

Unpacking the Concept of Complexity in Instructed SLA Research: Towards an Acquisitional Definition

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Over the past few decades, the field of second language acquisition (SLA) has seen a remarkable increase of interest in the study of instructed second language acquisition (ISLA), which “investigates second language (L2) learning or acquisition that occurs as a result of teaching” (Loewen, 2014, p. 2). Research insights gained from this subfield are particularly pertinent to adult L2 learners, who, due to biological and cognitive constraints, have difficulty acquiring a target language (TL) solely based on naturalistic input (e.g., Han, 2004; Long, 1990). The ISLA literature shows that there is an array of pedagogical options that can be used to facilitate adult L2 learning, ranging from implicit (e.g., input enhancement, recasts, etc.) to explicit (e.g., consciousness-raising, metalinguistic rule explanation, etc.) techniques. Furthermore, the effectiveness of an instructional treatment seems to depend largely on the nature (i.e., complexity) of the L2 feature (e.g., Ellis, 2002; Spada & Tomita, 2010). However, extant empirical studies have yielded rather mixed findings on the issue regarding which type of L2 feature (i.e., complex or simple) benefits more from which type of instruction (i.e., implicit or explicit), rendering it difficult to provide straightforward guidance to L2 classroom teachers. There are several reasons for the disparities in research findings, such as differences in study designs, settings, learner characteristics, etc., but above anything else, the inconsistent findings can primarily be attributed to the varying conceptualizations of *complexity*. With an aim to enlighten future research in this line of inquiry, the present discussion emphasizes the need for a more integral definition of *complexity*. First, some traditional definitions of the concept are briefly reviewed. Next, a more recent, acquisitional perspective (Han & Lew, 2012) is introduced, and finally, a few key aspects of *acquisitional complexity* are discussed, which offer critical insights for future empirical studies, particularly related to the internal validity of research designs.

As addressed above, the literature suggests that one of the main variables that seems to determine the effectiveness of a certain type of instruction is the level of complexity involved in the L2 feature. The concept of complexity, however, has been defined and operationalized in various ways, including linguistic, cognitive, and pedagogical perspectives (e.g., Spada & Tomita, 2010). Among them, the majority of existing studies have adopted the linguistic conceptualization which focuses on the extent to which formal properties are manipulated, such as the number of transformational or derivational rules that need to be applied to arrive at the grammatically correct form (e.g., Housen, Pierrard, & Van Daele, 2005; White, 1991). Accordingly, in most studies, morphological features or grammatical functors have generally been defined as simple features, despite the extremely complicated meanings and/or functions underlying them (e.g., English preposition, indefinite articles *a*, *an*, and *the*), whereas syntactic structures or ‘constructions’ have almost always been described as complex in nature (e.g., Gass, Svetics, & Lemelin, 2003; Spada & Tomita, 2010). This type of conceptualization of complexity, however, appear to be problematic because it contradicts the findings of recent, generative SLA research which proposes that, in fact, it is functional morphemes – not syntax and semantics – that seem to be the ‘bottleneck’ of L2 acquisition (Slabakova, 2013).

Recently, Han and Lew (2012) offered a more integral definition of complexity, suggesting that the concept should be viewed in light of what ‘acquisition’ entails, that is, the

aspects of form, meaning, and function (Larsen-Freeman, 2001) encompassed in a given L2 feature and the mappings between these aspects (i.e., *acquisitional complexity*). Within this framework, features which involve complicated meaning and/or function, though seemingly extremely simple with respect to formal aspects (e.g., functional morphemes), are defined as complex features. On the contrary, those with less variable mappings between the form, meaning, and function are defined as simple features, whether they are morphological or syntactic in nature.

As such, acquisitional complexity allows for a more nuanced analysis of a given L2 feature, tracing the very source of learning difficulty derived by the target feature per se, based on the conception that L2 acquisition develops from form, to form-meaning, and to form-meaning-function mapping (Han & Lew, 2012; VanPatten, 1996; VanPatten, Williams, Rott, & Overstreet, 2004). In a similar vein, Sorace (2005) explains that, whereas the aspects of grammar that require only syntactic knowledge can be fully acquired by L2 learners, those that require the integration of syntactic knowledge with knowledge from other domains (i.e., semantics and pragmatics) are late acquired, or possibly never completely acquired.

The definition of complexity from an acquisitional perspective entails several significant implications for future ISLA research. First, as previously mentioned, the essence of acquisitional complexity is that ‘acquisition’ is a multi-dimensional, but unitary process involving form, meaning, and use. Accordingly, the outcome measures utilized in intervention studies to evaluate learners’ interlanguage (IL) development need to be created as such. More specifically, acquisitionally complex (i.e., *fossilizable*) L2 features can be truly identified only in learners’ spontaneous production, not in “language-like performance” such as testing conditions (Han & Lew, 2012, p. 200). Second, since acquisitional complexity is determined by “what is ultimately non-acquirable” at a putative end state of learning (Han & Lew, 2012, p. 196), unlike developmental complexity which can be measured at one point in time, a longitudinal research design is essential. Third, from this perspective, complexity is construed as a relative, rather than a universal, concept, since it takes into account the interactions between the TL and the first language (L1). In other words, the complexity of a certain linguistic feature cannot be accurately conceived without considering the learners’ L1 and prior language experiences (i.e., *L1 markedness*) in connection with the TL (i.e., *L2 robustness*). Thus, future empirical studies need to strive for a more thorough analysis of the target language features, which will serve to truly illuminate *complexity*, an inherent property of the L2 feature, instead of *difficulty*, a rather subjective perception of individual learners.

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