

The proficiency of American heritage Norwegian speakers

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One of the striking characteristics of heritage speakers is the large amount of variation between individual speakers in their levels of proficiency (e.g. Montrul 2016; Polinsky 2018). Although there has been much research on American heritage Norwegian (AmNo) over the last decades, the speakers' general proficiency has not been measured before. In this paper, I discuss their proficiency in terms of two different measures, speech rate and lexical proficiency. Furthermore, I discuss how this proficiency correlates with the speakers' command of definiteness marking in American Norwegian.

Background: In Norwegian, definiteness is marked with a suffixed article on the noun (1a). Compositional definiteness (CD) is found in modified definite phrases, which obligatorily contain both a prenominal determiner and a suffixed article (1b). CD has been observed to be difficult for AmNo speakers: both in spontaneous speech (Johannessen 2015; Anderssen et al. 2018) and in elicited production (Van Baal 2018), non-target-like modified definite phrases have been found. Typically, speakers omit the prenominal determiner, but a subgroup of the speakers also omits the suffixed article in some instances (1c).

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|-----|-----------------------------|------------------------------|----------------|
| (1) | a. <i>bil-en</i> | car-DEF.M.SG | 'the car' |
| | b. <i>den fin-e bil-en</i> | DEF.SG nice-DEF car-DEF.M.SG | 'the nice car' |
| | c. <i>*(den) fin-e bil_</i> | (DEF.SG) nice-DEF car | 'the nice car' |

Anderssen et al. (2018) suggest that AmNo speakers who frequently omit the suffixed article are less proficient in AmNo. However, there are no data available on the proficiency of these speakers. They use accuracy in gender agreement as a proficiency measure, and find no statistical significant correlation with omission of the suffix. It might be more appropriate to use a general proficiency measure rather than accuracy in a grammatical phenomenon.

Measuring proficiency: In general, the proficiency of a speaker has to do with their abilities in a language on different domains: phonology, lexicon, semantics, syntax, pragmatics and fluency (Montrul 2016:180). In a study on proficiency in heritage Danish, Petersen et al. (2018) conclude that heritage language proficiency is a "multi-dimensional construct" (ibid:15) and that different variables reflect different aspects of proficiency. In this paper, I use two general proficiency measures.

During fieldwork on AmNo in 2018, I collected proficiency data from a group of speakers. For 14 speakers, I calculated their speech rate in a semi-spontaneous conversation with me. For each speaker, the speech rate is measured as words-per-minute based on a sample of 120-180 seconds of speech. Eleven of these speakers also participated in a vocabulary task that measures their lexical knowledge. In this task, the speakers saw pictures of an object and had to name those objects. Their accuracy in picture naming was measured.

Results: As expected, there is variation in the speech rates and vocabulary scores of the participants. The average speech rate was 123.59 words per minute ($SD=22.594$) and the average vocabulary score was 59.66% (out of 32 items, $SD=11.043$). I found a correlation between suffix inclusion (as a rate of the total amount of modified definite phrases) and the speaker's speech rate (Spearman's $\rho=0.631$, $S=167.83$, $p=0.0155$) and the vocabulary score (Spearman's $\rho=0.891$, $S=23.99$, $p<0.001$), see figure 1. Both correlations are statistically significant. In other words, speakers who frequently omit the suffixed article speak slower and have a lower lexical proficiency than speakers who rarely omit the suffix. They are less proficient, as suggested by Anderssen et al (2018).

At the same time, proficiency also correlates with the total score of target-like modified definite phrases of the speakers ($r=0.664$, $t(12)\approx 3.07$, $p<.01$ for speech rate; $r=0.746$, $t(12)\approx 3.36$, $p<.01$ for vocabulary knowledge). These and other correlations will be explored in the paper.

Conclusion: In this paper, I show how proficiency can be measured with this group of heritage speakers. This provides us with data that were not available before. Moreover, it shows that the two measurements that were used correlate with omission of the definite suffixed article in American Norwegian. This leads to more insight in the relation between proficiency and grammatical accuracy.

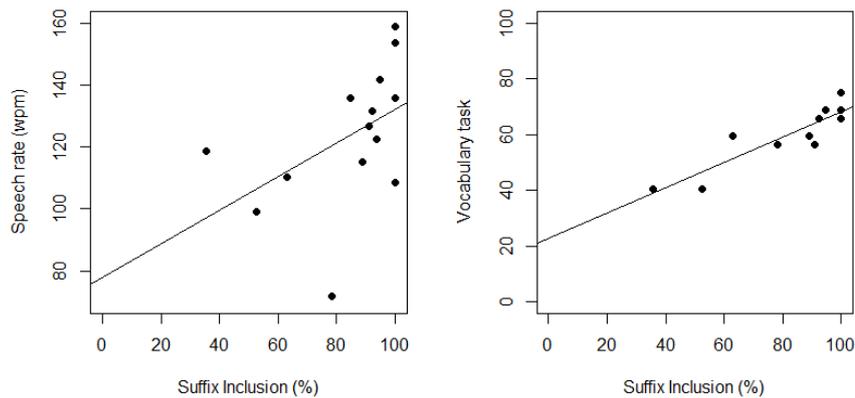


Figure 1: Correlation between suffix inclusion and the two proficiency measurements: speech rate in words per minute (left, n=14) and score on the vocabulary task (right, n=11).

References

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