

THE ACQUISITION OF WH-QUESTIONS IN MANDARIN CHINESE

中文疑問詞的習得

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Abstract

This paper deals with the acquisition of monoclausal *wh*-questions in Mandarin Chinese. Several experiments done in Cantonese, English, Korean, and Japanese have been reported; however, there is no unanimous result. As far as I know, there is no study of this issue in Mandarin Chinese—a state of affairs that I will remedy in this paper by conducting a study of the acquisition of *wh*-questions in Mandarin Chinese. This experiment is designed to test for the pure syntactic effects of a possible subject/object asymmetry in the relative difficulty of *wh*-questions. My study focus on simple *wh*-questions which are subject *wh*-question (e.g., Who is kicking John?) and object *wh*-questions (e.g., Who is John kicking?). The crucial issue is whether subject

wh-questions are easier to acquire than object *wh*-questions in Mandarin Chinese and how important is the role of age in the acquisition of *wh*-questions.

Method

Subjects

A total of 85 children participated in the present study. But only 42 children's data are adopted here. For statistical concern, some of the data were excluded. The number of children under age 4;06 were few, and would not be able to run statistics. Therefore, only children above 4;06 are included. The children are divided into three age groups: age 4;06-4;12, age 5;00-5;06, and age 5;06-5;12. Each group includes 14 members.

Materials

The materials used for the present study consisted of 16 pictures: 4 for the training session and 12 for the main tests. Two of the four pictures for the training session are used for eliciting *which one*-questions, one for subject *wh*-questions and one for object *wh*-questions. One of the remaining two pictures is used for subject *who*-questions, and the other for object *what*-questions.

Procedure

The experiment is conducted in Taipei county and Hsinchu county. Children are tested individually in an area separated from the classroom in four kindergartens.

The task in the present study is based on Hanna & Wilhelm (1992). Children are shown a picture depicting an action that involves two participants, one of whom is hidden from sight (*who* and *what* questions) or a picture depicting an action involves three participants, in which case part of the

picture is hidden from the sight (*which*-questions). In order to create a reasonable situation for the children to ask *wh*-questions, a dog puppet is used. When a child is presented a picture, the experimenter provided a cue such as "The cat is pulling someone. The doggie knows who the cat is pulling. Could you ask him?" Then, the child has to ask the doggie a *wh*-question.

In the training session, when a child does not understand the task, the experimenter asked the child "Can you say 'Who is drawing a picture?' for example and had the child model the sentence. In the main test session, no correction of incorrect responses is given; positive reinforcement is used (e.g., nodding, "good" or "that's right!") for all responses. All sessions were tape-recorded.

Analyses

The children's responses are categorized as either correct or incorrect. The frequencies and percentages of

correct responses for each language group and each age group are first analyzed descriptively to provide an overview before the inferential statistics are discussed.

Results

Overall, the scores for subject *wh*-questions were consistently higher than the scores for object *wh*-questions. A similar tendency is seen in the scores of correct responses by age group. The most frequent error pattern is grammatical reversals of *wh*-words, which occurred more often in object *wh*-questions than in subject *wh*-questions.

The syntactic hypothesis predicts that there should be an asymmetry between subject and object *wh*-questions. The result of one-way ANOVA with respect to the syntactic hypothesis indicates that the mean score for subject *wh*-questions is not significantly higher than object *wh*-questions (Group 1: 41.28, Group 2: 39.57, Group 3: 38.93, $F:0.013 < 1$). Therefore, subject and object

wh-questions are equally difficult for Chinese-speaking children. Furthermore, according to T-test, there is no significant effect or interaction involving age (comparison between group 1 and 2 : $df = 26$, $t = 0.18 < 1.706$, $p = 0.10 < n.s.$ >; comparison between 2 and 3: $df = 26$, $t = 0.192 < 1.706$, $p = 0.10$, $< n.s.$ >, indicating that younger and older children did not behave differently.

Self-Evaluation

The difficulty of the experiment is much greater than I originally expected. Since I did not get any significant result from children under age 4;06. Therefore, it is really hard for us to see a developmental effect. Next time, I should concentrate on age 2;06-4;06 and spend some time to play with them instead of just doing experiment with them. Due to budget and time limit, I did not go to Taoyuan County and found that it is probably not possible since most

kindergartens nowadays only permit few hours for us to do the experiment (2-4). During the semester, I only had one day off each week for my experiment. I have to limit the areas of my study next time, too.

REFERENCES

Aoun, J., Hornstein, N., Lightfoot, D., & Weinberg, A. 1987. Two types of locality. *Linguistic Inquiry*, 18, 537-77.

Au, T. K.-F., Dapretto, M., & Song, Y.-K. 1994. Input vs. constraints: Early word acquisition in Korean and English. *Journal of memory and language*, 33, 567-582.

Authier, J.-M. 1993. Nonquantificational wh and weakest crossover. *Linguistic Inquiry*, 24, 161-168.

Borer, H., & Wexler, K. 1987. The maturation of syntax. In T. Roeper & E.

Williams (Eds.), *Parameter setting* (pp. 123-72). Dordrecht: Reidel.

Carins, H.S., & Hsu, J. R. 1978. Who, why, when, and how: A development study. *Journal of Child Language*, 5, 477-488.

Cheng, L. L.-S. 1991. On the typology of wh-questions. Doctoral Dissertation, MIT.

Cheung, A. S., & Lee, T. H. 1993. Cantonese-speaking Children's Comprehension of wh-questions. In E. Clark (Eds.), *The proceedings of the 25th Stanford child language research forum* (pp. 106-117). Stanford: Center for the study of language and information.

Chomsky, N. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, N. 1986. *Barriers*. Cambridge, MA: MIT Press.

- Chomsky, N. 1995. The minimalist program. Cambridge, MA: MIT Press.
- Cole, P. 1994. Is there LF wh-movement? *Linguistic Inquiry*, 25, 239-262.
- Ervin-Tripp, S. 1970. Discourse agreement: How children answer questions. In J. Hayes (Eds.), *Cognition and the development of language* (pp. 79-106). New York: Wiley.
- Hanna, K., & Wilhelm, A. 1992. On the acquisition of wh-questions. *Calgary Working Papers in Linguistics*, 15, 89-98.
- Higginbotham, J., & Mary R. 1981. Questions, quantifiers, and crossing. *The Linguistic Review*, 1, 41-80.
- Hornstein, N. 1995. *Logical Form: From GB to minimalism*. Cambridge: Blackwell.
- Huang, C. T. J. 1982. *Logical relations in Chinese and the theory of grammar*. Doctoral Dissertation, MIT.
- Kim, S. 1995. *The acquisition of wh-question in English and Korean*. Doctoral Dissertation, University of Hawaii at Manoa.
- Lasnik, H. & Saito, M. 1992. *Move a: Condition on it's applications and output*. Cambridge, MA: MIT Press.
- Maxfield, T. 1991. Children answer echo question how. In T. L. Maxfield & B. Plunkett (Ed), *Papers in the acquisition of WH: Proceedings of the UMSS Round Tables* (pp. 203-211). University of Massachusetts.
- O'Grady, W. 1996. *Syntactic Development: The acquisition of English*. Chicago: The University of Chicago Press.
- Pinker, S., Lebeaux, D., & Frost, L. 1987. *Productivity and constraints in the acquisition of the passive*.

Cognition, 69, 1-33.

Sarma, J. 1991. The acquisition of wh-questions in English. Doctoral Dissertation, University of Connecticut.

Stromswold, K. 1988. Linguistic representations of children's wh-questions. Papers and Reports on Child Language Development, 27, 107-14.

Stromswold, K. 1995. The acquisition of subject and object wh-questions. Language Acquisition, 4, 5-48.

Takahashi, M. 1991. The acquisition of echo questions. In T. L. Maxfield & B. Plunkett (Ed.), Papers in the acquisition of WH: Proceedings of the UMSS Round Tables (pp.213-223). University of Massachusetts.

Thornton, R. 1990. Adventures in long-distance moving: The acquisition of complex wh-questions. Doctoral Dissertation, University of Connecticut.

Thornton, R. 1995. Referentiality and wh-movement in child language: Juvenile D-linkuency. Language Acquisition, 4, 139-175.

Tyack, D., & Ingram, D. 1977. Children's production and comprehension of questions. Journal of Child Language, 4, 211-24.

Watanabe, A. 1991. WH-in-situ, subjacency, and chain formation. Manuscript, MIT.

Watanabe, A. 1992. Subjacency and S-structure movement of wh-in-situ. Journal of East Asian Linguistics, 1, 255-291.

Yoshinaga, Naoko, 1996. WH questions: A comparative study of their form and acquisition in English and Japanese. Ph.D. Dissertation, University of Hawaii at Manoa.

