Towards a theory of vocabulary acquisition: Exploring the relationships among different components of word knowledge

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Vocabulary knowledge is a multidimensional construct which involves the acquisition of various word knowledge components, such as spelling, form-meaning link, derivatives and collocations (Nation, 2013). Nevertheless, only a few studies have examined the acquisition of multiple word knowledge components concurrently (e.g., Schmitt, 1998; Webb, 2007; Li & Kirby, 2015). As a consequence, it is still unclear how these different components of vocabulary knowledge are acquired and relate to each other. There is, therefore, a need to study the nature of vocabulary knowledge in order to develop a general theory of vocabulary acquisition.

This study explores the relationships and the order of acquisition of different components of vocabulary knowledge by investigating 144 Spanish learners of English with a battery of eight tests, which measured their receptive and productive knowledge of four key lexical components: the form-meaning link, derivatives, polysemy, and collocations.

The data was analysed in two ways: using Implicational Scaling and Structural Equation Modelling (SEM). The results of the implicational scaling analysis (a technique which describes patterns in the order of acquisition of different aspects) showed that receptive knowledge seems to be consistently acquired before productive knowledge across all the different word knowledge components. However, this analysis also revealed an unexpected order of difficulty for some aspects, with derivative knowledge proving to be particularly difficult. The results of the SEM analysis (a group of statistical methods designed to test the validity of theoretical models through the study of causal relationships) indicated that the vocabulary knowledge components are all interrelated, but at different levels of strength.

The implications of these results will be discussed in terms of the development of a general theory of vocabulary acquisition.

Keywords: Implicational Scale, SEM, Vocabulary acquisition, Vocabulary knowledge.