

Explaining L3 Reading Comprehension: Modularity or Interactive Activation?

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Whereas some authors (Fodor, 1983, Singleton, 1993) defend the modular view of language processing, others (cf. Ellis, 1998) indicate that knowledge of language depends on various factors, so a connectionist explanation would be more adequate. Although a modular approach, emphasizing informational encapsulation, speed and inaccessibility to consciousness (Fodor, 1983), may explain native language processing, given the complexity of multilingual processing, explaining third language (L3) comprehension begs the following questions: Can it be explained by modularity or by interactive activation alone, or should both approaches be reconciled and applied to different aspects of L3 comprehension? If a modular approach is adopted, how to explain cross-linguistic interaction and the role of context in word meaning inference? Are all languages stored and processed in one module or in separate modules? Otherwise, is only L1 processed by the language module and all other languages by extramodular 'central' processes?

In reading comprehension, written word forms activate lexemes, which activate lemmas, which then activate concepts, gradually creating a context (Perfetti, 1999; de Bot et al. 1997). In a foreign language, some word forms may be unknown (Börner and Vogel, 1997), yet their meanings can be deduced from context (de Bot et al., 1997) or similarity to other words (Müller-Lancé, 2003). Context also plays a role in polysemy resolution (Swinney, 1979, Perfetti, 1999). It can be supposed that activation is propagated back to the lemma level and Fodor's (1983) claim that context effects are mimicked by the activation of lexical networks within the language module seems inadequate.

In the multilingual mental lexicon, there are interlingual connections (and interaction, Dewaele, 1998, 2001, Herwig, 2001), which largely depend on the learner's experience, the learning context, etc. (Cieślicka, 2000, Müller-Lancé, 2003). Lexical items compete for selection and the most highly activated one is selected, although it may belong to a non-target language (Green, 1993).

This paper is based on an investigation of L3 reading comprehension in several language combinations. In order to reveal their comprehension, the subjects were asked to translate texts from L3 into L1, verbalizing their thoughts. The study shows transfer and interference from various languages (L1, L2, L3, etc.), as well as frequent use of context and world knowledge.

In conclusion, neither a purely modular nor a purely connectionist approach (which postulates rule-like but not rule-governed processing (Ellis, 1998) and does not seem adequate for instructed foreign language learning), but a hybrid one (Raupach, 1997). A comprehension module can be adopted, but as a dedicated computational mechanism which can also use context in inferencing (Sperber and Wilson, 2002). In L3 comprehension, the role of conscious central processes is undeniable and affective factors must be taken into account (uncommentated responses, which Singleton (1993) regards as evidence of intramodular processing, may be due to anxiety or insufficient motivation). Given the extent of cross-linguistic interaction, the languages must be stored within one module, although the degrees of interconnection and activation of different items may vary. With increased proficiency, even foreign language processing becomes automatized and increasingly independent of central processes.

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