

## Introduction

### Risks of ageism

- ◆ Stereotypes about aging and old age predominantly negative (Hummert, 2011)
- ◆ Contribute to widespread discrimination against older adults (McConatha et al., 2003; Nelson, 2004)
- ◆ Internalization of negative aging stereotypes a threat (Emile et al., 2015; Levy, 2009)
  - Related to negative health and psychological outcomes, (e.g., increased hospitalization, reduced longevity, poorer memory) (Levy et al., 2012; Levy et al., 2015)

### Role of awareness and increased knowledge

- ◆ Attitudes towards aging less negative for young adults with more inter-generational contact and social exposure (Allan & Johnson, 2009)
- ◆ Reliance on stereotypes in social judgments decreases with additional knowledge about social groups (Nelson, 2004)
- ◆ Ageism may be reduced via increased awareness and education (Allan & Johnson, 2009; Palmore, 2015)
- ◆ Positivity and negative of attitudes towards social groups may also be affected by level of knowledge and degree of stereotyping

**Need for better understanding of ageism antecedents and for effective anti-ageism interventions**

## Research Aims

- ◆ **Aim 1:** Evaluate relationships between ageism, aging attitudes, aging anxiety, and contact with older persons in a sample of younger adults
- ◆ **Aim 2:** Determine whether aging beliefs are enhanced by increased aging knowledge (e.g., completion of a 15-week-long psychology course on aging, compared to a control class)

## Study Design

- ◆ **2 time points:** first week (pretest) and last week (posttest) of 15-week university semester
- ◆ **2 conditions:** Psychology of Aging class (Aging) and Applied Behavior Analysis class (Control), in-person
- ◆ Surveys administered online in random order
- ◆ Compensation was extra credit, not more than 5% of grade

## Methods

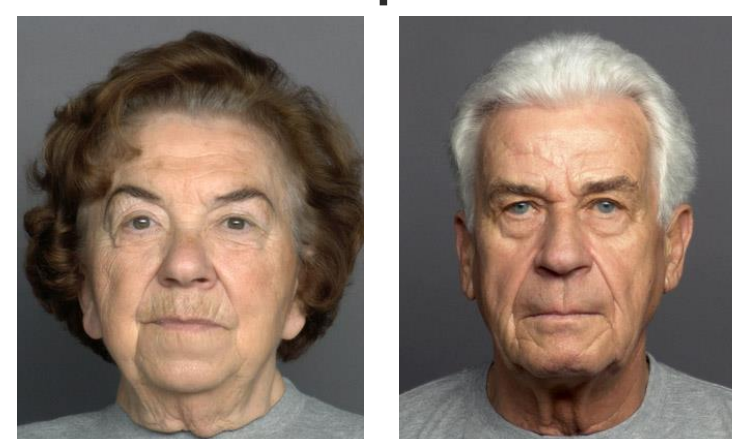
### Participants

- ◆ **Aging:**  $n = 48$ , 85% female, 75% Caucasian,  $\overline{GPA} = 3.42$ 
  - 10% pretest only, 12% posttest only, 77% both
  - 4% Freshman, 15% Sophomore, 25% Junior, 56% Senior
- ◆ **Control:**  $n = 30$ , 73% female, 77% Caucasian,  $\overline{GPA} = 3.29$ 
  - 13% pretest only, 13% posttest only, 73% both
  - 13% Freshman, 30% Sophomore, 37% Junior, 20% Senior
- ◆ Comparable mean GPAs,  $t(76) = -1.83, p = .07$

### Measures

- ◆ **Ageism:** Frabroni Scale of Ageism, 29 items ( $\alpha = .89-.90$ ), 4-pt Likert scale (1=strongly disagree, 4=strongly agree) (Frabroni et al., 1990)
  - Subscales: antilocution, avoidance, discrimination
  - Ex.: *Old people complain more than other people do.*
- ◆ **Implicit age attitudes:** Traits of Older Adults, *What percentage of older adults do you think are \_\_\_?* (Grünn et al., 2011; Schmidt & Boland, 1986)
  - 15 **positive** traits ( $\alpha = .85-.86$ ): E.g., generous, healthy, wise
  - 15 **negative** traits ( $\alpha = .87-.91$ ): E.g., lonely, poor, senile
- ◆ **Ratings of older faces:** 8 neutrally-expressive older faces (4 male, 4 female), 7-pt Likert scale
  - Warm, competent, likeable, physical health, memory ability
  - 2 versions, counterbalanced by time point and condition

### Example Faces



FACES database; Ebner, Riediger, & Lindenger, 2010

- ◆ **Aging anxiety:** Anxiety about Aging Scales, 20 items ( $\alpha = .79-.82$ ), 4-pt Likert scale (1=strongly disagree, 4=strongly agree) (Lasher & Faulkender, 1993)
  - Subscales: psychological, appearance, fear, loss
  - Ex.: *I believe that I will still be able to do most things for myself when I am old.*
- ◆ **Contact with older men and women:** Quality of interactions with older men and women, weighted by frequency of contact, range: 0 - 30

## Results

### Aim 1. Relationships between ageism, aging attitudes, age anxiety, and contact

#### Correlation coefficients, means, and standard deviations at pretest

	1	2	3	4	5	6	7	8	M	SD
1. Ageism	—								1.94	0.33
2. Negative traits	.39 **	—							43.13	11.70
3. Positive traits	-.36 **	-.07	—						62.13	9.73
4. Face ratings—all	-.39 **	-.42 **	.11	—					4.18	0.61
5. Face ratings—warmth	-.17	-.29 *	.08	.77 **	—				4.10	0.67
6. Aging anxiety	.50 **	.36 **	-.09	-.15	-.02	—			2.15	0.34
7. Aging anxiety—fear	.59 **	.24	-.37 **	-.29 *	-.31 *	.44 **	—		1.89	0.44
8. Contact quality	-.30 *	-.12	.09	-.03	.02	-.08	-.36 **	—	14.44	8.07

Note. \*  $p < .05$ , \*\*  $p < .01$ .  $N = 59$ . Grey correlation coefficients,  $p > .05$ . Variables reflect averages of items for each measure.

#### Multiple regression predicting ageism at pretest

	B	SE B	$\beta$
Step 1			
(Constant)	61.3	2.43	
Contact quality	-0.35	0.15	-.30*
Step 2			
(Constant)	67.93	12.01	
Contact quality	-0.29	0.11	-.25*
Aging anxiety	0.53	0.014	.39***
Face ratings—all	-4.22	1.66	-.26*
Negative traits	0.08	0.09	.10
Positive traits	-0.26	0.09	-.27**

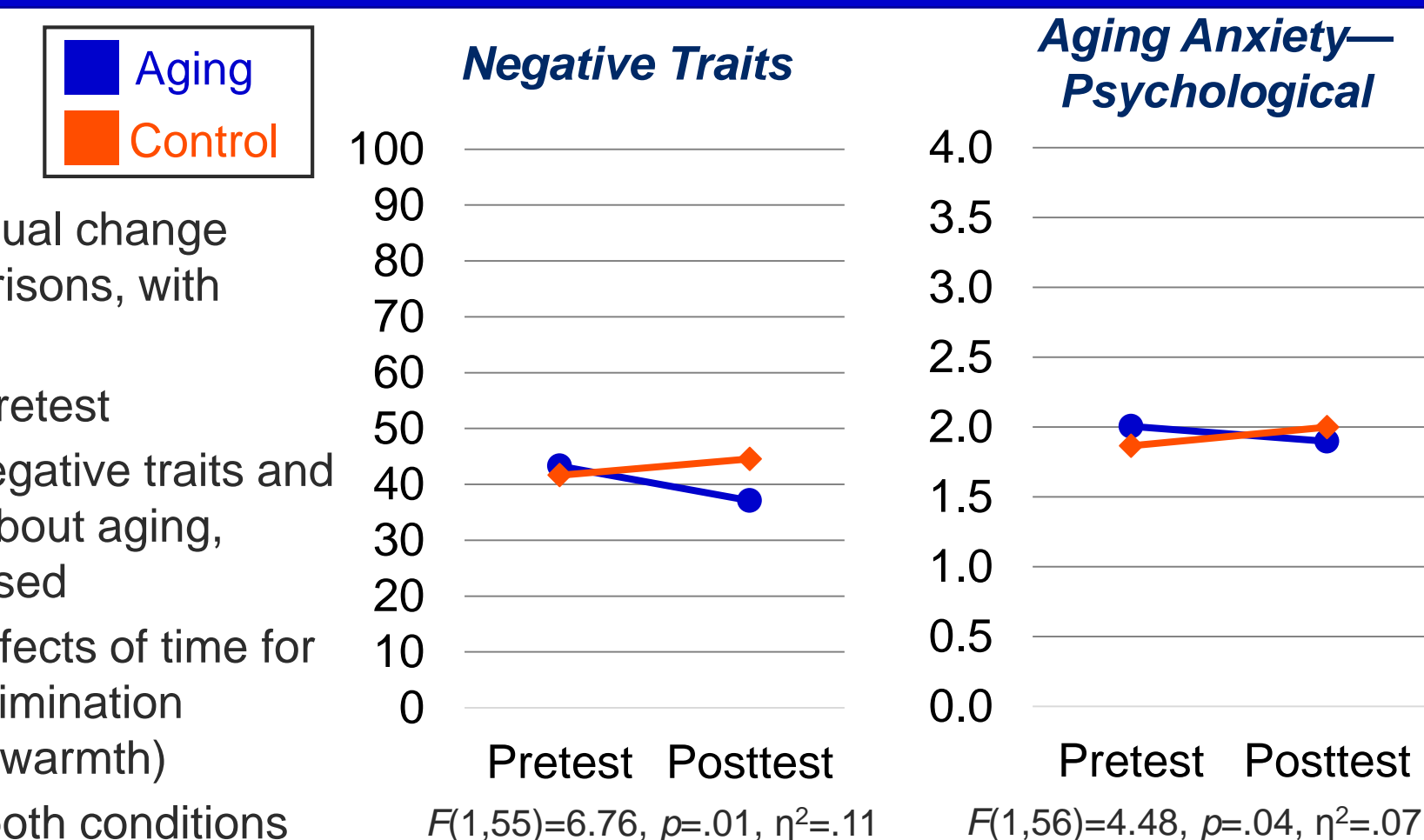
Note.  $R^2 = .09$  for Step 1.  $\Delta R^2 = .42$  for Step 2 ( $p < .001$ ). \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .  $N = 59$ . Regression assumptions met.

- ◆ Ageism predicted by aging anxiety, positive traits, and face rating, as well as contact quality

#### Aim 2. The impact of knowledge: Pretest-posttest changes in aging beliefs

##### Analytic approach:

- ◆ Multivariate RM ANOVAs  
2 time points X 2 condition
- ◆ Similar results using residual change scores or posttest comparisons, with pretest as covariate
- ◆ No condition differences at pretest
- ◆ Aging class decreased (a) negative traits and (b) psychological concerns about aging, whereas control class increased
- ◆ Significant univariate main effects of time for ageism (avoidance and discrimination subscales) and face ratings (warmth)
  - More positive over time, both conditions



## Discussion

- ◆ Quality contact with older persons helpful but insufficient for intervention
- ◆ **Reactivity effect:** notable pretest-posttest “improvements” in aging attitudes for both conditions
- ◆ Recommend assessment of implicit attitudes, varied control groups, and extension to “real-world” discrimination scenarios
- ◆ Important to *reduce negative* attitudes, distinct from promoting positive
  - Positive portrayal not always helpful (Fung et al., 2015)
  - Older adults hold both negative and positive aging attitudes (Hummert, 2011)
- ◆ **Targets for intervention:** aging anxiety and fear of older persons