

## **The inadequacy of feature-based lexicalist theories: A case-study of American Norwegian**

Heritage languages are important to linguistic theory (see e.g. Benmamoun, Montrul & Polinsky 2013). In this paper, we want to use mixing data from the American Norwegian (AmNo) heritage language to argue that a feature-based lexicalist approach to language mixing, like the one advanced by MacSwan in several papers (MacSwan 1999, 2000, 2005, 2012), is ill prepared to account for certain AmNo mixing data, and that an exoskeletal non-lexicalist late-insertion approach is more promising. In the latter endeavor, we are breaking new ground, as suggested by MacSwan (2013: 347) [when discussing the best way to explain language mixing data]: “Whether a sufficiently rich non-lexicalist theory involving late insertion [...] could achieve similar results has not been investigated.”

Empirically, we want to focus on the morphosyntax of AmNo noun phrases that show mixing, typically cases where a single English noun or noun stem is mixed into a larger AmNo noun phrase (DP). We will exploit the Corpus of American Norwegian Speech set up by The Text Laboratory at the University of Oslo, which is a rich source of AmNo mixing data that is excellent for our purposes. First, it comprises data collected in recent years and therefore contains data that show considerable lexical attrition as compared to the earlier data collected by Haugen in the 1930’s (Haugen 1953) and Hjelde in the 1980’s (Hjelde 1992). Moreover, it contains sound and video files together with transcriptions, which enables us to actually listen to the pronunciation of the inserted English item to determine whether it has a full-fledged American accent or not.

To give a hint of our criticism of MacSwan’s feature-based lexicalist approach, consider the following quite frequent type of AmNo mixing data, where a Norwegian indefinite article is followed by an English noun (the English noun in bold has very clear American pronunciation). The indefinite articles correspond to English ‘a’.

- (1) a. en **major**    b. ei **nurse**    c. en **business college**

In a (typical version of a) feature-based lexicalist analysis, the Norwegian D head will contain an unvalued gender feature that acts as a probe that is valued by its goal in the N head (cf. Julien 2005). The problem is that unlike Norwegian nouns, English nouns do not contain an inherent gender feature, and therefore the derivation will crash, since D in the examples in (1) will fail to get its unvalued gender feature valued. Clearly, that is the wrong result (see also Chan 2008 for a related argument based on other mixing data). More generally, we will argue that an overall prediction made by lexicalist feature-based approaches is that language mixing should be extremely restricted because of the rigid requirement that features across items in a linguistic string must match. Such restricted mixing is not what is actually observed in languages (see e.g., Muysken 2000, Myers-Scotton 2002, Poplack 2004).

In the second part of our talk, we want to argue that an exoskeletal non-lexicalist approach is better suited to tackle language mixing data, and in particular AmNo mixing data. Exoskeletal models have been proposed based on monolingual data in for instance Borer (2005a, b, 2013), Marantz (1997, 2013), Åfarli (2007, 2014), and Lohndal (2012, 2014), and the general claim is that syntactic structures provide a skeleton (template, frame) in which lexical (functional and substantial) items are inserted. Our suggestion is that the abstract building blocks of syntactic structures are functional features and functional feature matrices (similar to Distributed Morphology). We furthermore assume that the designated functional exponents for each particular language instantiate the functional feature matrices of that language,

whereas items from the substantial content lexicon are modifiers of the structure which do not instantiate feature matrices. These are simply inserted late as modifiers, at the PHON interface, into designated lexical slots. Illicit representations are filtered out at the interfaces, which is anyhow needed for argument structure given an exoskeletal view (Borer 2005a, b, Åfarli 2007, Nygård 2013, Lohndal 2014). We also follow Distributed Morphology in assuming that syntax operates word-internally, which will prove important when accounting for word-internal mixing.

We will assume a structural skeleton for the AmNo DP roughly similar to the structure proposed for Norwegian in Julien (2005), except that we assume that Gen(der) constitutes an independent functional head and Julien's  $n = \text{Def}$ , see (2).

(2) ... [DP D ... [aP a [DefP Def [NumP Num [GenP Gen [NP N ]]]]]]

To derive the data in (1), we assume that the designated values in Def, Num, and Gen provide the corresponding values for the relevant heads in the higher functional structure, and the English root/stem is inserted under N. The English root/stem is assigned the Norwegian Def, Num, and Gen values by being embedded in this Norwegian structure. The derivation will be presented in detail in the talk.

Our analysis also explains why definite DPs incorporating an English root/stem as a rule are assigned a Norwegian definiteness affix, viz. the affix *-a* in (3).

(3) Den **field**-a der 'the field over there'

Here *-a* is the Norwegian exponent for Def+Num+Gen and is assigned to the English root inserted under N. In the AmNo material collected by Haugen, this Norwegian definiteness affix was virtually obligatory in the appropriate contexts (Haugen 1953: 452). However, in the new corpus of spoken AmNo, we also find data such as (4), where the affix is lacking. We hypothesize that this is due to the possibility of inserting English items (chunks) under DefP (not just under N) in the more recent material.

(4) Denne **cheese** 'this cheese'

Also, in the older material, English *the* is not acceptable with a Norwegian root/stem (Haugen 1953: 451), but a few clear cases of just this type are found in the newer material, cf. (5).

(5) a. **The** by 'the city'

b. **The** gamle kirke 'the old church'

We suggest that the DPs in (5) are in fact English structures with Norwegian material inserted into them. The fact that we do not find Norwegian definiteness affixes in such cases will be argued to constitute evidence for this analysis.

#### **Selected references:**

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