

# An Intergenerational Psychology of Cultural Change

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**How does cultural change influence our psychology?**



# Cultural evolution and social learning

1. Accumulation of adaptive cultural knowledge
2. Social learning biases help choose good information

## What about age-biased social learning?

### A stable culture

Older adults had longer to learn

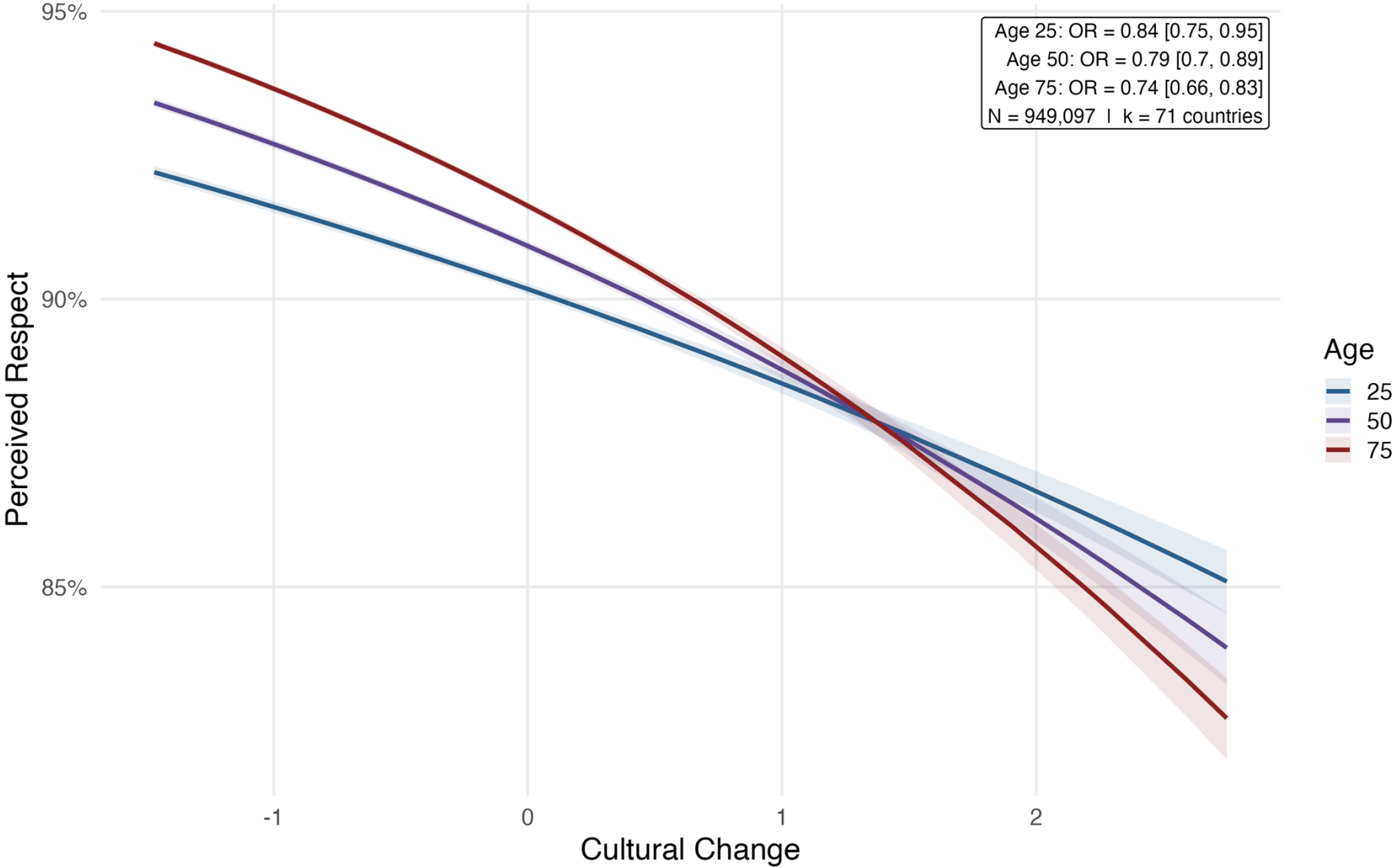
Age: **positive** cue for low-change info

### A rapidly changing culture

Older adults rely on existing knowledge

Age: **negative** cue for high-change info

Cultural Change and Perceived Respect Across the World by Three Ages



Perceived Respect from Gallup World Poll (2005-2021). Cultural change from Kay et al. (2025).

# Components of the working model

1. Culture changes at different rates in different places

**Cross-National Comparison**

2. For high-change information, social learning is biased against older adults

**Experiment 1**

3. Age-biased learning influences older adults (e.g., perceived respect)

\*Currently recruiting\*

**Experiment 2**

# Experiment 1: Does high-change information influence age-biased social learning?

## Social learning paradigm

Learning trials

1. High- or low-change question
2. Choice to learn answer from older or younger “teachers”

Learning incentivized with post-test performance rewards

# Experiment 1 Demo

Start

Next slide

# Study 1: Design ( $N = 337$ , age 18-25)

Within-subjects manipulation:

- High- and low-change questions
- 10 choices, five domains:
  - *investing, culinary, driving, fashion, music*

Between-subjects manipulation:

1. no-expertise (teacher faces only)
2. expertise (occupational information - older adult always expert)

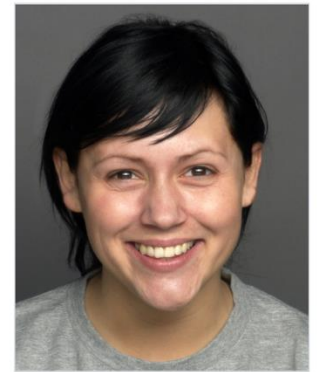
Controlled:

- Matched attractiveness and distinctiveness across teacher age groups
- White participants and teachers
- Matched participant and teacher sex

Choose who to learn from by clicking on their picture.



**Mary**  
Clothing Designer

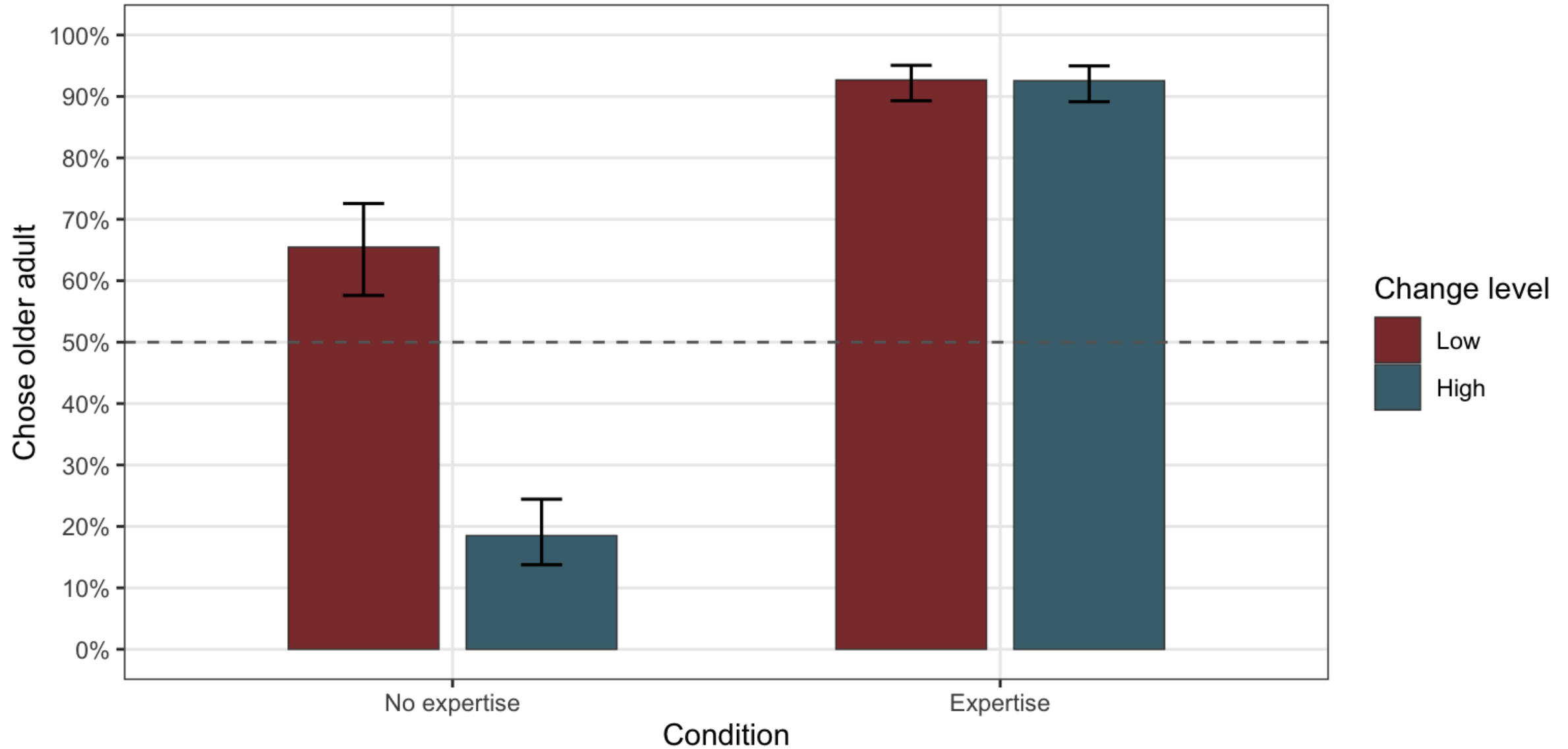


**Emily**  
Office administrator

Question:

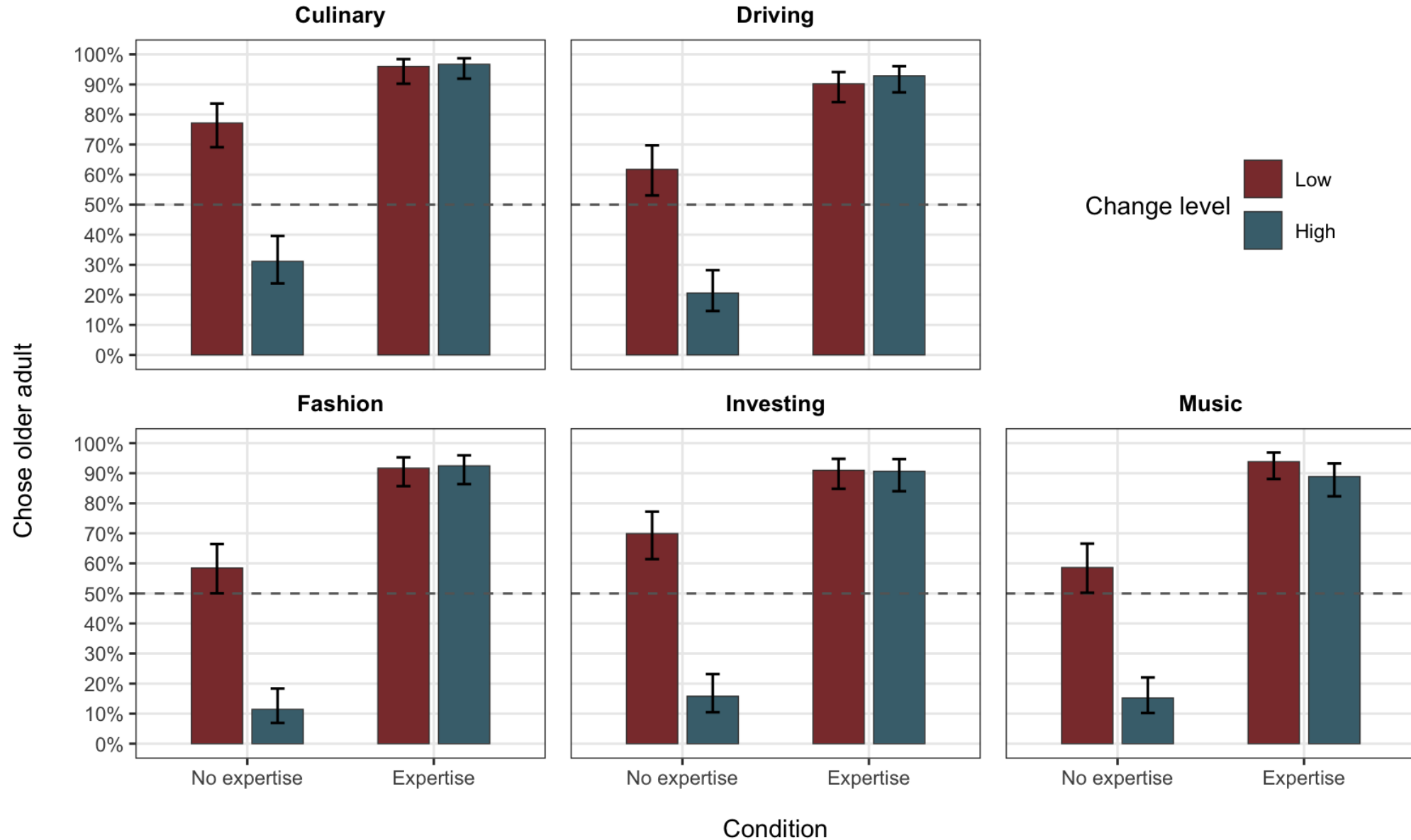
How should you dress for a wedding in North America?

## Age-biased teacher choice by change level and condition



Note. Error bars represent 95% CIs. Estimates from logistic mixed-effect model with change level, expertise, and their interaction, with random intercepts by participant and knowledge domain.

## Age-biased teacher choice by change level, condition, and domain



Note. Error bars represent 95% CIs. Estimates from logistic mixed-effect model with change level, expertise, knowledge domain, and their interactions, with random intercepts by participant.

# How does cultural change influence our psychology?

## The working model

1. Culture changes at different rates in different places

Cross-National Comparison

2. For high-change information, social learning is biased against older adults

Experiment 1

3. Age-biased learning influences older adults (e.g., perceived respect)

\*Currently recruiting\*

Experiment 2

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# Experiment 2: How does age-biased social learning influence older adults?

## Opposite of social learning paradigm

Recruit older adults to be teachers \*Currently recruiting\*

- Manipulate the learning environment:
  1. All-high (5 high-change questions)
  2. Mixed (3 high- and 3 low-change questions)
  3. All-low (5 low-change questions)
- Selection algorithm preserves expectation of the number of selections [based on  $p(\text{high})$  &  $p(\text{low})$  from Exp. 1] while minimizing variance within condition



# Experiment 2: Measures

## **Knowledge appreciation**

5 items: seen as knowledgeable, respected, valued as a teacher, taken seriously, and appreciated for what they could contribute.

## **Feelings**

7 ratings: respected, embarrassed, angry, sad, happy, included, and ignored.

## **Perceived age bias**

A bipolar rating of age bias: from completely in favor of me (−4), through no bias (0), to completely against me (+4).

## **Open-ended explanation**

What factors participants think influenced the learners' choices.

## **General age–knowledge beliefs**

6 items about whether age affects perceived knowledge and advice seeking in everyday life, including changing and stable areas.

# Experiment 2: Preliminary open-ended responses

What factors do you think influenced the learners' decisions when they made their choices?

## **Low-change condition:**

"I think because I was old they thought I might be smart too."

"I think that the learners figured that I had some life experiences to share with them."

"I think since I was older with white hair that I probably had way more years of experience and knowledge."

## **High-change condition:**

"The type of question, which tended to be about more current issues, as well as my age."

"I think I was older and may not know a lot of current information."

"Probably my age first of all, and a couple of the answers I gave to initial questions as I'm not as "up to date" on current fashions and musicians as younger people would be."

## **Mixed-change condition:**

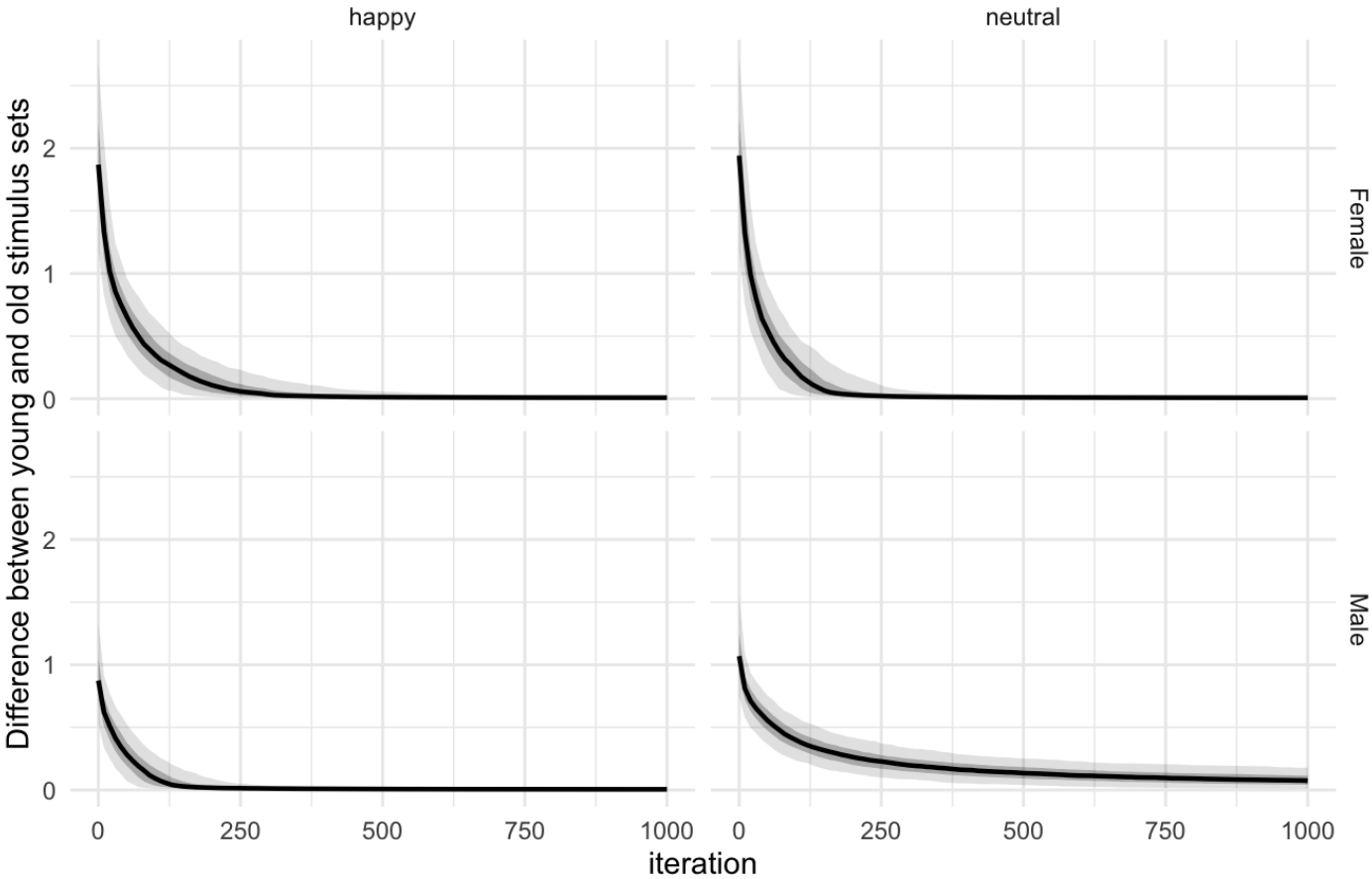
"I feel that the questions that had to do with newer technology and development such as fake meat and crypto were given to a younger person and in all honesty, I would have done that as well."

# Study 1: Questions by domain and change level

| Domain    | Low change                                            | High change                                                                  |
|-----------|-------------------------------------------------------|------------------------------------------------------------------------------|
| Investing | What are the best oil company investments?            | What are the best cryptocurrency investments?                                |
| Fashion   | How should you dress for a wedding in North America?  | What is a current fashion trend in North America?                            |
| Culinary  | How do you cook a steak to medium-rare?               | What are the best kinds of imitation meat?                                   |
| Driving   | Why is tire pressure important for cars?              | What is something to consider when buying an electric vehicle?               |
| Music     | What are the different types of singers in a quartet? | What are some of the most effective ways musicians promote themselves today? |

# Study 1: Stimulus selection

Optimization Stability Across Across All Iterations

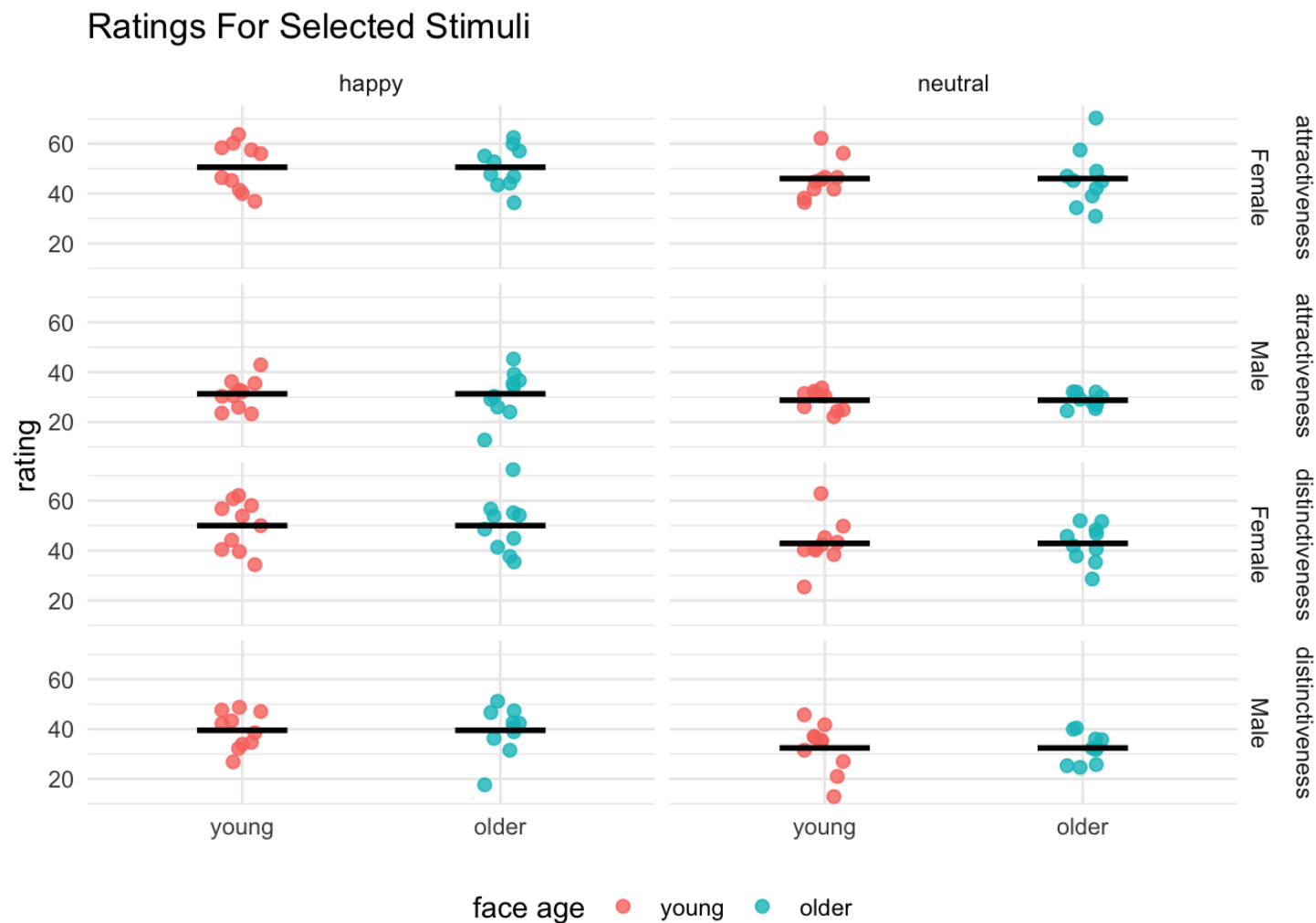


Note. The line shows the median similarity between the old and young stimulus sets across all 1,000 runs

Matching attractiveness and  
distinctiveness

[Across age groups within sex]

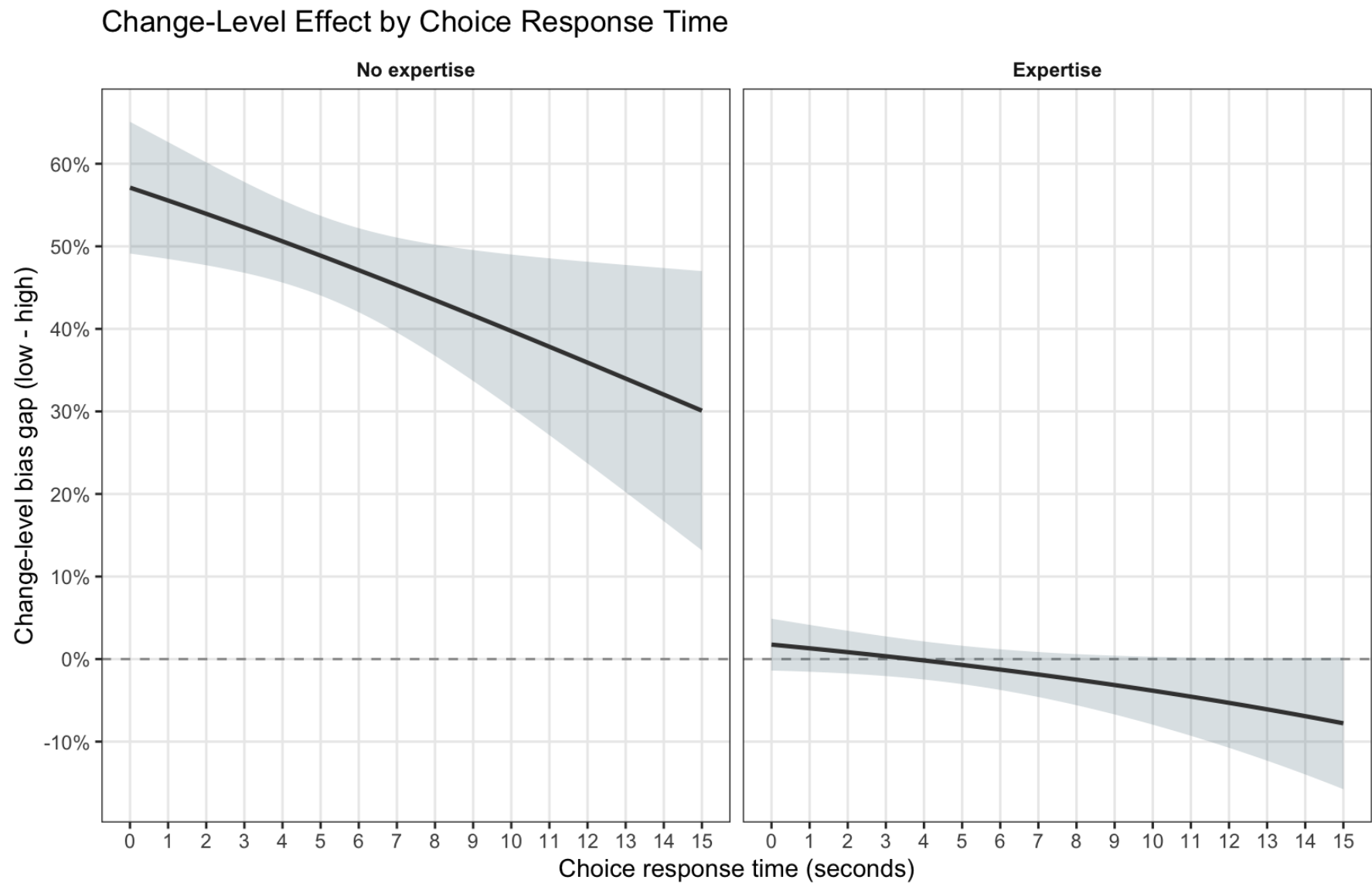
# Study 1: Stimulus selection



Matching attractiveness and distinctiveness

[Across age groups within sex]

# Study 1: Decision time



# Study 1: Additional methods

15-second choice countdown; 15-second answer display; ten-question test.

Top 25% entered a prize draw: five participants received \$20.

Logistic mixed-effects analysis with participant and domain random intercepts.

## Study 2: Environment design

All high change: five rounds; 18.5% expected selection per round.

All low change: five rounds; 65.5% expected selection per round.

Mixed: three high-change and three low-change rounds.

Random assignment: 40% all high • 40% all low • 20% mixed