CHAPTER 3

From Julie to Wes to Alberto
Revisiting the construct of fossilization*

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This chapter revisits the construct of fossilization, the bedrock of Selinker’s (1972) Interlanguage Hypothesis. After reviewing the early conception of fossilization, I focus my discussion on intra-learner, and to a lesser extent, inter-learner differential success or failure, arguing that fossilization is selective, idiosyncratic, and contingent. I end the discussion by underscoring that the study of fossilization is less about revealing deviances from the presumed norm than about resolving a dual cognitive conflict, namely, why is it that in spite of propitious conditions, development is cut short in some areas? And why is the developmental interruption made most apparent when learners attempt self-expressions (i.e., meaning-based production) in the target language?

Introduction

A central debate ensuing from the publication of Selinker (1972) concerns the question of why most L2 learners fail to acquire target language competence (Ellis, 2007). Bley-Vroman (1989, 2009) refers to it as the “non-convergence property” of second language acquisition (SLA). Observations such as the following abound in the 40 years of SLA literature:

The outcome of first language acquisition is success: normal children acquire the grammar of the ambient language. Adult second language acquisition, on the other hand, results in varying degrees of success. Failure to acquire the target language is typical. (Birdsong, 1992, p. 706)

* The title of this chapter takes inspiration from Bley-Vroman’s (2009) article where, updating his (1989) Fundamental Difference Hypothesis and discussing the explanatory burden of SLA, he insightfully notes that an adequate theory “must permit everything from the so-called near-native cases like Julie (Ioup et al., 1994) to cases in which the acquired grammar is dramatically different from that of the input, like Schmidt’s (1983) Wes or Schumann’s (1978) Alberto” (p. 178).

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Few [adult second language learners] are completely successful; many fail miserably, and many achieve very high level of proficiency, given enough time, input, effort and given the right attitude, motivation, and learning environment. (Bley-Vroman, 1989, p. 49)

Kellerman (1995) claims:

One of the most enduring and fascinating problems confronting researchers of second language acquisition (SLA) is whether adults can ever acquire native-like competence in a second language (L2), or whether this is an accomplishment reserved for children who start learning at a relatively early age. As a secondary issue, there is the question of whether those rare cases of native-like success reported amongst adult learners are indeed what they seem, and if they are, how it is that such people can be successful when the vast majority are palpably not. (p. 219)

Boiled down, this debate has pointed to two key phenomena in SLA, inter-learner and intra-learner differential success (or failure, for that matter). In their book titled *Theories in Second Language Acquisition*, VanPatten and Williams (2007) make the two phenomena part of their list of 10 categorical observations in SLA that call for theoretical explanation (see also Towell & Hawkins, 1994):

Observation #5:
Second language learning is variable in its outcome. (inter-learner differential success)

Observation #6:
Second language learning is variable across linguistic subsystems. (intra-learner differential success)

In their view, theories ought to accomplish two functions: a) explain observable phenomena and b) unify explanations of various phenomena where possible. As it turns out, four of the nine theories reviewed in that book – ‘the associative cognitive creed,’ ‘skill acquisition theory,’ ‘autonomous induction theory,’ and ‘sociocultural theory’ – deal with both observations 5 and 6, two – ‘processability theory’ and ‘input, interaction, and output’ – address only one, observation #5, and the rest neither. As of today, the field has not developed a full and coherent understanding of inter-learner differential success, much less of intra-learner differential success. It is to the latter I will mostly turn in this chapter.

The remainder of this chapter proceeds as follows: I will first present case studies illustrating inter- and intra-learner differential success, and then review Selinker’s (1972) construct of fossilization as the earliest theoretical attempt to explain the phenomena. After that, I will turn to the current literature in order to (a) update our general understanding of fossilization and (b) elucidate current conceptions of intra-learner differential success and, only where fitting, inter-learner
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differential success. The chapter will conclude with a discussion of current controversies surrounding the construct of fossilization and its future prospect.

Inter-learner and intra-learner differential success

An apt point of departure for understanding inter- and intra-learner differential success lies in SLA case studies, which typically are longitudinal in nature. Some of these studies have shed critical light on differential achievement between and within learners. For example, a study by Ioup et al. (1994) focused on an adult English-speaking learner, named Julie, of Egyptian Arabic in an untutored setting. Extensive testing via a speech production task, a grammaticality judgment task, a translation task, an anaphoric interpretation task, and an accent recognition task showed that “Julie apparently acquired native proficiency in Egyptian Arabic” (p. 73).

Julie has no noticeable foreign accent, makes few mistakes in morphology and syntax, has good control of the lexicon, including conventionalized forms, and appears to have sophisticated competence. (Ioup et al., 1994, p. 79)

The researchers attributed Julie's overall success to her possession of 'language talent,' a putative innate trait associated with unusual brain organization where a greater portion of the cortex is devoted to language (Novoa et al., 1988; Obler, 1989; Schneiderman & Desmarais, 1988, cited in Ioup et al., 1994). Julie reportedly shared many generally accepted traits of language talent, including, but not limited to, a superior associative memory, ability to master new codes, a sensitive ear for phonetic cues, and precocious L1 development. Her language talent supposedly had two effects on Julie's L2 acquisition – giving her the ability to perceive linguistically significant contrasts in L2 input, including those that were only implicitly noted, and enabling her to organize the information obtained into a native-like L2 grammar, independent of the L1 grammar.

Even so, the staggering success of Julie in morpho-syntax appeared to be tinted with a lack of comparable success in the domain of discourse semantics. Ioup et al. note that on the anaphoric interpretation task, which dealt with discourse semantics, Julie's performance fell short of that of native speakers (cf. Coppieters, 1987). “The preferred NS interpretation was 'The girl angered the lady,' whereas Julie answered that ‘The lady angered the girl’” (Ioup et al., 1994, p. 90).

Julie is, nevertheless, widely hailed as an ‘outlier,’ one of the few adults (hovering around 5% according to Selinker) who are highly successful second language learners, and allegedly counter-evidence to the Critical Period Hypothesis (Lenneberg, 1967). In contrast, most learners fall well below that level of attainment.
Alberto, a Spanish-speaking adult learner of English reported in Schumann (1978), appears to be one of those who “fail miserably” (Bley-Vroman, 1989, p. 49). Schumann (1978) reports that:

When Alberto was compared with the other five subjects in terms of negative, interrogative, and auxiliary development, he was found to have considerably less growth in these structures than the other subjects. (p. 113)

This slow progression of learning, in Schumann’s view, had to do with Alberto’s lack of acculturation (i.e., keeping a psychological and social distance from speakers of English).

Between Julie and Alberto on the two ends of the success-failure continuum are the vast majority of L2 learners who probably are like Wes, an adult Japanese-speaking learner of English, reported on in Schmidt (1983), who are able to achieve success in some domains but not in others. For example, Wes’s grammatical competence was described as follows:

Over a three-year period characterized by extensive and intensive interaction with native speakers, Wes’s ... acquisition of productive grammatical rules has been minimal and almost insignificant. (Schmidt, 1983, p. 150)

In spite of his lack of grammatical development, Wes showed much progress in his discourse competence. For example, “progressive forms were no longer used for declarative function with any frequency, while the use of imperatives increased (e.g., Please next month send orders more quick); ‘shall we?’ and ‘let’s’ were used productively as patterns for a great many different requests; and in general Wes’s directives showed a great deal more elaboration (shall we maybe go out coffee now, or you want later?; OK, if you have time please send two handbag, but if you’re too busy, forget it)” (Schmidt, 1983, p. 154).

Wes thus illustrates intra-learner differential success par excellence, and, flanked by Alberto and Julie, presents a compelling scenario of inter-learner differential success. This, however, only gives us a macro idea of inter- and intra-learner differential attainment. In fact, micro-level evidence abounds as well in the literature. For example, VanBuren (2001) offers the following anecdote:

I have a highly intelligent Scandinavian friend who has resided in Britain for 42 years and who keeps saying The man which I saw ... He said it when I first met him 41 years ago, and last month he was still saying it. Why? After I first asked that question all those many years ago I consulted various works on structural linguistics and married a Scandinavian. The answers I received in my quest for a satisfactory answer made it clear that, in contrast to English, relative pronouns in Scandinavian languages do not carry, what we would now call, the feature [± animate] (sem and som the invariant forms). ‘So is that it?’ I wondered. If one
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was to believe the proponents of structural contrastive analysis – Trager, Smith et al (1951), Fries (1952), Hill (1955), and Lado (1957), all splendid scholars – then that was indeed it: clearly, my friend was experiencing ‘interference’ from his mother tongue. But then, I asked on reflection, why did he not ever use the seemingly perfect equivalent in English, the invariant form that? And why did his wife sometimes use which but most times who in similar circumstances, and why did my own domestic informant never put a foot wrong in this regard? (p. 457)

Here, we see three learners displaying differential command of the English relative pronouns, VanBuren’s wife reminiscent in a way of Julie; his friend’s wife reminiscent of Wes; and his friend of Alberto, all resonating with Bley-Vroman’s assertion on the mix of ultimate attainment on the success-failure continuum.

By placing specific linguistic constructions under scrutiny, a number of case studies, including Lardiere (1998a, 1998b, 2007), Han (2000, 2006, 2010), White (2003), and Wang (2012), have also found clear evidence of intra-learner differential success. By way of illustration, Lardiere (1998a, 1998b, 2007), in her case study spanning 18 years, found, inter alia, that her subject, Patty, an adult Chinese-speaking learner of English, had differential success with the English article system (cf. Han, 2010; White, 2003). Patty’s production of definite articles appeared to be more target-like than her production of indefinite articles. In fact, such differential success was pervasive in Patty’s system. Consider the following utterances from Patty:

1. China also send a lot of boat to the refugee who want to go back to China
2. So there is seven #seven opera you can only listen to
3. There are book club in Hawaii you may like to join

These utterances are highly revealing. While each of them is flawed, lacking in grammatical markers like the plural -s, the 3rd person singular -s, etc., together they provide robust evidence of successful acquisition of the English relative clause construction: Each sentence contains a (different type of) relative clause that looks completely target-like. The data thus illuminate another facet of intra-learner differential success: the intra-learner variation can occur in the same linguistic domain, i.e., morpho-syntax.

With the exception of Alberto, the learners discussed above can all be considered endstate learners¹ by the common yardstick (see, e.g., Johnson et al., 1996). They all had had far more than five years of immersion in the target language – living and working in a country where the target language (TL) is spoken. Patty, for

¹. For evidence of inter- and intra-learner differential success in learners en route, see Larsen-Freeman (2006). The study examined the oral and written production data from five Chinese-speaking learners of English, demonstrating “the waxing and waning of patterns” in relation to their accuracy, fluency, and complexity development.
instance, had lived and worked in the U.S. for 10 years prior to the onset of the study. “She was married to a native speaker of American English and spoke only English with her husband (and later, also her daughter), had completed undergraduate and masters degrees in American universities and was thus highly literate in English” (Lardiere, 2012, p. 258). The question then arises: Why did these learners, in spite of the favorable learning conditions available to them, still wind up with variable success? This question is the lynchpin for much of the discussion in Selinker (1972).

‘Fossilization’ (Selinker, 1972)

Selinker (1972) coins and invokes the construct of ‘fossilization’ to both describe and explain the general ‘failure’ in SLA. In particular, he calls attention to “a crucial fact, perhaps the most crucial fact, which any adequate theory of second-language learning will have to explain,” namely, the “regular reappearance or reemergence in IL productive performance of linguistic structures which were thought to be eradicated” (p. 216).

Thus, as a descriptor, fossilization refers to “linguistic items, rules, and subsystems which speakers of a particular NL [native language] will tend to keep in their IL [interlanguage] relative to a particular TL [target language], no matter what the age of the learner or amount of explanation and instruction he receives in the TL” (p. 215). Simply put, fossilization concerns interlanguage-particular features that are impermeable to such environmental influences as instruction or exposure to the target language (for discussion of the nature of both influences, see Van Patten, this volume). The metaphoric flavor of the term suggests that not only are these features resistant, but they are also persistent and even permanent.

Fossilization is endemic. By Selinker’s reckoning, it is an inescapable reality for 95% of L2 learners. As such, the term fossilization has also become a shorthand, and even an explanation, for the general lack of success of SLA relative to first language acquisition.

As an explanation, Selinker hypothesizes that a fossilization mechanism exists in a latent psychological structure, which is made up of five central processes: language transfer, transfer of training, learning strategies, communication strategies, and overgeneralization. These processes are deemed “central to second-language learning and ... each process forces fossilizable material upon surface IL utterances, controlling to a very large extent the surface structures of these

2. The construct of fossilization was extended to child second language learners in Selinker, Dumas, and Swain (1975).
utterances” (p. 217; emphasis in the original), and “combinations of these processes produce what we might term entirely fossilized competences” (ibid.) Selinker further speculates that this mechanism is activated “whenever [learners] attempt to produce a sentence in the second-language, that is whenever they attempt to express meanings, which they may already have, in a language which they are in the process of learning” (p. 212). (For discussion of the latent psychological structure, see Han, 2013.)

The dual referents of fossilization – it being a mechanism and a phenomenon – have a number of implications. First of all, they implicate a causal relationship between the mechanism and the phenomenon. The underlying argument goes as follows: L2 learning is in large measure driven by a latent psychological structure which engineers, among other things, surface structural deviances from the target language that are stubbornly resistant and persistent. However, insofar as the five central processes may function differently within the latent psychological structure, individual learners may produce different levels and extent of deviance. A key process in the latent psychological structure is native language transfer, a probabilistic process induced by both learner external and internal factors. Consequently, transfer (and fossilization, for that matter) happens both universally – across learners of different L1 backgrounds – and idiosyncratically – within learners of the same L1 background (cf. Montrul, this volume; Odlin, this volume).

Second, the dual use of the construct of fossilization serves to underscore the nature of fossilization as a psycholinguistic and neuro-cognitive phenomenon. Selinker (1972) writes:

What seems to be most promising for study is the observation concerning fossilization. Many IL linguistic structures are never really eradicated for most second-language learners; manifestations of these structures regularly reappear in IL productive performance, especially under conditions of anxiety, shifting attention, and second-language performance on subject matter which is new to the learner. It is this observation which allows us to claim that these psycholinguistic structures, even when seemingly eradicated, are still somehow present in the brain, stored by a fossilization mechanism (primarily through one of these five processes) in an IL. (p. 221; emphasis in the original)

Third, the dual view of fossilization evokes ambivalence about the intra-learner scope of fossilization, raising the question of whether fossilization is local or global. It seems that when tied to grammatical properties, fossilization is local. But when tied to a mechanism, it projects a sense of ‘global’.

Overall, Selinker’s construct of fossilization can be viewed as a theoretical explanation for the general lack of success of SLA relative to first language acquisition. Empirically, the construct has a concrete reference to deviant IL structures
persisting in defiance of environmental influence including pedagogical intervention. Tied to possible variations within the latent psychological structure, it speaks, indirectly rather than directly, to inter-learner differential failure. What seems to have eluded this line of theorizing is intra-learner differential failure, specifically, selective fossilization: what actually fossilizes and why fossilization is selective within individual learners (cf. Han, 2009). As will be shown in the remainder of this chapter, present-day SLA research has shed substantive light on these questions.

**Intra-learner differential failure: Selective fossilization**

The crux of intra-learner differential failure or success, as explicated earlier, is that within any given L2 learner’s interlanguage, success and failure co-exist. This is tantamount to saying that some parts of the system may develop fully, and other parts may develop only partially. Focusing on the linguistic domain of morphosyntax, Hawkins (2000) defines selective fossilization as such:

> I will refer to cases ... where morphosyntactic properties of the target language are not used by L2 speakers in the same way as native speakers (but others are), even after long immersion, as selective fossilization. (p. 76)

As shown earlier, there is converging evidence from longitudinal case studies that attests to fossilization being local and selective. ‘Local’ here means that fossilization does not affect individuals’ entire IL system; rather, it occurs only in its sub-systems. ‘Selective’ suggests that only certain linguistic properties are prone to fossilization (e.g., Han, 2004, 2009, 2011, 2013; Han & Odlin, 2006; Hawkins, 2000; Lardiere, 2012; Sorace, 2011). Additionally, fossilization is found to be idiosyncratic. As discussed in Han (2013), the idiosyncrasy can manifest itself in several ways (see also Odlin this volume). First, fossilization can occur in learners under different circumstances. Second, it can vary in its target and scope across learners. Third, the factors leading to fossilization may not all be the same for individual learners. Fourth, the timing of fossilization can be varied for individuals. Finally, fossilization can differentially affect the interlanguage systems of learners who are under similarly propitious learning conditions. All these, in effect, point to a more general property, that fossilization is highly contingent on the interaction between learner internal and external factors.

Speculations on fossilization abound (Han, 2004), but systematic explanatory endeavors are fairly uncommon, and integrative attempts are even fewer (see, however, Sorace, 2011). Most of the current explanations are discrete, confined to the linguistic properties in question. Regarding the selective attainment of Patty,
for example, three explanations have been proposed from the generativist para-
digm (Hawkins, 2000). The first is Lardiere’s (1998b) Morphological Misreading Hypothesis, which postulates that selective fossilization stems from a failure of the language faculty to “convert the fully feature-specified output of the syntactic-computational component to morphological forms” (p. 20). The second is Prévost and White’s (2000) Missing Surface Inflection Hypothesis, according to which computational deficits may prohibit retrieval of the appropriate variant of a lexical entry. The third is Hawkins and Chan’s (1997) Failed Functional Features Hypothesis, which attributes lack of attainment to permanent representational deficits. It is claimed that if certain grammatical features are not instantiated during first lan-
guage acquisition or in the early years of life, they will never be available to enter the L2 grammar.

All three hypotheses are predicated on the premise that Universal Grammar is still available in SLA, directly or indirectly, but they, nevertheless, differ in whether they attribute selective fossilization to processing or representational deficits. In other words, they view fossilization as a result of lack of processing or representa-
tion of a given morphological element. For the purposes of this chapter, it is relevant to point out also that all three hypotheses are aimed at accounting for a lack of inflectional morphology in IL grammars, a rather limited focus. Selective fossilization, in fact, goes beyond inflectional morphology. Indeed, what is challenging for any explanatory and/or predictive attempt is its rather broad scope, including not only morpho-syntactic properties but also discourse properties such as information structure.

Selective fossilization of discourse properties

One discourse element that has received increasing attention in L2 research in recent years is topicalization. “Topicalization is the process by which a speaker signals that a constituent or segment of an utterance constitutes its topic” (Donaldson, 2012a, p. 651). Different languages may invoke different syntactic, lexical, morphological, or phonetic means to realize topicalization in discourse. As such, topicalization is essentially a syntax-discourse or syntax-pragmatics inter-
face phenomenon. Theoretically, it is prone to fossilization. According to the In-
face Hypothesis3 (Sorace, 2011; Sorace & Filiaci, 2006), “language structures involving an interface between syntax and other cognitive domains are less likely to be acquired completely than structures that do not involve this interface” (p. 1). It has also been claimed that grammar-external interfaces (e.g., syntax-discourse)

3. Sorace’s recent work has extended this hypothesis to both bilingual first language acquisi-
tion and the early stages of L1 attrition.
are harder to acquire than grammar-internal interfaces (e.g., syntax-semantics) (White, 2009; see, however, Montrul, 2011; Slabakova & Ivanov, 2011). Syntax-discourse features are context-dependent and highly susceptible to cross-linguistic influence (Sorace & Keller, 2005). Empirical studies have attested to (a) their fossilizability in adult L2 acquisition (see, e.g., Belletti et al., 2007; Sorace, 2005; Sorace & Filiaci, 2006); (b) their permeability⁴ in L1 attrition (Wilson, Keller, & Sorace, 2009); and (c) their protracted indeterminacy in bilingual L1 acquisition (Sorace & Serratrice, 2009; Tsimpli et al., 2004). After reviewing the aggregate evidence from a number of empirical studies, Sorace (2011) concludes that “there is sufficient evidence for important developmental differences between linguistic structures that require conditions of a formal feature within the grammar, and structures that require the integration of contextual factors” (p. 9).

L2 studies on topicalization have confirmed its fossilizability. Han’s (2000) longitudinal case study shows that in spite of extended interaction with English as the target language, the two Chinese-speaking participants persisted in using IL pseudo-passives (e.g., The letter about graphic file has received) and overusing the English passive construction (e.g., My reply will be sent to you following this mail) to fulfill an L1-inspired topic-comment discourse function (see also Schachter & Rutherford, 1979; Yip, 1995). By Li and Thompson’s (1976) typology, Chinese is a topic prominent language (e.g. Book, I read), whereas English is a subject prominent language (e.g., I read the book). What was important about the findings of Han (2000) was that with the typological disparity between English and Chinese, transfer occurred implicitly and indirectly (cf. Hendriks, 2000; Trévise, 1986). Hendriks (2000) reports similar findings in Chinese-French interlanguage, noting that “transfer of clearly Chinese constructions is so very rare in L2 French” (p. 387).

In an investigation of French topic marking, in particular, the use of left dislocation, in (a) child L1 learners, (b) adult Chinese-speaking learners, and (c) adult native speakers of French, Hendriks (2000) shows that adult learners were more like child L1 learners than adult native speakers. For example, they both used dislocation for reintroducing referents and making new information old. However, unlike the child L1 learners or the adult native speakers, the adult learners used other forms as well to promote referents to the topic position (i.e., sentence-initial). This latter pattern reflects the influence of topic expression in Chinese in which topics consistently occupy sentence initial position. Hendriks concludes from his data as well as from previous studies (e.g., Hickmann et al., 1996; Hickmann & Hendriks, 1999; Hendriks, 1998) that “functions of topic-promoting devices are of a universal kind, whereas the forms are language-specific and that, functions

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⁴ See Adjémian (1976) for discussion on the notion of permeability.
being universal, adult learners can use their knowledge of these functions when acquiring an L2, whereas children do not have access to this kind of functional background information” (p. 392). This study suggests that when the target construction is one of typological similarity, such as topic-marking in French and Chinese, adult learners’ acquisition load can be reduced to the extent that it entails only acquisition of forms and form-function distributions, since the functions of the target construction are part of the learners’ prior knowledge. Hendriks notes:

In contrast to functions, forms used by adult learners of French do not all coincide with the target-language dislocated forms. The forms have clearly been taken from the French input (no transfer of Chinese constructions occurs), but, given the cluster of forms overlapping in discourse-organizational patterns, adults in the learner varieties examined here switch between a number of available target language constructions, which are more or less accepted and more or less standard. (p. 393)

It is interesting to observe that selectivity here manifests itself as success with the functions but failure with form-function mapping, due, according to Hendriks (2000), to there being multiple forms encoding similar functions in the target language. Selectivity of this nature has similarly been reported for Japanese-speaking learners of French (see Trévisiol, 1996, cited in Hendriks, 2000). Similar to Chinese, Japanese is topic-sensitive, as well as subject-sensitive (Li & Thompson, 1976). The particles *wa* and *ga* serve respectively as topic and subject markers. Like Hendrik’s Chinese speakers, the Japanese speakers in Trévisiol (1996) had no trouble with the functions of topicalization devices, yet they struggled with the constraints on the various forms encoding the function in the TL.

Lack of acquisition of syntax-discourse features often shows up as a lack of command of their distributional properties, with overuse and/or underuse as its hallmarks (see, e.g., Belletti et al., 2007; Han, 2000; Montrul, 2006). Belletti et al. (2007) show that their near-native participants, who were native-speakers of English, overused overt-subject pronouns while underusing post-verbal subjects in their L2 Italian oral production. Likewise, invoking production data, Bohnacker and Rosén (2008) reveal that L1-Swedish advanced learners of German were not quite able to grasp the discourse function of the German prefield (*vorfeld*) first clausal position that links a main declarative clause to the prior discourse as a locus of focus information. While crosslinguistic similarity (both Swedish and German are V2 languages) obviously conferred some advantage on the learners, as seen in their acquisition of the target language V2 syntax, it did not seem to help much with the way they used the prefield. Again, the difference between the learners and the natives lay in the distribution of constituent types in the prefield.

Not all learners appear to equally have trouble with syntax-pragmatics features. Even where topicalization is concerned, full attainment does seem possible.
Donaldson (2012b), for example, reports that L1-English near-native speakers of French performed within the native range in using left dislocation (e.g., Marie, elle vient cet après-midi “Marie, she’s coming this afternoon”) as a topic marker, and in some cases, even surpassed the native controls, a phenomenon in and of itself deserving independent investigation (see Larsen-Freeman this volume for discussion of external norms). A closer look at these learners’ profiles shows long-term immersion in the target language (mean length of residence in France = 18.61 years). The participants (N = 10) all self-claimed “very high-level mastery of French,” and, according to Donaldson (2012b), they were “the most accomplished speakers” from his initial pool of approximately 20 candidates. Their L1, English, is typologically similar to French with regard to the linguistic structure in question. Moreover, the structure is of high frequency in French, especially in informal use. All these may have contributed to the reported high attainment. The overall success notwithstanding, close inspection of the results at the level of individuals yielded ‘local’ and ‘idiosyncratic’ fossilization. For instance, participant A5, in spite of more than 14 years of immersion in France, still used left dislocation to mark a brand new unanchored referent as a topic (see Table 10 in Donaldson, 2012b).5 This, however, does not change the fact that success at the syntax-discourse interface is possible.

Additional evidence that syntax-discourse features are not universally challenging for L2 learners is found in Hopp (2009). The study, focusing on scrambling in sentence-medial position, a feature of German that serves a distinct discourse function, shows that L2 learners and native speakers converged in their performance, as measured by an acceptability judgment task and a self-paced reading task. But then it can be readily noted that the study employed ‘receptive’ tests to probe judgments on grammaticality and acceptability or comprehension. It is, therefore, unknown if the convergence would have held up, had the measurement tasks been production-based and fully contextualized.

In sum, while, in Selinker’s conception, fossilization concerns “surface linguistic materials,” longitudinal case studies and non-longitudinal studies on near-natives appear to have pinned down as particularly vulnerable to fossilization two types of constructions: grammatical functors and syntax-pragmatics interface features. In Han (2009, 2010, 2011), it is argued that the nature of the two types of structures overlaps in two ways: a) in their connection to discourse pragmatic constraints (fossilizable structures tend to be those that encode complex form,

5. This observation apparently was deemed negligible when the author of the study concluded that “Hearer-new information (brand new anchored and unanchored) was virtually absent from the LDs in the corpus” (p. 420).
meaning, and function relations) and b) in their susceptibility to crosslinguistic interference. The two overlapping features often go hand-in-hand (Han, 2013; Sorace & Serratrice, 2006), suggesting that fossilizable structures tend to be L1-L2 (polarized) contrasts or language-specific features (see Odlin this volume). Thus, L1 transfer appears to be a major factor leading to fossilization (cf. Selinker & Lakshmanan, 1992).

Selinke’s (1972) belief based on his informal observations, now corroborated by much of extant empirical research, is that fossilization shows up under an intersection of two sets of conditions: (a) when the learner is attempting meaningful production, and (b) when s/he is extremely relaxed or nervous, the psychological states correlating with lack of attention to form. (Sociolinguistic research has identified these same conditions under which the vernacular speech variety is used, a point to which I will return.) According to the Single Resource Model of Attention (Skehan, 1998), there is a trade-off between attention to form and meaning. When attention is allocated to form, learner output will be more accurate but less fluent; conversely, when attention is allocated to meaning, the output will be more fluent but less accurate. Still, the question remains: Why under those two sets of conditions do learners typically fall back on an L1-based linguistic expression? What does this say about the nature of interlanguage? I will return to this issue later on.

Idiosyncrasy and theoretical paucity

As noted earlier, extant research has found fossilization to be idiosyncratic. Not every learner is equally susceptible to fossilization; by the same token, not all constructions allegedly “fossilizable” are of equal fossilizability. Thus, while English near-native speakers may fossilize in assigning an anaphor to ambiguous subject pronouns in their L2 Italian (Sorace & Filiaci, 2006), they may not in using French le left dislocation as a topic marker (Donaldson, 2012b). It follows that a theory of fossilization (and SLA, for that matter) ought to be able to predict and account for such ostensibly incoherent facts. Relatedly, it would be desirable for such a theory to provide a concrete analytic tool, one that can be used both in a posteriori analysis of learner data as well as a priori analysis of target constructions. An additional desirable feature of such a theory would be a capacity to explain both success and failure, or both acquisition and fossilization.

6. Not all grammatical morphemes encode complex form, meaning, and function relations. An example is the third person singular -s in English, a purely formal feature. There is no evidence in the literature that this grammatical morpheme is fossilizable.
SLA theories of such scope and capacity are scant. Current theories, many of them outsourced from other fields and disciplines, are typically long on explaining success, but short on explaining failure. One notable exception, however, is the emergentist approach (Ellis, 2007), according to which learning is construction-based, rational, exemplar-driven, emergent, and dialectic (e.g., Ellis, 2006, 2007, 2008), but, essentially, regulated by attributes of input in the environment. The learner’s mind is likened to that of a statistician, implicitly counting the tokens of constructions (i.e., units of form-meaning mapping). In Ellis’s (2012) words, “frequency is a key determinant of acquisition because ‘rules’ of language, at all levels of analysis from phonology, through syntax, to discourse, are structural regularities which emerge from learners’ lifetime unconscious analysis of the distributional characteristics of the language input” (p. 261). Frequency leads to perceptual salience, strength of mental representation, retention, and ease of access. Frequency induces learner-internal processes such as comparison, categorization, abstracting generalities in form-meaning relationships, and the strengthening of associations between forms and meanings (Ellis, 2002).

In this view, success of child L1 acquisition is fundamentally a function of extensive exposure to large amounts of input. Yet, recognizing a qualitative difference in ultimate attainment between child L1 and adult L2 acquisition, the emergentist approach posits that in SLA, the input-driven process can be compromised by learned attention, overshadowing, and blocking (Ellis, 2006, 2008). Ellis (2006) explicates how learned attention or entrenchment of first language experience may overshadow an L2 learner’s perception of input and block associative learning to the extent that the learner becomes insensitive to the input cues and/or consistently misanalyzes the input, guided by L1 form-meaning mappings. Simply put, L1 transfer may get in the way of an otherwise robust process of learning from input powered by associative learning mechanisms.

The emergentist approach, thus, singles out two main factors in SLA, underscoring input as the driver of SLA and L1 the source of hindrance. However, this theoretical approach does not provide specific explanations for inter-learner and intra-learner differential success, a gap the Selective Fossilization Hypothesis (Han, 2009) began to fill.

The Selective Fossilization Hypothesis

Similar to the emergentist approach, the Selective Fossilization Hypothesis (SFH; Han, 2009) posits that input and L1 are the driving factors in SLA. Yet, unlike the emergentist approach, the SFH casts L1 both as a facilitating and a debilitating factor. Essentially, the SFH seeks to capture the interaction between input and L1
(cf. Andersen, 1983; Kellerman, 1995) and hence the contingent nature of SLA, the goal being to account for and predict intra-learner (and inter-learner, to a lesser extent)\textsuperscript{7} differential success.

In the SFH, the input variable is expressed in terms of robustness, which is, in turn, determined by frequency and variability (i.e., consistency). While frequency refers to the number of times a given form appears in the input, variability in this context\textsuperscript{8} concerns the form-meaning-function relation intrinsic to that form. Thus, robust input would be [+frequent] and [–variable], whereas non-robust input would be [–frequent] and [+variable]. Figure 1 illustrates the variability dimension of input robustness, and Table 1 gives an example of non-robust input, wherein multiple forms (i.e., ‘disappeared,’ ‘have been disappeared,’ ‘were disappeared,’ and ‘would have been disappeared’) were used to encode the same sense, at least from a target, prescriptive perspective.\textsuperscript{9}

### Figure 1. The variability dimension of input robustness

<table>
<thead>
<tr>
<th>Robust</th>
<th>Non-robust</th>
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<tbody>
<tr>
<td>One form encoding one meaning</td>
<td></td>
</tr>
<tr>
<td>One form encoding multiple meanings in multiple contexts</td>
<td></td>
</tr>
<tr>
<td>One form encoding multiple meanings in a single context</td>
<td></td>
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<tr>
<td>Multiple forms encoding the same or similar meanings</td>
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7. To date, inter-learner differential success has been explained mostly in terms of individual differences in cognitive and socio-psychological terms. The SFH, on the other hand, explains them in terms of interaction between input and L1. Following the SFH, the learning outcome differs, depending on the interactive configuration of the two.

8. The notion of ‘variability’ as employed in the context of the SFH is different from how it is employed in variationist SLA and sociolinguistic research where variability is discussed in quantitative terms (see Ortega, this volume; Tarone, this volume).

9. Carroll (2013) differentiates ‘meaning’ into ‘reference’ (i.e., the meaning of a form in isolation derived from its association with a tangible referent, as in a word) and ‘sense’ (i.e., meaning derived from the form in context in concert with its surrounding elements, as in a phrase or a sentence).
Table 1. Multiple forms encoding the same meaning

<table>
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<tbody>
<tr>
<td>...</td>
<td>She never again saw her husband, or her sons and daughter-in-law, nor did she hear a word about their fates. All four are believed to have been “disappeared” by the Pinochet regime, which came to power in a bloody 1973 coup that claimed the life of Chile’s Socialist president, Salvador Allende.</td>
</tr>
<tr>
<td>In the 34 years that followed, Mrs. González transformed her outrage and grief into a tireless advocacy for answers about the estimated 3,000 people who were killed or disappeared under the Pinochet dictatorship from 1973 to 1990.</td>
<td></td>
</tr>
<tr>
<td>The day after her husband disappeared, Mrs. González found an anonymous note at her home that left little doubt that he had been seized by the regime.</td>
<td></td>
</tr>
<tr>
<td>To this day Mrs. González feels blessed but sad to consider what might have been. “If the child and I had left with my husband that day, I also would have been disappeared,” she said, dragging deeply on a cigarette.</td>
<td></td>
</tr>
<tr>
<td>“SHE was on the front lines, showing tremendous courage,” said José Miguel Vivanco, the Americas director for Human Rights Watch. “Without her courage, more people probably would have been disappeared, and the national attention to this would have been close to zero.”</td>
<td></td>
</tr>
</tbody>
</table>

Turning now to the other of the two cardinal variables in the SFH, the L1 variable is formulated in terms of markedness, which, similar to the input robustness variable, subsumes two sub-variables: frequency and variability. Thus, a marked L1 construction would be one that is [–frequent] and [+variable], while an unmarked L1 construction would be one that is [+frequent] and [–variable].

Intersecting the two cardinal variables, each being a continuum, results in four zones, among them an acquisition zone (IV) and a fossilization zone (II), as illustrated in Figure 2.

Zones I and III are less clean-cut, where it is hypothesized that input and L1 factors can be overridden by individual difference variables such as memory and sensitivity. Thus, in these two zones, either acquisition or fossilization may prevail for a given interlanguage construction. The concentric circles in Figure 1 represent gradation, with the inner circles connoting “lesser” than the outer ones.

10. A synonym to ‘variability’ in the SFH context is ‘consistency.’ Thus, a marked L1 construction would be one that is infrequent and inconsistent, while an unmarked construction is one that is frequent and consistent.

11. Long (2003) argues that individual learners’ sensitivity interacting with the perceptual salience of input (i.e., input attributes such as frequency, communicative value, and semantic weight) may lead to stabilization or fossilization of some structures.
Importantly, the SFH does not presume a one-to-one correspondence cross-linguistically. Rather, the determination of what is marked, unmarked, or anything in between for the L1 markedness variable is made according to the nature of the L1 counterpart expression of the target construction (i.e., the presence or absence thereof) along with its frequency and variability. By way of an example, consider English and Chinese with respect to the article system: English is a [+article] language, while Chinese is [–article]. In English, the articles are frequent but pragmatically variable to a large extent. The counterpart of the English articles in Chinese is zero article, and its usage is unmarked: frequent and invariant. Based on these properties, the SFH predicts that the English articles would border Zone 4, and are, therefore, susceptible to fossilization in Chinese-English interlanguage. This prediction was born out in longitudinal case studies (e.g., Han, 2009; Lardiere, 2007). Tracking the natural written production of an endstate Chinese-speaking learner of English over a span of five years, Han (2009) documents the informant’s incomplete article marking stabilizing at around 84% for the indefinite article and 67% for the definite article (see, however, Lardiere [2007]). The discrepancy between the definite and indefinite articles suggests intra-learner differential success. Consider as another example the adverb placement feature of French against English. French allows an adverb wedged between a verb and its direct object and hence the word order of SVAO (e.g., Jean embrasse souvent Marie “*John kisses often Mary”), but English does not. English, however, allows SAV, which French does not (*Jean souvent embrasse Marie “John often kisses Mary”). Both constructions are unmarked respectively. Thus, for francophones learning English, the input for SAV would be robust,
and its L1 counterpart would be marked since it does not exist in French. As such, SAV would fall in the acquisition zone (see Figure 1). SVAO, on the other hand, would fall in the fossilization zone, since there is no input for it (i.e., the input is non-robust) and it is unmarked in the L1. Research indeed shows that while SAV is learnable, SVAO is both persistent and resistant in French-English interlanguage (Sheen, 1980; Trahey & White, 1993; White, 1989, 1991).

Both examples above illustrate that fossilization is (a) construction-specific, (b) learner-specific (i.e., it happens in some learners but not others), and (c) language-specific (L1-L2 pairing). Such high contingency stems fundamentally from an interaction between the strength of L2 input and that of L1, which varies in (a) through (c). A critical assumption of the SFH is that input is not isomorphic with the target language. The SFH holds that the target language is relatively stable (see, however, Larsen-Freeman, 2006, this volume), but input is precarious (for discussion, see Han, 2011, 2013).

Applying the SFH to a host of reportedly fossilizable constructions from different L1-L2 pairings, Han (2013) reveals two facets of a symbiotic relation, subtle yet significant, between L1 markedness and L2 input robustness, mediated by the nature of the target structure. First, when the target structure is variable in form-meaning-function mapping, such as syntax-discourse interface constructions, the input tends not to be robust and transfer of an L1 unmarked usage is likely to sneak in, in which case “L1 is resorted to as a solution to a problem” (p. 161). Second, non-robust input may induce L1 transfer, but, by the same token, L1 influence may skew the perception of otherwise robust input. In brief, the interaction between L2 input and L1 transfer can be initiated either way, from L2 input to L1 transfer or vice versa (for discussion, see Han, 2013).

The SFH’s proposition, empirically backed, that an unmarked L1 usage may bear on L2 acquisition implies that its effects should be apparent when learners attempt L2 production, especially in spontaneous production, wherein they are preoccupied with creating and expressing their own meanings. Under those circumstances, it is conceivable that learners would have little time to monitor their production; instead, they would rely on their ‘thinking for speaking’ (Slobin, 1996), a form of cognition mobilized for and during communication. In Slobin’s (1987) terms, “In the evanescent timeframe of constructing utterances in discourse, one fits one’s thoughts into available linguistic forms” (p. 435). In L2 production, the most readily available linguistic forms are highly likely to be the L1 unmarked constructions because of their frequent and habitual use resulting in neural entrenchment. The pseudo-passives discussed earlier from Han (2000) occurred more frequently in L2 informal than in formal writing. Likewise, the ‘although/but’ construction in Chinese-English interlanguage (e.g., Though I’m not a Chinese major, but my Chinese is excellent), a direct copy of a construction in the
L1 Chinese, appears mostly in spontaneous speech (Han & Lew, 2012). The ‘s/he’
pronominal conflation never occurs in writing, but often in spontaneous speech,
in native speakers of Chinese.

Unmarked usages have high accessibility, lending themselves well to sponta-
neous production. According to Slobin (2007), in each language there are semantic
elements that are habitually encoded either by grammatical means (morphological
elements, construction types) or obligatory lexemes (or non-encoded). Habitually
encoded semantics tends to have higher codability (ease of expression of the rele-
vant categories), which often means higher accessibility, and transferability as well
in the context of second language use. Slobin (1996) insightfully notes:

Each native language has trained its speakers to pay different kinds of attention to
events and experiences when talking about them. This training is carried out in
childhood and is exceptionally resistant to restructuring in adult second-language
acquisition. (p. 89)

The phenomenon of subconsciously deploying, out of necessity, L1 thinking for
speaking during L2 production is discussed in Han and Lew (2012) under ‘L1
thinking for L2 speaking.’ Adapting from Levelt’s (1989) speech production model,
Han and Lew posit that when L1 thinking for L2 speaking occurs, the operations
within the Conceptualizer are carried out and framed in the L1, resulting in an
L1-packaged message. This message will then be encoded using L2 grammatical
and phonological means, hence L1 thinking for L2 speaking.

That interlanguage may exhibit very different features when the learner is en-
gaged in a communicative task versus a non-communicative task has long been
observed and theorized. Selinker (1972) was the first to note the discrepancy, ar-
guing that meaningful interlanguage data could only come from learners’ com-
municative production. Selinker and Lamendella (1978) assert that fossilization is
set in motion whenever the learner attempts to express his own meanings in the
L2. Selinker and Douglas (1985) demonstrate that interlanguage varies according
to the discourse context. Yet, it was Tarone (1979, 1983) who first theorized about
IL variability. Relating Labov’s Observer’s Paradox to interlanguage, Tarone (1979,
this volume) posits a number of axioms, including one that states “in the ‘ver-
nacular’ style, where the minimum amount of attention is given to speech, the
most regular and systematic phonological and grammatical patterns are evidenced.
Other styles tend to show more variability” (emphasis added). This implies that
when learners are engaged in spontaneous self-expression, they are subserved by
a systematic, if sometimes systematically variable, interlanguage system, which is,
in part, based in the L1. This interpretation is bolstered by extensive evidence
from fossilization research (L1 transfer is embedded in each and every instance of
fossilization documented) and by the L1-thinking-for-L2-speaking argument. If

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we were to take the axiom seriously, it would raise a host of theoretical and empirical questions about the nature of interlanguage knowledge, including but not limited to the nature of explicit knowledge and its relation to second language use, and most profoundly, the competence versus performance dichotomy which has dominated SLA research for decades. Learners’ spontaneous production would likely resume its central status in SLA research (see, however, Gass, 2009; Gass & Polio, this volume), and, accordingly, researchers would need to be mindful of the Observer’s Paradox when pursuing an understanding of the ‘default’ interlanguage system.

Theoretical controversies and the future of fossilization research

Fossilization “has become widely accepted as a psychologically real phenomenon of considerable theoretical and practical importance” (Long, 2003, p. 487). Reviewing four decades of research since Selinker (1972), Han (2013) concludes with four robust findings:

1. Fossilization is selective.
2. Fossilization affects the acquisition of TL structures encoding variable form, meaning, and function (discourse pragmatics) relations.
3. Fossilization is inspired by an L1-relativized mind, induced or reinforced by L2 input attributes.
4. Fossilization is most evident in spontaneous production in which the learner engages in manufacturing his own meaning and linguistic expression. (p. 165)

Still, it must be noted that the construct of fossilization is not uncontroversial. From various perspectives, critics have challenged its validity and utility and, in some cases, put forth alternatives. Birdsong (2006), for one, claims that fossilization has for far too long served as a ‘lynchpin’ in SLA research, suggesting that it is time to consider the complementary question of learner potential in late SLA, and more specifically, to ascertain the ‘upper limits’ of SLA. “Without a clear mapping-out of the upper limits of attainment, researchers are deprived of key points of reference in their exploration of constraints on learning” (Birdsong & Paik, 2008, p. 425). Birdsong and Paik adduce evidence from more than 20 behavioral studies of a higher rate of success, 3 to 45 percent, at the L2 endstate than has traditionally been estimated (see, e.g., Long, 1990), thus mitigating the standard claim that late L2A is failure-ridden (Bley-Vroman, 1989; Long, 1990; Selinker, 1972, among others).

12. The mind is tuned to the L1.
Chapter 3. Revisiting the construct of fossilization

Larsen-Freeman (2006, this volume; see also Ortega, this volume), on the other hand, takes exception to a target perspective in second language research, arguing against the static view of language and language learning underlying the concept of fossilization and conception of success as conformity to (monolingual) native speaker norms. Instead, she advocates the view that language, interlanguage included, is forever fluid, asserting that “there is no end and there is no state” (2006). Success, it follows, should not be measured against any idealized target; rather, it should be gauged in its own terms (cf. Bley-Vroman, 1989; Cook, 1999).

Delving into the initial conceptualization of fossilization as laid out in Selinker (1972) and tracing its evolution in SLA research, Long (2003) points out its ambiguity, noting that fossilization is “alternately explanandum and explanans” (p. 487). Moreover, concerning fossilization as explanandum, Long takes issue with ‘variability,’ rejecting the possibility that there can be fossilized variation (see, however, Han, 2004; Lardiere, 2007; Schachter, 1996). In view of these perceived problems, along with the methodological shortcomings he observes in previous empirical research, Long recommends a shift of attention away from fossilization to the “well-attested phenomenon of stabilization” (p. 487; see, however, discussion in Han, 2004, 2011; Han & Finneran, 2013).

Recently, writing about the phenomenon of fossilization, Lardiere (2012) claims that the term is redundant in the light of the body of research on ultimate attainment. Her reasoning is that fossilization, by virtue of its presumed permanence, is a form of non-nativelike endstate, and, as such, it is synonymous with ‘ultimate attainment.’

Criticisms such as the ones noted above raise concerns that merit the field’s attention. And yet, it should be pointed out that some of the concerns are in themselves controversial (Han, 2004, 2011). For example, the view that identifies fossilization with ultimate attainment does not seem to be predicated on an adequate understanding of fossilization, nor of ultimate attainment, each having its own set of concerns. Conflating fossilization and ultimate attainment, in effect, obfuscates their respective heuristic value, given that they are essentially different, albeit related, beasts. For one thing, while both terms denote a form of endstate, fossilization as a phenomenon is local, whereas ultimate attainment speaks to a global state (Han, 2004, 2011, 2013). As Long (2003) surmises, and as Lardiere’s own study has amply attested, “if fossilization occurs, it operates locally, not globally throughout an IL. Fossilization would not simply be the same thing as global non-nativelike L2

Fossilization was tied from the beginning (Selinker 1972) to variability, by virtue of it being isomorphic with ‘backsliding,’ i.e., occasional reappearance of errors thought to have been eradicated.
attainment by adult starters, in other words” (Long, 2003, p. 512). Ultimate attainment, as advised in Birdsong and Paik (2008), “is properly used in a neutral sense in reference to the outcome of second language acquisition (L2A), irrespective of whether this outcome is similar to or different from nativelikeness. ... ultimate attainment, endstate attainment, and asymptotic attainment are often freely substituted” (p. 424). In a similar vein, White (2003) delineates three broad scenarios of L2 ultimate attainment: native-like, non-native-like, and partially native-like.

In terms of their timing, fossilization and ultimate attainment are again at odds: while ultimate attainment is putatively the terminal asymptotic state of L2A, fossilization arguably can occur at any point throughout the developmental process. Hence, it is something expected in learners who are *ab initio, en route, or al fine*. Importantly, fossilization occurs alongside acquisition. Therefore, as Long has justifiably argued, empirical proof of fossilization as a local phenomenon ought to entail both failure and success. In other words, just as it is necessary to show that certain constructions have ceased to develop, so is it to demonstrate that other constructions are simultaneously converging on the intended target (cf. Han, 2011).

A third difference between ultimate attainment and fossilization is that, epistemologically, fossilization research emanates from the Interlanguage Hypothesis (Selinker, 1972), while research on ultimate attainment originates in concerns with maturational (e.g., Johnson & Newport, 1989, 1991) and Universal Grammar (e.g., Hopp, 2004, 2010; Sorace & Filiaci, 2006; Sorace & Serratrice, 2006) effects in SLA (Coppieiers, 1987; Birdsong, 1992). Relatedly, the methodologies employed in the respective domains are largely different: typically case studies on fossilization versus cross-sectional studies on ultimate attainment, though recent research has seen a crossover, as longitudinal case studies have been undertaken in learners with long-term immersion in the target language (Han, 2000, 2006, 2011; Lardiere, 1998a, 1998b, 2007; White, 2003). Last but not least, research on ultimate attainment is in the main concerned with inter-learner differences (Birdsong & Paik, 2008), whereas research on fossilization is also concerned with intra-learner differences.

In a recent handbook of SLA (Gass & Mackey, 2011), fossilization is, for the first time, classified as an individual learner variable. Indeed, as argued throughout this chapter and elsewhere (Han, 2009, 2011, 2013), fossilization is largely idiosyncratic, tied to intra-learner differential success or failure wherein lies also the heuristic value of the construct. Continued, systematic research on fossilization will hold much promise of illuminating two long-standing conundrums, one being intra-learner variability and the other the widely noted yet poorly understood discrepancy between received (as from classroom instruction – though see Van Patten, this volume) and receptive knowledge (i.e., knowledge that drives comprehension), on the one hand, and productive knowledge (i.e., knowledge that drives
communicative production), on the other, even in advanced L2 users (for a recent discussion, see Han & Finneran, 2013). Equally, by its longitudinal nature, research on fossilization, not on ultimate attainment, is likely to benefit second language instruction by providing for a robust understanding of developmental artifacts and their etiology. Armed with that understanding, teachers would likely be more able to properly allocate their instructional resources than without such knowledge, thereby increasing instructional efficacy.

Conclusion

This chapter revisited the construct of fossilization as theorized in Selinker (1972), focusing, in particular, on the issue of selective fossilization. While early research on fossilization essentially neglected intra-learner success or failure, recent decades have seen the void being gradually filled, both conceptually and empirically. As a result, the general understanding of fossilization has grown to be more nuanced and sophisticated. The tension, however, appears to have lingered on, between a failure-driven and a success-driven approach to SLA research. On this note, it is important to point out that fossilization research is less about revealing deviances from the presumed norm than about resolving a dual cognitive conflict, namely, why is it that in spite of propitious conditions, development is cut short in some areas? And why is the developmental interruption made most apparent when learners attempt self-expressions (i.e., meaning-based production) in the target language? Ultimately, what does it say about the nature of interlanguage, in mind, brain, and behavior?

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ZhaoHong Han


Chapter 3. Revisiting the construct of fossilization


