Probing the nature of roots through language contact

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MAIN GOALS

Data from language contact support the following view of roots:

- Roots are devoid of categorical information
- Roots merge with (overt or covert) categorizers in the syntax
- The realization of roots and their functional vocabulary as identified in work on language mixing informs theories of what a word is, how it is built, and how concepts are lexicalized across languages

SOME BACKGROUND

Little work has been done on word formation processes and the role of roots from the point of view of language contact, though see the contributions to Callies & Stolz 2016, Åfarli 2015, Alexiadou & Lohndal 2018, Riksem et al. 2019, Alexiadou 2020, and López 2020.

Mixing between two or more languages can be used to identify the basic units that are involved in monolingual and bilingual word formation.

- > Data from language mixing support a decompositional view of morphology, whereby morphemes are the realizations of abstract syntactic features.
- What can such data tell us about the nature of roots?

CASE STUDY 1: WORD-INTERNAL LANGUAGE MIXING

(1a) illustrates word-internal verbal mixing in Greek-German (Alexiadou 2011) whereas (1b) is from Cypriot-Greek-English (Gardner-Chloros 2009).

'I am scanning.'

skan-ar-o / scan-aff-1sg b. kansel-ar-o / cancel-aff-1sg 'I am cancelling'

A dedicated affix, -ar-, is used to verbalize the root. It is always a German/English root that combines with a Greek affix, and speakers reject the combination of a Greek root with a German inflection (Alexiadou 2017).

Mixing also occurs in the nominal domain, but there is no default nominalizing affix in such cases. (2a) provides an example of Greek-German (Alexiadou 2011, 2017, Alexiadou et al. 2015) and (2b) illustrates Greek-English (Gardner-Chloros 2009: 50).

(2)		Mixing	German/English	Greek
	a.	i Kél-a	der Keller	to.м kelar-i
		the.f cellar-f	the.м cellar	the cellar-พ
	b.	marketa (F)	market	agora (F)

Given that English does not have gender marking on nouns and that the Greek exponents for gender do not match either the gender for Greek or German, it is not plausible to argue that gender is part of the lexical specification for Kél.

> An abstract root that receives gender as part of being categorized as a noun (Kramer 2015, Alexiadou 2017).

Another example comes from the heritage language American Norwegian. (3)-(5) show the same unit surfacing both as verbs (a) and nouns (b): The unit is from English and the inflectional morphology is from Norwegian (data from the Corpus of American Nordic Speech (CANS) and Riksem et al. 2019).

(3) a. fenc-a a. mow-er (5) a. vote fence-PTCP vote-PTCP mow-prs en fence mow-er-e vot-ing-a a.м fence mower-NMLZ-INDEF.PL.M vote-NMLZ-DEF.SG.F

Given that the English units do not have the required inflectional information, these are best considered abstract roots without any grammatical information, including category.

> Roots acquire category and grammatical features through the grammatical environment in which they occur.

CASE STUDY 2: LANGUAGE MIXING IN COMPOUNDS

Previous work demonstrates that words can be mixed. For instance, Treffers-Daller (2005) demonstrates how Dutch and French are mixed:

velo+winkel 'bicycle shop'

winter+paletot Dutch non-head. French head

'winter coat' gazette+marchand

'newspaper agent'

French non-head. French head

French non-head, Dutch head

In all these examples, the word order conforms to the rules of Dutch grammar: All compounds are right-headed, unlike in French, Cases of linking elements can also be found, as shown in (7).

(7) lain+e+matrassen 'woolen mattresses'

Crucially, French and Dutch have different structures for compounds. Thus, Treffers-Daller argues that French elements are embedded into a Dutch compound structure.

However, both Dutch and French involve compound non-heads of the same granularity, namely phrases, i.e., roots plus functional material (see e.g., Villoing 2012 for French, Banga et al. 2013 for Dutch).

The previous literature does not really go beyond the word-level, suggesting we need to look at different data to identify the actual building blocks.

In Greek-English, speakers produce mixed compounds as in (8) (see Seaman 1972. Alvanoudi 2019, Alexiadou 2020). English and Greek differ with respect to the nature of non-heads: non-heads in Greek must be bare roots, Ralli's (2013) bare root constraint (BRC), unlike in English where non-heads are phrasal (Wiese 1996. Iordãchioaia et al. 2017):

(8) gaz-o-stóf-a 'gas-LE-stove'

(Seaman 1972: 196-199)

This shows that speakers decompose the compound word and use the non-head root in the mixed compound.

Another option is to make use of derivational processes whereby the non-head root yields a derived word which combines with n:

(9) roof-ian-o roof-affix-MASC.SG 'roof repairer' (Alvanoudi 2019: 63)

- This is also known from the acquisition of compounds: Berman (2012: 313) shows that children do this during acquisition, e.g., Hebrew children say aglan 'wagoner' (from agala 'wagon') rather than mašxan 'puller' for wagon puller.
- (9) supports
- a) the view in Kroll & Stewart (1994), according to which languages share underlying concepts. The concept is lexicalized via a compound in English, but with a derived word in Greek/Hebrew.
- b) the view that derivation and compounding are part of the same grammatical domain, namely syntax.

SYNTHESIS

The data argue in favor of the following claims:

- 1) Nouns and verbs are derived, they do not exist in the lexicon as primitives.
- 2) Nouns and verbs emerge when a-categorial roots combine with categorizing heads (e.g., Marantz 1997, Arad 2005, Embick 2010). The morphophonological realization of these categorizers varies.
- 3) Features associated with nouns and verbs are not part of the lexical information associated with roots. This information is part of the syntactic heads that are merged above the root.

(10a) corresponds to the structure of mixed nouns/verbs. Compounds have been argued to come in at least two types: either a structure where roots act as nonheads, (10b; Harley 2009), or where phrases act as non-heads, (10c; Iordachioaia et al. 2017).

(10) a. **VROOT**

Employing (10a, b), multilingual speakers (and L1 acquirers) decompose words into roots and functional material and can re-categorize them/use them in novel ways in the abstract structures available to them.















