Wh-drop in Child Languages and Adult ASL

Introduction This study concerns the dropping of wh-words (wh-drop) in wh-questions in child languages and adult ASL. Based on the analysis of children's spontaneous speech data and the results of the experiments conducted, we show that the wh-drop occurs frequently in many child languages but occurs rarely in child Japanese. We argue that the occurrence of wh-drop in child languages and adult ASL is due to different properties of wh-words in languages and a pragmatic principle, namely the principle of least effort.

Data It has been reported that wh-drop occurs frequently in child speech of V2 languages such as Swedish, Dutch and German. (Santelmann (1995, 1997), Van Kampen (1997), Felix (1980), etc.) An example of wh-drop in child Swedish is shown in (1).

(1) a. Wh-drop in child Swedish
__ sa du? (Embla 2;3 (=2-year 3-month old) from Santelmann (1997))
said you
'(What) did you say?'

The underline in (1) shows that the wh-word which should appear in sentence-initial position was not produced by the child. According to Santelmann (1995, 1997), wh-drop questions have the intonation of a wh-question, not that of a yes/no question. Moreover, both wh-drop questions and well-formed wh-questions with overt wh-words are produced by children in the same contexts. Examples of wh-drop have also been reported in children's spontaneous speech in French, Spanish and English. (Guillaume (1927), Hern nde-Pina (1984), Radford (1990)). In adult grammars of these languages, however, wh-drop questions are not allowed.

The question arises as to whether wh-drop is observed in all child languages but not in any adult languages. With respect to adult languages, it is pointed out that wh-drop occurs in American Sign Language (ASL) when dropped wh-words are recoverable from contexts as shown below. In (2), the capital letters are the glosses of manual markers and the lines above are non-manual markers such as facial expressions and head positions.

(2) Wh-drop in adult ASL (Petronio and Lillo-Martin (1997))
Possible context: Speaker knows addressee isn't feeling well, possibly due to something unhealthy s/he ate.
topic whq
BREAKFAST, EAT e ('e' indicates the dropped wh-word.)
'As for breakfast, what did you eat?'

With respect to child languages, in order to clarify how children acquiring different languages may drop wh-words, we place a focus on two typologically different languages: English on the one hand and Japanese on the other.

We have conducted an experiment to elicit wh-questions from 19 English speaking children aged 2;9 to 4;11. The results show that wh-drop occurred in 17% of all the matrix wh-questions uttered by the two-year-old children. Embedded wh-drop questions were also produced by the three-year-old children. The examples of wh-drop questions produced by the children are shown in (3). Words in parentheses show that they are dropped.

(3) Wh-drop in child English
a. (Who is) hiding in the bucket? (Brittney 2;9)
b. (Why is the) mouse crying? (Brittany 2;9)
c. (What is the) boy eating? (Ana 2;11)
d. You know (where) the cat is resting? (Austin 3;2)

The examination of 5 Japanese children's natural speech data shows that no wh-drop questions are observed. Furthermore, an experiment was conducted on 15 Japanese children aged 2;5 to 4;7. The results show that wh-drop rarely occurs in child Japanese.

Analysis As we have seen that wh-drop occurs in some child languages and adult ASL but not in child Japanese, we hypothesize that a null wh-operator is used in some child languages and adult ASL when wh-drop occurs. The occurrence of wh-drop is related to the presence of overt wh-movement in each language. According to Tsai (1994), a wh-word in overt wh-movement languages such as English involves an operator. In contrast, in wh-in-situ languages such as Japanese, a wh-word itself is considered to be a variable and not an operator. Children acquiring overt wh-movement languages produce wh-drop questions because they move a null wh-operator to CP specifier position, instead of an overt wh-operator. Children acquiring wh-in-situ languages such as Japanese, however, do not use a null wh-operator in wh-questions because a wh-word in those languages is not an operator but a variable. Hence wh-drop does not occur in child Japanese. Because

wh-drop occurs optionally in some child languages and adult ASL, we hypothesize that the use of a null wh-operator is due to a pragmatic principle, namely the principle of least effort (Zipf (1935), Haiman (1983)). In the case of wh-questions, this principle enables children and adults speaking ASL to drop wh-words as long as it is guaranteed that the hearer can recover the dropped wh-words from linguistic contexts such as the presence of particular adverbs indicating wh-questions or non-linguistic contexts such as situational contexts.

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