

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Gesture and pause can facilitate chunking syntactic information in ambiguous phrases

Permalink

<https://escholarship.org/uc/item/83r6g6cn>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 42(0)

Author

Kobayashi, Harumi

Publication Date

2020

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Gesture and pause can facilitate chunking syntactic information in ambiguous phrases

Harumi Kobayashi

Tokyo Denki University, Saitama prefecture, Japan

Abstract

It is known that phrases and sentences can be interpreted to have multiple meanings. Previous studies have focused mostly on prosodic cues and pauses in the disambiguation mechanism of syntactic structures. In this study, we looked into the disambiguation effects of gestures (iconic or beat) and three different duration of pauses (0.1, 0.5, 1.0 sec) at critical word for branching. The participants looked at a computer monitor that showed an actor doing gesture, and two pictures that depict different meanings. The participant was asked to choose the matched picture with the shown gesture. Reaction time was also measured. The result was that participants responded more correctly when gesture of sequential chunking was shown than non-sequential chunking. More pause facilitated interpretation of the non-sequential stimulus, whereas more pause facilitated the reaction for the sequential chunking stimulus. The study showed the importance of chunking syntactic information shown by gesture and pause.