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Deconstructing subcategorization: Conditions on insertion vs. position

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Introduction

Subcategorization has been utilized for decades to account for idiosyncratic behaviors of individual exponents (morphs)[1]

- A subcat frame expresses elements/structure required in an exponent's environment, e.g., __V ("be before a vowel")

(1) **Chamorro:** Actor Focus /*um*/: __V
   a. V-initial stem: *um-epanglo* 'look for crabs'
   b. C-initial stem: *tr<um>isti* 'become sad'

(2) **Tzeltal:** 3.POSS /*y*/: __V
   a. V-initial stem: *y-ahwal* 'his ruler'
   b. C-initial stem: **m<y>ul* 'his sin' (cf. *s-mul*)

- **The puzzle:** If both Ch. *um* and Tz. *y* have subcat frame __V, how do we account for their different behavior?

[1] See e.g. Kiparsky 1982; Inkelas 1990; Halle and Marantz 1993, 1994; McCarthy and Prince 1993a,b; Orgun 1996; Paster 2005, 2006, 2009; Yu 2007; Bye and Svenonius 2012; McPherson 2019.

Proposal

The point of this flash talk: Exponent subcategorization must be bifurcated into two *separate* and *ordered* mechanisms

1. Condition on Insertion **(COIN)** (__V in Tzeltal)
   ≈ *Can the exponent combine with a given stem?*
   → **For:** suppletive allomorphy,[2] morphological compatibility[3]
2. Condition on Position **(COP)** (__V in Chamorro)
   ≈ *Where should an exponent be located in a string?*
   (note: not for regulating basic linear position)
   → **For:** unexpected constituency disruption (infixation, second positionhood, 'special clitics')[4] and idiosyncratic prosodic effects (and/or rule blocking)[5]

[2] Halle and Marantz 1993, 1994; Bobaljik 2000; Paster 2006, 2009; Bye 2008; Bye and Svenonius 2012; Hannahs 2013; Harley 2014; McPherson 2014, 2019; Kalin 2020a

[3] Lieber 1980; Jensen 1990; Inkelas 1990; Booij and Lieber 1993

[4] Zwicky 1977; McCarthy and Prince 1993a,b; Yu 2003, 2007; Bye and Svenonius 2012; Kalin 2020a

[5] Spring 1992; Downing 1998b,a; Chung 2003; Zec 2005; Bickel et al. 2007; Caballero 2010; Bennett et al. 2018; Rolle and Hyman 2019; Rolle and O'Hagan 2019; Tyler 2019

Illustration

Crucial data: An exponent may have a COIN and a distinct COP, and if so, then **the COIN is satisfied before the COP**

(3) **Nancowry** (Radhakrishnan, 1981; Kalin, 2020b)

a. INSTNOM /*an*/ : COIN: with monosyllabic stems
COP: after first C

b. INSTNOM /*in*/ : COIN: with disyllabic stems
COP: after first V

(4) a. INSTNOM + *top* ('to drink')
↳COIN ⇒ *an*
↳ COP ⇒ t<**an**>op ('a glass')

b. INSTNOM + *kurus* ('to scratch')
↳COIN ⇒ *in*
↳ COP ⇒ ku<**in**>rus
↳ k<**in**>rus ('a rake')

Discussion

Take-away: Subcategorization is not a unified phenomenon, even at the fine-grained level considered here (exponents)

- Models employing subcategorization need **two** separate types of frames, one for insertion and the other for position

Architectural implication: There is a level of representation where COINs are evaluated, but COPs are not (yet)

- Supports models where morphology precedes phonology[6]
- Parallel P-with-M models[7] and dual-route approaches to phonological COINs/COPs[8] make the wrong predictions
  - Kalin (In prep): COINs are *never* evaluated in an infix's infixed (post-COP) position; COINs always precede COPs[9]

[6] Halle and Marantz 1993; Paster 2006; Bye 2008; Embick 2010; Bye and Svenonius 2012

[7] McCarthy and Prince 1993a,b; Hyman and Inkelas 1997; Horwood 2002

[8] Mester 1994; Kager 1996; Mascaró 1996, 2007; Tranel 1998; Bonet 2004; Yu 2017

[9] Cases comparable to that in Nancowry: Hunzib verbal plural (van den Berg, 1995), Alabama middle voice (Hardy and Montler, 1991), and Sierra Miwok stem one formation (Bye and Svenonius, To appear).

Thank you!

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Appendix A: Implementation

Consequence: Theoretical models which employ subcategorization must be modified to encode **two** separate subcat frame types, one for insertion and the other for position

(5) W. Macedonian NEG SUBCAT(ne): [$_{\omega\text{-MIN}}$ **ne** [. . .]]

Input: **ne** mu gi dava . . .	**SC(ne)**	AL-R	AL-L
☞ a. [$_{\omega}$ **ne** mu 'GI dava] . . .			*
b. . . .	*!		

↳**SC-COP** (not **SC-COIN**)

(Bennett et al., 2018)

(6) Serbo-Croatian second position clitics (Sande et al., 2020)

$$[\text{PRES,3SG}] \longleftrightarrow \left\{ \begin{array}{ll} \mathcal{F}\textit{eatures}: & /\text{je}/ \\ \mathcal{P}(\textbf{SC}): & \boxed{]_{\omega} - \text{X}} \\ \mathcal{R}\textit{anking}: & - \end{array} \right\} \rightarrow \textbf{SC-COP}$$

Appendix B: Frame substance

Argument for differentiating two types of subcat frames: COINs and COPs have different typological profiles with respect to the substance of their subcat frames

COP frames contain... (not an exhaustive list!)

- *Phonological elements:* C, V
- *Prosodic elements:* Syllable, foot, stress, phonological word, phonological phrase

COIN frames contain... (not an exhaustive list!)

- *Phonological elements:* C, V, specific segments, features
- *Prosodic elements:* Syllable, foot, stress, phonological word, phonological phrase
- *Lexical elements:* Idiosyncratic (classes of) roots

Appendix C: Optimization

Could the distribution of INSTNOM exponents in Nancowry be analyzed as optimizing, i.e., without COINs/COPs?

No (Kalin, 2020b):

- There is no disyllabic size constraint in the language (minimal or maximal), i.e., no conspiracy for disyllabicity.
  - E.g., Another infixal exponent, *-am-* (AGNOM), builds trisyllabic words from disyllabic stems/roots.
- There is no phonotactic/phonological motivation at all for choosing *-in-* over *-an-*.
  - *-an-* could combine with stems of all sizes (like *-am-*).
  - A post-first-consonant distribution for any VC infix in Nancowry is more optimal than post-first-vowel, as it avoids vowel hiatus and avoids adding a coda.
  - As noted by Paster (2006, 167-168), there is no reason the distribution of the two INSTNOM exponents shouldn't be reversed.

Appendix D: One mechanism?

Alternative under Yu (2007, 229): Languages "respond to the failure to satisfy a phonological subcategorization requirement in different ways"

- "when morpheme interruption is prohibited", an exponent must satisfy its frame in its default position (if it can't, it is blocked from appearing → gap or allomorphy) = **COIN**
- when morpheme interruption is allowed, the exponent moves to its desired position (→ infixation) = **COP**

Our claim: It is not viable to maintain that subcategorization involves one mechanism with two different effects.

- COINs/COPs are not an either/or: A single exponent can have both a COIN and a COP.
- Whether morpheme interruption is allowed is not a language-wide property, but rather is specific to exponents.

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