



# **Aging and decision-making competence**

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# Aging

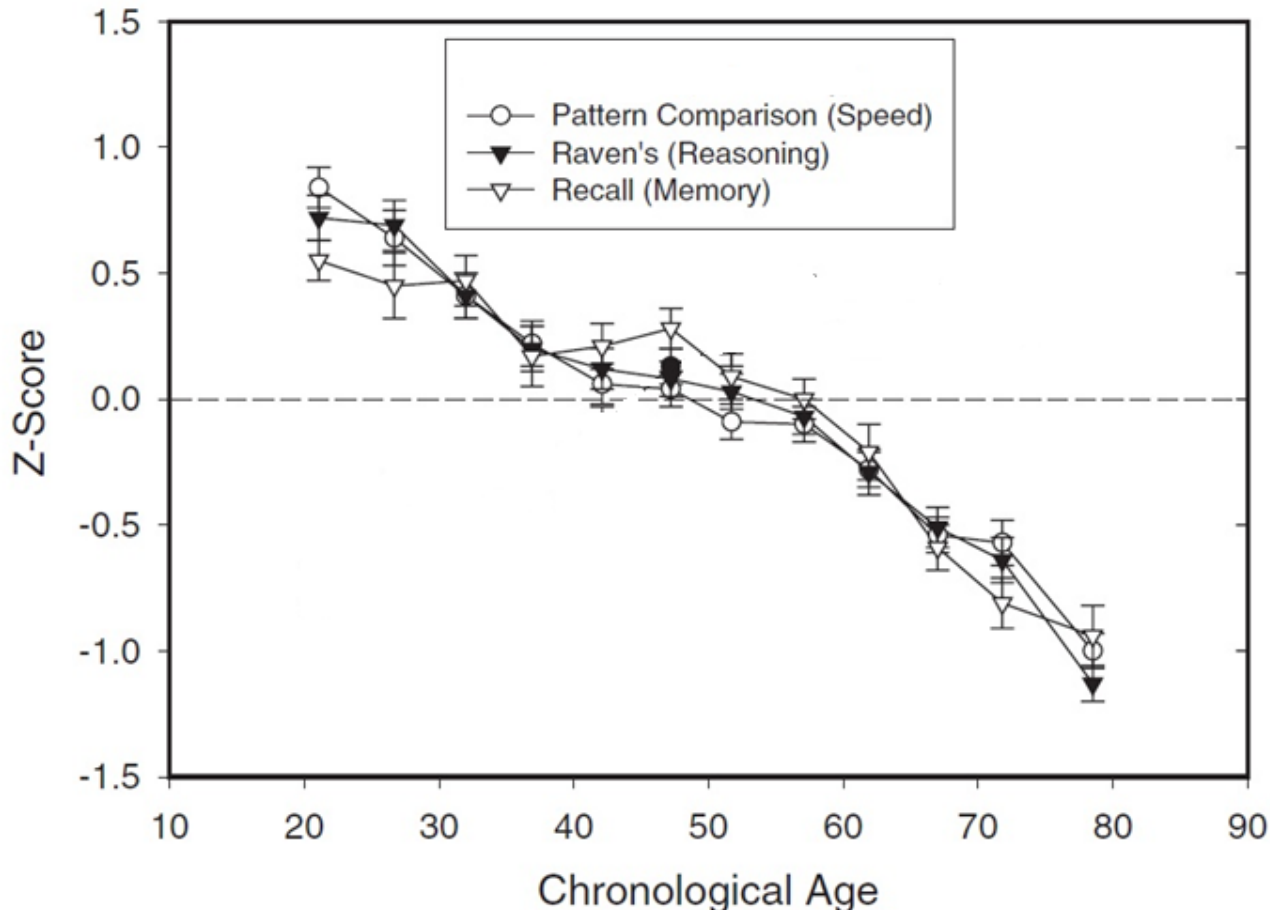
- Population age is increasing worldwide
- Older adults face difficult pension decisions
- Emerging literature on aging and decision-making competence
  - highlights 4 main findings
  - has implications for pension communications



# Overview

1. Key findings from literature on aging
2. Suggestions for interventions
3. Take-home messages

# Finding 1: Cognitive decline

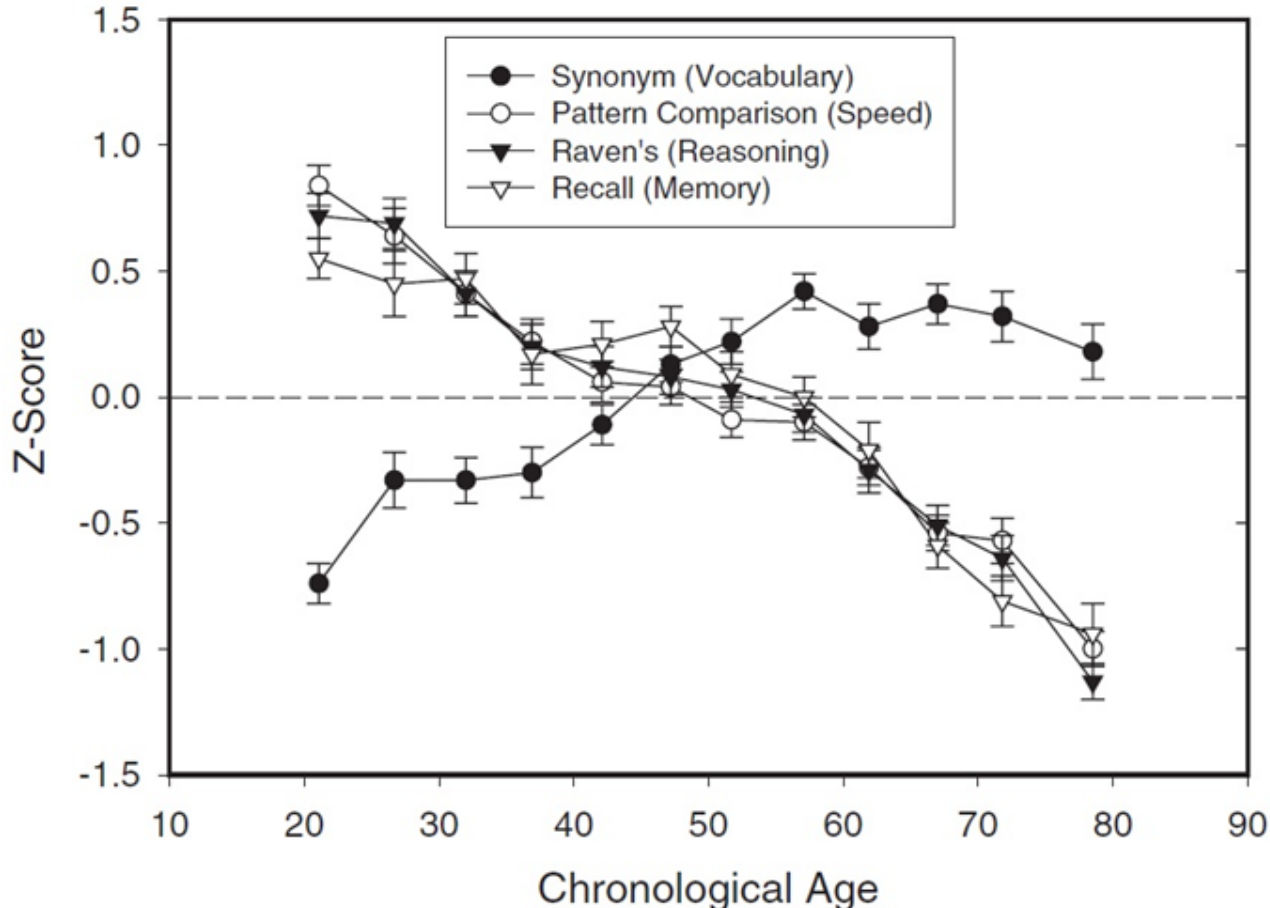


- Older adults do worse than younger adults on complex decision tasks
- But they do as well on simple decision tasks

(figure from Salthouse, *Current Directions in Psychological Science*, 2004)

See: Bruine de Bruin et al., *Journal of Behavioral Decision Making*, 2012

# Finding 2: Increased knowledge



- Experienced decision makers may not have to think as hard about their decisions

(figure from Salthouse, *Current Directions in Psychological Science*, 2004)

See: Bruine de Bruin et al., *Journal of Behavioral Decision Making*, 2012

# Finding 3:

## Age-related decline in motivation

Table 1—Variable Return Investments

Name/ Type of Option	Average Annual Total Return as of 12/31/XX				Benchmark			
	1yr.	5yr.	10yr.	Since Inception	1yr.	5yr.	10yr.	Since Inception
<b>Equity Funds</b>								
A Index Fund/ S&P 500 www. website address	26.5%	.34%	-1.00%	9.25%	26.46%	-.42%	-.95%	9.30%
B Fund/ Large Cap www. website address	27.6%	.99%	N/A	2.26%	27.80%	1.02%	N/A	2.77%
C Fund/ Int'l Stock www. website address	36.73%	5.26%	2.29%	9.37%	40.40%	5.40%	2.40%	12.09%
D Fund/ Mid Cap www. website address	40.22%	2.28%	6.13%	3.29%	46.29%	2.40%	-.52%	4.16%
<b>Bond Funds</b>								
E Fund/ Bond Index www. website address	6.45%	4.43%	6.08%	7.08%	5.90%	4.97%	6.33%	7.01%
<b>Other</b>								
F Fund/ GICs www. website address	.72%	3.26%	3.11%	5.56%	1.8%	3.1%	3.3%	5.75%
G Fund/ Stable Value www. website address	4.36%	-4.64%	5.07%	3.73%	1.8%	3.1%	3.3%	4.99%
Generations 2020/ Lifecycle Fund www. website address	27.94%	N/A	N/A	2.45%	26.46%	N/A	N/A	3.00%
					23.95%	N/A	N/A	3.74%

- Older adults with lower numeracy *dislike* numbers
- But they will put effort into decisions, *if relevant*

See: Bruine de Bruin et al., *Medical Decision Making*, 2015

# Finding 4:

## Better emotion regulation

- Older adults report better emotional well-being
- Older adults are more focused on maintaining positive emotions
- Emotion goals affect decision making



See: Bruine de Bruin et al., *Psychology & Aging*, 2014, 2015

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# Suggestions for interventions

1. Target cognitive decline
  - Train cognitive skills
  - Provide decision aids
2. Build on experience
  - Build on familiar examples
3. Improve motivation
  - Simplify decisions and reduce choice sets
  - Increase personal relevance
4. Build on emotions
  - Frame information positively

# Existing communications

- Many communications are disseminated without testing their effectiveness
- Those that are tested are often found to be ineffective, perhaps due to
  - Providing information that is too complex, unfamiliar, and seemingly irrelevant
  - Not covering what recipients want or need to know
  - Not involving psychologists



# Behavioral decision research approach to developing communications

1. Normative: What should people know to make more informed decisions?
  - Literature review and expert panel
2. Descriptive: What do people already know and how are they making their decisions?
  - Interviews and surveys
3. Prescriptive: What do people still need to know to make more informed decisions?
  - Compare step 1 and 2 to develop message
4. Evaluation: Does the communication help people to make more informed decisions?
  - Evaluate message effectiveness

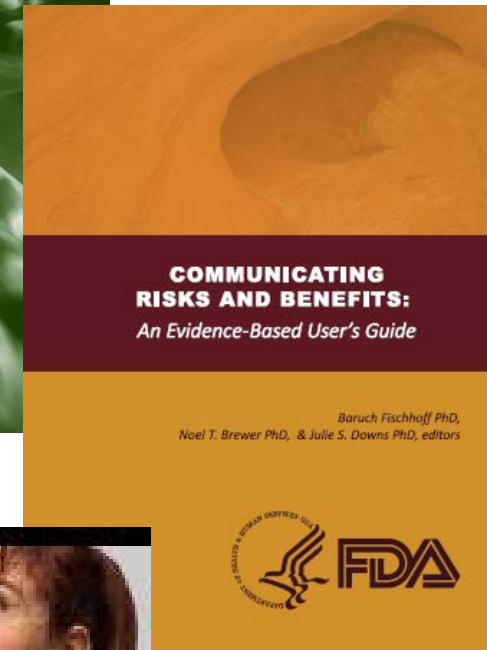
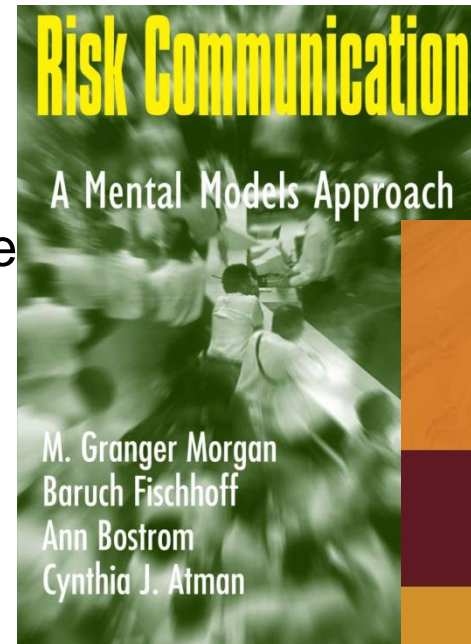
# More about the methodology

Morgan, M.G., Fischhoff, B., Bostrom, A., & Atman, C. (2002). *Risk communication: A mental models approach*. New York, NY: Cambridge University Press.

Fischhoff, B., Brewer, N.T., & Downs, J.S. (2011). *Communicating risks and benefits: An evidence-based user's guide*. USFDA.

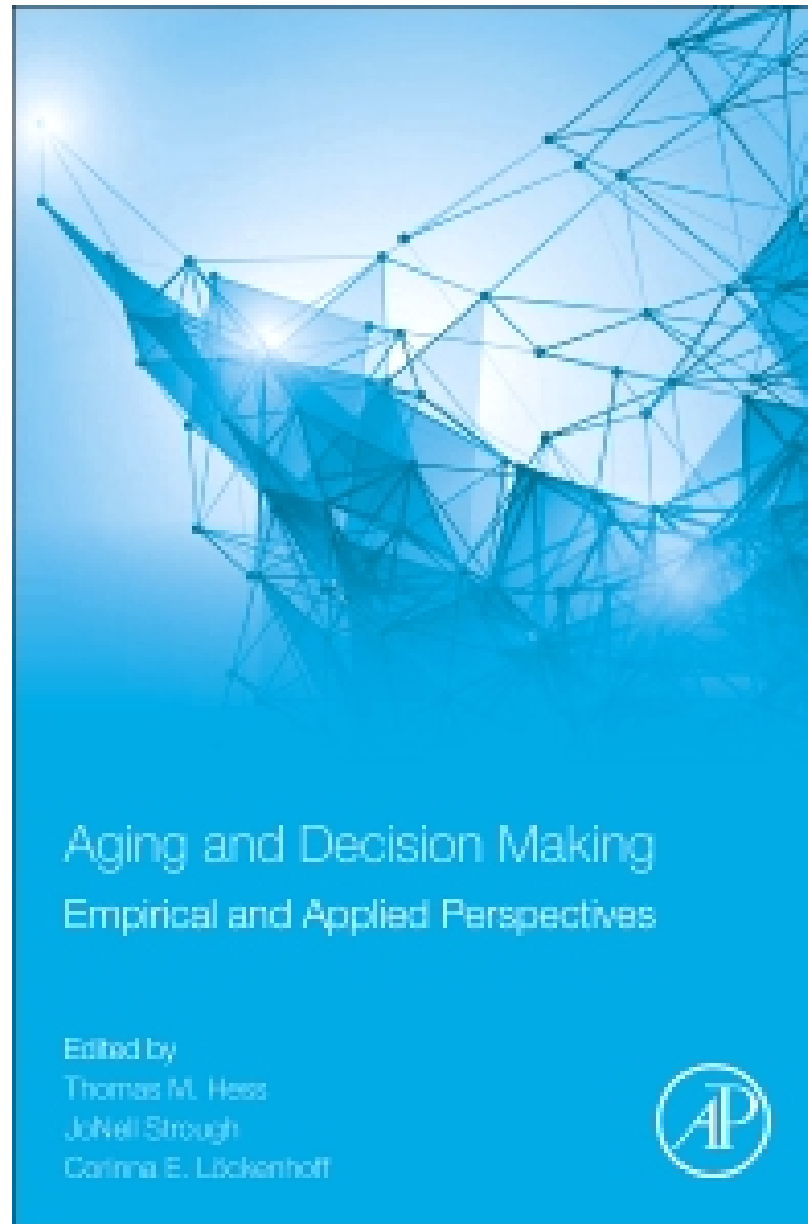
[www.fda.gov/oc/advisory/OCRCACACpg.html](http://www.fda.gov/oc/advisory/OCRCACACpg.html)

Bruine de Bruin, W., & Bostrom, A. (2013). How to assess what to address in science communication. *Proceedings of the National Academy of Sciences, 110*, 14062-14068.



Also on YouTube

# More about aging audiences



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# Take-home messages

- Older adults face cognitive decline
- Older adults also have more experience, different motivation, and emotions
- Communication should be designed with audience members' strengths and weaknesses in mind
- *Know your audience*
- *Test messages before disseminating them*
- *Psychologists can help*

# Related projects in Centre for Decision Research

- Understanding and improving older adults' decision-making competence  
(funded by European Union)
- Understanding age differences in patients' preferences for health information  
(funded Swedish Riksbanken Jubileumsfond)
- Helping older adults in financial distress  
(funded by EU Marie Curie Fellowship to Caezilia Loibl)







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