

Idiom Production and Aging

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Idioms Defined

- "Phrases whose figurative meaning cannot be derived from a literal analysis of the component words" (Swinney & Culter, 1979)
- *"Kick the bucket"*
- *"It's raining cats and dogs"*
- Idioms are among the most commonly used forms of figurative language

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Purpose of this Presentation

- To highlight the results of a research study on the production of idiomatic expressions by healthy younger and older adults

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Research Question

- Substantial literature suggests decline in naming abilities/lexical retrieval associated with advancing age (e.g., Au et al., 1995)
- Older adults have difficulties with lexical retrieval
- Idioms have been construed as lexical items
- *Do older adults have difficulties with idiom retrieval in comparison to younger adults?*

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Pilot Study- Idiom Familiarity Rating

- Younger (ages 18-35) and older (ages 60-85) monolingual American-English speaking participants
- Rated a set of 75 idioms
 - 65 American idioms
 - e.g., "She got cold feet"
 - 10 literally-translated foreign idioms
 - e.g., "She is living in cloud-cuckoo-land"

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Pilot Study- Idiom Familiarity Rating Results

- Only those 40 items rated equally familiar (3 and above on the 7-point Likert scale) by younger and older raters were included in the experimental stimuli

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Selected Examples Included in Experimental Stimuli

The coast is clear.

Young Avg. = **5.50**
Old Avg. = **5.68**
Overall = **5.63**

He has butterflies in his stomach.

Young Avg. = **5.63**
Old Avg. = **5.59**
Overall = **5.60**

Selected Examples Excluded (< 3.0 = Unfamiliar)

She's in quids with John.

Young Avg. = **0.00**
Old Avg. = **1.27**
Overall = **0.93**

That's the thin edge of a wedge.

Young Avg. = **0.13**
Old Avg. = **1.36**
Overall = **1.03**

Results: Selected Example Excluded (Age Difference)

Let's get down to brass tacks.

Young Avg. = **1.50**
Old Avg. = **4.91**
Overall = **4.00**

Experimental Study- Idiom Production Task

- Scenario created for each of the 40 target idioms to elicit the idiom in question
- Extensive pre-task instructions consisting of 12 practice items
- Progressively fewer cues:
 - Whole Idiom
 - First substantive word

Experimental Procedure

- Participant sees and hears the scenario
- *Sentence completion paradigm*- asked to say the idiom that completes the sentence
- No response or non-target idiom:
 - First substantive word cue (e.g. "kick" for "kick the bucket")
- Literal response:
 - Reminder that the response must be an idiom

Participants- Idiom Production Study

- 80 participants matched for gender and education:
 - 40 younger adults (ages 18-30; \bar{x} =25.3yrs, education: \bar{x} =15.8 yrs)
 - 40 older adults (ages 60-85; \bar{x} =72.3 yrs), education; \bar{x} =15.9 yrs)
- Tested individually

Experimental Task- Example

- **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."

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Response Classification

- **Correct** (*let the cat out of the bag* or equivalent *spill the beans*)
- **Partially correct** (*let the goose out of the bag*)
- **Correct with cue** (correct response after the word prompt, "let")
- **Incorrect** (*blurt it out* or no response)
- 94.15% interrater reliability

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Results



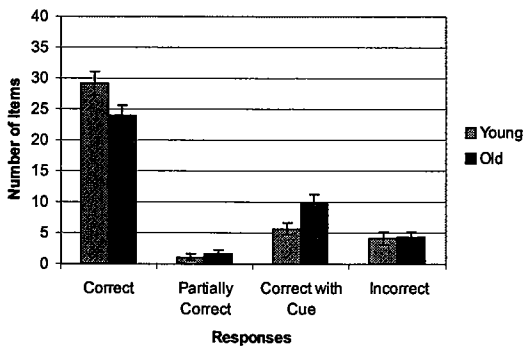
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Expectations

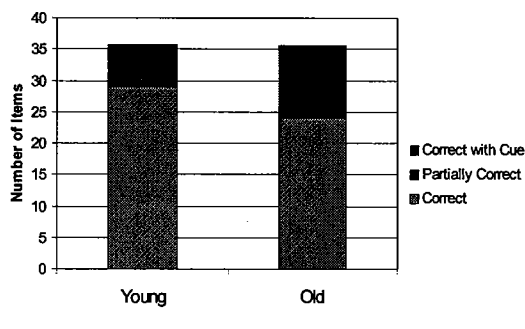
- Assuming idioms are stored or processed like words at some level...
- Knowing that there are age-related declines in word retrieval, related to phonological encoding...
- *Older participants should exhibit declines in idiom production analogous to lexical retrieval studies (compared to young controls)*

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Idiom production



Overall Correct Responses



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Conclusion

- Age-related decline in idiom production is observed
- Single word cues *enhance* successful retrieval (phonological and semantic)
- Results mirror research on word-production difficulties related to age (MacKay et al., 2002)
- Very few “partial responses” for both groups suggest a “holistic” representation of idioms at some level of processing

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