

## First Language Influence and Fossilization in Second Language Vocabulary Acquisition

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While a considerable amount of second language acquisition (SLA) research has focused on the acquisition process itself, another strand of research has specialized in investigating the fossilization of specific linguistic features. Han's (2009) Selective Fossilization Hypothesis (SFH), an analytic model that seeks to account for both the acquisitional and fossilizable potential of linguistic features, is a unique attempt to make sense of fossilizable *forms* by probing into factors purportedly promoting fossilization in the *acquisition process*.

It is generally believed that learners with strong motivation, ample exposure to rich second language (L2) input, and plentiful opportunities for output will likely acquire a second language. However, as promising as this idea may seem, this is not often the case in post-pubertal L2 acquisition. Research (e.g., Long, 1997) has suggested that even in situations where plenty of motivation and opportunities for practice are available, most language learners never reach target-like proficiency, and their interlanguage is prone to fossilization, meaning that learners are unable to acquire certain features in target-like forms. Why is it that L2 learners at various stages (i.e., initial, developmental, and end-state) are able to provide accurate production of some L2 features, while these same learners show variable, yet systematic, use of others?

According to the Selective Fossilization Hypothesis (Han, 2009), it is the interaction of first language (L1) markedness and L2 input robustness taking place in the learner's mind that determines how acquirable or fossilizable certain linguistic features will be. To this end, conceptual, theoretical, and empirical evidence from L2 initial, developmental, and end-states has been cited to support the SFH. According to Han, the L1 serves as "the source language that provides the initial building materials to be gradually blended with materials taken from the TL [target language]" (p. 137), and it is this interaction that subsequently results in the selective restructuring of the L2 grammar. During the process of conceptual restructuring from the L1 to the L2, L2 input is likely to be modulated by L1 interference or influence through the L1-based semantic and conceptual system. This interference from the learners' native language is putatively one of the main causal factors of fossilization.

While morphosyntactic features have been the core interest of most fossilization studies, one may wonder how fossilization may be manifested in other linguistic domains, such as the acquisition of lexical forms. What, for example, accounts for the acquisition potential of a lexical item, and why might this vocabulary item be fossilized?

Research has indicated that a learner's lexical competence in the L2 may cease to develop even with plenty of contextualized input (Jiang, 2000; Lardiere, 1998; Long, 1997). That is to say, similar to the acquisition and fossilization of morphosyntactic features, L2 vocabulary development, too, may fossilize. According to Jiang (2000), L2 vocabulary acquisition consists of three stages: (1) the formal stage, (2) the L1 lemma mediation stage, and (3) the L2 integration stage. In the initial stage, the *formal stage*, a lexical entry containing only formal specifications is established for an L2 word. In the second stage, the *L1 lemma mediation stage*, the L2 word takes on both the lemma information (i.e., semantic and syntactic information) of the word's L1

counterpart and the L2 lexeme information (i.e., formal information); it is during this intermediary stage that the former type of information is transferred into the latter, and mediates L2 word use. In the final stage, the *L2 integration stage*, L2 information (i.e., semantic, syntactic, morphological specifications) is integrated into the lexical entry.

When provided with sufficient, highly contextualized L2 input and practice, the learner will presumably reach the third stage of L2 lexical acquisition, L2 integration. In reality, however, a majority of L2 words fossilize at the second stage, L1 lemma mediation, even under the most desirable learning conditions (Jiang, 2000). Jiang (2000, 2004) suggests that previously established L1 lemma (i.e., L1 semantic system) mediation is apparently a major cause for the difference in lexical development between the L2 and the L1, and more importantly, for the fossilization of most L2 words.

Two points are worth noting here. For one, given that the L1 lemma is readily available to the learner for accessing meaning and other information, the language processor will pay less attention to the L2 input for meaning extraction. In other words, adult L2 learners may rely on their established L1 lexical system when learning new L2 words. Consequently, the transition from stage one, L1 lemma mediation, to stage two, L2 integration, may never be completed. Another explanation for the phenomenon of fossilization is that the presence of L1 lemma information within the L2 lexical entry is likely to prevent the integration of L2 lemma into the L2 lexical entry (Jiang, 2000). Thus, to fully acquire L2 words, learners would have to go through the process of semantic restructuring and establish a semantic system that is not only specifically for L2 vocabulary, but also free from the influence of the L1 semantic system (Cui, 2009; Kroll, Michael, Tokowicz, & Dufour, 2002).

Second language research has provided us with a better understanding of the acquisitional and fossilization potential of specific L2 morphological features or lexical items. Taking this forward, it is hoped that such predictions can be made before *and* during the learning of a second language (Han, 2009; Long, 2003). Though not intended specifically for explaining L2 lexical acquisition, the SFH's provision for the strength of L1 influence through the parameter of L1 markedness appears to be in keeping with findings from Jiang's (2000) study regarding L2 vocabulary acquisition. Seen in this light, it seems worthwhile to look into how the two parameters of the SFH, i.e., L1 markedness and L2 input robustness, may be applied within the context of L2 vocabulary acquisition to determine the level of fossilizability for L2 lexical items, especially for those with lexical-syntactic interface properties.

## REFERENCES

- Cui, Y. (2009). The development of lexical organization in Chinese EFL learners at tertiary level. *Arizona Working Papers in SLA & Teaching*, 16, 57-73.
- Han, Z.-H. (2009). Interlanguage and fossilization: Towards an analytic model. In V. Cook & L. Wei (Eds.), *Contemporary applied linguistics* (Vol. I: Language teaching and learning pp. 137-162). London: Continuum.
- Jiang, N. (2000). Lexical representation and development in a second language. *Applied Linguistics*, 21, 47-77.
- Jiang, N. (2004). Semantic transfer and its implications for vocabulary teaching in a second language. *Modern Language Journal*, 88, 416-432.

- Kroll, J. F., Michael, E., Tokowicz, N., & Dufour, R. (2002). The development of lexical fluency in a second language. *Second Language Research*, 18, 137-171.
- Lardiere, D. (1998). Case and tense in the fossilized steady state. *Second Language Research*, 14, 1-26.
- Long, M. (1997, October). *Fossilization: Rigor mortis in living linguistic systems?* Paper presented at SLRF '97 Conference, East Lansing, MI.
- Long, M. (2003). Stabilization and fossilization in interlanguage development. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 487-536). Oxford: Blackwell.

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