

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Visual perception of vertical movements in word learning

Permalink

<https://escholarship.org/uc/item/3b6434kn>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 44(44)

Authors

Akamine, Sho
Omine, Akari
Kohatsu, Tsuyoshi
et al.

Publication Date

2022

Peer reviewed

Visual perception of vertical movements in word learning

Sho Akamine

Max Planck Institute for Psycholinguistics, Nijmegen, Netherlands

Akari Omine

transcosmos inc., Urasoe, Japan

Tsuyoshi Kohatsu

University of the Basque Country, Vitoria Gasteiz, Spain

Manami Sato

Okinawa International University, Ginowan, Okinawa, Japan

Abstract

People understand abstract ideas (e.g., positive/negative valence) through concrete concepts (e.g., up/down; Lakoff & Johnson, 2013). Empirical research has shown that upward/downward motor actions stimulate positive/negative feelings and memories (Casasanto & Dijkstra, 2010), and congruent motor actions facilitate word learning (Casasanto & de Bruin, 2019). Although prior studies reveal a close link between language and perceptual experiences, no study has tested whether the visual perception of upward/downward movements enhances the learning of words whose meaning involves either higher/lower spatial position (e.g., cloud, road), positive/negative emotional valence (e.g., joy, grief), or higher/lower social status (e.g., doctor, unemployed). The effects of directional congruency in word learning are discussed based on the results of an experiment in which Japanese speakers learned 54 English-based pseudowords presented with automatic visual movements that were congruent (e.g., upward-positive) or incongruent (e.g., downward-positive) with the pseudowords' assigned meaning, or controls (e.g., rightward/leftward-positive).