a problem for both inherent and dependent theories of ergative case, is attested in a natural language.

What are our theoretical options at this point? One is to claim that ERG clitics in Choctaw do not realize any underlying case feature of the argument they associate with, but have their distribution determined by some other mechanism. I set this option aside for now. Another theoretical option is to allow ergative case, at least in some languages, to be divorced both from thematic role *and* structural relations with clausemate NPs (i.e. to allow ergative to be neither inherent or dependent). Instead, Voice could assign ergative not just to external arguments, but also to some internal arguments too. One recent spate of proposals (e.g. Deal 2019) holds that internal arguments may undergo *raising-to-ergative*, from an internal argument position into the external argument position where ergative case is assigned, schematized in (41). In this way, the link between the external argument position and the agent theta-role would be weakened, as arguments would be permitted to move into this position without gaining an agent theta-role. A near-equivalent implementation of the idea would be to allow Voice to assign ergative *downwards* to an internal argument in some syntactic contexts, schematized in (42). This would involve weakening the link between ergative case and the external argument position. It remains for future work to determine which, if either, of these options is superior, and for which languages.

(41)



(42)



References

Aldridge, Edith. 2008. Generative approaches to ergativity. *Language and Linguistics Compass* 2:966–995.

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2015. *External arguments in transitivity alternations: A layering approach*. Oxford: Oxford University Press.

Baker, James Samuel. 2018. Split intransitivity: Thematic roles, case and agreement. PhD Thesis, University of Cambridge.

Bobaljik, Jonathan David. 2015. Suppletion: Some theoretical implications. *Annual Review of Linguistics* 1:1–18.

Broadwell, George Aaron. 1988. Multiple theta-role assignment in Choctaw. In *Syntax and semantics*, ed. W. Wilkins, volume 21, 113–127. San Diego, CA: Academic Press.

Broadwell, George Aaron. 1993. Subtractive morphology in southern Muskogean. *International Journal of American Linguistics* 59:416–429.

Broadwell, George Aaron. 2006. *A Choctaw reference grammar*. Lincoln, NE: University of Nebraska Press.

Broadwell, George Aaron, and Jack Martin. 1993. The clitic/agreement split: Asymmetries in Choctaw person marking. In *Proceedings of the 19th Annual Meeting of the Berkeley Linguistics Society*, 1–10.

Carden, Guy, Lynn Gordon, and Pamela Munro. 1986. Raising rules and the projection principle. Unpublished ms.

Cusic, David D. 1981. Verbal Plurality and Aspect. Doctoral Dissertation, Stanford.

Davies, William D. 1981. Choctaw clause structure. Doctoral Dissertation, UC San Diego.

Davies, William D. 1986. *Choctaw Verb Agreement and Universal Grammar*. Dordrecht: Reidel.

Deal, Amy Rose. 2019. Raising to ergative: Remarks on applicatives of unaccusatives. *Linguistic Inquiry* 50:388–415.

Durie, Mark. 1987. Grammatical relations in Acehnese. *Studies in Language* 11:365–399.

Harley, Heidi. 2014. On the identity of roots. *Theoretical Linguistics* 40:225–276.

Henderson, Robert Martin. 2012. Ways of pluralizing events. PhD Thesis, UC Santa Cruz.

Legate, Julie Anne. 2006. Split absolutive. In *Ergativity*, 143–171. Springer.

Marantz, Alec. 1991/2000. Case and Licensing. In *Arguments and case: explaining Burzio's generalization*, ed. Eric Reuland, 11–30. Amsterdam: John Benjamins.

Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In *Proceedings of the 21st Annual Penn Linguistics Colloquium*, 201–225. Philadelphia: University of Pennsylvania Working Papers in Linguistics.

McFadden, Thomas. 2007. Auxiliary selection. *Language and Linguistics Compass* 1:674–708.

Miyagawa, Shigeru. 1984. Blocking and Japanese causatives. *Lingua* 64:177–207.

Munro, Pamela, and Lynn Gordon. 1982. Syntactic relations in Western Muskogean: a typological perspective. *Language* 81–115.

Pesetsky, David. 1996. *Zero syntax: Experiencers and cascades*. Cambridge, MA: MIT Press.

Schäfer, Florian Mathis. 2007. On the nature of anticausative morphology: External arguments in change-of-state contexts. Doctoral Dissertation, Universität Stuttgart.

Sorace, Antonella. 2000. Gradients in auxiliary selection with intransitive verbs. *Language* 859–890.

Tyler, Matthew. 2019a. Absolutive promotion and the condition on clitic hosts in choctaw. *Natural Language & Linguistic Theory* 37:1145–1203.

Tyler, Matthew. 2019b. Choctaw as a window into the clitic/agreement split. *Studia Linguistica* 73:299–338.

Tyler, Matthew. accepted. Two Kinds of External Possession in Mississippi Choctaw. *Syntax*.

Wood, Esther. 2007. The semantic typology of pluractionality. Doctoral Dissertation, University of California, Berkeley.