Processing Difficulty in the Acquisition of Relative Clauses in English

Abstract

Of different hypotheses that predict the acquisition order of relative clauses, three in particular figure in Second Language Acquisition research. Keenan and Comrie’s (1977) Noun Phrase Accessibility Hierarchy (NPAH) is based on the typological markedness obtained from a comparative study of relative clause structures in world languages and focuses on the position of the noun phrase that can be relativized. Kuno’s (1974) Perceptual Difficulty Hypothesis (PDH) is based on perceptual considerations of the human memory system and predicts the ease of processing by considering whether the processing of the matrix sentence is or is not interrupted by the relative clause. Hamilton’s (1994) SO Hierarchy is based on the notion of processing discontinuity and posits an implicational relationship among four types of relative clauses that differ in the positioning of the head noun in the matrix clause and in the role of the noun phrase relativized within the relative clause. Previous research on relative clause acquisition in both first language and second language found some support for all of these hypotheses. However, a survey of previous studies indicates that almost all studies on relative clause acquisition in the second language relied on the data from production measures to establish the difficulty order of different relative clause types, whereas most first language studies utilized comprehension tasks. The different emphases in the research paradigms are motivated by

— 220 —
practical rather than theoretical or psycholinguistic considerations. Given the possibility that different elicitation
measures may yield different results in terms of their support for different predictor hypotheses, it is necessary to
conduct research on the second language learners’ abilities in processing relative clause sentences both in production
and in comprehension so that processing problems that they may encounter in relative clause acquisition can be better
understood. The present study addresses this need by collecting data from 61 ESL learners of different first language
backgrounds by using three testing measures: a sentence combination (production) test, an interpretation
(comprehension) test, and a grammaticality judgment (intuition) test. The results revealed that the prediction of the
NPAH was supported by the sentence combination test and the grammaticality judgment test, but not by the
interpretation test. On the other hand, the PDH prediction was supported by the results of all tests. The SO Hierarchy
was largely supported by the results of the sentence combination test and the grammaticality judgment test, but it did
not find strong support in the results of the interpretation test. These results suggest in general that second language
learners of above intermediate proficiency are adopting a word order-based processing strategy in using English
productively and receptively and that they seem to be paying a substantial amount of processing cost in learning
English as a second language.