

On the absence of agglutinative root categorizers

Background: The postulate of category-neutral roots is adopted within DM/Distributed Morphology (Marantz 1995, Harley 2005 *et seq*) and EXO/exoskeletal approaches (Borer 2005a, b) to lexical categories. Within both frameworks, categorization of roots as verbs, nouns, etc. occurs in syntax. They differ in that DM assumes categorizing functional heads (*v*, *n*, etc.) while EXO assumes an indirect process of categorization of roots by functional material like Asp(ect) or T for verbs, or D for nouns – but not necessarily by categorizing heads. Still another approach (LEX) holds the traditional view: Categorization takes place in the lexicon (cf. e.g. Baker 2003). Developing empirical and/or conceptual criteria deciding on DM-EXO-LEX is an important desideratum with far-reaching theoretical consequences. Problem/Question: Are there languages which have category-defining morphology which agglutinates to the root rather than having fusional/synthetic morphology? A thorough search in the typological literature reveals that except for one potential counterexample, no such language has been attested, which leads to the following hypothesis:

(1) **The agglutinative categorizer absence hypothesis (ACAH):**

Root categorizing morphology (realizing *n*, *v* or *a*) is never agglutinative (let alone periphrastic), but if anything, synthetic, suppletive, fusional or null.

If the ACAH can be established as a universal, either of DM-EXO-LEX should provide an explanation. Before assessing these explanations, we will discuss the one potential counterexample.

A potential counterexample to ACAH: We start out by considering data from the nominal domain in Classical Nahuatl (CN) which appears to come closest to falsifying (1) and argue that yet CN does not make a case against (1). Launey (1999, fn. 3) notes that the suffix *-tl* (allomorphs *-tli* or *-li*) is attached to every singular, non-possessed noun. Is it a nominal categorizer *n*? (2) exemplifies *-tl* being affixed to a singular noun:

- (2) Ni-k-itta in kone-**tl**
 1SG-3SG-see DET baby-TL
 ‘I see the baby.’ (Launey 1999: 348)

With an eye on the ACAH, the four logical possibilities at a descriptive/analytical level are: *-tl* (a) is an agglutinating root categorizer, (b) is a root categorizer which is not agglutinative, (c) is not a root categorizer but agglutinating, and (d) is neither a root categorizer nor agglutinating. We show that (c) is most likely, based on five empirical arguments (in detail during the talk), of which we sketch four here. First, *-tl* is absent on plurals, cf. (3)-(6). If *-tl* categorizes roots as nouns, why isn’t it present on plurals, where only plural morphology shows up? Note that agglutinating both the putative nominal categorizer and PL is not an option as morphological patterns of the type N-TL-PL (e.g. *kone-tl-h*) are unattested.

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| <p>(3) ichca-meh
 sheep-PL
 ‘(multiple) sheep’</p> | <p>(5) cō-cōā-h
 RED-snake-PL
 ‘snakes’</p> |
| <p>(4) Ni-kim-itta in kone-h
 1SG-3PL-see DET baby-PL
 ‘I see the babies.’</p> | <p>(6) tē-tēuc-tin
 RED-lord-PL
 ‘lords’ (Karttunen 1983: xxviii)</p> |

An analytical alternative would be to say that *-tl* has a null allomorph under pluralization. However, a problem of this solution relates to yet another one: Objects which incorporate into verbs do not feature *-tl*:

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| <p>(7) Ni-tana-chi:wa
 S1-basket-make
 ‘I make baskets.’</p> | <p>(8) ni-tlakwalis-ka:wa
 S1-food-leave
 ‘I fast.’ (Launey 1999: 352)</p> |
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The contexts in which this null-allomorph of *-tl* would realize *n* do not form a natural class (plural and object incorporation). The third argument deals with possessives. As shown in (9)/(10), *-tl* alternates with special morphology on possessives (possessor agreement) – that is, it never shows up on possessives.

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| <p>(9) i:-tlakwal in kone:-tl
 POSS.3.SG-food DET baby-TL
 ‘the baby’s food’</p> | <p>(10) i:n-tlakwal in ko:-kone-h
 POSS.3.PL-food DET RED-baby-PL
 ‘the babies’ food’</p> |
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Why would overt *-tl* be suppressed in the presence of a possessor and the concomitant possessor agreement? This suggests that the possessive head and *-tl* are in complementary distribution. If so, *-tl* is not a nominal categorizer, in line with possibilities (c) and (d) above – confirming the ACAH.

Fourth, Karttunen (1983: xxix) makes important observations wrt what she calls compounding elements in diminutives.

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| (11) | Ichca-tzin-tli
sheep-DIM-TLI
'sheep' | (12) | Ichca-tzitzin-tin
sheep-RED-DIM-PL
(multiple) 'sheep' |
|------|--|------|---|

In (11)/(12), *-tli* does not attach to the noun *ichca* ('sheep') but to the diminutive *-tzin-*. Strong indication that the affix *-tli* structurally attaches to the diminutive suffix comes from the fact that the latter reduplicates in the plural while the root does not, cf. (12) (PL is often accompanied with reduplication, cf. (5)/(6)). If so, the host of the suffix is the diminutive suffix, not the root. That makes *-tli* not a categorizer, as a diminutive is already nominal. An indirect argument that supports the same conclusion comes from Balsas Nahuatl (Flores Farfán 1999: 105 in Chamoreau 2012: 77, not shown here), where nouns can exhibit two plural suffixes – one attaching to the root, and another one attaching to the diminutive suffix. These observations lend credence again to the idea that *-tl* expones singular number and is thus a number marker, not a root categorizer. After all, it shows up in (11), where it transparently fulfills no function of categorizing the root.

Discussion: EXO appears to straightforwardly account for the ACAH: Short of obligatory categorizers, the absence of agglutinative categorizing morphology is not surprising at all. However, EXO may then trigger the question as to whether it would predict categorizing morphology to not exist, contrary to empirical fact.

ACAH is also expected under LEX under the following assumption: Agglutinative morphology is invariably a reflex of adding syntactic structure to the lexical root. If we do not find agglutinating categorization, all the better for a lexicalist approach to lexical categories.

DM, however, seems at least *prima facie*, not to be compatible with ACAH. Under DM, it is unclear why categorizers could not be realized in an agglutinating fashion whereas other functional heads can be. In what follows, we argue that this incompatibility between ACAH and DM can be circumvented once we consider the mapping from syntactic structures to linear strings.

It is possible to make sense of the ACAH while remaining compatible with DM, when the following intuition is adopted: That the first step in the derivation has a special status has been recognized on different grounds and based on different theoretical assumptions (e.g. Kayne 2008; Chomsky 2013: 47; Alexiadou & Lohndal 2017). It is tempting to tie this independent recognition to the gap in the realization of morphological options embodied by ACAH. Moreover, this would require that operation which creates unordered sets, Merge (Chomsky 1994 *et seq*), has been insufficiently exploited to account for morphosyntactic phenomena of spoken languages, an adherence to (successors of) the head-parameter (Chomsky 1981) being the norm.

One can then suggest that head-complement structures involve the set $\{X, YP\}$. These can be externalized as $X > YP$ or $YP > X$ at the Sensory-Motor interface, as is conventional. The innovation is that the members of the set $\{X, Y\}$ or $\{X, \{Y\}\}$ must not be linearized, but be externalized simultaneously as $\frac{X}{Y}$. Thus, a root R and categorizer k merged as $\{R, k\}$ are externalized in one go as $\frac{k}{R}$. In $\{R, k\}$, k cannot be a free-standing word, plausibly related to the fact that bare roots cannot be free-standing either. This relationship is captured in the way the set gets externalized: k and R coincide. This way, agglutination is a morphological reflex of linearized structure. However, whenever a complex word exhibits fusional, synthetic, suppletive or null morphology, this indicates that linearization has failed (cf. Neeleman & Szendrői 2006 for the syntactic significance of the morphological difference wrt Mandarin-style null-subject languages). Failure of linearization, in turn, is implied by the first step in the derivation which delivers head-head configurations. This derives, then, the ACAH within DM as well: If anything, one expects the morphology to which categorizers of roots give rise to be synthetic, suppletive, fusional or null.

Sel. Refs: Alexiadou, A. & T. Lohndal (2017) The structural configurations of root categorization. In *Labels and Roots*. Berlin: de Gruyter.