

Peer Commentaries

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Bordag, Gor and Opitz's (2021) ontogenesis model (OM) represents an ambitious attempt to develop a comprehensive account of L2 lexical development that is based on three dimensions of lexical entries: linguistic domains (semantic, orthographic, and phonological), mappings between these linguistic domains, and networks of connection between a lexical entry and other L2 and L1 lexical entries (though the latter is not fully specified). Of particular value is the detailed consideration of the operative notion of fuzziness, which is undoubtedly a characteristic of lexical (and grammatical) development, but has not received as much attention as it deserves in SLA research. Crucially, the model is also able to account for a wide range of findings in the existing empirical literature.

Nonetheless, there are some limitations in the model that compromise its ability to fully account for L2 lexical development, and until these aspects are accounted for it will only be able to paint a partial picture of how L2 speakers acquire, and ultimately master (or fail to master), L2 vocabulary. The authors state that the different linguistic domains develop in a way that simultaneously independent but also highly interconnected until they (ideally) reach an optimum level of acquisition. However, the notion of optimum acquisition could be further refined and specified. In the OM, the optimum can be reached for lexical items in each of the three linguistic domains, but what constitutes optimum for each domain is not always helpful for understanding vocabulary acquisition.

Considering the orthographic domain, for example, the authors refer to Perfetti and Hart (2002) and state that the optimum can be defined as “a precisely specified form that encodes an exact spelling” (p. 4). In many cases, acquiring an orthographic optimum for a lexical item will be better described by a binary distinction rather than a curve, especially when the L2 has straightforward phoneme to grapheme correspondence. This does not mean, however, that any dimensions of the word (orthographic or otherwise) will be correctly recalled at a future time when needed. In this respect, the OM does not fully specify the distinction between KNOWLEDGE of the form and the ability to RECALL the form which, though similar, are not the same thing (as any L1 speaker can attest when experiencing the tip of the tongue phenomenon). In brief, then, the role of recall and memory and their connection to optimum acquisition in the model could be more carefully specified.

Optimal acquisition of the semantic domain is even more complicated. Bordag, Gor, & Opitz state that the optimum of a semantic representation is “approximated” when it “is elaborate and specific, and covers all core senses of the word” (p. 4). This description of optimal semantic acquisition works well for words that have few (or no) figurative senses, but it is insufficient for words that are commonly used more metaphorically, which research has shown L2 learners often lack an understanding of, even after extended periods of intensive study in English-speaking environments (e.g., Crossley, Salsbury & McNamara, 2010; Schmitt, 1998). Compounding this situation is the fact that many words commonly used in a figurative way are high frequency words. A review of the high frequency verb *play* on WordNet (<https://wordnet.princeton.edu/>), for example, reveals a high number of figurative uses such as *this factor played only a minor part in his decision*, *she plays deaf when the news are bad*, and *he played with the idea of running for the Senate*. Lack of awareness of such meaning senses is in line with the OM's view that many L2 lexical items remain at a sub-optimal level, but it is still inconsistent with the authors' definition for optimal acquisition.

An additional aspect of the OM that might need to be further specified in future iterations of the model is the link between L1-based concepts and L2 lexical items. As the authors acknowledge, equivalency between L1 and L2 translations varies considerably, ranging from complete (or nearly complete) equivalency to the absence of a lexicalized concept (and an associated lexical item) in the L1. Between these two extremes, however, are a large number of lexical items that are only partially equivalent (see Pavlenko, 2009). The authors point to research by Jiang (2002), who suggests that L2 forms mapped to partially-overlapping L1-based concepts may go perpetually unrecognized as incongruent by L2 speakers and present no real practical concerns. However, there is some evidence that suggest that learners move from an L1-based to more of an L2-based conceptualization with improved proficiency (see Wolter, Yamashita & Leung, 2020). A key question here is what can trigger a learner to reevaluate the concept understanding associated with a particular L2 lexical item. The authors

note that this process can be triggered “as speakers encounter [words] in new contexts and/or gain new senses” (p. 9). This statement shows the delicate interplay between the semantic value of a word and its contexts, collocations, etc. In short, a word’s semantic value is determined, at least in part, by a word’s collocates (see Firth, 1957). However, the connection between semantics and a word’s IntraNetwork is not clearly articulated in the model.

In conclusion, the OM represents a potentially important development in helping us to gain a more collective and complete understanding of the processes underlying L2 lexical acquisition. Nonetheless, there are some aspects of the model that would benefit from more consideration and specificity, most notably what it means for a lexical item to have reached an optimal level (and the various stages of suboptimal levels) in any of the three linguistic domains and their interplay between the IntraNetwork, the InterNetwork, and semantic development.

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