Age-related differences in strategies for idiom production

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Introduction

A decline in lexical retrieval as a function of age is evidenced by a wide body of research (Burke & Shafto, 2004; McKay, et al., 2002; Nicolas, et al., 1996; Au et al., 1995). Difficulties in lexical retrieval and naming with age may also be reflected in the production of idioms. These formulaic expressions, possibly reflecting automatic or holistic representation, provide the opportunity to examine potential differences with age.

We used an idiom production task to examine retrieval of idiomatic expressions in two age groups. The principle question of this investigation was: are the vulnerabilities to problems with lexical retrieval that are evident for older adults (tip-of-the-tongue phenomenon) also true for idiomatic expressions? If so, do older and younger adults use different strategies to produce these common expressions and what are the differences?

Hypotheses

1. Younger adults will perform better than older adults on this idiom production task.
2. If older adults have more difficulty with idiom production, we predict the use of different linguistic strategies for self-cueing of responses.
3. A greater vulnerability to lexical retrieval difficulties for older adults may result in a larger number of partially correct responses for the older adults, and additional evidence of linguistic strategies for retrieval.

Stimuli

Familiarity rating for a set of 75 idioms were performed by a group of younger (18-35) and older (60-85) monolingual adults. Forty items rated equally familiar (3 and above on a 7-point Likert scale) by young and old raters were included in the experimental stimuli.

After a set of practice items with extended instructions to produce idioms and progressively fewer cues, each participant read and listened to a series of scenarios designed to elicit the idiom.

Stimulus: “We tried to keep the party a surprise from my parents, but my sister had to open her big mouth and…”

Target Response: “let the cat out of the bag.”

Participants and Methods

Seventy-six monolingual adults in two age groups, matched for gender and education, were tested individually.

- 38 younger adults (ages 18-30; \( \overline{x} = 25.3 \) yrs, education: \( \overline{x} = 15.8 \) yrs)
- 38 older adults (ages 60-85; \( \overline{x} = 72.3 \) yrs, education: \( \overline{x} = 15.9 \) yrs)

Their correct responses were classified into the following categories with 97.25% interrater reliability:

- Single Correct (let the cat out of the bag or equivalent spill the beans)
- Multiple Correct (two or more responses) (ruin it, ah.. let it slip, um.. let the cat out of the bag)
- Partially Correct (let the goose out of the bag)

Results

- Significant differences for mean single correct responses. Older adults produced fewer correct items on their first responses to the production task than younger adults.
  (Young: \( \overline{x} = .60 \) Old: \( \overline{x} = .48 \); \( t = 3.95, p < .001 \))

- No significant differences between the percentage of multiple correct responses between the two age groups.
  (Young: \( \overline{x} = .13 \) Old: \( \overline{x} = .12 \))

- Older adults had significantly more partially correct responses than did the younger participants.
  (Young: \( \overline{x} = .02 \) Old: \( \overline{x} = .05 \); \( t = -4.0, p < .001 \) )

- The multiple correct responses were analyzed for strategic differences between older and younger adults. The presence of comments, literal responses, and other idioms or common expressions did not differ significantly between the two groups.

- A further analysis of the partially correct expressions compared those responses that led to a correct response to those that did not. There was a significant difference between the mean ratio of partially correct responses to the total partial responses. Older adults had fewer partial responses that lead to a correct response than younger adults did.
  (Young: \( \overline{x} = .57 \) Old: \( \overline{x} = .30 \); \( t = -3.29, p < .002 \) )

Conclusion

Our results are consistent with the hypothesis that younger and older adults differ with regard to their production of idiomatic expressions.

1. Age-related differences were apparent for idiom production. Younger adults produced more idioms correctly on average than older adults. This difference was on their first responses, suggesting idiom retrieval difficulties for older adults.
2. Significant differences were not found between older and younger adults in their use of comments, literal expressions or other formulaic expressions as strategies to produce idioms.
3. Partially correct responses were more likely to lead to a correct target for the younger adults, suggesting self-cueing is a more successful strategy for them than for the older adults.

REFERENCES


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