Picture Recognition Memory: A Review of Research and Theory

1. Keywords
   1. Ceiling effects
2. Picture Recognition Memory Experiments
   1. Two phases
      1. Study phase
         1. Subjects look at a series of pictures one after the other at a controlled rate
      2. Test phase
         1. Subjects see some of the study pictures mixed in with new pictures(distractors)
         2. Asked to discriminate the study pictures from the distractors
         3. Two kinds of tests
            1. Forced-choice test

Each test item consists of one study picture paired with one or more distractors

Subjects are asked to indicate which picture they have seen before

* + - * 1. Single-item test

Study pictures and distractors are shown singly

Subjects respond “old”or “new” to each item

* 1. Early Research
     1. Shepard 1967
        1. Showed subjects a series of 612 color pictures taken from sources such as magazine ads
        2. Two-alternative forced choice test
        3. Subjects picked out the old picture with a median accuracy of 98.5%
     2. Standing, Conezio and Haber 1970
        1. Showed college students 2560 color slides over a two or four day period
        2. Recognition accuracy averaged 90%
     3. Standing 1973
        1. Showed 10,000 slides
        2. Recognition accuracy 83%
  2. Researchers must take precautions to avoid ceiling effects that might mask the effects of the variables being studied
     1. Ceiling effects
        1. The distribution of scores results in a large number of scores clustering near the top of the scale
        2. The mean + 2 standard deviations is greater than or equal to the top score

1. Variables in picture research
   1. The relationship between words and pictures in picture recognition memory research
      1. Highly reliable finding that pictures are remembered better than words
      2. Bird and Bennett 1974, Borges Stepanowsky and Holt (1977), Cobb Tanhauser and Johnson 1980, …
      3. This finding is called the “pictorial superiority effect”
   2. The superiority of picture recognition memory over word recognition memory
   3. The effect of accompanying pictures with words
   4. The effect of pictorial stimulus variables such as meaningfulness, complexity and color
   5. Effects of the learner’s encoding strategy
   6. How research design factors can affect results
   7. Role of individual differences in recognition tasks
2. Prominent Theoretical Positions
3. Variables that have received attention
4. Major reliable findings

References

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