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The role of conventional number knowledge in young children's nonverbal number matching: Is "two" special?

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Abstract: Two studies examined the role of conventional number knowledge on young children's nonverbal number matching (NVM). We hypothesized that acquiring two number words ("one" and "two") would facilitate children's performance on the NVM task by highlighting numerical comparisons rather than comparisons based on other variables. To test this hypothesis, two- and three-year-olds were given a NVM task that was either controlled for line-length/density (Experiment 1) or total surface area (Experiment 2). Conventional number knowledge was assessed using two tasks: Give-A-Number and How-Many. Results from Experiments 1 and 2 showed the advantage of knowing at least two number words: "Two-knowers" and above performed significantly better on NVM than one-knowers or non-counters. Performance of one-knowers and non-counters did not significantly differ, suggesting that children's performance on NVM is not significantly impacted by learning only one number word.