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Authors

Liu, Junyao
Wang, Yifei
Yin, Yingying
et al.

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Comparison of Chinese and Western Categorization: Based on Bayesian Model

Junyao Liu
Department of Psychology, Beijing Forestry University, Beijing, China

Yifei Wang
Department of Psychology, Beijing Forestry University, Beijing, China

Yingying Yin
Department of Psychology, Beijing Forestry University, Beijing, China

Wenxuan Hao
Department of Psychology, Beijing Forestry University, Beijing, China

Mingyi Wang
Department of Psychology, Beijing Forestry University, Beijing, Beijing, China

Fei Xu
UC Berkeley, Berkeley, California, United States

Abstract

Xu and Tenenbaum (2007a, 2007b) applied the Bayesian model to explain the impact of differences in exemplification on words learning, and they achieved milestones. It remains unexplored if there are differences when native language and culture are changed. Taking the same method as the original research, we added test after a long time interval, and use between-subject design to eliminate the practice effect. The results of Chinese adults and children show that: (1) The Bayesian model has stability over time and culture. (2) When the objects in the same category differ greatly from each other, the Bayesian model's predictive power on children's results is significantly reduced. (3) Since the low-level words in Chinese vocabulary are often composed of high-level words and adjectives, Chinese easier to generalize. (4) Results of Chinese subjects reflect more instinct rather than logical reasoning stylewhich is differ from westerners.