

## Strict and sloppy bidialectals: differences in online processing of grammatical gender

Björn Lundquist\*, Øystein A. Vangsnes\*†, Janne Sønnesyn†

\*UiT The Arctic University of Norway, †Western Norwegian University of Applied Sciences

How does being bidialectal affect one's processing strategies? Do bidialectals have a set of predictions and expectations common to both varieties, or do they maintain distinct processing modes? This paper reports the findings from a study of dialect mode in online language comprehension, and the correlation between online comprehension and production. Students from a high school in Sogn in central Western Norway (n: 42, age: 18) took part in two eye tracking experiments (Visual World Paradigm), one with spoken stimuli presented in the local dialect, and one with stimuli presented in the Oslo dialect. The same students also did a production experiment which targeted different morpho-syntactic and morpho-phonological features within the noun phrase.

All the pupils were users of the minority written standard Nynorsk and associated their own Sogn dialect with this language variety, whereas the Oslo dialect was perceived as representing the majority written standard, Bokmål. The students have been formally taught Bokmål alongside Nynorsk from age 14, but since the extracurricular exposure to Bokmål is massive already in pre-school age, these students are effectively bidialectal/bilingual from an early age. At the same time, the traditional dialect contains several grammatical and/or phonological properties which are not present in Nynorsk either. Indefinite NPs with feminine and masculine nouns are given in 1, and the corresponding definite forms are given in 2; features present in the dialect but not Bokmål are boldfaced, features present in neither Bokmål nor Nynorsk are boldfaced and italicized:

1. <b>ei rau-<i>e</i></b> bok/vesk- <b><i>a</i></b>	ein rau- <i>e</i> hane	Sogn
ei raud bok/vesk- <i>e</i>	ein raud hane	Nynorsk
en rø <b>d</b> bok/vesk- <i>e</i>	en rø <b>d</b> hane	Bokmål
a red book/bag (fem)	a red rooster (masc.)	English
2. dan rau- <b><i>a</i></b> bok- <i>i</i> /vesk- <b><i>ao</i></b>	den rau- <i>e</i> han- <i>en</i>	Sogn
den raud- <i>e</i> bok- <i>a</i> /vesk- <i>a</i>	den raud- <i>e</i> han- <i>en</i>	Nynorsk
den rø <b>d</b> - <i>e</i> bok- <i>a</i> (/en)/vesk- <i>a</i> (/en)	den rø <b>d</b> - <i>e</i> han- <i>en</i>	Bokmål
the red book/bag	the red rooster	English

The results from the production test showed that many speakers mixed markers from two or three of the systems, resulting in inconsistent use of e.g. the strong/weak feminine marker (*den raue bok-i* – *den raue pil-a*), final vowel in indefinite weak feminines (*tromm-e* – *vesk-a*), and use of articles (*ei grønn bok* – *ein svart bok*). Other speakers had more consistent patterns, some of them following the traditional dialect pattern, but most of them missing out on the traditional adjectival markers.

The purpose of the eye tracking study was to see whether the speakers adjusted their parsing strategies depending on dialect mode: are they aware that the masculine article *en/ein* can be followed by either masculine or feminine nouns in the Oslo dialect, but only a feminine noun in the local dialect? Have they transferred a parsing strategy from the local dialect (only masculine nouns after *ein*), or has the local grammar been affected by the input from Bokmål to the extent that both masculine and feminine nouns are expected after *ein*?

The results showed that one group of speakers could adjust their online processing to the correct dialect mode, showing clear evidence of expecting only masculine nouns after *ein* in the local dialect mode, while expecting either feminine or masculine (but not neuter) nouns after *en* in the Oslo mode (as diagnosed by anticipatory looks to a picture depicting a masculine/feminine noun in the eye tracking experiment). The other group showed no signs of a higher expectation of a masculine than a feminine noun after *en/ein*. The two groups also differed in their production profiles: the first were more consistent in their production, i.e. showed less mixed patterns than the other group.

We suggest, based on this result, that some speakers are more likely to build an extended unified mental grammar when acquiring new dialects, incorporating some free variation, while other speakers draw stricter lines between different dialects. In our presentation we will discuss different factors that may influence people into one or the other category.