

## Idiom Production and Aging

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1

## 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

2

## Purpose of this Presentation

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

3

## 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?*

4

## 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"

5

## 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

6

### 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."

13

### 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

14

### Results



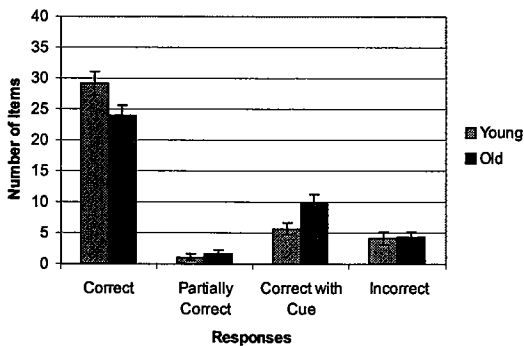
15

### Expectations

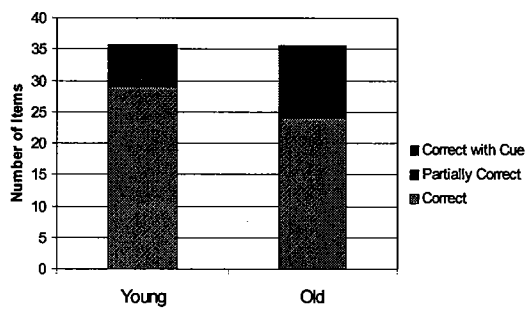
- Assuming idioms are stored or processed like words at some level...
- Knowing that there are age-related declines in word retrieval, related to phonological encoding...
- *Older participants should exhibit declines in idiom production analogous to lexical retrieval studies (compared to young controls)*

16

Idiom production



Overall Correct Responses



18

## 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

19