

What the correlation between syntactic complexity and lexical development measures can tell us about modes of acquisition

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It is a common practice in the study of heritage language learners (HLL) to talk of how their language skills compare to those of L2 learners (L2L) and monolingual native speakers (MNS), particularly in the case of Spanish in the US. Most studies tend to concentrate in a specific construction, such as gender agreement or verb aspect when dealing with grammar (Montrul, Foote, & Perpiñán, 2008; Montrul & Perpiñán, 2011), or on accuracy or transfer when dealing with the lexicon (Fairclough & Garza 2018; Chávez, 2017). Few have dealt with more encompassing measures of lexical and syntactic abilities (Marqués-Pascual & Checa-García, Under Review; Checa-García & Marqués-Pascual, 2020; Abchi & De Mier, 2017; Dengub, 2012). These works have used lexical deployment measures that have been frequently -though not always- successful in characterizing lexical development in both L1 and L2, such as Lexical Density, Lexical Diversity, Lexical Sophistication, and Lexical Accuracy. The syntactic elaboration measures most frequently used in these works about heritage speakers have been the T-unit Length, the Index of Subordination, and a little less frequently the Clause length, all indexes introduced by Hunt (1965).

None of these works, however, have investigated if there is a relationship between lexical development and syntactic development measures. In this paper, I study the correlation between 4 lexical deployment measures: Density, Diversity of content words, Diversity of all words, and Sophistication, and 5 syntactic measures: number of T-units, Syntactic Errors per T-unit, T-unit length, Clause length, and Subordination Index, in three different groups: HLL, L2L, and MNS. The corpus analyzed consisted of one 350-450 words composition by participant (total of 90) with the same prompt that was then tagged for all syntactic units as well as lemmatized using CLAN, which also tagged parts of speech. For the sophistication, the Davies (2006) list of frequency words was used.

Preliminary results show very few significant correlations between syntactic and lexical measures in all three groups, that are usually not very high. However, those few present correlations show more similarities between L2L and HLL. There are also marked differences among the lexical indexes, such that diversity of content and diversity of all words are the most commonly correlated with syntactic measures in all three groups.

For L2L, having longer T-units means having more syntactic errors, and also less diversity in their content words. Similarly, for HLL more syntactic errors are correlated with more less diversity. Thus, those L2L and HLL which have less vocabulary have also lower syntactic development. This could be due to a parallel development of both abilities. However, while the L2L formal acquisition setting and its sequencing may easily explain this parallel development, for HLL, whose vocabulary tends to be more developed before arriving even to a classroom setting, this explanation does not seem sufficient. I propose that in the case of HLL with no formal grammar training, the development of grammar goes hand in hand with the development of vocabulary, giving support to the idea of how closely linked the two are.

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