Initial Change is Mood-\(y\): Tense-Restricted Mood marking in Arapaho

Ksenia Bogomolets
University of Connecticut

Introduction. There has been a debate in the literature as to whether Algonquian languages grammatically mark the \([\pm\text{realis}]\) distinction (cf. Frantz 1991; Ritter & Wiltschko 2010). This paper contributes to the debate by presenting novel paradigms that suggest the \([\pm\text{realis}]\) contrast is marked in Arapaho. The current study makes two major claims: 1. The morpho-phonological process traditionally known as initial change (IC) marks Mood \([\pm\text{realis}]\) in Arapaho. 2. IC does not apply to verbs in past tense, i.e. there is an intriguing tense-related asymmetry such that verbs in the past tense do not participate in the same contrast as verbs in present and future; instead past tense verbs are marked for the contrast between Affirmative and Non-Affirmative agreement.

Data. IC is illustrated in (1)-(2). In Arapaho, all and only verbs exhibit the following regular alternation in the first syllable of the verb form:

1. STEM: niibéi - 'to sing'
2. STEM: betée- 'to dance'

\[\begin{array}{ll}
\text{a) nén-iibéi-noo vs.} & \text{b) ne-ihowú-niibéi} \\
\text{IC.sing - 1S} & \text{IC.dance - 1S} \\
\text{I am singing} & \text{I am dancing}
\end{array}\]

\[\begin{array}{ll}
\text{t) ne-ihowú-betée} & \text{u) ne-ihowú-betée} \\
\text{STEM: betéé} & \text{STEM: betée-} \\
\end{array}\]

As shown in (1)-(2), the process in question infixes either a /V/ or a /Vn/ into the first syllable of a word depending on whether the vowel in the first syllable is long (1) or short (2).

IC as Mood \([\pm\text{realis}]\) marker. I argue that IC in verbs in present and future tenses marks \([\pm\text{realis}]\):

3. Mood \([\pm\text{realis}] \leftrightarrow /\text{N}/\]
4. Mood \([\pm\text{realis}] \leftrightarrow \emptyset\]

Evidence for this claim comes from the distribution of IC - the cases where IC does not occur, despite having the right phonological environment for it to apply, can be grouped together under Mood \([-\text{realis}]\), namely: (i) clauses with Non-Affirmative agreement: negative statements and questions (4b-c), (ii) subjunctive (4d), (iii) imperatives (4e), and (iv) clauses with dubitatives and evidentials (5b). Contrast (4a) where IC does apply with (4b-e) where it does not:

\[\begin{array}{llll}
\text{a) b-e-etée-noo} & \text{b) ne-ihowú-betée} & \text{c) koo-ne-betée} \\
\text{IC.dance - 1S} & \text{IC.dance - 1S} & \text{INTER-1-dance} \\
\text{I am dancing} & \text{I am not dancing} & \text{Am I dancing?}
\end{array}\]

\[\begin{array}{ll}
\text{d) betée-noo-hók} & \text{e) betée} \\
\text{dance - 1S/SUBJ} & \text{dance} \\
\text{If I dance} & \text{Dance! (2S)}
\end{array}\]

I show that the patterns of alternation in (4) can not be reduced to tense or aspect contrasts. Moreover, I claim that IC does not simply mark the contrast between Affirmative (4a) and Non-Affirmative agreement orders (4b-c). This distinction is signaled both by choice of agreement affixes and affix order, but only partially correlates with IC. The affirmative order shows IC only when the verb is \([\pm\text{realis}]\), and not when it is \([-\text{realis}]\), as shown in (5):

\[\begin{array}{lll}
\text{a) wootíi hesookú'oo-3i} & \text{b) wootíí h-o'ó3íéebéé-noo h-é-ét-niiteheib-é3e-n} \\
\text{like} & \text{like} & \text{IC.be asked - 1S IC.FUT-help - 1S/2S} \\
\text{It seems they are watching.} & \text{I will help you as I am asked to do}
\end{array}\]

In (5), the particle wootíí can have two different meanings: a) Evidential marker: it seems; b) Comparative particle: like. In both (5a) and (5b), the verbs are marked with Affirmative agreement. As predicted by the realis hypothesis, no infixation occurs in clauses under the reading (a) because the evidential marker makes it \([-\text{realis}]\), while the verb is infixed under the reading in (b).
The patterns described above are exactly parallel for the verbs marked for future tense. The future tense prefix alternates between two allomorphs: *het*- and *heet*-. In [+realis] contexts the form of the future prefix is infixed with a vowel (6a) while in [-realis] contexts, i.e. in clauses with Non-Affirmative agreement, imperative and conditional clauses as well as when used with the so-called dubitative particles, verbs are prefixed with the uninfixed form of the future morpheme (6b):

6. a) h-é-ét-niibéží-it
   IC.FUT-sing-3S
   He is going to sing
b) wohoc= = het-nii- niibeí-ží
   DUBIT= FUT-IMPERF-sing-3S
   I wonder if he will sing

I propose that the same morpho-phonological process of */V/-infixation applies to present and future verb forms to mark the [+realis] contrast.

**Tense-related asymmetry.** The Simple past prefix in Arapaho alternates between two allomorphs: *nih-*/hiih*. It has been claimed that this alternation reflects the same contrast as IC in present and future tenses (Cowell 2008), where the *nih*-forms correspond to the infixed forms in present and future. Contrary to that claim, I argue that the distribution of the infix in future and present tenses and the distribution of the allomorphs *nih-*/hiih- for past differ in the following systematic way. In present and future, IC has no one-to-one relation to Affirmative/Non-Affirmative agreement orders, as shown in (5) above. However, allomorphy of the Simple past prefix is sensitive to precisely this contrast:

   T [past] ↔ /nih- Elsewhere

This account predicts that in any clause with Affirmative Order agreement, past tense will be marked with the *nih*- prefix even in [-realis] contexts. This prediction is borne out. Contrast examples of verbs marked with Subjunctive Mood in present (8a), future (8b), and past (8c):

8. a) betéé=noo-hók
   dance-1S-SUBJ
   If I dance
b) niitóbee=noo  hét-noúsee-hé-hk.
   FUT-arrive-3S-SUBJ
   I heard that he will come.
c) A hiiwo’  níih- biici3ei-nính-ehk
   A so  PAST-bead things- 2S-SUBJ
   Ah! So you knew how to sew! (/meaning: I didn't know you knew how to sew!)

Subjunctive is one of the [-realis] contexts in the language, hence verbs marked for Subjunctive do not undergo infixation in present and future (8 a-b). However, verbs in Subjunctive are marked with Affirmative Order agreement affixes and as predicted by (7), past tense is marked with the *nih*- prefix (8c). I propose that the observed tense-related asymmetry is related to the cross-linguistically common use of past tense morphology for expressing irrealis (e.g. Iatriadou 2001, Legate 2003, Steele 1975).

**Conclusion.** This study argues for the existence of a previously unattested grammatical contrast in Arapaho, and it provides an analysis of the grammatical role of IC which has not been explained elsewhere. Analysis of the word-initial infix as the [+realis] marker relates a number of otherwise inexplicable patterns in the verbs marked for present and future tenses. A novel claim that verbs in past tense do not undergo the process of IC and solely mark the contrast between Affirmative and Non-Affirmative agreement orders explains the differences in distribution of past tense allomorphs and infixation in present and future tenses. More broadly, the current study contributes to the discussion of the Algonquian mood morphology and to the debate about interrelations between past tense and irrealis.