Predicting outcomes in heritage grammars*

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Address for correspondence Terje Lohndal Department of Language and Literature NTNU NO-7491 Trondheim Norway terje.lohndal@ntnu.no Heritage speakers and their grammars have become a prime objective for formal investigations into the human language capacity. In their keynote article, Polinsky & Scontras (2019, henceforth, P&S) take these investigations further by asking what it would take to develop a model of the nature of heritage language grammars. By answering that question, we also gain deeper insights into the nature of human linguistic competence more generally and how this may change across the lifespan. Crucially, P&S take on the hard problem of creating the foundations for a predictive theory of stable and vulnerable properties (set against an appropriate baseline; see Benmamoun, Montrul & Polinsky 2013, Polinsky 2018, and P&S sect. 1.3 for extensive discussion of this issue) in heritage language grammars. Predictive models would entail that we have a far better understanding of the various factors that shape heritage grammars, which in turn will inform outcomes of language contact situations more generally (see also Aboh 2015). Their contribution is extremely timely and immensely valuable as the field is moving forward in trying to better model 'language competence under unbalanced bilingualism' (P&S 2019, p. 21).

If we have sufficient information about the variables that determine heritage grammars, their interrelationship, and their weighting, it should be possible to predict a speaker's grammar. Although they don't discuss the typological or weighting issue, P&S present two factors that trigger divergence. They also present three possible outcomes of such divergence. Here I will focus on the third, *shrinking*, since, as it stands, this outcome seems too general.

Scontras, Fuchs and Polinsky (2018) find that in English-dominant heritage speakers of Spanish, the gender and number heads in the nominal domain have been fused. Such a process of fusion (or loss of one of the heads, in this case the gender head, cf. Scontras et al., 2018, p. 20) is subject to an adjacency requirement on functional projections. That is, setting aside details, (1) turns into (2).

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(1) \lceil DP \dots \lceil NumP\{xy\} \dots \lceil GenP\{xy\} \dots \lceil nP \dots \rceil \rceil \rceil \rceil
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(2)
$$[DP \dots [Num-GenP\{xy\} \dots [nP \dots]]]$$

P&S argue that this shows that heritage speakers often shrink their mental syntactic representations. They do not consider the possibility that fusion takes place in the morphological component (a possibility in theories like Distributed Morphology). Regardless of this latter possibility, shrinking is arguably not a necessity, as we will see next.

Riksem (2017) investigates changes in the grammar of heritage speakers of American Norwegian, the heritage language stemming from Norwegians who moved to the US generally in the 19th century (see Haugen 1953). Her paper is concerned with nominal morphology and compares data from the speakers in Haugen (1953) with a subset of the speakers in the Corpus of American Nordic Speech (CANS; Johannessen 2015). Riksem (2017) finds two main patterns: (i) Omission of functional suffixes, both in plural and/or definite noun phrases, (ii) an increased usage of functional exponents from English. The first pattern is consistent with P&S whereas the latter does not really fit any of the three proposed possible outcomes.

Riksem (2017) discusses two ways in which these patterns can be analyzed: (i) the syntactic structure is intact, and the changes are due to a change in the morphophonological exponents, (ii), the syntactic structure itself may have changed. The former analysis relies on a model within second language acquisition called the Missing Surface Inflection Hypothesis (MSIH), proposed by Lardiere (2000) and Prévost and White (2000). This model holds that there is no one-to-one relationship between overt morphological exponents and the underlying syntactic heads. The learner may not have acquired the relevant exponents, or the matching conditions between the syntactic structure and the exponents are not met. A fundamental

claim is that a learner would rather omit a form than produce the wrong form (Lardiere 2000), which again aligns with P&S. However, as Riksem discusses (2017, p. 21), the MSIH does not make clear predictions concerning where and how inflection may go missing, making it possible for avoidance to explain any instance where the syntax and the morphophonology do not align according to a given baseline. Riksem (2017) favors the second hypothesis whereby the syntactic structure itself is the culprit for the diachronic changes. Notably, this does not appear to be shrinking of syntactic structures; rather a case of *restructuring* (cf. Hopp & Putnam 2015 on this notion). Such restructuring would be subject to a range of factors, including the inherent properties of the languages that are in contact in the mind/brain of the bilingual speaker. Arguably, then, restructuring (of the kind which is not shrinking) of grammatical representations is another potential outcome which may need to be added to the present typology.

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