Counting is a Piece of Cake: Yet Another Counting Task

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Abstract: How and when do children understand the concept of cardinality? The Give-X task (Wynn, 1992) is used as a measure of children's understanding of this counting principle. While poor performance on the Give-X task could arise from lack of understanding, we hypothesize it might also be due to the demands of coordinating counting and set construction. We designed an alternative task that lessens performance demands, The Birthday task, to more directly evaluate children's cardinality knowledge.

Subjects are told a child's age and given a sticker to place on the corresponding cake. Subjects were given both the Give-X and Birthday tasks. 30 children were classified as subset-knowers, as determined by criteria identical to LeCorre et al. (2006).

19 of 30 were able to outperform their number-knower status on the Birthday task, while 11 performed identically. Using McNemar's test, it was found that performance between tasks were significantly different (p<.005).