

Cognitive Shifting in 3-Year-Old Children: The Roles of Stimulus Familiarity and Labeling in a Dimensional Change Card Sorting Task

Hsiao-Han Ma¹, Chi-Tai Huang^{2,3}, and Li-Xin Yang^{2,3}

¹Department of Human Development, Tzu Chi University

²Department of Psychology, National Chengchi University

³Research Center for Mind, Brain and Learning, National Chengchi University

It has been well-documented that 3-year-olds perseverate by continuing to sort pictures on cards by using one rule when they are instructed to change the rule from one dimension to another. In this study, we delineated the influences of stimulus familiarity and labeling on children's abilities to sort between dimensions. In Experiment 1, we tested a sample of Taiwanese children aged 2, 3, and 4 years by using a Chinese version of the dimensional change card sorting task (Zelazo, 2006). Similar to previous findings from Western countries, the results showed that only 4-year-olds switched to sorting by a new rule. In Experiment 2A, cards had unfamiliar shapes (inkblots) and were labeled with a generic term ("thing") when stating the first rule. In Experiment 2B, cards were labeled with familiar names that children used to describe the cards themselves. In Experiment 2C, cards had familiar shapes but were labeled with a generic term on the first sorting dimension. The results showed that 3-year-olds were capable of extradimensional shifts only in Experiment 2A. The pattern of findings suggests that both visual and verbal inputs influence children's cognitive flexibility in card-sorting tasks.

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