

# Voice-less Unergatives: Evidence from Algonquian

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## 1. Introduction

Much recent work has argued for a distinction between two heads in the extended verbal projection:  $v$ , which verbalizes the lexical root, and Voice, which introduces the external argument (e.g. Pylkkänen 2002; Harley 2013; Legate 2014). This distinction presents an opportunity to reassess the relationship between unergative and transitive verbs. Hale and Keyser (1993) made the influential proposal that unergatives are concealed transitives, in which the object has been incorporated into the verbal root. Under this approach, we would expect unergative subjects, like transitive subjects, to originate in the specifier of VoiceP. Massam (2009), however, argues that this is not the case in Niuean (Polynesian): VoiceP introduces transitive (thematic “Agent”) subjects only, while unergative (thematic “Doer”) subjects originate lower, in  $v$ P (see also Tollan 2015 and Polinsky 2016 for similar proposals).

In this paper, we consider the Algonquian verbal domain in view of these proposals. The Algonquian languages are a useful test case because of the extensive and visible role that transitivity plays in their morphology: Voice and  $v$  are both realized overtly and there are clear morphosyntactic diagnostics for the presence of Voice. We argue that the Algonquian facts strongly support a model in which unergative subjects originate in  $v$ P rather than VoiceP, as in Massam (2009). Evidence from a range of diagnostics consistently indicates that unergatives lack a VoiceP layer.

The paper proceeds as follows. Section 2 identifies three diagnostics for  $v$ P and VoiceP structure in Algonquian, focusing on data from Plains Cree and Oji-Cree. Section 3 introduces a class of defective ‘pseudo-transitive’ verb stems, which we propose lack a VoiceP layer. Section 4 considers how unergative verbs fit into this empirical picture. All diagnostics indicate that unergatives pattern with pseudo-transitives rather than full-fledged transitives, as is expected if unergatives lack VoiceP structure. Section 5 turns to some broader typological ramifications of our proposals.

## 2. Diagnostics for $v$ P and VoiceP structure

This section shows that  $v$  and Voice are both realized overtly in Algonquian: the set of suffixes known as “finals” realize  $v$  (§2.1) while those known as “theme signs” realize Voice (§2.2). These suffixes thus provide a straightforward diagnostic for the presence of  $v$ P and VoiceP structure. A restriction on causativization provides a further diagnostic (§2.3).

### 2.1. Finals as $v$

A minimal Algonquian verb stem is formed from an acategorial root plus a verbalizing FINAL, a derivational suffix that carries light-verb meaning and determines the transitivity of the stem (Bloomfield 1946; Goddard 1990). The Plains Cree intransitive verb stems in (1), for example, are formed from the root *mijw-* ‘good’ plus the intransitive finals *-isi* ‘be’, *-i* ‘do’, and *-payi* ‘go’. (Much of the data in this paper consists of Plains Cree verb stems and inflected verb forms. The verb stems are drawn from Bloomfield 1946, Hewson 1993, and Wolvengrey 2001; inflected verb forms follow the inflectional paradigms in Wolfart 1973. Citations are provided for all data from other sources.)

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|-----|----|---|----|--|----|---|
| (1) | a. | <i>miyosi-</i><br>miyw <b>-isi</b><br>good <b>-be</b><br>'to be good, nice, pretty' | b. | <i>miyo-</i><br>miyw <b>-i</b><br>good <b>-do</b><br>'to do well, be skillful' | c. | <i>miyopayi-</i><br>miyw <b>-payi</b><br>good <b>-go</b><br>'to go well, fare well' |
|-----|----|---|----|--|----|---|

Similarly, the Plains Cree transitive verb stems in (2) are formed from the same root *miyw-* 'good' plus the transitive finals *-in* 'do to X by hand', *-m* 'do to X by mouth, by speech', and *-h* 'cause X to do/be', where "X" is the patient. We abbreviate the meanings of these finals as 'hold', 'speak', and 'cause' in the glosses in (2) and subsequent examples.

- |     |    |   |    |   |    |   |
|-----|----|---|----|---|----|---|
| (2) | a. | <i>miyon-</i><br>miyw <b>-in</b><br>good <b>-hold</b><br>'to hold X well' | b. | <i>miyom-</i><br>miyw <b>-m</b><br>good <b>-speak</b><br>'to approve X' | c. | <i>miyoh-</i><br>miyw <b>-h</b><br>good <b>-cause</b><br>'to set X up well' |
|-----|----|---|----|---|----|---|

We follow much existing literature in analyzing Algonquian verb finals as *v* (e.g. Bruening 2001:122; Brittain 2003; Hirose 2003; Branigan et al. 2005; Piggott and Newell 2006; Mathieu 2007; Slavin 2012), as this analysis fits well with their verbalizing function and light-verb meanings.

## 2.2. Theme signs as Voice

Immediately following the verb stem is an inflectional slot known as the THEME SIGN (Bloomfield 1946), which expresses object agreement (Rhodes 1976; Brittain 1999; McGinnis 1999). The Plains Cree verb forms in (3), for example, show the stem *miyon-* 'to hold X well' inflected with four distinct theme signs that mark the person and animacy of the object: *-i* 'first-person object', *-it* 'second-person object', *-â* 'animate third-person object', *-am* 'inanimate third-person object'. The theme sign is followed by a person-number agreement marker known as the CENTRAL SUFFIX (Goddard 1969), which is not relevant to the patterns examined in this paper but will appear in all inflected examples; we take this suffix to realize the agreement head T or Infl (following, among others, Halle and Marantz 1993).

- |     |    |  |    |   |
|-----|----|--|----|---|
| (3) | a. | <i>kimiyonin</i><br>ki- [miyw -in] <b>-i</b> -in<br>2- [good -hold] <b>-1.OBJ</b> -NON3<br>'you hold <b>me</b> well'   | c. | <i>kimiyonâw</i><br>ki- [miyw -in] <b>-â</b> -w<br>2- [good -hold] <b>-3.AN.OBJ</b> -3<br>'you hold <b>him/her</b> well'            |
|     | b. | <i>kimiyonitin</i><br>ki- [miyw -in] <b>-it</b> -in<br>2- [good -hold] <b>-2.OBJ</b> -NON3<br>'I hold <b>you</b> well' | d. | <i>kimiyonam</i><br>ki- [miyw -in] <b>-am</b> -w <sup>1</sup><br>2- [good -hold] <b>-3.INAN.OBJ</b> -3<br>'you hold <b>it</b> well' |

In addition to the object agreement forms in (3), the theme sign also has a special INVERSE form *-ikw*. The inverse theme sign always appears when a less topical OBVIATIVE third person, translated here as 'the other', acts on a more topical PROXIMATE third person, as in (4), and in certain other contexts as well.

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|-----|--|
| (4) | <i>miyonik</i><br>[miyw -in] <b>-ikw</b> -w<br>[good -hold] <b>-INV</b> -3<br>'the other holds him/her well' |
|-----|--|

Special variants of the inverse theme sign exist for inanimate actors (*-iko* INV.INAN) and impersonal actors (*-ikawi* INV.IMPERS), as exemplified in (5).<sup>2</sup>

<sup>1</sup> Word-final /w/ deletes after a consonant in Plains Cree (Wolfart 1973:82), as in (3d), (4), (9b), and (11b), and after a consonant or vowel in Oji-Cree (Rogers 1964:112), as in (12).

<sup>2</sup> The impersonal inflection in (5b) performs the function of a passive construction. Impersonal forms exist for both transitive and intransitive verbs, so, unlike a passive, the Cree impersonal is not useful as a test for transitivity.

- (5) a. *miyonikôw*  
 [miyw -in] **-iko** -w  
 [good -hold] **-INV.INAN** -3  
 ‘it holds him/her well’
- b. *kimiyonikawin*  
 ki- [miyw -in] **-ikawi** -in  
 2- [good -hold] **-INV.IMPERS** -NON3  
 ‘someone holds you well’

A final descriptive point about the theme sign is that, while it appears in transitive forms like those given above, it never appears in unaccusative forms. In (6), for example, the stem *miyosi-* ‘be good, nice, pretty’ is followed directly by the T/Infl agreement suffix *-in* ‘non-3rd-person’; the theme sign slot is empty.

- (6) *kimiyosin*  
 ki- [miyw -isi] — -in  
 2- [good -be] — -NON3  
 ‘you are good, nice, pretty’

Following existing work, we take the theme sign to realize the head that introduces the external argument and licenses the internal argument (Hirose 2003; Bruening 2005; Béjar and Rezac 2009; Oxford 2017). In a split-*v*P model, the identity of this head is Voice (Harley 2013; Legate 2014). Analyzing the theme sign as Voice allows us to account for all of the properties described above:

- The appearance of object agreement in the theme sign slot (shown in (3)) follows from the role of Voice as the licenser of the object.
- The nature of the inverse marker (shown in (4)) is controversial in the literature, but many analyses converge in locating it on the head that introduces the external argument and licenses the internal argument (e.g. Bruening 2005; Béjar and Rezac 2009; Oxford 2017).
- The variants of the inverse marker dedicated to forms with inanimate and impersonal actors (shown in (5)) resemble passive markers in that they express a diminution of agentivity. We do not offer a complete analysis, but we note that Voice is the natural locus for such a passive-like function.
- The absence of a theme sign in unaccusatives (shown in (6)) is expected if the theme sign realizes the head that introduces the external argument, since unaccusatives lack an external argument.

We note, further, that the analysis of the theme sign as Voice accords with its position in the morphological template: as shown for Southwestern Ojibwe in (7), the theme sign appears between *v* and Neg in a sequence of suffixes whose order is fully compatible with a Mirror Principle analysis: Root-*v*-Voice-Neg-T-Mod-C (for the T and C slots, see Halle and Marantz 1993).

- (7) *niwaabamigosiinaadogenag*
- |     | Root  | <i>v</i> | <b>Voice</b> | Neg  | T    | Mod    | C    |
|-----|-------|----------|--------------|------|------|--------|------|
| ni- | [waab | -am ]    | <b>-igw</b>  | -sii | -naa | -dogen | -ag  |
| 1-  | [sec- | -do.to]  | <b>-INV</b>  | -NEG | -1PL | -DUB   | -3PL |
- ‘they must not see us’ (Southwestern Ojibwe, Nichols 1980)

### 2.3. Causativization as a structural diagnostic

A causativization process provides an additional diagnostic for *v*P/VoiceP structure. Most Algonquian languages allow unaccusative verb stems to be morphologically causativized (Bloomfield 1946; O’Meara 1990). This is shown for Plains Cree in (8): the addition of the causative final *-h* derives the transitive causative stem in (8b) from the simple unaccusative stem in (8a).

- (8) a. *têpipayi-*  
 têp -payi  
 enough -go  
 ‘to last’
- b. *têpipayih-*  
 têp -payi **-h**  
 enough -go **-cause**  
 ‘to make X last’

No parallel causativization process exists, however, for transitive verbs. The Plains Cree transitive stem *miyon-* ‘to hold X well’ in (2a) above, for example, cannot be the base for a causative stem *\*miyonih-* ‘to make Y hold X well’. Such a meaning can only be expressed, as Nichols (1980:247) notes for Ojibwe, by a periphrastic structure in which a verb of causing takes the caused event as a complement clause.

Why is it possible to monoclausally causativize an unaccusative but not a transitive? We propose that the morphological causativization process in (8) involves the addition of a VoiceP layer to host the external argument (the causer), and that only one VoiceP is permitted per clause. Causativization can apply to unaccusative stems because they do not already contain a VoiceP layer, but since transitive stems do contain a VoiceP layer (hosting the agent), causativization is not structurally possible.

When the causativization process is understood in this way, it can be used as a diagnostic for the amount of structure that is present in the representation of a verb stem: if causativization is banned, the stem must be a VoiceP; if causativization is permitted, the stem must be a vP.

### 3. Pseudo-transitive verbs

In addition to the diagnostics in the previous section, further light is shone on the representation of transitivity in Algonquian by a special class of PSEUDO-TRANSITIVE verb stems (Bloomfield 1958).<sup>3</sup> These stems are syntactically transitive in that they may take two arguments, but they do not otherwise pattern with full-fledged transitive stems (see discussions in Bloomfield 1962:47; Goddard 1969:37–38; O’Meara 1990:96–102; Rhodes 1990; Dahlstrom 2013).

To appreciate the differences between pseudo-transitives and full-fledged transitives, consider the Plains Cree pseudo-transitive stem *kimoti-* ‘to steal X’. We will discuss five ways in which this stem differs from full-fledged transitive stems such as *miyon-* ‘to hold X well’. The first difference involves the inverse construction introduced in Section 2.2. In forms involving two third persons, a full-fledged transitive such as *miyon-* may be either DIRECT (proximate acts on obviative) or INVERSE (obviative acts on proximate), as shown in (4) above. A pseudo-transitive such as *kimoti-*, however, can only be direct: the proximate must act on the obviative, as in (9a); the predicted inverse form in (9b) does not exist.

- |     |    |  |    |  |
|-----|----|--|----|--|
| (9) | a. | <i>kimotiw</i><br>[kimot -i] — -w<br>[steal -do] — -3<br>‘s/he steals the other (OBV)’ | b. | <i>*kimotik</i><br>[kimot -i] <b>-ikw</b> -w<br>[steal -do] <b>-INV</b> -3<br>(intended: ‘the other (OBV) steals him/her’) |
|-----|----|--|----|--|

The second difference involves the theme sign slot. Pseudo-transitives are incompatible not just with the inverse theme sign *-ikw* in (9b), but with all theme signs. In the inflected forms of *kimoti-* ‘to steal X’ in (9a) and (10a), the stem is followed directly by a T/Infl agreement suffix and the theme sign slot is empty. This is always the case in pseudo-transitive forms. If the appropriate object-agreement theme sign is added, as in (10b), the result is an impossible form.

- |      |    |  |    |   |
|------|----|--|----|---|
| (10) | a. | <i>kikimotin</i><br>ki- [kimot -i] — -n<br>2- [steal -do] — -NON3<br>‘you steal him/her’ | b. | <i>*kikimotâw</i><br>ki- [kimot -i] <b>-â</b> -w<br>2- [steal -do] <b>-3.AN.OBJ</b> -3<br>(intended: ‘you steal him/her’) |
|------|----|--|----|---|

The third difference involves the features of the object. The object of a full-fledged transitive can be either a speech-act participant (SAP, i.e. first or second person) or a third person, as shown for *miyon-* ‘to hold X well’ in (3). The object of a pseudo-transitive, however, can only be a third person, as in (9a) and (10a). SAP objects (e.g. ‘she steals you’) are impossible (Goddard 1969; Rhodes 1990).

The fourth difference involves causativization. As discussed in Section 2.3, monoclausal causativization is banned for full-fledged transitives. For pseudo-transitives, however, there is no such ban. For example, the Menominee pseudo-transitive stem *men-* ‘to drink X’ can serve as the base for a causative stem *menah-* ‘to make Y drink X’ (Bloomfield 1946).

<sup>3</sup> In current Algonquianist usage, Bloomfield’s (1958) term “pseudo-transitive verb” has been replaced by the term “AI+O verb” (Goddard 1969), which is more precise but also more opaque to non-specialists.

The final difference involves lexical semantics. Based on a study of pseudo-transitive verbs in several Algonquian languages, Dahlstrom (2013) concludes that the pseudo-transitive class consists primarily of verbs whose internal argument is not greatly affected by the external argument. Examples contrasting the two transitive types are given in Table 1. The class of full-fledged transitives includes prototypical strong transitives such as ‘kill’ and ‘hit’ as well as any transitives that overtly encode an instrument. Pseudo-transitives, on the other hand, express notions such as possession, loss, exchange, and accompaniment.

Full-fledged transitives		Pseudo-transitives	
<i>nipah-</i>	‘to kill X’	<i>atâwê-</i>	‘to buy X’
<i>pakamahw-</i>	‘to hit X’	<i>wanikiskisi-</i>	‘to forget X’
<i>miyon-</i>	‘to hold X well (by hand)’	<i>kikâpôhkê-</i>	‘to enhance one’s soup with X’

**Table 1:** Examples of full and pseudo transitives in Plains Cree (Dahlstrom 2013)

We propose that pseudo-transitives differ from full-fledged transitives in that they lack a VoiceP layer; their external argument is instead introduced in *v*P. All five of the properties described above follow from the absence of a VoiceP layer: (1) the inverse construction is impossible because its locus is Voice (§2.2); (2) no theme sign appears because theme signs are the realization of Voice; (3) SAP objects are excluded because the object-licensing head Voice is absent (but third-person objects remain licit because they are subject to less stringent licensing conditions: Béjar and Rezac 2003; Baker 2008; Kalin 2017); (4) monoclausal causativization is possible because the VoiceP layer that it adds was not already present; and (5) the external argument is less affecting because it is a “Doer” introduced by *v* rather than an Agent introduced by Voice, as proposed for Niuean in Massam 2009.

The properties of the two types of Algonquian transitive verbs are summarized in Table 2. We have proposed that full-fledged transitives involve an Agent argument introduced in VoiceP; a suite of properties involving inversion, theme signs, object features, and causativization follows from the presence of a VoiceP layer. Pseudo-transitives, on the other hand, lack a VoiceP layer and instead have a Doer argument in *v*P; they consequently lack the suite of properties associated with VoiceP.

	Full transitive	Pseudo-transitive
External argument	Agent in VoiceP	Doer in <i>v</i> P
Inverse possible?	yes	no
Takes theme sign?	yes	no
Takes SAP object?	yes	no
Causative banned?	yes	no

**Table 2:** Properties of full and pseudo transitive verbs

## 4. Patterning of unergative verbs

This section assesses the patterning of unergative verbs with respect to the diagnostics established above: the realization of Voice (§4.1), the applicability of causativization (§4.2), and the realization of *v* (§4.3). These tests indicate that unergatives, like pseudo-transitives, lack a VoiceP layer.

### 4.1. Realization of Voice

If unergative subjects, like full-fledged transitive subjects, are introduced in the specifier of VoiceP, the presence of Voice should lead to the realization of a theme sign (§2.2). Since no object is available for the theme sign to agree with (unlike the examples in (3) above), we might expect the theme sign to be realized as a default form, which could imaginably be either the form that occurs with an inanimate object, *-am* (Branigan and MacKenzie 2002:388), or the inverse form, *-ikw* (Oxford 2017) (see §2.2 for

examples). However, as shown for Plains Cree in (11b), neither of these forms can occur. Unergatives lack a theme sign altogether, as in (11a), where the stem is followed directly by T/Infl agreement.

- (11) a. *nîmiw*  
 [nîm -i] — -w  
 [dance -do] — -3  
 ‘s/he dances’
- b. \**nîmiyam*, \**nîmik*  
 [nîm -i] {-am, -ikw} -w  
 [dance -do] {-3.INAN.OBJ, -INV} -3  
 (intended: ‘s/he dances’)

The simplest conclusion is that the lack of a theme sign in (11a) indicates the lack of a VoiceP layer in the structure. This is the conclusion that we wish to draw, but we must first address an alternative analysis: what if the default form of the theme sign is not *-am* or *-ikw*, as in (11b), but rather *null*? If that were the case, we could say that the grammatical unergative form in (11a) does in fact contain a theme sign (and thus VoiceP is present in the structure), but the theme sign is realized in its default null form due to the lack of an object to agree with. This alternative can be tested by transitivizing an unergative. If the absence of an overt theme sign in (11a) reflects the lack of an object to agree with, the addition of a cognate or hyponymous object should restore an overt theme sign. However, this is not the case, as shown by the Oji-Cree examples in (12) (authors’ fieldwork): even when an object is added, the unergative verb *niimi-* ‘dance’ still does not take a theme sign.

- (12) a. *Niimi niimiwinini*.  
 [niim -i] -w niimiwin -ini  
 [dance -do] -3 dance.NOM -INAN.OBV  
 ‘S/he is dancing a dance.’
- b. *Niimi Maahkaniina-niimiwinini*.  
 [niim -i] -w Maahkaniina-niimiwin -ini  
 [dance -do] -3 Macarena-dance.NOM -INAN.OBV  
 ‘S/he is dancing the Macarena.’

Note the occurrence of obviation on the object in these examples (*-ini* INAN.OBV). This is the same pattern that would occur in any transitive sentence with two third-person arguments: one must be marked obviative. The presence of obviation indicates that the object is indeed a referential clausal argument, as obviation is tied to reference tracking (Branigan and MacKenzie 1999).<sup>4</sup>

We conclude from the data in (12) that the absence of a theme sign in unergatives cannot be attributed to the absence of an object, as the theme sign remains absent even when an object is present. It is thus preferable to attribute the absence of a theme sign to the absence of VoiceP.

#### 4.2. Causativization

We saw above that morphological causativization can apply to *vP* structures (unaccusatives and pseudo-transitives) but not to VoiceP structures (full-fledged transitives). The predictions for unergatives are clear: causativization should be possible if their structure lacks VoiceP and impossible if their structure includes VoiceP. As shown for Plains Cree in (13b), causativization is possible for unergatives, as predicted if VoiceP is absent.

- (13) a. *nîmi-*  
 nîm -i  
 dance -do  
 ‘to dance’
- b. *nîmih-*  
 nîm -i -h  
 dance -do -cause  
 ‘to make X dance’

<sup>4</sup> The occurrence of obviation is also a sign that the cognate object construction in (12)—which is not, to our knowledge, discussed in the existing literature—is fully natural for the consultant, as obviation tends to disappear in unnatural elicitation settings (Cook and Mühlbauer 2006).

### 4.3. Realization of *v*

A final indication that unergatives do not pattern with full-fledged transitives comes from the stem-forming derivational final suffix (*v*). The finals that appear in unergative stems (e.g. *-i* ‘do’, *-isi* ‘be’, *-ihkê* ‘make’, *-simo* ‘lie’, *-kwâso* ‘sew’) are the same as those that appear in pseudo-transitive stems, as exemplified for Plains Cree in Table 3 (Bloomfield 1946; Wolfart 1973; Hewson 1993; Dahlstrom 2013). Algonquianists refer to this set as INTRANSITIVE finals (or, more technically, “AI” and “II” finals), although their occurrence in pseudo-transitive stems indicates that this label should not be taken too literally. Full-fledged transitives, on the other hand, show a completely different set of finals, known by Algonquianists as TRANSITIVE (“TA” and “TI”) finals, e.g. *-h* ‘cause X to do/be’, *-m* ‘do to X by mouth, by speech’, *-in* ‘do to X by hand’, *-ah* ‘do to X by tool’, *-staw* ‘do to X’ (Wolfart 1973:73–75). Stems ending with these finals, which typically have causative or instrumental meaning, are always followed by a theme sign (Voice).

Final	Unergative stem	Pseudo-transitive stem
<i>-i</i> ‘do’	<i>nîmi-</i> ‘dance’	<i>kimoti-</i> ‘steal X, be a thief’
<i>-isi</i> ‘be’	<i>sêkîsi-</i> ‘be scared’	<i>wanikiskîsi-</i> ‘forget X, be forgetful’
<i>-ihkê</i> ‘make’	<i>sôniyâhkê-</i> ‘make money’	<i>kikâpôhkê-</i> ‘enhance one’s soup with X’
<i>-simo</i> ‘lie’	<i>kawisîmo-</i> ‘lie down’	<i>aspisîmo-</i> ‘use X for a pillow, bed’
<i>-kwâso</i> ‘sew’	<i>kîsikwâso-</i> ‘finish one’s sewing’	<i>kaskikwâso-</i> ‘sew X, sew’

**Table 3:** Same “intransitive” finals in Plains Cree unergative and pseudo-transitive stems

We analyze the “intransitive” finals in Table 3, which occur in unergative and pseudo-transitive stems, as a type of semi-agentive *v* that expresses a state or activity and introduces a Doer argument. Since this type of *v* introduces an external argument, it need not be accompanied by a VoiceP layer (although VoiceP may be added in a causative structure, as discussed above). As for “transitive” finals such as *-in* ‘do to X by hand’, which have causative or instrumental meaning and must be accompanied by Voice, we adopt the analysis of causatives proposed by Legate (2014): these finals are a type of *v* that adds agent-oriented semantics (causation, instrumentality) but does not introduce the external argument, which is instead merged in an accompanying VoiceP layer. This analysis captures the differences between the two types of finals. For our purposes in this paper, the important point is that the *v*P structure of an unergative is entirely different from that of a full-fledged transitive: not only do unergatives lack a VoiceP layer, but their *v*P layer contains a different set of finals (*v*) from those that appear in full-fledged transitives.

### 4.4. Summary: The status of unergative verbs

The properties of full-fledged transitives, unergatives, pseudo-transitives, and unaccusatives are summarized in Table 4. Unergatives share no properties with full-fledged transitives; we have shown that the differences follow from the presence of a VoiceP layer in full-fledged transitives and its absence in unergatives. The properties of unergatives do, however, align perfectly with those of pseudo-transitives—which, we have argued, also lack a VoiceP layer (§3). We conclude that if Algonquian unergatives are to be regarded as concealed transitive structures, the proper comparison is with pseudo-transitives, in which the external argument is a Doer in *v*P rather than an Agent in VoiceP.

	Full transitive	Unergative	Pseudo-transitive	Unaccusative
Takes theme sign?	yes	no	no	no
Takes SAP object?	yes	no	no	n/a
Causative banned?	yes	no	no	no
Set of finals	transitive	intransitive	intransitive	intransitive

**Table 4:** Properties of Algonquian transitivity classes

## 5. Beyond Algonquian: Typological implications

The conclusion that Algonquian unergative verbs pattern differently from full-fledged transitives raises questions concerning the wider typology: does this patterning extend beyond Algonquian? A strong claim, which we do not make here, is that unergative subjects are *universally* merged lower than transitives. In other words, every language exhibits a split *v*/Voice structure in which both thematic heads are able to introduce external arguments. There are, however, a number of conceivable alternatives. First, some languages are known to lack *bona fide* unergative verbs altogether. In Ch’ol Mayan (Coon 2013), for example, all would-be unergative predicates involve a light verb + NP construction and are thus underlyingly transitive; all true “intransitive” constructions in Ch’ol involve a single internal argument, and never a single external argument.<sup>5</sup> A second possibility is for a language to exhibit a split *v*/Voice structure in which unergative Doers and transitive Agents are both merged in VoiceP (as in Legate 2014, among others). Finally, *v* and Voice may in some languages be bundled as a single thematic head, such that all external arguments are merged in the same specifier position and thus pattern alike (see Tollan 2015 for western dialects of Basque).

Nonetheless, there is at least some evidence that the disjoint patterning of transitive and unergative subjects extends beyond Algonquian. In Samoan, an ergative-absolutive Polynesian language, transitive subjects are marked ergative, as in (14a), while unergative subjects, like unaccusative subjects, surface as absolutive, as in (14b) (Tollan 2015).

- (14) a. *Sā fau e le tamāloa le fale.*  
 sā fau [e le tamāloa] [le fale]  
 PAST build [ERG DET man] [DET house.ABS]  
 ‘The man built the house.’ (transitive: ERG-ABS)
- b. *Sā siva le teine.*  
 sā siva [le teine]  
 PAST dance [DET girl.ABS]  
 ‘The girl danced.’ (unergative: ABS)

If unergatives and transitives patterned alike in Samoan, with the sole structural factor differentiating (14b) from (14a) being the absence of an object, then ergative case marking on the subject would be expected to re-surface when (14b) is transitivized by addition of an object. As shown by Tollan (2015), however, this is not so: the non-ergative case frame in (15) appears instead, in which the now-transitive subject retains absolutive case and the object is marked with *i* (argued by Tollan to be accusative case, based on several diagnostics).

- (15) *Sā siva le teine i le siva/uosi.*  
 sā siva [le teine] [i le siva/uosi]  
 PAST dance [DET girl.ABS] [ACC DET dance/waltz]  
 ‘The girl danced a dance/waltz.’ (unergative + object: ABS-ACC)

The contrast between (14) and (15) bears parallels to the Algonquian unergative + object construction discussed above (§4.1). Just as the Algonquian unergative verb form in (11) lacks the theme sign found in a full transitive, the Samoan unergative subject in (14b) lacks the ergative case marking found on the transitive subject in (14a). Equally, just as the Algonquian theme sign does not reappear when an object is added in (12), the Samoan unergative subject does not gain ergative case when the verb is transitivized in (15). It follows that neither Algonquian theme signs nor Samoan ergative marking can be attributed solely to the presence of an object in the syntax. Rather, both phenomena are reflexes of VoiceP, present only in certain types of transitive constructions (indeed, Tollan 2015 proposes that ergative case is assigned inherently by Voice in Samoan).<sup>6</sup> We suggest that Algonquian and Samoan instantiate the same set

<sup>5</sup> Such a language may, however, have two positions for transitive subjects, corresponding to Algonquian transitive (VoiceP) and pseudo-transitive (*v*P) verb classes.

<sup>6</sup> A further parallel is that, like Algonquian, Samoan also has a set of “pseudo-transitive” verbs, known as MIDDLES (Chung 1978), which show the same case marking pattern as the unergative + object construction.

of transitivity patterns—albeit via head- and dependent-marking morphosyntax, respectively—in which VoiceP is the locus of more marked features of transitivity such as theme signs and ergative case.

Besides Samoan, unergative subjects have also been argued to pattern differently from transitive subjects in Niuean (Massam 2009) and Tsez (Polinsky 2016). While we do not assume that every language exhibits two external argument positions that pattern as in Algonquian and Samoan, our goal here has been to demonstrate that unergative verbs at least do not universally pattern with full transitives.

## 6. Conclusion

We have proposed that various aspects of the patterning of Algonquian unergative verbs indicate that they lack a VoiceP layer, in contrast to full-fledged transitives, which exhibit a fully articulated thematic structure. We argue that the unergative subject (a thematic Doer, in the terms of Massam 2009) is introduced by *v* while a full-fledged transitive subject (a thematic Agent) is introduced by Voice. Rather than patterning with full-fledged transitives, unergative verbs instead pattern with a class of defective “pseudo-transitive” verbs, which also lack the morphosyntax of Voice and exhibit the same verbalizing morphology as unergatives. The split VoiceP/*v*P approach thus allows for a nuanced understanding of the unergative-transitive relationship, in which both *v* and Voice introduce (different kinds of) external arguments. If unergatives are to be treated as concealed transitives, as in Hale and Keyer 1993, then they may exhibit one of two types of structure, involving either a *v*P or VoiceP subject.

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