

AGEISM AND THE CONTACT HYPOTHESIS: THE EFFECTS OF  
WORK-RELATED AND NON WORK-RELATED CONTACT  
ON AGE-RELATED STEREOTYPES

by

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ABSTRACT

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Ageism can be defined as positive or negative attitudes toward a group based solely on their age. The present study examined the effect of the contact hypothesis (Allport, 1958) on ageism. Specifically, work-related and non work-related contact effects on both general ageism and ageism in the workplace were assessed. Study 1 examined the effect of the quantity of contact on ageism, while Study 2 examined the Quality X Quantity interaction of situation-specific contact on ageism. Ageism was measured using the previously developed Comprehensive Scale of Ageism (Tipton, 2005), while ageism in the workplace was measured by Ringenbach's (1994) Age Stereotypes in the Workplace Scale. Study 1 revealed null results, while Study 2 revealed that the quality of interactions is important in reducing age-related stereotypes. Future directions, limitations, and implications are discussed.

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## CHAPTER 1

### INTRODUCTION

Today's workplace is changing. At every turn, there are new technologies, new laws and regulations, and a more diverse workforce. In recent years, more women, ethnic minorities, and older workers have joined their non-minority peers in the ever-growing, and increasingly diverse, workplace. By the year 2015, the elderly will represent the fastest growing population in the United States (Sorgman & Sorensen, 1984). With the baby-boomer generation (those born between 1946 and 1964) approaching retirement age, and more than five million of them remaining in the workplace (Bureau of Labor Statistics, 2006), more research on age diversity and age-related discrimination in the workforce is needed.

In 2006, more than 16 thousand cases of age discrimination were brought to court, resulting in over \$50 million in settlements (EEOC, 2007). These cases were the result of a specific type of discrimination: ageism. For those targeted, ageism can result in lowered performance ratings and the denial of both training opportunities and promotions (Shore, Cleveland, & Goldberg, 2003).

Given the magnitude of problems created by ageism, organizations have begun searching for remedies to fix the occurrence of it in the workplace (Finkelstein, Burke, & Raju, 1995). Allport's (1958) contact hypothesis has been proposed as one possible remedy workplace discrimination. The contact hypothesis states that the more contact an individual has with an out-group the less negative his or her impressions of that out-group will become. An out-group in this case is defined as a group that is different from one's current group based on some categorization (i.e. age, race, gender, etc.). In his seminal work, *The Nature of Prejudice*, Allport discusses different types of contact and their relative effects on reducing prejudice. However, situation-specific stereotypes and the effect contact may have in reducing them have

not yet been investigated. The purpose of the present study was to examine the effects of contact, both specific and non specific, on ageism in the workplace and general ageism.

### *Stereotyping and Ageism*

Stereotypes can be defined as “a set of beliefs about the characteristics, attributes, and behaviors of members of a certain group” (Heilman & Haynes, 2007, p. 761). We hold cognitive conceptualizations of group members, which arise out of our need to categorize things. We then make generalized assumptions about that particular group member’s behavior and characteristics based on the conceptualizations (Heilman & Haynes, 2007). While stereotyping is commonly confused with prejudice (typically a negative affect about a group), the terms and concepts are not synonymous. Stereotypes are solely cognitive representations of a group, both positive and negative, which may serve positive functions (Fiske, 1998; Heilman & Haynes, 2007). Stereotypes are cognitive shortcuts as well as social motivators based on our need to self-enhance by viewing ourselves as better than the out-group; however, these shortcuts can lead to overgeneralizations regarding the group (Heilman & Haynes, 2007). While there are many prevalent stereotypes, some of the most common stereotypes are based on differences in race, ethnicity, national origin, sex, gender, sexual orientation, and age.

Ageism consists of behaviors, attitudes, and stereotypes of people based on their age. The present research focuses on the stereotypical component of ageism. This stereotype can be positive or negative and may be targeted towards either the elderly or the younger population (Duncan & Loretto, 2004). Ageism has been described as one of the great ‘isms’ following racism and sexism (Palmore, 2004).

Although ageism can be directed towards the young and the old alike, given the projected increase of older people in our population, the negative stereotypes that impact them will become particularly salient in the years to come. A recent meta-analysis demonstrated that there were more negative ratings of older individuals than younger individuals across 5 separate categories: (1) behavior, (2) evaluation, (3) age-stereotype, (4) competence, and (5)



attractiveness (Kite, Stockdale, Whitley, & Johnson, 2005). The first three components, age-stereotype, evaluation, and behavior, represent the cognitive, attitudinal, and behavioral components that were similar to stereotype, prejudice, and discrimination respectively (Fiske 1998; Kite et al., 2005). The last two components, attractiveness and competence, were two dimensions of age-stereotypes.

The first component, behavior, deals with the differences in how older individuals are treated by people based solely on perceptions of their age. Erber and Rothberg (1991) presented subjects with a series of vignettes describing short-term, long-term, or very-long term memory loss of old or young targets. Older targets were recommended for medical or psychological evaluation by participants after fewer instances of memory failure compared to younger targets. This represents a double standard: when presented with the same instances of memory loss, participants felt more inclined to have the older targets evaluated than the younger targets (Erber & Rothberg, 1991). As evidenced by previous research, this demonstrates that when presented with the same behaviors, older individuals are treated more negatively than are younger individuals in their everyday lives. The negative treatment of the elderly often occurs in the workplace as well, which will be discussed later in further detail.

The second component, evaluation, represents the appraisal of older individuals in terms of positive or negative affect. After developing their Aging Semantic Differential Scale, Rosencranz and McNevin (1969) determined that older individuals were evaluated as less personally acceptable, more dependent on others, less productive, and more old-fashioned and passive than were younger individuals. These evaluations of a group of people (the elderly), rather than a specific individual, are based on age-related stereotypes, which is the third component that Kite and colleagues (2005) examined.

A general cognitive conception of people based on their age was one way to describe age-related stereotypes. Older adults were typically described as having more negative age-related stereotypes associated with them than were younger individuals (Kite, Deaux, & Miele,

1991). For example, older people were described as being more dejected, less sociable, and having more negative personalities (Kite et al., 1991). These age-related stereotypes were typically broken down into two of the aforementioned components, competence and attractiveness.

The fourth component, competence, was measured by the judgments of intellectual ability or memory failure. Erber, Szuchman, and Rothberg (1990), using the same methodology as Erber and Rothberg (1991), asked participants to give the possible attributions for the memory failure and the extent to which memory failure was indicative of “mental difficulty” (Erber et al., 1990, p. 601). Older targets’ memory loss was more likely to be attributed to “mental difficulty” while younger targets memory loss was more likely to be attributed to a lack of effort and attention (Erber et al., 1990). This study demonstrated an earlier assertion made by Erber (1989), that the same memory failure was judged more harshly when it was observed in an older individual than when it was observed in a younger individual.

The fifth and last component, attractiveness, was characterized by the loss of physical attractiveness and physical ability over time. Older individuals were rated as having more negative physical characteristics and less positive physical characteristics than were younger individuals (Kite et al., 1991). Older individuals were described as having wrinkles, talking slowly, as well as being hard of hearing, less attractive, less healthy, and a slow mover (Kite et al., 1991). All in all, these components elaborate upon the negative perceptions and behaviors targeted towards the elderly, which in turn, affects older individuals’ self-esteem and well-being.

Garstka, Schmitt, Branscombe, and Hummert (2004) proposed a model in which the relationship between perceived age discrimination and psychological well-being was mediated by age group identification, or how much they identified with others of their age group. For older individuals, the more they identified with their age group, the better their well-being (i.e. self-esteem and life satisfaction; Garstka et al., 2004). Without age group identification as a mediator, perceived age discrimination of the elderly resulted in both decreased personal self-

esteem and decreased life satisfaction (Garstka et al., 2004). In addition, this relationship was moderated by the amount of information known about a particular individual. Although older individuals were rated less favorably, treated more negatively, and perceived as less competent than their younger counterparts, an increase in the amount information available to raters decreased this difference (Kite et. al., 2005). As a result of these age-related stereotypes, negative perceptions are then carried over into the workplace.

### *Ageism in the Workplace*

In 2006, 5,325,000 individuals over the age of 65 were employed in the United States (Bureau of Labor Statistics, 2006). These older individuals continue to work past the typical age of retirement and are protected by the Age Discrimination in Employment Act (ADEA) of 1967. The ADEA states that workers over the age of 40 are protected from being fired or denied employment based solely on their age. When cases are brought to court, the burden of proof rests on the employer to show that the individual in question was fired or not hired “for any reasonable factor other than age”. The 16,548 age discrimination cases brought to court in the 2006 Fiscal year resulted in a total of 51.5 million dollars in benefits paid to complainants (EEOC, 2007). In one of these cases, *O’Mary v. Mitsubishi Electronics America, Inc.*, the plaintiff argued that the company decided to “get rid of their managers over the age of 40” and replace them with “younger, more aggressive managers” (*O’Mary v. Mitsubishi Electronics America, Inc.*, 1997, p.563). The plaintiff contended that he was a victim of age discrimination in the workplace (ageism) and had been unjustly terminated (*O’Mary v. Mitsubishi Electronics America, Inc.*, 1997). The cost to companies as a result of age-related lawsuits are measured not only in terms of settlement dollars, but time, effort, loss of clientele, and negative public relations. This case, along with the more than 16,000 other cases presented in court in 2006, clearly demonstrated that many people were either fired or simply not hired based on the negative stereotypes of their age or at least the perception that age stereotypes played a part in their employment status was prevalent.

Although older individuals were protected by law from being discriminated against based solely on their age, research has shown that age discrimination still occurred in the workplace everyday, often in subtle ways. Many decisions regarding promotability, performance and potential developmental experiences were in line with the negative stereotypes of the elderly (Shore, Cleveland, & Goldberg, 2003). Specifically, older individuals who were rated by younger managers on their promotability, potential, and whether or not they should receive training to improve their skills received significantly lower ratings than when they were rated by older managers (Shore et al., 2003). These important workplace decisions were also linked to compensation. Using 40 years of age as a baseline, the more one's age differed significantly from this baseline, the lower the compensation received (Ostroff & Atwater, 2003), suggesting a curvilinear relationship between compensation and age, with middle-aged (approximately 40 years old) employees receiving the highest compensation.

When comparing older and younger individuals, younger participants rating younger and older potential job applicants, tended to rate older individuals as being less qualified for a physically demanding job, having less developmental potential, and being less qualified than the younger individuals they rated (Finkelstein, Burke, & Raju, 1995). This effect was present even when raters were given no job-relevant information about the workers they were instructed to rate. However, the results did not support the authors' job stereotype hypothesis which stated that not only were there stereotypes about people, but there were also stereotypes about jobs. Certain jobs are considered more appropriate for younger workers while some are more appropriate for older workers. Younger workers were considered slightly more qualified for "younger jobs," while there was no difference in ratings of younger and older workers for "older jobs" (Finkelstein et al., 1995). Though this did not support the hypothesis that there were a person-job stereotype fit (i.e. the job stereotype hypothesis), other explanations for stereotyping in the workplace exist.

One of the possible explanations for age stereotypes in the workplace was the career timetable (Lawrence, 1988). A career timetable was a norm describing on which level of an organizational chart someone of a particular age should be located. Employees who were older than the majority of their peer group (organizational level) violated this norm and were seen as “dead wood,” resulting in denied opportunities. This norm violation explained the tendency for a younger manager to feel that an older subordinate had not advanced as far as they should have, relative to him or herself. (Lawrence, 1988). Although these stereotypes existed, there were ways in which they can be reduced.

#### *Contact Hypothesis*

In the 1950's, Allport first proposed the notion of the contact hypothesis. The contact hypothesis stated that under certain conditions, intergroup contact can reduce negative attitudes toward different groups. Situations in which this reduction in prejudice did not occur include when “the inner strain within the person is too tense, too insistent, to permit him to profit from the structure of the outer situation” (Allport, 1958, p. 267), suggesting that when an individual's own preconceived notions and opinions were strongly and deeply ingrained within his or her identity, that contact may not be successful in reducing prejudice. The four key conditions for the reduction of prejudice through contact were: (1) equal group status in the situation, (2) sharing common goals, (3) intergroup cooperation, and (4) support of authority, law and/or custom. Equal group status occurred when in any situation two groups had the same power, authority, and rank. Sharing common goals and intergroup cooperation were closely related and occurred when two groups must work together to achieve a mutual objective. Lastly, support of authority, law, and custom established norms and rules in how two groups should have behaved and interacted with each other (Pettigrew & Tropp, 2005). When these four key conditions were integrated and used together, prejudice should have been dramatically decreased (Allport, 1958).

In a more recent review of the contact hypothesis by Pettigrew and Tropp (2005), the authors described two universal indicators that integrated Allport's four conditions of prejudice reduction, namely intergroup friendship and structured programs for optimal contact. Intergroup friendship consisted of three of the four aforementioned conditions Allport proposed for reducing prejudice (common goals, cooperation, and equal status). Structured programs for optimal contact, utilizing all four of Allport's optimal conditions as described above, included direct attempts to create and maximize intergroup contact (Pettigrew & Tropp, 2005).

Not all social researchers agree with the notion of optimal contact. Dixon, Durrheim, and Tredoux (2005) argued that these, "highly localized interventions...may be successful in creating small islands of integration in a sea of intolerance, but they are unrepresentative of wider processes of contact and desegregation" (p. 700). They further argued that this research was a type of utopianism and that real life was not as clear-cut (Dixon et al., 2005). This suggested that in a perfect world or an experimental setting that was highly controlled, contact would be successful in reducing prejudice; however in the real world, there were many variables that may inhibit the effect of contact. For this reason, the authors argued for the need to assess the participants' own understanding of the contact (Dixon et al., 2005). Because of this need, the current study assessed the participants' degree to which they felt they interacted with certain groups, hypothesizing that not only was the amount of contact important, but also the type of contact was important.

#### *Types of Contact*

In the Nature of Prejudice, Allport (1958) described several different types of contact including: (1) casual contact, (2) acquaintance, (3) residential contact, (4) occupational contact, and (5) goodwill contact, some of which may result in increased prejudice, others of which may result in a marked decrease in prejudice. The current research will look at contact in two different forms: work-related and non work-related.

Occupational contact was operationally defined as that contact that was work-related, whereas non work-related contact comprised all other forms. Allport (1958) concluded that, for occupational contact to be effective, the different groups should be of equal status going into the job. In addition, it was important to know someone in the out-group who occupied a place in the organizational chart higher than one's own current position.

Regarding non work-related contact, casual contact, residential contact, acquaintance, and goodwill contact were assessed in the current study. One important aspect of non work-related contact, when it comes to older individuals, was the grandparent-grandchild interaction. Important factors in predicting attitude variation included the frequency, quality, and salience of the interaction. In high frequency relationships, both the quality of the interaction and the quality-salience interactions were significant predictors in variation of attitudes (Harwood, Hewstone, Paolini, & Voci, 2005). Potential mediators in this relationship included the level of anxiety experienced in the presence of the grandparent, the amount of self-disclosure involved, and the amount of perspective taking, or seeing themselves in the other person's shoes. In the model proposed by Tam, Hewstone, Harwood, Voci and Kenworthy (2006), the relationship between quality and quantity of contact was mediated through self-disclosure. This, in turn, was related to both anxiety and empathy toward the grandparent, that were important in predicting and reducing overall negative attitudes toward the elderly.

Review of current research and theory led to the understanding that contact reduced negative stereotypes and increased more positive attitudes towards groups. Allport (1958) suggested that the amount, quality, and type of contact determined the extent to which ageism was reduced and the four different conditions may also have had an impact on the degree to which age related stereotypes are decreased. Both general ageism and ageism in the workplace were expected to be affected by overall contact in a similar manner, but when investigating a specific type of contact, the effect on ageism was expected to be more domain-specific.

*Hypothesis 1* – Low levels of general ageism would be associated with high overall contact with older people, high non work-related contact with older people, and high work-related contact with older people.

*Hypothesis 2* – Low levels of ageism in the workplace would be associated with high overall contact with older people, high non work-related contact with older people, and high work-related contact with older people.

*Hypothesis 3* – The association between general ageism and non work-related contact with older people would be significantly stronger than the association between general ageism and work-related contact with older people.

*Hypothesis 4* – The association between ageism in the workplace and work-related contact with older people would be significantly stronger than the association between ageism in the workplace and non work-related contact with older people.



## CHAPTER 2

### STUDY 1 METHODS

#### *Participants*

The present research project was conducted ethically following the University of Texas at Arlington's Office of Research Compliance and the Institutional Review Board's standards regarding the treatment of human subjects. Using the University's SONA system for collecting subject pool data, the questionnaires were administered online and completed in two phases between June and December 2007. The first phase assessed participants' general ageism, and the second questionnaire, administered approximately one week later, assessed the amount of contact an individual had with the older demographic and their age stereotypes in the workplace. Participants were able to complete the questionnaires at their own convenience. The subject pool was composed entirely of undergraduate students enrolled in psychology courses at the University of Texas at Arlington.

Three hundred participants completed the Time 1 survey and only 136 participants completed both phases. This was probably because they had already fulfilled their research requirement, and they were not required to complete both phases. One hundred thirty-four participants reported their demographics. Of the 134 participants, 25 were males and 109 were females. Respondents' ages ranged from 18 to 51 with a mean of 21.23 years, and most of the participants were White (48.1%), Black (10.4%), Hispanic (17.8%), or Asian (18.5%). Nine (6.7%) participants had never worked, 17 (12.6%) had one to six months previous work experience, 16 (11.9%) had seven to twelve months previous work experience, 24 (17.8%) had one to two years previous work experience, 45 (33.3%) had two to five years previous work experience, and 24 (17.8%) of the participants had 5 or more years of previous work experience.

## *Materials*

**General Ageism.** General ageism was assessed using the Comprehensive Scale of Ageism, or CSA (refer to Appendix A; Tipton, 2005). Factor analysis of the CSA revealed 5 factors: (1) Positive Stereotypes of Old People, (2) Positive Stereotypes of Young People, (3) Negative Stereotypes of Old People, (4) Negative Stereotypes of Young People, and (5) Young Leader Stereotypes. The present study focused on one of these factors: Negative Stereotypes of Old People which had a reliability of  $\alpha = .85$ . Participants rated the degree to which they agreed with the statements given on a 5-point Likert scale with response alternatives ranging from 1 “Strongly Disagree” to 5 “Strongly Agree” and the mean score was computed. Sample items from the Negative Stereotypes of Old People factor were, “Many old people are stingy and hoard their money and possessions” and “Old people complain more than other people do.”

**Ageism in the Workplace.** To measure ageism in the workplace, the present study employed Ringenbach’s (1994) Age Stereotypes in the Workplace Scale, or ASWS (Appendix B). The ASWS was a 55-item scale on which participants rated which age group (21-25 year olds, 41-45 year olds, or 61-65 year olds) they feel was more likely to have certain work-related behaviors or attitudes. Sample items were, “Be absent less often” and “Be bossy or dominating.” In order to calculate the scale scores for the ASWS each negatively worded item was given a score ranging from zero to negative three and each positively worded item was given a score ranging from zero to positive three. For example, for the Opinion of Older Workers scale, scores were recorded as follows: older workers did not possess the positive/negative behavior (0 / 0), shared the positive/negative behavior equally with all age groups (1 / -1), shared the positive/negative behavior with one age group (2 / -2), or was the only group possessing the positive/negative behavior (3 / -3). The mean score was computed for the subscale. The Opinion of Younger and Middle-Aged Workers Scales were computed in the same manner. Only the Negative Opinion of Older Workers Scale was used for this study which had a reliability of  $\alpha = .65$ .

**Contact.** The amount and type of contact was assessed using several items from a general background information form (Appendix C). Specifically, six items assessed the amount of contact an individual had with the older demographic. Respondents indicated the amount of experience they have had with certain situations on a 4-point Likert scale with response alternatives ranging from 0 “No Experience” to 3 “A Lot of Experience.” After the general mean contact score was determined, it was broken down into two dimensions: work-related contact and non work-related contact. Five of the six items determined the amount of non work-related contact each participant reported having with the elderly ( $\alpha = .74$ ), and the remaining item (“How much experience have you had working with a co-worker over the age of 65?”) assessed the amount of work-related contact each participant reports having. Mean scores were computed. Sample items for the non work-related contact dimension were, “How much experience have you had talking to an elderly neighbor?” and “How much experience have you had spending time with your own grandparents?”.

#### *Procedure*

The present study was administered online using the University’s SONA system. For Time 1, the researcher scheduled a timeslot lasting one week. Those participants who registered utilized that time period to answer the general ageism questions. At the conclusion of the week, the researcher closed the first time slot and opened the second timeslot. Participants were notified by email that the Time 1 timeslot had been concluded and they were free to sign up for the second portion of the experiment. In order to register for the second phase of the experiment, participants were required to enter a special participation code which was provided by the experimenter. The rationale behind requiring a participation code was to ensure that the participants who signed up for the second phase of research had met the eligibility requirements outlined in the first session. Participants then had another week to answer the ageism in the workplace questions, background information, and contact questions. At the conclusion of the second week, participants were debriefed and thanked for their participation. Once all participants had completed phase two, the timeslot was closed. If participants decided they did

not want to participate at any time during the test, they could click the “decline to participate” button.

### *Data Analysis*

In order to determine whether contact had an effect on negative ageism towards the elderly, simple bivariate correlations were conducted. Next, general contact was broken down into the two dimensions, work-related and non work-related, and their associations with both general ageism and ageism in the workplace were assessed. A Hotelling's  $t$  determined whether situation-specific contact had a stronger relationship with situation-specific stereotypes than with non situation-specific stereotypes.

## CHAPTER 3

### STUDY 1 RESULTS AND DISCUSSION

A listwise deletion was conducted to eliminate those individuals who had not completed Time 2. Most of these individuals had completed their research requirement and did not need to complete Time 2. One hundred thirty-six participants completed both Time 1 and Time 2. The data were then screened for normality, linearity, and homoscedasticity univariately. The mean score for one of the dependent variables, negative stereotypes of old people, was slightly negatively skewed and linear, while the other dependent variable, Negative Opinions of Older Workers, was positively skewed as a negative number. Because the sample was primarily college-aged, it was expected that there would be more negative stereotypes towards the elderly, so the data were not transformed. Final descriptive statistics for all variables of interest were located in Table 3.1.

Table 3.1 Descriptive Statistics for Study 1

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Work Experience	3.12	1.51							
2. Gender	1.81	.39	.01						
3. Age	21.23	6.13	.42**	.13					
4. NWR Contact	2.78	1.04	.18*	.02	.14				
5. WR Contact	1.86	.73	.23**	-.04	.29**	.31**			
6. Total Contact	2.63	.68	.22**	.01	.19*	.97**	.53**		
7. General Ageism	2.58	.54	-.12	-.10	-.10	-.13	.00	-.11	

Table 3.1-Continued

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
8. Ageism in the Workplace	-1.21	.30	-.10	-.09	.06	-.11	.15	-.06	-.17

*Note.* WRC = work –related contact, NWRC = non work-related contact.

\*  $p < .05$ , \*\*  $p < .01$ .

Results of the bivariate correlational analysis revealed no significant relationships between contact (total, work-related, non work-related) and ageism (general and ageism in the workplace). Results can be found in Table 3.1. Because no significant results were obtained, no further analyses were conducted.

The purpose of the present study was to investigate the roles different types of contact on ageism towards the elderly. Results of the analyses revealed that none of the hypotheses were supported. High levels of general contact, work-related contact, and non work-related contact were not associated with low levels of general ageism (Hypothesis 1) nor low levels of ageism in the workplace (Hypothesis 2). Hypothesis 3 and 4 were not examined due to the lack of significant results for the first two hypotheses. These results go against most of the contact literature. Pettgrew and Tropp in 2006 conducted a meta-analysis investigating the role of contact on different prejudices. Over 500 studies were examined with more than a total of 250,000 subjects. The relationship was significant between contact and prejudice. Fifty-four of those studies examined the relationship between contact with the elderly and ageism, and the authors found an average effect size of  $r = -.18$ . The present results go against over 50 years of contact literature; however there were limitations for Study 1 that could have impacted this. Because the present study only assessed quantity of contact, further research was needed. For example, if someone had lots of negative contact with an older individual there would not be a significant reduction in ageism, whether in the workplace or not. For this reason, Study 2

assessed quality and quantity of contact. In addition, Study 2 controlled for the effects of gender, ethnicity, work experience and age before assessing the variance predicted by contact.

*Hypothesis 5* – After accounting for the variance predicted by age, gender, ethnicity and work experience, the Quality X Quantity of non work-related contact is expected to significantly predict more variance in general ageism than work-related contact.

*Hypothesis 6* – After accounting for the variance predicted by age, gender, ethnicity, and work experience, the Quality X Quantity of work-related contact is expected to significantly predict more variance in ageism in the workplace than non work-related contact.

## CHAPTER 4

### STUDY 2 METHODS

#### *Participants*

Again using the University's SONA system for collecting subject pool data, the questionnaires were administered online and completed in only one phase from February to May of 2008. Participants were able to complete the questionnaires at their own convenience.

Three hundred participants completed the surveys. Of the three hundred participants, 91 (30.3%) were males and 209 (69.7%) were female with ages ranging from 18 to 53 with an average age of 21.04 years. Most of the participants were White (47.3%), Black (14.7%), Hispanic (15.0%), or Asian (18.0%). Twelve (4.0 %) participants had never worked, 32 (10.7%) had one to six months previous work experience, 23 (7.7%) had seven to twelve months previous work experience, 51 (17.0%) had one to two years previous work experience, 116 (38.7%) had two to five years previous work experience, and 66 (22.0%) of participants had 5 or more years of previous work experience.

#### *Materials*

**General Ageism.** General ageism was measured as in Study 1 using the Comprehensive Scale of Ageism (CSA; Tipton, 2005) that had a reliability of  $\alpha = .87$  for this study. Mean scores were computed.

**Ageism in the Workplace.** Ageism in the workplace was measured as in Study 1 using the Age Stereotypes in the Workplace Scale (Ringebach, 1994) that had a reliability of  $\alpha = .55$  for this study. Mean scores were computed.

**Quality of Contact.** Quality of contact was assessed using 10 items for both the workplace and in general and was adapted from Tam, Hewstone, Kenworthy, and Cairns's (in press) and Voci and Hewstone's (2003) quality of contact measures (Appendix D). Participants indicated how they felt about contact with people over the age of 65 in general and people over



the age of 65 in the workplace and responded on a 5-point Likert scale ranging from 1 “Not at all” to 5 “Very much”. Five of these items were reverse scored. Sample items for the quality of contact measure were as follows, “When you meet people over the age of 65 in the workplace, in general do you find the contact pleasant?” and “Generally when you meet people over the age of 65 outside of the workplace, do you find the contact superficial?”. The reliability of the quality of work-related contact was  $\alpha = .76$  while the reliability of the quality of non work-related contact was  $\alpha = .80$ . Mean scores were computed.

**Quantity of Contact.** Quantity of contact with individuals over 65 outside of the workplace was assessed using a total score of 11 items ( $\alpha = .68$ ) that were developed for the purpose of this study. For example, participants were asked how often they visit their grandparents and how many neighbors they have who are over the age of 65. The quantity of contact with individuals over 65 in the workplace was assessed using the total score of 8 items ( $\alpha = .75$ ) that were also developed for this survey. Sample items for this scale were, “How many of your work peers are over the age of 65?” and “During the average day at work, how many opportunities do you have for contact with individuals over the age of 65?”. Percentage questions were recoded as follows: 0-9= 0; 10-19= 1, 20-29 = 2, etc. Mean scores were computed.

#### *Procedure*

The present study was administered online using the University’s SONA system. All surveys were administered at the same time and students were free to take the survey at their own convenience. Upon completion students were debriefed and thanked for their participation. If participants decided they did not want to participate at any time during the test, they could click the “decline to participate” button.

#### *Data Analysis*

In order to determine whether contact had an effect on negative ageism towards the elderly, two sequential multiple regressions were conducted. Gender, age, ethnicity and work

experience were entered in Step 1 and the centered quality of work-related and non work-related contact variables and the centered quantity of work-related and non work-related contact variables were entered into Step 2 of the regression. Lastly, with the Quality X Quantity interaction of work-related contact variable and the Quality X Quantity interaction of non work-related contact variable entered in Step 3 of the regression, the effects of work-related and non work-related contact on general ageism could be determined. The same analysis was conducted for ageism in the workplace.

## CHAPTER 5

### STUDY 2 RESULTS AND DISCUSSION

The data were screened for normality, linearity, and homoscedasticity univariately. Descriptive statistics are displayed in Table 5.1. In order to determine whether work-related and non work-related contact predicted general ageism, a multiple regression was conducted. After controlling for the effects of age, gender, ethnicity, and previous work experience,  $F(7, 291) = 3.16, p < .01$ , adjusted  $R^2 = .05$ , the centered quality and quantity of work-related and non work-related contact scores were entered in to Step 2. An additional 28.7 % of the variance in general ageism was predicted,  $\Delta F(4, 287) = 32.04, p < .001$ . Increases in the quality of work-related and non work-related contact were associated with decreases in general ageism. Finally, in Step 3, the interactions of the Quality X Quantity of work-related and non work-related contact accounted for an additional .3 % of the variance in general ageism resulting in a final significant model,  $F(13, 285) = 12.38, p < .001$ , however the change between Steps 2 and 3 was not significant,  $\Delta F(2, 285) = .74, n.s.$ , thus not providing support to Hypothesis 5. Standardized and unstandardized coefficients are displayed in Table 5.2.

Table 5.1 Descriptive Statistics for Study 2

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Work Experience	3.42	1.40								
2. Gender	.70	.46	.11							
3. Age	21.04	3.27	.35**	.02						
4. Quality WRC	3.67	.53	.07	.19**	.05					

Table 5.1 – Continued

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
5. Quality NWRC	3.70	.53	.11	.17**	.05	.80**				
6. Quantity WRC	.83	.57	.12*	.09	.11	-.04	.01			
7. Quantity NWRC	1.79	.73	.09	.17**	.05	.09	.11	.40**		
8. General Ageism	2.61	.50	-.14*	-.15**	-.13*	-.52**	-.56**	-.07	-.14*	
9. Ageism in the Workplace	-1.22	.27	.08	-.01	.03	.18**	.13*	.02	.00	-.20**

Note. WRC = work –related contact, NWRC = non work-related contact.

\*  $p < .05$ , \*\*  $p < .01$ .

Table 5.2 Results of the Multiple Regression on General Ageism

	Unstandardized Coefficients		Standardized
	B	SE	$\beta$
Step 1			
Constant	3.24	.23	
Work Experience	-.02	.02	-.06
Gender	-.16	.06	-.15*
Age	-.02	.01	-.11
Asian	-.02	.14	-.02

Table 5.2-Continued

	Unstandardized Coefficients		Standardized
	B	SE	Coefficients
Step 1			
(cont.)			
Black	-.09	.15	-.06
Hispanic	.00	.15	.00
White	-.18	.13	-.18
Step 2			
Constant	2.90	.19	
Work Experience	-.01	.02	-.02
Gender	-.03	.05	-.03
Age	-.01	.01	-.09
Asian	.12	.12	.09
Black	.05	.12	.03
Hispanic	.07	.12	.05
White	-.01	.11	-.01
Quantity WRC	-.03	.05	-.04
Quantity NWRC	-.03	.04	-.04
Quality WRC	-.21	.07	-.22**
Quality NWRC	-.34	.08	-.36***
Step 3			
Constant	2.89	.19	
Work Experience	-.01	.02	-.01
Gender	-.03	.05	-.02

Table 5.2-Continued

	Unstandardized Coefficients		Standardized
	B	SE	Coefficients
<hr/>			
Step 3			
(cont.)			
Age	-.01	.01	-.09
Asian	.12	.12	.09
Black	.05	.12	.03
Hispanic	.07	.12	.05
White	-.01	.11	-.01
Quantity WRC	-.03	.05	-.03
Quantity NWRC	-.03	.04	-.04
Quality WRC	-.22	.08	-.24**
Quality NWRC	-.34	.08	-.36***
Quality X Quantity NWRC	.01	.08	.01
Quality X Quantity WRC	.08	.07	.06

*Note.* Adjusted  $R^2 = .33$  ( $p < .001$ ); Step 2  $\Delta R^2 = .29$  ( $p < .001$ ); Step 3  $\Delta R^2 = .003$  (*n.s.*); WRC = work-related contact; NWRC = non work-related contact.

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Using the same methodology employed as general ageism, the demographic covariates, centered quality and quantity of work-related and non work-related contact, and the Quality X Quantity interactions of both work-related and non work-related contact were entered into Steps 1, 2, and 3 of the regression model predicting the variance in ageism in the workplace. After accounting for the variance predicted by the demographic variables,  $F(7, 291)$

= 1.08, *n.s.*, adjusted  $R^2 = .002$ , the addition of the centered quality and quality of work-related and non work-related contact scores significantly predicted additional variance in the model  $\Delta F(4, 287) = 2.64, p < .05, \Delta R^2 = .04$ . Only the quality of work-related contact was a significant predictor of ageism in the workplace, suggesting that by increasing the quality of work-related contact will lead to decreases in ageism in the workplace. The interaction terms were entered into Step 3, and a significant amount of additional variance was not predicted,  $\Delta F(2, 285) = .29, n.s., \Delta R^2 = .002$ . The overall model was also not significant,  $F(13, 285) = 1.44, n.s.,$  adjusted  $R^2 = .02$ , thus not supporting Hypothesis 6. Standardized and unstandardized coefficients are displayed in Table 5.3.

Table 5.3 Results of the Multiple Regression on Ageism in the Workplace

	Unstandardized Coefficients		Standardized
	B	SE	Coefficients $\beta$
Step 1			
Constant	-1.21	.13	
Work Experience	.01	.01	.07
Gender	-.02	.03	-.03
Age	.00	.01	.01
Asian	-.11	.08	-.15
Black	.00	.08	.00
Hispanic	-.10	.08	-.13
White	-.05	.07	-.09
Step 2			
Constant	-1.16	.13	
Work Experience	.01	.01	.06
Gender	-.04	.04	-.06

Table 5.3-Continued

	Unstandardized Coefficients		Standardized
	B	SE	Coefficients $\beta$
<b>Step 2</b>			
(cont.)			
Age	.00	.01	-.00
Asian	-.12	.08	-.17
Black	-.01	.08	-.02
Hispanic	-.11	.08	-.15
White	-.06	.07	-.12
Quantity WRC	.02	.03	.05
Quantity NWRC	-.01	.02	-.02
Quality WRC	.11	.05	.22*
Quality NWRC	-.02	.05	-.04
<b>Step 3</b>			
Constant	-1.16	.13	
Work Experience	.01	.01	.06
Gender	-.04	.04	-.07
Age	.00	.01	-.01
Asian	-.12	.08	-.16
Black	-.01	.08	-.01
Hispanic	-.11	.08	-.14
White	-.06	.07	-.11
Quantity WRC	.02	.03	.04
Quantity NWRC	-.01	.02	-.03



Table 5.3-Continued

	Unstandardized Coefficients		Standardized
	B	SE	Coefficients
Step 3			
(cont.)			
Quality WRC	.12	.05	.23*
Quality NWRC	-.02	.05	-.04
Quality X Quantity NWRC	.02	.05	.02
Quality X Quantity WRC	-.04	.05	-.05

Note. Adjusted  $R^2 = .02$  (*n.s.*); Step 2  $\Delta R^2 = .04$  ( $p < .05$ ); Step 3  $\Delta R^2 = .002$  (*n.s.*); WRC = work-related contact; NWRC = non work-related contact.

\* $p < .05$ .

Neither Hypothesis 5 nor Hypothesis 6 were supported. When looking further into the analysis, it is apparent that the quality of both types of contact significantly predicted general ageism, while quantity did not. Further analysis of Hypothesis 6 revealed that only the quality of work-related contact significantly predicted ageism in the workplace, which was somewhat in the direction of the hypothesis.

Although not hypothesized, the demographic differences in ageism and ageism in the workplace were examined. There were no significant relationships between any of the demographics and ageism in the workplace. Regarding general ageism, there were significant relationships with both gender and age. As denoted by an independent samples  $t$ -test women ( $M = 2.56$ ,  $SD = .49$ ) were significantly less ageist than men ( $M = 2.72$ ,  $SD = .49$ ),  $t(298) = 2.66$ ,  $p < .01$ ,  $d = .30$ . Age was also a significant predictor of ageism,  $F(1, 297) = 4.97$ ,  $p < .03$ , adjusted  $R^2 = .01$  as denoted by a simple linear regression. Lastly, a one-way ANOVA

determined that there were moderate differences on ageism between different ethnicities,  $F(4, 295) = 2.31, p < .06$ . A Bonferroni post-hoc analysis indicated that Asians ( $M = 2.74, SD = .48$ ) and Caucasians ( $M = 2.53, SD = .52$ ) moderately differ in levels of general ageism.

## CHAPTER 6

### GENERAL DISCUSSION

Neither study revealed a significant relationship between contact and ageism. In Study 1, total contact, work-related contact, and non work-related contact were not significantly related to either general ageism or ageism in the workplace. In Study 2, the interactions between quality and quantity of work-related contact and the quality and quantity of non work-related contact did not significantly predict the variance in either general ageism or ageism in the workplace. Interestingly, the quality of both work-related and non work-related contact significantly predicted the variance in general ageism, suggesting that the quality of contact was a better predictor than the quantity of contact and the interaction between the two. Also, quality of work-related contact significantly predicted the variance in ageism in the workplace whereas quality of non work-related contact, quantity of work-related contact, quantity of non work-related contact, and the interactions between the two did not. This was in the direction of Hypothesis 6, thus lending partial support to previous literature on contact (Pettigrew & Tropp, 2006). Situation-specific quality of contact was more closely related to situation specific ageism.

Interestingly, the only place where demographic differences existed in ageism were in Study 2 for general ageism. This may be due to the fact that, according to the ADEA, in the workplace it was prohibited to discriminate against an individual based on age. These laws were not in place outside of the workplace. As would be expected, the older an individual was, the less ageist they were to older people. In addition, women were less ageist than men. This may be due to the fact that as a member of a minority group, they are less likely to hold negative attitudes about an out-group, however they may be more likely to present the more socially desirable answer.

### *Limitations and Future Directions*

As with all research, these studies were not without their flaws. Study 1 was limited in the absence of quality of contact and only a few quantity of contact items. Study 2 attempted to reconcile this as well as control for the effects of the demographic variables. Interestingly, as Study 2 pointed out, only the quality of contact was a significant predictor of ageism. Although the measurements of the predictor variables were improved from Study 1 to Study 2, the dependent variables remained the same. The Comprehensive Scale of Ageism (Tipton, 2005) was employed to measure general ageism while the Age Stereotypes in the Workplace Scale (Ringebach, 1994) measured ageism in the workplace. These two scales were found in unpublished research and have not been subject to as many revisions as more established scales. They had low internal consistencies and may not have been adequately capturing the construct. In addition, further exploration and revision of the quantity and quality of contact measures may yield different results. The measure overall was not indicative of ageism, but specific items were.

Using a sample of current undergraduates is ideal for many researchers especially those trying to investigate in-group/out-group relations regarding age. However, while most of the participants had experience working, they did not have as much experience working with older individuals, thus limiting the variance of the scores and the predictability of the quantity of work-related contact measure. Future research needs to investigate young people who have a full range of contact with older people in their workplace, thus eliminating range restriction.

As mentioned previously, social desirability may be affecting participants' responses. Though participants completed the research online, they could have been still affected by it. Future research should examine both social desirability and ageism to determine whether social desirability impacts the measure of ageism.

Lastly, regarding the quality of contact, although the participants were asked how they felt about the contact they have had with older people, they may have indicated how they felt

about them, not the contact. As mentioned previously, participants generally had less contact with older people in the workplace. They may have solely indicated what they would think about that contact if it were to have happened, which may lead to the effects of quality and not quantity of contact.

### *Implications*

Results from this study contributed to existing research in many ways. First, determining what type of contact best reduced both general ageism and ageism in the workplace was unique in that few research publications have simultaneously examined the different types of contact, both specific and non-specific, and their possible effects on ageism. This study adds to the contact hypothesis and stereotype literature, because Allport's (1958) hypothesis was confirmed only for the quality of contact and extended somewhat to situation-specific contact and its effects on situation-specific stereotypes.

Voci and Hewstone (2003) mention the need for multiplying the quality and quantity measures to have a single contact measure. It was argued that high quality relationships could not be formed without having some quantity of interaction and that the quality of the interaction was important when assessing quantity. The results of the present study indicated that only the quality of contact is important in predicting the variance in ageism, contradicting what Voci and Hewstone (2003) and other researchers have generally accepted.

In addition, since ageism in the workplace has such deleterious effects, learning how to reduce, by enhanced quality of interactions, would benefit both the employer and employees by reducing litigation and increasing performance and job satisfaction (Shore et al., 2003). Companies could create a more harmonious work environment by offering different workshops to their employees based around these findings.

### *Conclusion*

Contrary to popular practice, the present results indicate that the multiplication of quality and quantity of contact scores may not be necessary. In fact, it appears that the quality of

contact is key in reducing negative age-related stereotypes, while the quantity is not, such that having personal, high quality interactions, not merely more interactions, leads to greater reductions in ageism. In addition, these results suggest that in certain situations, the contact experienced does not carry over or generalize to other situations.

All in all, this research is necessary and has real world and occupational benefits extending across several different contexts. With the baby boomer generation approaching retirement age, the possibility that many of them will continue working well after 65, and the cost of discrimination to companies in settlement dollars and negative public relations, these findings should drive employers to create work teams designed to facilitate high quality interactions with older and younger workers. This would lead to a better understanding of one another and a more amicable workplace. In the future not only could ageism in the workplace and the effects of work-related contact be examined, but it may be possible to investigate the effects of work-related contact with regards to sexism, racism, or any other 'ism' currently in the workplace.

APPENDIX A

COMPREHENSIVE SCALE OF AGEISM

### Comprehensive Scale of Ageism

Please indicate the degree to which you agree with the following situations using the scale provided.

1 = Strongly Disagree

2 = Disagree

3 = Neither Agree nor Disagree

4 = Agree

5 = Strongly Agree

1. Many old people are stingy and hoard their money and possessions.
2. Many old people can be trusted.
3. Many old people are not interested in making new friends preferring instead the circle of friends they have had for years.
4. Many old people have learned a great deal from their experiences.
5. Many old people just live in the past.
6. Many old people are generous.
7. Most old people should not be trusted to take care of infants.
8. Many old people are happiest when they are with people their own age.
9. Most old people are friendly.
10. Most old people are nurturing and encouraging.
11. Most old people would be considered to have poor personal hygiene.
12. Most old people have accomplished a great deal.
13. Most old people can be irritating because they tell the same stories over and over again.
14. Old people complain more than other people do.
15. Old people tend to be relaxed and at ease.
16. I would prefer not to go to an open house at a seniors' club, if invited.
17. Many old people have leadership ability.



18. Teenage suicide is more tragic than suicide among the old.
19. I sometimes avoid eye contact with old people when I see them.
20. Old people should be respected.
21. I don't like it when old people try to make conversation with me.
22. Complex and interesting conversations cannot be expected from most old people.
23. Feeling depressed when around old people is probably a common feeling.
24. Old people should find friends their own age.
25. Old people should feel welcome at the social gatherings of young people.
26. Old people don't really need to use our community sports facilities.
27. It is best that old people live where they won't bother anyone.
28. The company of most old people is quite enjoyable.
29. It is sad to hear about the plight of the old in our society these days.
30. Old people should be encouraged to speak out politically.
31. Most old people are interesting, individualistic people.
32. Old people can benefit from interactions with young people.
33. I personally would not want to spend much time with an old person.
34. There should be special clubs set aside within sports facilities so that old people can compete at their own level.
35. Old people deserve the same rights and freedoms as do other members of our society.
36. Most old people should not be allowed to renew their driver's licenses.
37. Old people can be very creative.
38. I would prefer not to live with an old person.
39. Old people do not need much money to meet their needs.
40. Old people are thoughtful and considerate.
41. Most old people are rigid and set in their ways.
42. Most old people are giving and think of others.

43. It would be better if old people lived in residential units with young people.
44. Most old people are really no different from anybody else.
45. Most old people are capable of adjustments when the situation demands.
46. Most old people would prefer to continue working as long as they possibly can rather than be dependent on someone else.
47. People become wiser with age.
48. Old people should have more power in business.
49. You can count on finding a nice residential neighborhood when there are a sizeable number of old people living in it.
50. Most old people are cheerful, agreeable, and good humored.
51. Many young people are generous with their possessions and spend all their money.
52. Many young people cannot be trusted.
53. Most young people don't have friendships that last very long.
54. Many young people have a great deal to learn.
55. Young people are only interested in meeting new people and socializing.
56. Young people can benefit from the wisdom of older people.
57. Most young people don't see the relevance of the past.
58. Most young people are only focused on the future.
59. Many young people are selfish.
60. Most young people should not be trusted to take care of infants.
61. Many young people are happiest when they are with people their own age.
62. Most young people are unfriendly or rude.
63. Most young people would be considered to have poor personal hygiene.
64. Most young people are neglectful and negligent.
65. Most young people are overly concerned with fashion and their looks.
66. Most young people have not accomplished anything with their lives.

67. Most young people can be irritating because they can't focus their attention.
68. Young people complain more than other people do.
69. Suicide among the elderly is more tragic than suicide among the young.
70. Young people tend to be relaxed and at ease.
71. I sometimes avoid eye contact with young people when I see them.
72. Many young people have leadership ability.
73. I don't like it when young people try to make conversation with me.
74. Complex and interesting conversations cannot be expected from most young people.
75. Feeling depressed when around young people is probably a common feeling.
76. Young people should be respected.
77. Young people should find friends their own age.
78. Young people should feel welcome at the social gatherings of old people.
79. Young people don't really need to use our community sports facilities.
80. It is best that young people live where they won't bother anyone.
81. The company of most young people is quite enjoyable.
82. It is sad to hear about the problems young people face in our society these days.
83. Young people should be encouraged to speak out politically.
84. Most young people are interesting, individualistic people.
85. I personally would not want to spend much time with a young person.
86. Young people deserve the same rights and freedoms as do other members of our society.
87. Most young people don't know how to drive properly.
88. Young people can be very creative.
89. I would prefer not to live with a young person.
90. Young people do not need much money to meet their needs.
91. Most young people are flexible and can adapt to situations with ease.
92. Most young people are self-centered and think only of themselves.

93. Most young people have more energy than others.
94. Most young people lack commitment.
95. Many young people change jobs often.
96. Most young people lack interpersonal skills.
97. Most young people lack confidence.
98. It would be better if young people lived in residential units with old people.
99. Most young people are really no different from anybody else.
100. Most young people are capable of adjustments when the situation demands it.
101. Most young people would prefer to work rather than be dependent on their parents or guardians.
102. People become foolish with age.
103. Young people should have more power in business.
104. When there are a sizeable number of young people living in a neighborhood, it will probably be noisy and rowdy.
105. Most young people are cheerful, agreeable, and good humored.
106. Most young people think they know everything.
107. I think young people present themselves very professionally.
108. Most young people are impatient.
109. Young people are willing to work longer hours because they don't have families.
110. The majority of young people learn new skills and acquire new information more rapidly than older people.
111. Young people are more respectful than others.
112. Young people are more enthusiastic than others.
113. The majority of young people are open to change.
114. Most young people have a good work ethic.
115. The majority of young people are open-minded.

116. I would enjoy working at a place where the majority of my colleagues were younger than me.
117. Young people are naive.
118. I think most young people are pessimistic.
119. Most young people haven't paid their dues, and therefore don't deserve leadership or management roles.
120. Most young people make poor leaders.
121. Young people are effective at developing others.
122. I would like to have a young person as my boss.
123. I would like to work at a company with a young person as CEO.
124. Most young people are under qualified for top management or executive positions.
125. Young leaders take advantage of their authority.
126. Most young leaders are impulsive, often making rash decisions.
127. Young leaders are overconfident in their opinions.
128. The majority of young leaders are afraid to appear weak or indecisive.
129. I think young leaders lack perspective, and can't see the big picture.
130. Most young leaders lack persistence.
131. Young leaders are focused and headstrong.
132. Most young leaders are charismatic and impressive.
133. The majority of young leaders are fresh and innovative.
134. Most young leaders are quick to adapt and change.
135. Young leaders are visionaries and trendsetters.
136. The majority of young leaders are optimistic and idealistic.
137. I think young leaders are honest and forthright.
138. I believe most young leaders have enough experience to do their job effectively.
139. The majority of young leaders lack wisdom.

140. Young leaders develop business strategy effectively.

141. Most young leaders aren't comfortable or effective when giving orders to older people.

142. I think young leaders take their responsibility more seriously than older leaders.

143. Most young leaders are willing to work harder to prove themselves to others.

APPENDIX B

AGE STEREOTYPES IN THE WORKPLACE SCALE

### Age Stereotypes in the Workplace Scale

In this section you are going to be asked to compare three different age groups.

Group A is individuals ranging in age from 21 to 25.

Group B is individuals from ages 41 to 45.

Group C is individuals 61 to 65.

Read each statement below and decide which group is more likely to have that behavior. Use the scale below. For example, if “Group A is more likely” to have a behavior, you indicate a “1”. If you decide that “Groups A and C are equally likely,” you would indicate a “5”.

Group A Is Most Likely 1	Group B Is Most Likely 2	Group C Is Most Likely 3	Group A and B Are Equally Likely 4	Group A and C Are Equally Likely 5	Group B and C Are Equally Likely 6	All Groups Are Equally Likely 7
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Which of the three groups is most likely to do the following?

1. Get hurt on the job more often.
2. Be more satisfied on the job.
3. Be absent less often.
4. Perform their jobs safely.
5. Argue with the boss.
6. Have problems remembering how to do their job correctly.
7. Make mistakes on the job.
8. Be less physically fit.
9. Have high job motivation.
10. Be more up to date technically.
11. Be incapable of learning new things on the job.
12. Be in need of safety training.
13. Care about the organization.
14. Take longer to get the job done.
15. Quit their jobs.
16. Work more safely.



17. Have positive job attitudes.
18. Be more productive.
19. Work quickly and efficiently.
20. Complain about work conditions.
21. Be more serious.
22. Be more cautious.
23. Work harder to get promoted.
24. Value quality over quantity.
25. Learn quickly.
26. Work slowly and deliberately.
27. Excel in work-related tasks.
28. Be bossy or dominating.
29. Hurry to get work done.
30. Set production quotas for themselves.
31. Work quickly and energetically.
32. Get the job done at any cost.
33. Leave work on time to spend more time with family.
34. Work overtime.
35. Be late meeting deadlines.
36. Be incompetent on the job.
37. Have outdated knowledge.
38. Impose production norms on new employees.
39. Overreact in tense situations.
40. Be calm when dealing with difficult people.
41. Be discreet.
42. Be totally involved in the job.

43. Be mentally slow.
44. Be overly critical of other employees.
45. Retire on the job.
46. Be receptive to new ideas.
47. Have strength to do physical labor.
48. Cope with any challenges.
49. Be resistant to any new changes.
50. Make impulsive decisions.
51. Have organizational commitment.
52. Be interested in activities outside of work more than work.
53. Be conceited.
54. Have confidence in own knowledge.
55. Have self-control.

APPENDIX C

BACKGROUND INFORMATION FORM

## Background Information Form

Answer the following questions using the scale below:

[0] = No Experience

[1] = Very Little Experience

[2] = Some Experience

[3] = A Lot of Experience

How much experience have you had...

1. Working with a co-worker between the ages of 50 and 65?
2. Supervising more than one person in a job situation?
3. Interviewing individuals for a job?
4. Working with a co-worker over the age of 65?
5. Writing job performance evaluations in the workplace?
6. Recommending workers for training?
7. Working with someone in his or her teens?
8. Working with someone in his or her 40s?
9. Helping people over the age of 65?
10. Supervising someone younger than you?
11. Talking to your own grandparents?
12. Selecting an individual for a job?
13. Talking to an elderly neighbor?
14. Working in a nursing home?
15. Supervising more than 10 people in a work setting?
16. Spending time with your own grandparents?
17. Taking care of a sick older relative?
18. Supervising someone older than you?
19. Are you currently working?

[A] = Yes

[B] = No

20. If you have had previous work experience, please indicate how many years of work experience you've had:

[A] = 1-6 months of work experience

[B] = 7-12 months of work experience

[C] = 1-2 years of work experience

[D] = 2-5 years of work experience

[E] = 5 or more years of work experience

21. What best describes you?

[A] = Male

[B] = Female

22. What is your age?

23. What best describes your ethnicity?

[A] = Asian

[B] = Black (African American)

[C] = Hispanic

[D] = White

[E] = Other (please specify) \_\_\_\_\_

APPENDIX D

STUDY 2 QUALITY AND QUANTITY MATERIALS

## Study 2 Quality and Quantity Materials

### Work-Related Contact Questions

When you meet people over the age of 65 in the workplace, in general do you find the contact:

pleasant?							
not at all	1	2	3	4	5	very much	
cooperative?							
not at all	1	2	3	4	5	very much	
superficial?							
not at all	1	2	3	4	5	very much	
uncomfortable?							
not at all	1	2	3	4	5	very much	
awkward?							
not at all	1	2	3	4	5	very much	
respectful?							
not at all	1	2	3	4	5	very much	
intimate?							
not at all	1	2	3	4	5	very much	
meaningful?							
not at all	1	2	3	4	5	very much	
cold?							
not at all	1	2	3	4	5	very much	
competitive?							
not at all	1	2	3	4	5	very much	

Now think of situations in the workplace setting. Please answer the following questions about the degree to which you interact with individuals over the age of 65 in the workplace.

How many of your closest work friends are over the age of 65?

\_\_\_ none    \_\_\_ one to five    \_\_\_ six to ten    \_\_\_ more than ten

How many of your supervisors are over the age of 65?

\_\_\_ none    \_\_\_ very few    \_\_\_ about half    \_\_\_ most    \_\_\_ all

How many of your direct reports are over the age of 65?

\_\_\_ none    \_\_\_ very few    \_\_\_ about half    \_\_\_ most    \_\_\_ all

How many of your work peers are over the age of 65?

\_\_\_ none    \_\_\_ very few    \_\_\_ about half    \_\_\_ most    \_\_\_ all

During the average day at work, how many opportunities do you have for contact with individuals over the age of 65?

0	1	2	3	4
None	very few	some	many	very many

How often do you see individuals over the age of 65 in the in your workplace?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

How frequently do you work with people over the age of 65 on work projects?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

What percentage of people in your company would you guess are over the age of 65? \_\_\_\_\_ %

### Non Work-Related Contact Questions

Generally when you meet people over the age of 65 outside of the workplace, do you find the contact:

pleasant?						
not at all	1	2	3	4	5	very much

cooperative?						
not at all	1	2	3	4	5	very much

superficial?						
not at all	1	2	3	4	5	very much

uncomfortable?						
not at all	1	2	3	4	5	very much

awkward?						
not at all	1	2	3	4	5	very much

respectful?						
not at all	1	2	3	4	5	very much

intimate?						
not at all	1	2	3	4	5	very much

meaningful?						
not at all	1	2	3	4	5	very much

cold?						
not at all	1	2	3	4	5	very much

competitive?						
not at all	1	2	3	4	5	very much



Now think of situations outside of the workplace setting. Please answer the following questions about the degree to which you interact with individuals over the age of 65 outside of the workplace.

How many of your closest friends are over the age of 65?

\_\_\_\_ none    \_\_\_\_ one to five    \_\_\_\_ six to ten    \_\_\_\_ more than ten

How many of your family members are over the age of 65?

\_\_\_\_ none    \_\_\_\_ very few    \_\_\_\_ about half    \_\_\_\_ most    \_\_\_\_ all

How often do you visit your grandparents?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

During the average day, how many opportunities do you have for contact with people over the age of 65?

0	1	2	3	4
None	very few	some	many	very many

How often do you see individuals over the age of 65 in the area where you live?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

What percentage of people in your home area would you guess are over the age of 65 \_\_\_\_\_ %

About how many neighbors do you have who are over the age of 65?

0	1	2	3	4
None at all	One	Two to five	Five to ten	More than ten

How often do you see individuals over the age of 65 in your church?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

What percentage of people in your church would you guess are over the age of 65 \_\_\_\_\_ %

How often do you see individuals over the age of 65 in community organizations that you participate in?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

What percentage of people in community organizations that you are a part of are over the age of 65 \_\_\_\_\_%

#### Demographic Questions

Are you currently working?

[A] = Yes

[B] = No

If you have had previous work experience, please indicate how many years of work

experience you've had:

[A] = None

[B] = 1-6 months of work experience

[C] = 7-12 months of work experience

[D] = 1-2 years of work experience

[E] = 2-5 years of work experience

[F] = 5 or more years of work experience

What best describes you?

[A] = Male

[B] = Female

What is your age?

What best describes your ethnicity?

[A] = Asian

[B] = Black (African American)

[C] = Hispanic

[D] = White

[E] = Other

What is your UTA student ID number (i.e. 1000999999)

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Katherine Sullivan graduated from Palestine High School in 2003 and Texas A&M University in 2006 with a Bachelor of Science degree in Psychology. She immediately began her Master's degree in I/O Psychology in the Fall of 2006 and hopes to continue on with her PhD in UT-Arlington's Experimental Psychology PhD Program, with an emphasis in Industrial/Organizational Psychology