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## Commentary

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# Separating vs. shrinking

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The continued integration of multilingual populations and their linguistic abilities into theoretical discussions of the structural design of human language has had a profound effect on how we envisage language acquisition, maintenance, and other changes throughout the lifespan of individuals. Seminal treatments of observed trends in typologically diverse heritage languages by Benmamoun, Montrul, and Polinsky (2013) and Polinsky (2018) have advanced our knowledge of some of the core domains of grammar that appear to be primarily resistant to change and decay (e.g., syntax and phonology) vs. those that are more vulnerable to decay and change (e.g., morphology). In their keynote article, Polinsky and Scontras (Polinsky & Scontras, 2019) take an important step in proposing a predictive theoretical model of heritage language acquisition and development. Pursuing such a research program is both timely and bold, since we have collectively reached a junction where such proposals are necessary in order to advance our understanding of heritage language grammars. Although I am generally supportive of the program they develop, I would like revisit their proposal concerning the potential shrinking of structure as one of the three causes of divergence when compared with baseline standards. I propose that a more appropriate classification of this process should focus on the SEPARATION OF HERITAGE LANGUAGE FEATURES AND STRUCTURES.

The call for interpreting the divergent development of heritage grammars as the result of separation (rather than shrinking) is ideally situated within a view of multilingual language development in which both grammars occupy the same cognitive space (see Putnam, Carlson & Reitter, 2018 for a review). Information and properties from multiple source grammars contain varying (probabilistic) degrees of attributes from all/both grammars. The competition for finite on-line processing resources (especially in the case of language production) forces individuals to select between representations that have similar and contrastive properties. Positive reinforcement in language acquisition provides support for this architecture. Hsin and Legendre (2019) demonstrate that Spanish–English simultaneous bilingual children acquire *wh*-movement and subject-auxiliary inversion in Spanish earlier than monolingual Spanish controls due in part to the positive reinforcement of do-support in the English input they receive. Successful acquisition of a second grammar in sequential bilinguals requires inhibiting L1 representations and allowing L2 representations to surface. Evidence of code-switching in heritage grammars (such as in American Norwegian: see Riksem, 2017) further supports this architecture. Potentially weaker representations may appear to be reduced (or 'shrunken'), but the culprit is the failure to properly inhibit the dominant L2. Over time, information that is common to both source grammars can lead to restructuring effects, forced into existence by processing pressures such as working memory limitations.

A clear prediction that emerges from this architecture is that linguist information that contrasts from the more dominant source grammar has a better chance at survival. This prediction is borne out in Schwarz (2019), who investigated the case morphology of a heritage German (New Ulm, MN) and a heritage Icelandic (New Gmili, MB) community, both of which are moribund. Using targeted elicitation tasks (storyboard scenarios) and analyzing natural speech, Schwarz's primary finding shows that while heritage German has simplified in case inflections to a nominal and oblique form, heritage Icelandic has retained these paradigmatic distinctions. In her analysis she appeals to the typological distinctions in grammatical function, thematic interpretation, and event properties that differentiate the morphophonological reflexes of 'case' in both languages. Even though they differ in their morphophonological inventories of case distinctions, English shares stronger affinity with German, thus facilitating the reduction observed in heritage German. The differences between English and Icelandic force the maintained separation of the heritage Icelandic representations from English, thus supporting the retention of these forms throughout the lifespan.

In summary, appealing to the shrinking of heritage grammars is not incorrect per se, but it only describes the result of computation rather than the process. Failure to separate linguistic information can lead to variable outcomes, such as compressed forms, hybrid representations, or divergent representations. A remaining question in connection with Polinsky and Scontras's proposal centers on which sorts of structural domains represent ideal units of computation. Previous studies have made passing nods to chunking (Christiansen & Chater, 2016) and optimization domains (Bousquette, Putnam, Salmons, Frey & Nützel, 2016) but none have advanced testable proposals that probe whether heritage speakers utilize different domains of optimization and computation when compared with other (multilingual) populations.

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Some sort of structural – i.e., syntactic – benchmarks are necessary in this optimization process (for example, see Hopp, Putnam & Vosburg's 2019 study of the proliferation of medial *wh*-elements in heritage Plautdietsch speakers of lower proficiency). Perhaps one of the key takeaways from Polinsky and Scontras's keynote is that theoretical models of (heritage language) grammar continue to be an essential component of linguistic research moving forward.

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## References

**Benmamoun E, Montrul S and Polinsky M** (2013) Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics*, **39**, 129–181.

**Bousquette J, Putnam M, Salmons J, Frey B and Nützel D** (2016) Multiple grammars, dominance, and optimization. In *Optimality-theoretic syntax, semantics, and pragmatics: From uni- to bidirectional optimization*, G Legendre, M Putnam, H de Swart, and E Zaroukian (eds) Oxford: Oxford University Press, (pp. 158–176).

**Christiansen M and Chater N** (2016) *Creating language. Integrating evolution, acquisition, and processing*. Cambridge, MA: MIT Press.

**Hopp H, Putnam M and Vosburg N** (2019) Derivational complexity vs. transfer effects: Long-distance *wh*-movement in heritage and L2 grammars. *Linguistic Approaches to Bilingualism*, **9**(3), 341–375.

**Hsin L and Legendre G** (2019) Strong Integration in bilingual grammar, formalized: Making the case from cross-linguistic influence in *wh*-questions. *Linguistic Approaches to Bilingualism*, **9**(3), 427–467.

**Polinsky M** (2018) *Heritage languages and their speakers*, Cambridge: Cambridge University Press.

**Polinsky M and Scontras G** (2019) Understanding heritage languages. *Bilingualism: Language and Cognition* 1–17. https://doi.org/10.1017/S1366728919000245

**Putnam M, Carlson M and Reitter D** (2018) Integrated, not isolated: Defining typological proximity in an integrated multilingual architecture. *Frontiers in Psychology*, **8**, 2212.

**Riksem BR** (2017) Language mixing and diachronic change: American Norwegian Noun Phrases then and now. *Languages*, **2**, 3, doi: 10.3390/languages2020003

**Schwarz L** (2019) *Morphological (in)stability in heritage Germanic: Examining the role of form and function*. PhD dissertation, Penn State University.

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