How deep is your syntax? – Filler-gap dependencies in heritage language grammar

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Introduction. This paper investigates the extent to which heritage languages can license null elements. Heritage languages are first languages (L1s) spoken predominantly in the home or in limited sociolinguistic domains in a culture where another language is dominant. Polinsky & Kagan (2007:383) assert that less proficient heritage language speakers may lack null elements in their syntax, consistent with the broader view that overt elements are easier to process and gaps more difficult. This claim resembles Clahsen & Felser's (2006) SHALLOW STRUCTURES HYPOTHESIS (SSH) for L2-language processing, i.e. that L2-learners rely more on lexical-semantic information than native L1 speakers who have more access to (morpho)syntactic properties. This view contrasts with that of Grosjean (2001, 2008), who predicts that features of a dominant L2 may 'seep through' into an L1 if the L2 has become dominant, suggesting that gaps might enter a heritage grammar from a dominant L2 grammar.

We investigate whether the SSH is an active constraint on heritage language grammar. In particular, we test whether multiple gap constructions (MGCs, or parasitic gap constructions) exist in heritage German. German and its dialects overwhelmingly lack 'true' MGCs (e.g. Kathol 2001), whereas such gaps can be licensed in multiple domains in English. That is, the 'full' varieties of the heritage language should not license null elements and heritage status should provide an additional constraint on their appearance. At the same time, since English licenses gaps, they could appear in heritage German. This provides, then, a clear test between Polinsky & Kagan's view and the SSH on the one hand versus Grosjean's on the other: Heritage speakers who consistently lack gaps would support the former view, while the presence of gaps would support grammatical 'seeping'. We adopt SLASH-features from HPSG to represent filler-gap dependencies here, although our findings can be analyzed in a variety of frameworks.

Experiment. Pilot interviews have been conducted with six speakers from Sheboygan Co., Wisconsin. They vary in proficiency (measured informally in terms of fluency in conversation with other members of the community), but most had spoken German until school age and have since used the language mostly in limited domains, especially in recent decades. They were given a set of at least 22 sentences to translate from English into German, of which six contained MGC. (Fieldwork is continuing with expanded elicitation, aiming for data from 30 speakers and ca. 20 sentences each.) Results in **Table 1** are grouped as 'E' for an English-like parasitic gap, 'G' for a German-like avoidance of a parasitic gap (marked with '?' to indicate ambiguous responses), and 'X' for other responses, including instances where the speaker was unable to produce a translation.

Striking differences appear across speakers and test sentences. Speakers range from producing mostly German-like forms (2, 4, 5) to mostly English-like structures (3, 6). Sentence E prompted almost all German-like avoidance of gaps, and sentence B was split evenly between German-like responses and non-responses, while the remaining sentences showed few German-like responses and splits across the other categories.

Preliminary results. Preliminary results show that no speaker produced all German-like structures, and most speakers provided at least one gap. Notably, the syntactic environment of the gap plays an important role, and provide support for Engdahl's licensing hierarchy (1983/2001; see **Table 2**). For example, untensed domains like sentences C and F show more occurrence of English-like gapping structures across speakers than do tensed structures such as example sentence E. English-like structures appear more broadly in the German of speakers 3 and 6.

Findings from this pilot work support Grosjean's grammatical 'seeping' and suggest that the SSH does not hold for all heritage speakers. Contra Polinsky & Kagan (2007), some heritage speakers produce

structures with null elements. Moreover, where gaps do appear is consistent with Engdahl's accessibility hierarchy.

Data & Tables

Table 1: Pilot translation results: E = gap, G = no gap, X = other or no translation

	Example	**1**	**2**	**3**	**4**	**5**	**6**
A.	Which book did you sell without reading?	X	G	E	X	G	E
B.	This is the book that people who read really like.	X	G(?)	G	X	G(?)	X
C.	Is that the girl he kissed without looking at?	X	G	E(?)	G	E	E
D.	Sheboygan is a city that people like when they visit.	X	G	X	G	X	E
E.	This is the food that you have to cook before eating.	G	G	E	G	G	G
F.	We do it the same way we always have.	X	E(?)	X	G	G	E

Table 2: Engdahl's Hierarchy

Selected parts of Engdahl's accessibility hierarchy for occurrence of MGCs

most accessible **least accessible**

manner adv. **>** temp. adv. **>** purpose clauses **>** that, than **>** when, because **>** relative clause

[untensed domains] [tensed domains]

References

Clahsen, H. & C. Felser. 2006. Grammatical processing in language learners. *Applied Psycholinguistics* 27: 3-42.

Engdahl, E. 1983/2001. Parasitic gaps. In: P. Culicover & P. Postal (eds.), *Parasitic Gaps*, pp. 69-98. Cambridge, MA: MIT Press.

Grosjean, J. 2001. The bilingual's language modes. In: J. Nicol (ed.), *One mind, two languages: bilingual language processing*, pp. 1-22. Oxford: Blackwell.

Grosjean, J. 2008. *Studying bilinguals.* Oxford: Oxford UP.

Kathol, A. 2001. On the nonexistence of true parasitic gaps in standard German. In: P. Culicover & P. Postal (eds.), *Parasitic Gaps*, pp. 315-338. Cambridge, MA: MIT Press.

Polinsky, M., & O. Kagan. 2007. Heritage languages: In the 'wild' and in the classroom. *Language and Linguistics Compass* 1/5: 368-395.