UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Lexical Contrast as a Diagnostic Measure of Verb Lexical Organization

Permalink

https://escholarship.org/uc/item/0632g5dm

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 29(29)

ISSN

1069-7977

Authors

Asplin, Kristen N. Wagner, Laura Pearson, Barbara et al.

Publication Date

2007

Peer reviewed

Lexical Contrast as a Diagnostic Measure of Verb Lexical Organization

Kristen N. Asplin (kna4@pitt.edu)

Powers Hall 133, 150 Finoli Drive Greensburg, PA 15601 USA

Laura Wagner (wagner.602@osu.edu)

241 Psychology, 1835 Neil Avenue Columbus, OH 43210 USA

Barbara Pearson (bpearson@comdis.umass.edu)

Research Administration Building, 70 Butterfield Terrace Amherst, MA 01003 USA

Jill de Villiers (jdevil@science.smith.edu)

Psychology, 401 Bass Hall Northampton, MA 01063 USA

Keywords: Linguistics; psychology; language acquisition; semantics; concepts and categories; cross-linguistic analysis; developmental experimentation.

Testing the Lexicon Using Contrasts

Many tests for language disorder rely on superficial measures like vocabulary size that pick up dialect and socio-economic differences instead of language disorder (ASLHA, 1983). We believe that the organization of the lexicon is more sensitive to language disorder independent of dialect.

The verb lexicon is organized along several dimensions which cross-cut, and at times overlap each other (Levin, 1993). For example, among Motion Verbs there are semantic divisions corresponding to manner and path. If the child's lexicon is well organized, she should be able to select verbs in a particular semantic division.

Children saw a picture and completed a description of that picture. For example, one picture showed a man crawling down stairs away from a building. Children were prompted with three sentences, which encouraged the children to target their responses to the prompted semantic category.

- 1) "The man isn't walking, he's...."
- 2) "The man isn't going up the steps he's...."
- 3) "The man isn't entering the building, he's"

The responses to the 21 prompts in 7 scenes were scored as being wholly adequate (2 pts), partially adequate (1 pt), or not adequate (0 pts). Partially adequate scores were given to answers that were too specific, too general, or not quite contrastive. The total possible score was 42.

The items were from the Dialect Sensitive Language Test (DSLT), which became the Diagnostic Evaluation of Language Variation (DELV). The 1000 participants were tested across the United States by certified speech-language pathologists and include both African American English (AAE) and Mainstream American English (MAE) speaking four- to nine-year-old children who were classified as either normally developing or language disordered.

In Figure 1, normally developing children did better at all ages and in all dialects than those diagnosed with language disorders, F(1, 976) = 79.653, p<.001, $\eta^2 = .075$. Dialect also significantly affected performance on this task, but the effect size was very small, F(1, 976) = 7.759, p = .005, $\eta^2 = .008$, and reflects the large sample size.

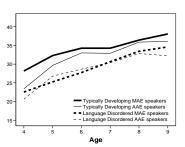


Figure 1: Average total adequacy by dialect and disorder

In short, the organization of the verb lexicon predicted language disorder; children with language disorders were less likely to come up with adequate contrasts for verbs in specific categories, and they had trouble limiting their answers to the correct category of verb.

Acknowledgments

This work has been funded in whole or in part by the National Institute on Deafness and Other Communication Disorders under Contract #N01 C8-2104 to Harry Seymour, P.I. Materials Copyright 2000, Psychological Corporation.

References

American Speech-Language-Hearing Association. (1983). Position paper: Social dialects and implications of the position on social dialects. *ASHA*, 25, 23-27.

Levin, B. (1993) *English verb classes and alternations*. Chicago, IL: University of Chicago Press.