

Comparison of Chinese and Western Categorization: Based on Bayesian Model

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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 style which is differ from westerners.