Intergenerational Intervention to Combat Age-Based Stereotype Threat and Promote Self-Regulation

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Introduction

Age-based stereotype threat (ABST) can impair older adults memory

- Underperform compared to true ability due to concerns about confirming stereotypes *Brubaker & Naveh-Benjamin,2018; Lamont et al., 2015; Nelson, 2012*
- May lead to false positive diagnoses of mild cognitive impairment *Mazerolle at al., 2017*
- Magnified when individuals identify strongly with group and moderated by self-perceptions of aging *Barber & Mather, 2013; Fernandez-Ballesteros, Bustillos, & Huici, 2014; Steele, 1992*
- Theorized to operate via increased anxiety and reduced self-efficacy *Chasteen et al., 2005; Hess, 2006*

Participation in intergenerational discussion groups topically focused on aging may promote more positive age attitudes or inoculate against ABST

Chen, Joyce, Harwood,& Xiang, 2017; Gaggioli et al., 2014; Wong & Gallo, 2016

Research Aims

Aim 1: ***Replication of ABST manipulation (Mazerolle et al., 2015)***

- Poorer memory performance for high threat than null threat instruction conditions

Aim 2: ***Test moderators of ABST***

- Greater ABST effect expected for higher task-related anxiety
- Greater ABST effect expected for greater identification with age group
- Reduced ABST effect expected for higher task-specific self-efficacy
- Reduced ABST effect expected for participants in intergenerational discussions

Explore: ***Correlates of age and memory beliefs and participation in the intergenerational discussion groups***

Methods

Study Design: 2 ABST condition (between: High, Null) × 2 intergenerational discussion group participation (between: Yes, No) mixed factorial

Participants (*N* = 21): 55 to 86 yrs. old (*M* =75.43, *SD* = 7.72 yrs.)

- 90% female, 80% Caucasian, highly educated (*M* = 17.9 yrs., *SD* = 3.2 yrs.
- Healthy (*M* = 8.2, *SD* = 1.3, 1=*poor* to 10=*excellent*) and community-dwelling

ABST Condition: Random assignment to high threat (*n* = 9) or null threat (*n* = 12)

HIGH THREAT INSTRUCTIONS

Both younger adults and older adults are taking part in this study. The first activity is a memory test – your memory for pairs of names and occupations will be tested. Younger and older adults may not perform as well as each other on this test. Please indicate your date of birth on your instructions sheet.

NULL THREAT INSTRUCTIONS

Both younger adults and older adults are taking part in this study. The first activity is about making associations – you will study pairs of names and occupations. This task is age-fair. That means there is typically no difference in how well younger and older adults do. Please indicate your date of birth on your instructions sheet.

Mazerolle at al., 2017

Intergenerational Discussion Groups: Self-selected to participate (*n* = 13)

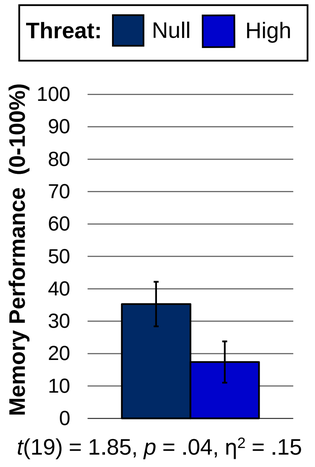
- 3 90-min. semi-structured discussion groups with university students (*n* = 4-5)
- Topics centered on adult development and aging with assigned reading

Measures:

- ***Name-occupation association memory*:** 30 occupation-name pairs, 6 min. encode, 4 min. recall, % names correct at immediate recall *Strickland-Hughes, 2017*
- ***Task-related anxiety*:** Retrospective self-report level anxiety during memory task, mean of 8 ratings (e.g., tense, jittery), 1 = *not at all* to 7 = *very much* *Abrams et al., 2005*
- ***Aging attitudes and beliefs*:** Multiple survey measures, including self-relevant (e.g., subjective age, attitudes towards own aging) and general attitudes (e.g., implicit ratings of traits of older adults) *Lawton, 1974; Schmidt & Boland, 1986; Schwartz, & simmons, 2001; Strickland-Hughes et al, 2015;*
- ***Memory self-efficacy*:** General memory evaluation and task-specific *Chasteen et al., 2005; West, Dark-Freudeman, & Bagwell, 2009*
- Health and demographics and other beliefs (e.g., future time perspective) *Carstensen & Lang, 1996*

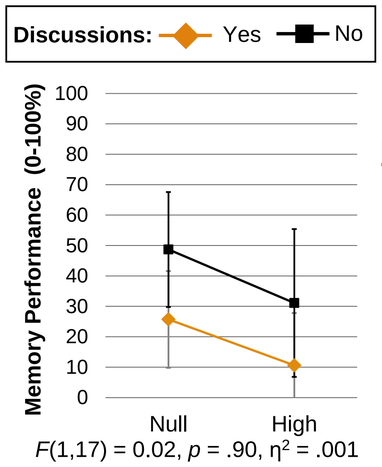
Results

Aim 1: Worse memory for high (*M* = 17%, *SD* = 19%) than null threat (*M* = 35%, *SD* = 24%)



t(19) = 1.85, *p* = .04, η^2 = .15

Aim 2: Worse memory performance for discussion (*M* = 19%; *SD* = 16%) than no discussion (*M* = 42%, *SD* = 27%). No threat × discussion interaction.



F(1,17) = 0.02, *p* = .90, η^2 = .001

ABST not moderated by self-efficacy, task-related anxiety, or aging beliefs.

Explore:

- Memory self-efficacy related to memory, *r* = .53, *p* = .01, subjective age, *r* = .43, *p* = .01, and future time perspective, *p* = .47, *p* = .03
- General aging attitudes related to vision, *r* = .78, *p* < .001, hearing, *r* = .72, *p* < .001, and health, *r* = .56, p < .001, but not discussion groups

Discussion

- Replication of ABST effect with associative memory task, no moderation effects
- Worse performance for intergenerational discussion group participants and no benefits to age-related beliefs; possible delayed effect, biased sample, or reactivity
- "Successful" aging related to more positive general aging beliefs; possible self

***Limitations*:** Sample selectivity; self-selection to intergenerational discussions; post-test only design; data collection on-going

Next steps: Experimental pre-post design to test moderation of ABST by training

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