Consonantal Place Features in Early Word Productions: A Comparison of English- and Dutch-learning Children's Acquisition Patterns

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Fikkert & Levelt (2008) investigated the nature of consonant harmony (CH) in Dutch-learning children by examining the patterns in five children's acquisition of place of articulation (PoA) features. The Dutch research was designed to determine the status of CH in acquisition (i.e. was it an independent process or simply an epiphenomenon of the way children acquire place features) by engaging in a larger evaluation of how children acquire PoA features. They discovered that the five Dutch children investigated all demonstrated the same acquisition patterns of PoA features in onsets and codas in mono-syllabic words. Despite the systematic nature of the Dutch patterns, there has been little investigation into whether these patterns of PoA acquisition have cross-linguistic applicability.

The present research investigates whether or not the developmental patterns seen in Dutch-speaking children also appear in the four English-speaking children examined for this study, and attempts to explain differences between the acquisition of PoA features in the two languages. The stages of PoA acquisition in both languages show many similarities, as illustrated in Table 1. Children in both languages display CH in the earliest stage, followed by a gradual development of differentiated PoA word shapes. With the exception of the PvT word shape, the English and Dutch results look very similar. Possible explanations for this difference in timing of acquisition are explored.

Table 1: PoA Acquisition Stages in Dutch and English Data

Dutch Stages	English Stages
Whole Word = One PoA	Harmony (C1=C2)
Harmony (C1=C2)	P+T (**TvP**, PvT)
PvT	Labial Onset, Velar Coda (PvK)
Velar Codas (PvK, TvK)	K+T (KvT, TvK)
Labial Codas (KvP, **TvP**) and KvT	KvP

In addition to the child data, a sample of child-directed speech (CDS; extracted from Brown 1973) is coded for PoA following the same criteria used for the child data. This sample is used for two related purposes: (1) to investigate whether differences between the Dutch and English children can be explained by the relative PoA frequencies in the CDS of both languages; and (2) to investigate if input frequency is sufficient to explain the acquisition patterns observed in the English child data, and compare this to the results from the Dutch research. While some differences emerge in the overall trends across the two languages, there are striking similarities that emerge as well, suggesting that the results of Fikkert & Levelt (2008) are cross-linguistically valid (at least across Dutch and English). The findings from both languages suggest that the input children receive is not sufficient to explain the children's acquisition patterns.

This research also attempts to place the findings within an Optimality Theory (Prince & Smolensky 1993) framework. The acquisition patterns of all four children examined here were mostly explainable using an OT analysis, however the constraints proposed in Fikkert & Levelt (2008) for the Dutch data do not work for the English data examined here (mainly because the Dutch data showed positional biases which were not seen in the English data). Differences between the proposed Dutch analysis and the English analysis used in this study are discussed.

References

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