UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Actively Detecting Patterns in an Artificial Language to Learn Non-AdjacentDependencies

Permalink

https://escholarship.org/uc/item/1425x2jh

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 39(0)

Authors

Wang, Hao
Zevin, Jason
Leather, Calvin
et al.

Publication Date

2017

Peer reviewed

Actively Detecting Patterns in an Artificial Language to Learn Non-Adjacent Dependencies

Hao Wang
University of Pennsylvania

Jason Zevin
University of Southern California

Calvin Leather
University of Southern California

Toby Mintz
University of Southern California

Abstract: Many grammatical dependencies in natural language involve elements that are not adjacent, such as between the subject and verb in "the dog always barks". We recently showed that non-adjacent dependencies are easily learnable without pauses in the signal when speech is presented rapidly. In this study, we used an online measure to look at the relationship between online parsing and the learning performance from the offline assessment of non-adjacent dependency learning. We found that participants who showed current parsing of the language online also learned the dependencies better. However, this pattern disappeared when they are explicitly told where the boundaries are before parsing. Theories of non-adjacent dependency learning are discussed.