

Unifying V-C movement in Algonquian and Germanic: A view from the outliers

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Most Algonquian languages have 2 agreement paradigms that correspond to different clause types (the exact details of their distribution vary from language to language). One paradigm only involves suffixal agreement (1a), and the other - agreement in the prefix and suffix (1b).

(1) a. SIMPLE: {stem}-{theme marker}-{AGR₁} b. COMPLEX: {AGR₂}-{stem}-{theme marker}-{AGR₁}

There is no consensus on how to analyze the paradigms (see Brittain 2001, Richards 2004 for competing views). We focus on Arapaho, an outlier in Algonquian. The contexts where (1a-b) occur in most Algonquian languages are reversed in Arapaho; the elsewhere paradigm in most of Algonquian (COMPLEX) is the marked paradigm in Arapaho. Although this seems like *prima facie* evidence against a unified analysis of the COMPLEX/SIMPLE alternation, we argue that (i) the Arapaho/Algonquian split can receive a uniform account where the alternation correlates to presence/absence of V-C movement (following Richards 2004); (ii) variation in the availability of movement across clause types in Algonquian is similar to the differences in the availability of V-C movement in Germanic. In doing so, we show there is a parallel between V-C movement across unrelated and superficially completely different languages and pave the way towards a deeper understanding of head-movement in the clausal domain.

The phenomenon. The SIMPLE paradigm (trad. *conjunct order*) is typically restricted to a small set of clause types, while the COMPLEX one (trad. *independent order*) is the elsewhere case. The distribution for Arapaho vs. other Algonquian languages is summarized in (2).

	Wampanoag (Wamp.)	Cree-Mont-Naskapi (CMN)	Arapaho (Arap.)
COMPLEX:	<elsewhere>	<elsewhere >	negative, interrogative, modal/conditional clauses
SIMPLE:	Relative, <i>when/if</i> , embedded <i>wh</i> -clauses	negative, subordinate, <i>wh</i> -clauses; focus	<elsewhere>

We compare Wampanoag and Arapaho more closely. In Wampanoag, SIMPLE agreement occurs in embedded (3a), and COMPLEX is used in matrix clauses (3b). In Arapaho, a matrix indicative clause requires SIMPLE (4a) while COMPLEX occurs in marked environments (4b).

- (3) a. *nâw-uquv-âk-up* [SIMPLE] b. *ku-nâw-uk-uwo-pan-eek* [COMPLEX]
 see-INV-2PL-PRET [embedded] 2-see-INV-NON.1PL-PRET-PL [matrix]
 "... that they saw you (pl)." "They saw you (pl)." (Wamp.; Richards 2004)
- (4) a. *n<on>óóhob-é3en* [SIMPLE] b. *ne-ihoow-nóóhob-é3* [COMPLEX]
 IC.see-1>2 [matrix] 1-NEG-see-1>2 [negative]
 "I see you." "I don't see you." (Arap.; Cowell & Moss 2008)

The contrast in (3)-(4) seems to indicate that separate analyses of the correlation between the clause types and agreement are needed for Wampanoag and Arapaho. However, we will argue that on an abstract level the SIMPLE and COMPLEX paradigms do have a common source across Algonquian: COMPLEX agreement appears when V-C movement occurs, while SIMPLE agreement marks the absence of V-C movement. We show this correlation is not arbitrary and in fact finds a close cross-linguistic parallel in the distribution of V2 in Germanic.

Analysis. Richards' (2004) account of Wamp. assumes multiple AGR heads can be present on different functional heads, and an AGR head is only present at PF if V "picks it up" by head-moving to it or through it on the way to a higher head. (3b) starts out as (5a); the COMPLEX

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pattern arises because V head-moves successive cyclically via Pol⁰, picking up AGR₁ on its way to C⁰, where it also picks up AGR₂ and can be a host for the agreement proclitic CL₃.

- (5) a. [CP CL₃ [C [C [C AGR₂] [TP T [PolP [Pol AGR₁] [vP v [VP V]]]]]]]] [COMPLEX]
 ku **eek** pan **uwô** uq nâw
 b. [CP CL₃ [C [C [T [Pol [v [V] v] [Pol AGR₁]] T] [C AGR₂] [TP ...]]]]]
 ku- nâw -uk **-uwô** -pan **-eek**

The SIMPLE pattern arises in environments where V-C movement is blocked, so the verb cannot move higher than T⁰. This means the verb can only pick up AGR₁ when it head moves through Pol⁰ on its way to T⁰, but it cannot pick up AGR₂ on C⁰ or provide a host for CL₃, since V-to-C is blocked, which forces the two to remain unpronounced. The derivation is in (6a,b).

- (6) a. [CP CL₃ [C [C [C AGR₂] [TP T [PolP [Pol AGR₁] [vP v [VP V]]]]]]]] [SIMPLE]
 up **âk** uq nâw
 b. [CP CL₃ [C [C [C AGR₂] [TP [T [Pol [v [V] v] [Pol AGR₁]] T] [PolP ...]]]]]
 ∅ ∅ nâw -uquv **-âk** -up

Expanding on Richards' idea, we show that variation in the distribution of COMPLEX agreement across Algonquian is strikingly similar to the distribution of V2 in Germanic. For instance, the presence or absence of V2 in German generally relates to the matrix/embedded contrast: V cannot move to C in embedded clauses (cf. COMPLEX agreement in CMN in (2)). Conversely, in Icelandic, V2 is found in both matrix and embedded clauses but is absent in embedded *wh*-clauses (Iatridou and Kroch 1992) (cf. COMPLEX agreement in Wamp. in (2)).

On the surface, Arapaho goes against the parallel with Germanic V2; in most canonical V2 contexts, it is the SIMPLE pattern that must be used (no V-C). However, we propose that the SIMPLE/COMPLEX alternation in Arapaho in fact mirrors a different V-C movement pattern found in Germanic: it exhibits an English-style 'residual V2'. English lost general V2, but has Aux-C movement in questions (QI), in some negative contexts (NI), and conditional inversion (CI) (*'Had I been rich, everything would have been OK'*). Old/Middle English (OE/ME), had CI and QI with both auxiliary and lexical verbs (Biberauer and Roberts 2016), so V-C was obligatory in the marked contexts listed above. These also perfectly match Arapaho COMPLEX agreement contexts: questions (=QI), negative clauses (=NI), and modal conditional clauses (=CI). We thus have a complete parallel between Algonquian and Germanic.

We propose the following account for Arapaho. There are 2 loci of agreement morphology, the proclitic CL₂ (in SpecCP) and the post-verbal AGR₁ (on Pol⁰) (7a). V-C is, as in OE, triggered in a restricted set of contexts. In Arapaho, this involves those in (2). As (7b) shows, when V moves to C⁰, it picks up AGR₁ in Pol⁰, and CL₂ can be expressed at PF since it ends up adjacent to the verbal complex. Crucially, with other clause types V does not move as high as C⁰ (8b), parallel to (6b), which means the CL₂ marker cannot attach to the verb, hence cannot be pronounced, leaving AGR₁ (picked up in Pol⁰) as the only expression of agreement at PF.

- (7) a. [CP CL₂ [C [C C [TP T [PolP [Pol AGR₁] [vP v [VP V]]]]]]]] [COMPLEX]
 ne ihoow **e3** nóóhob
 b. [CP CL₂ [C [C [T [Pol [v [V] v] [Pol AGR₁]] T] C [TP ...]]]]]
 ne- nóóhob -ihoow **-e3**
 (8) a. [CP CL₂ [C [C C [TP T [PolP [Pol AGR₁] [vP v [VP V]]]]]]]] [SIMPLE]
 é3en nóóhob
 b. [CP CL₂ [C [C C [TP [T [Pol [v [V] v] [Pol AGR₁]] T] [PolP ...]]]]]
 ∅ nóóhob **-é3en**

Summing up, we argue for a unified account of the variation in the distribution of SIMPLE/COMPLEX agreement across Algonquian based on a novel analysis of the two in Arapaho. We give an analysis in terms of restrictions on V-C movement, based on Richards (2004), and extend it to Arapaho and the rest of Algonquian although the distribution of these patterns

seems contradictory on the surface. We propose that while the distribution of the COMPLEX paradigm in most Algonquian languages mirrors V2 in Germanic, this paradigm in Arapaho mirrors the distribution of V-C in OE. This indicates cross-linguistic variation in V-C is not arbitrary, as it shows highly comparable patterns in completely unrelated languages.

Ref.: **Biberauer & Roberts** 2016. Conditional Inversion & types of parametric change. **Brittain** 2001. *The Morphosyntax of the Algonquian Conjunct Verb*. **Cowell & Moss** 2008. *The Arapaho*