THE INFLUENCE OF AGEISM ON PERSONNEL DECISION MAKING

by

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Presented to the Faculty of the Graduate School of
The University of Texas at Arlington in Partial Fulfillment
of the Requirements
for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON
August 2008

ACKNOWLEDGEMENTS

Completion of this project would not be possible without the support and encouragement of many people. First and foremost I would like to thank my husband Jason for his steadfast love and encouragement throughout this whole ordeal. I could not have done this without you by my side. Secondly, I am forever grateful for my parents' support, prayers, and unconditional love. I wouldn't be who I am today without both of you. And thank you Jonathan for being an Excel wizard – you saved my sanity many times and I appreciate your encouragement and humor.

I am also thankful graduate school brought special friendships into my life. Alison, Taylor, and Kristin – I am grateful for our friendship and for your help in getting this project done! I treasure our time together and am glad I have friends for life. I also want to express my gratitude to my DeLaPorte family – Kim, Blake, and Jason – thank you for your understanding, constant encouragement, and willingness to do whatever you could to help.

I owe the deepest gratitude and appreciation to Dr. Gary McMahan and Christopher Harris. Your willingness to step up and support my data collection efforts will never be forgotten. Also, special thanks to the I/O Lab members who also helped with data collection, especially Luisa Baez, Tem Lawal, Mila Bergschneider, and Amber Harris. You helped me when no one else had the time and I couldn't have finished my project without you. Finally, I'd like to thank my advisor, Dr. Mark Frame, for his help and guidance with this paper and the countless projects before. It's been a long five years and I appreciate your friendship and support.

May 7, 2008

ABSTRACT

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DECISION MAKING

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Ageism is a topic in today's world of great consequence, especially due to the multimillion dollar costs of age-related discrimination charges and the potential to ineffectively utilize organizational talent. Additionally, the demographic breakdown of the workforce indicates older individuals make up the majority of workers and that trend will continue for the foreseeable future. However, ageism affects both younger and older individuals; anyone in the workplace has the potential to be a victim of age-related stereotyping or discrimination. As such, this study sought to take past research a step further by examining the impact of ageism on personnel decision making for both younger and older workers. Specifically, the study examined whether or not ageist attitudes and beliefs could be used to predict responses to a simulated personnel decision making exercise (e.g., selection decision, promotion decision, and access to training decision). Utilizing the Comprehensive Scale of Ageism (CSA: Tipton, 2005) to obtain a measure of ageist beliefs, the first study found support for a refined and shortened version of the measure, the CSA-Revised. However, in Study Two, non-significant results were found for the CSA-R's ability to predict personnel decision making. Theoretical and practical implications are discussed as well as implications for future research.

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CHAPTER 1

INTRODUCTION

Workforce demographics are ever-changing, and in recent years, concern has arisen over how organizations will cope with the mass exodus of the baby boomers; a generation of knowledgeable, skilled workers transitioning into retirement in the coming decade. Potentially, this drastic change creates a problem for organizations and how they will attract, select, retain, and more importantly, manage talent in the future. Reports indicate that in 2004, ten percent of the global population (6.1 billion) was over the age of 60 (Hedge, Borman, & Lammlein, 2006), however, the looming challenge organizations are currently facing is not simply a short-term problem, but rather a long-term economic issue due to low birth rates over the past several decades. By the year 2050, it is projected 20% of the population will be over the age of 60 and that age group will outnumber children under age 14 (Hedge et al., 2006). This indicates that sustaining the workforce will be a continual challenge for the foreseeable future.

Attitudes and beliefs about the aging work population are critically important (Finkelstein, Burke, & Raju, 1995) and rapid demographic changes indicate the necessity of research examining the pertinent issues of age stereotyping and age discrimination in the workplace (Finkelstein, Higgins, & Clancy, 2000). In 2006, 16,548 charges of age discrimination were reported to the United States Equal Employment Opportunity Commission (EEOC), 14,146 of which were resolved. This resulted in $51.5 million in monetary benefits for the charging parties (EEOC, 2007a). Even though charges and money paid were at a five-year low in 2006, these figures still represent a sizeable problem (EEOC, 2007b). Additionally, it is important to note these figures do not include out-of-court settlements and therefore exclude more recent corporate settlements (e.g., Lennox Industries, Continental Airlines, Northrop Grumman, Westinghouse

Electric, and First Union Corporation), which have ranged from $6.2 million to $58.5 million (McCann & Giles, 2002).

Based on the changing demographics of the workforce, and the sustained high number of EEOC filings related to age discrimination claims, it is imperative to examine the impact ageism and age discrimination could have on personnel decisions made in the workforce. Personnel decisions affect an individual's access to training, compensation level, whether or not they receive reward and recognition, opportunities for promotion and development, and an employee's overall career progression. It is not only illegal for age-related bias or discrimination of any type to influence personnel decisions for individuals over the age of 40, but if age related bias or discrimination are factors in any personnel decision, negative consequences are likely to result. For example, age bias can negatively affect the entire organization resulting in financial costs if a lawsuit is filed (e.g., court costs, settlement costs, etc.), an ineffective use of talent, and age bias could create the view the organization participates in unfair practices (Clapham & Fulford, 1997). In order to address the concerns of the aging workforce and the pertinent issue of age-related bias and discrimination influencing multiple personnel decisions, a review of the literature on age, stereotypes, social processes, and age differences is presented.

1.1. Literature Review

Age is both an individual and social experience, and, as a result, it exerts a tremendous influence on people's lives (Lawrence, 1984). Age reflects the limitations and possibilities associated with an individual's position in both non-work and work domains (Loscocco & Kalleberg, 1988). One does not necessarily identify oneself with a specific age group simply based on one's chronological age. This is largely because chronological age is not highly correlated with subjective age or the age one identifies with psychologically (Finkelstein & Burke, 1998). In addition, chronological age is not a valid predictor of job performance because individuals of the same age can differ dramatically from one another in terms of ability and performance (Hedge et al., 2006; Rabbitt, 1993). Age is also a poor guide to an individual's mental and physical well-being, and chronological age is an inadequate basis for predicting

vocational performance (Heron & Chown, 1967; McFarland, 1973; Shaie, 1974). Meta-analytic reviews have consistently found age and job performance to be unrelated (McEvoy & Cascio, 1989; Waldman & Avolio, 1986), even when controlling for experience (Avolio, Waldman, & McDaniel, 1990). However, one's age, either perceived or chronological, can have an impact on one's personal, social, or professional life, and how one is perceived by others. Perceptions of others are often clouded by bias and stereotypes, and the focus of this paper is on one stereotype in particular: ageism.

1.1.1. Ageism

A stereotype entails the generalizations individuals assign to groups of people (Worchel & Cooper, 1983). A stereotype serves as a way to cognitively simplify and organize our beliefs and expectations regarding certain groups (Cuddy & Fiske, 2002) and provides us with a guide for our interactions with others (Hedge et al., 2006). Although stereotypes often have negative connotations, stereotypes can be positive or negative and they may be accurate or inaccurate (Aries, 1996; Glick & Fiske, 1999). As noted previously, one stereotype currently affecting the workplace is ageism. Ageism refers to stereotyping or discrimination against any age group on the basis of age (Kalavar, 2001). Hedge and colleagues (2006) claim "age prejudice is one of the most socially accepted forms of prejudice in America today" (p. 27). Ageism is believed to contain three mechanisms: stereotypes (the cognitive aspect), prejudice (the affective aspect), and discrimination (the behavioral aspect) (Cuddy & Fiske, 2002). Ageist beliefs are "stored" as a stereotype in our mind, applied as a prejudice when we make an adverse judgment or have an adverse opinion about a certain age group, and when acted upon, become discrimination, as is common in the workplace. For example, Chiu, Chan, Snape, and Redman's (2001) study produced evidence of the cognitive and affective aspects of ageism, but not the behavioral aspect. Regarding older workers, Chiu et al. found that stereotypical beliefs significantly affected attitudes towards training, promotion, retention, and willingness to work with older workers, but the study did not examine a performance or decision making component. It is also worth noting this study, along with most previous research on age stereotypes, only investigated the

stereotypes held about older workers and did not examine the stereotypes held of younger workers.

Typically, when people think of ageism, they think of the negative aspects of discrimination and prejudice against the elderly. However, age stereotypes are not uniformly negative towards older people (Rosen & Jerdee, 1976a). An older or younger person may equally become the target of ageism (Ng, 1998; Pawsey, 2000). The previous definition (Kalavar, 2001) illustrates that ageism is stereotyping against *any* age group, and post-industrial people tend to hold deeply ageist beliefs (Ng, 1998).

Many studies suggest attitudes toward the elderly are more negative or stereotypical than attitudes toward younger people (Kite & Johnson, 1988; Netz & Ben-Sira, 1993; Palmore, 1982). However, Hummert (1990) contradicted this and reported results which suggested the elderly are not perceived more negatively than the young. In fact, positive stereotypes are viewed as more typical of elderly adults than are the negative stereotypes (Hummert, 1990; Tipton, 2005). It seems that both generally and in the workplace, the differences between negative views of the old and negative views of the young may be negligible (Tipton, 2005).

Kite and Johnson (1988) proposed that attitudes toward the elderly may be composed of conceptually different domains than those of attitudes toward younger people. Moreover, people are likely to hold conflicting beliefs and expectations about older individuals that may at times, be inconsistent (Kite & Johnson, 1988). For example, someone may believe that old people are wise (a positive attribute), while at the same time believe they are poor drivers (a negative attribute). This could indicate a reason for the ambiguous results found in previous studies. Similarly, culture may play a role in how differing age groups are perceived. For example, Chiu and colleagues (2001) found that older workers were perceived as more effective in the United Kingdom (UK) than in Hong Kong, but UK participants perceived older workers as less adaptable to change than did their Hong Kong counterparts. Finally, age of the worker may also play a role in age group perceptions. Previous research has found that younger people are likely to hold stronger ageist beliefs than their older counterparts (Finkelstein et al., 1995; Rupp, Vodanovich, & Credé, 2003).

Despite the variability in the positivity or negativity of age-related stereotypes, these biases are often used in organizational decision making. As such, employment legislation has been created which specifically speaks to the topic of ageism.

1.1.1.1. ADEA

In 1967, the Age Discrimination in Employment Act (ADEA) was passed, which extends to people aged 40 and over the same legal protection granted to protected groups under Title VII of the Civil Rights Act. The underlying premise of the act is that there are large individual differences among workers of all ages and age, therefore, is not a valid indicator of one's ability to perform. Specifically, this act prohibits the use of age in personnel decisions related to recruitment, selection, hiring, compensation, layoffs and termination, promotion, benefits, job assignments, and training.

It is also important to note the United Kingdom, in October 2006, enacted similar legislation, The Employment Equality (Age) Regulations, which offer protection against age discrimination in employment and adult education for people of *all* ages (not just those over 40). Clearly, acting upon age-related facts or beliefs when making a personnel decision, in the United States and abroad, is illegal. Much research has been conducted on the topic of ageism and the impact it may have on personnel decisions. It is essential therefore, to accurately and reliably measure the construct.

1.1.1.2. Measuring Ageism

Several different scales have been developed over the years to measure ageism (e.g., Fraboni, Saltstone, & Hughes, 1990; Kafer, Rakowski, Lachman, & Hickey, 1980; Kilty & Feld, 1976; Kogan, 1961; Palmore, 2001; Ringenbach, 1994; Rosen & Jerdee, 1976a; Rosencranz & McNevin, 1969; Rupp et al., 2003; Salter & Salter, 1976; Tuckman & Lorge, 1953). Unfortunately, criticism offered by Kite and Johnson (1988) over 15 years ago still holds true today; the initial work on the majority of these scales has not been supplemented by reliability and validity evidence, and to date, no one instrument has emerged as the ageism measure of choice. Most ageism scales primarily focus on attitudes, beliefs, and stereotypes toward older and elderly

individuals. With the growing concern of ageism in the workplace, research and ageism scales of the past, which are focused on the elderly, may not be applicable to today's workforce. Legislation prohibits discrimination based on age against those 40 and older, however 40 is hardly considered old and is far from elderly. Age discrimination is possible if individuals are assumed to possess or lack skills or characteristics relevant to their job on the basis of their age, and these skills or characteristics are job requirements (Perry & Finkelstein, 1999). There is also a dearth of literature examining the impact of ageism towards younger individuals. The majority of past ageism measures excluded items assessing attitudes toward younger individuals, resulting in an incomplete look at ageism. In order to successfully reduce or eliminate age discrimination, it is necessary to understand when, where, and how it is most likely to occur (Perry, Kulik, & Bourhis, 1996).

An additional question raised by past ageism studies is the question of how one defines "old" (Hedge et al., 2006). According to the ADEA, "old" is over the age of 40. The American Association of Retired Persons sets the bar at 50, and one is eligible for retirement and Social Security at the age of 65. In our research on age differences in performance (e.g., Acker, Cooper, Frame, 2007; Tipton & Cooper, 2005; Tipton, Cooper, Frame, 2006), we have chosen to divide age by decades (e.g., people in their 20s, 30s 40s, 50s, 60s, 70s) in order to gain insight into where age differences are actually occurring. Grouping multiple decades together (e.g., under 40, over 40) could result in the loss of rich information. For the purposes of this study, age will be divided into four groups: younger (people in their 20s), young (people in their 30s), old (people in their 50s), and older (people in their 60s). Now that ageism, its measures, and related legislation have been reviewed, our focus turns towards some of the underlying mechanisms that may lead to age-related beliefs.

1.1.2. Social Processes Influencing Ageism

It is necessary to examine the social processes associated with age because age-related norms, in-group bias, group composition and saliency, as well as job perceptions may affect discrimination in employment decisions (Finkelstein et al., 1995). For example, people are often

placed in a certain category based on their age and this affects how others perceive and relate to them. Additionally, people have expectations for how individuals of differing ages in various positions should behave. When the age of a job incumbent differs markedly from this expected age, observers tend to view that individual more negatively (Ostroff & Atwater, 2003). Job rewards are often differentially distributed within organizations on the basis of these age-related norms (Riley, Johnson, & Foner, 1972).

1.1.2.1. In-Group Bias

One social process that can play a role in how people of varying ages are perceived is in-group bias. There is a tendency for individuals to associate with and value those in their age cohort to the exclusion of other age groups (Ng, 1998). Chiu and colleagues (2001) found respondents' own age to be predictive of positive age stereotypes. This finding supports the in-group hypothesis, in that one has more positive age stereotypes of one's own age group. Potentially, individuals making personnel decisions could be biased by valuing, and therefore providing higher ratings, to employees that fall within their own age cohort.

1.1.2.2. Saliency and Group Composition

Cleveland, Festa, and Montgomery (1988) point out that age stereotypes are the result of group membership and that situational or contextual factors make group membership salient. The role that is activated when an observer judges an actor depends upon characteristics of the actor that are salient in a given situation (Ayman, 1993). For example, within a group predominantly composed of young people, an older person's physical attributes will probably be easily noticed, therefore making age salient. In a 1988 study, Cleveland and colleagues studied applicant group composition and found that under the skewed and tilted conditions (e.g., more younger than older applicants), hiring recommendations in favor of the older applicants were lower than under the uniform condition (e.g., an equal number of older and younger applicants). Additionally, the authors found that older applicants were given lower ratings on potential to advance when the applicant pool had fewer older applicants.

Regardless of the basis for the role, the behaviors that observers witness are interpreted within the context of the role(s) the observer feels is most appropriate. When an observer notices salient behaviors of another individual (target) that match the behaviors the observer expects, that person is seen as "in-role." When behavior is observed that is contrary to the observer's expectations, that behavior is seen as "out-of-role." When the position of the individual conflicts with an observer's interpretation of the person's social role negative evaluations of the individual's behaviors may result (Ayman, 1993; Bartol, 1999; Carli, 2001; Korabik, 1997).

1.1.2.3. Job Perceptions

Finally, Cleveland and Landy (1983) stated that it is possible one may only experience age bias in jobs where age becomes the salient characteristic of the position, and age may be more salient in some situations and organizational positions than others (Cleveland & Landy, 1987). Perry and Finkelstein (1999) stated the more salient a worker's age, the more likely age discrimination is to exist, because when age is salient it usually leads to activation of age-associated job stereotypes. Decision makers tend to match worker information, such as age, to the age-associated job stereotype and the greater the match, the more suitable the worker is perceived for the job. Cleveland and Landy (1983) noted the degree of bias one encounters may depend on the type of job under consideration. In fact, research has demonstrated that a particular job can be age-typed (Gordon & Arvey, 1986). This means that people hold shared expectations about the age of job incumbents; some jobs are old-typed (e.g., jobs are perceived as being held by older workers), while other jobs are young-typed (e.g., jobs are perceived as being held by younger workers). Gordon and Arvey's (1986) study found that some jobs are perceived as being held by people in their 20s (e.g., manicurist, receptionist, cashier), by people in their 30s (e.g., race car driver, engineer, clinical psychologist), and by people in their 40s (e.g., security guard, janitor, mayor).

Cleveland and colleagues (1988) contend that while there is no clear interpretation for why or how these job perceptions develop, several factors likely play into the development of these beliefs. For example, the skills required or tasks performed for a certain job may be

perceived as being either older or younger person skills or tasks. Additionally, there could be actual differences in the distribution of individuals in the job (e.g., most people in Job X are older, while most people in Job Y are younger). In the aforementioned study on group composition, Cleveland et al. (1988) found that the age-type of the job changed from a younger type job to a middle-age type job as the composition of the applicant pool became more saturated with older applicants.

Previous research shows the impact an individual's age may have on their career progression can be influenced by age-related norms, in-group bias, saliency, group composition, and job perceptions. Furthermore, while one's chronological age and self-identified psychological age may influence one's experiences in the workplace, the impact of other individuals can exacerbate matters. The influence of these social processes may be manifested in a variety of personnel decisions.

1.1.3. Age and Personnel Decisions

Early research of the impact of age discrimination on personnel decisions (e.g., Rosen & Jerdee, 1976b) indicated that stereotypes regarding an older individual's physical, cognitive, and emotional characteristics were used to make administrative decisions that potentially damaged older individual's well-being and career progression. It is important to examine all forms of ageism because as Perry (1997) reported, age-related stereotypes are used in making decisions about employability, promotion, compensation, and judgments of performance. Age stereotypes may also affect managerial decision-making regarding access to training (Rosen & Jerdee, 1976a). In addition, Ostroff and Atwater (2003) note that negative age stereotypes affect perceptions of performance and compensation practices and organizational decision makers are likely to hold job and age stereotypes that younger workers have less experience. Furthermore, work conducted by some categories of people (i.e., young workers with less experience) is less valued than work done by others (Ostroff & Atwater, 2003).

Studies have consistently found both positive and negative differences between younger and older workers. On the positive side, previous studies have shown that younger workers are

seen as having higher performance potential (Morrow, McElroy, Stamper, & Wilson, 1990; Singer, 1986), greater potential for development, better interpersonal skills (Singer, 1986), and are seen as being a better return on investment (Morrow et al., 1990). On the negative side, younger workers are seen as having lower stability (Singer, 1986).

Negative attitudes toward older workers have been found to stem from the belief that older workers cannot meet job demands, are less creative and trainable, and are less able to cope with stress (Morrow et al., 1990). Also, in a replication of the Rosen and Jerdee (1976b) study, Weiss and Maurer (2004) found that the perceived difficulty encountered in trying to convince an employee to change their behavior (e.g., resistance to change), was rated higher for older targets than for younger targets.

It is also important to point out however, that while stereotyping is the suggested reason for age discrimination in the workplace, the specific underlying mechanisms through which these stereotypes work has not been clearly defined or adequately researched (Finkelstein et al., 1995). There are a variety of important personnel decisions made within organizations. For the purposes of this study three of those personnel decisions will be focused on and discussed further: selection, promotion, and access to training.

1.1.3.1. Selection

Research has found that older job candidates are less preferred and seen as less suitable than younger, equally qualified candidates (Wilson, Parker, & Kan, 2007). One of the key factors in the selection decision appears to be a common negative stereotype against older workers: they are perceived as less adaptable than their younger counterparts. For example, Wilson et al. (2007) found that the assumed flexibility and adaptability of younger workers was a key differentiator between older and younger workers. In fact, DeArmond, Tye, Chen, Krauss, Rogers, and Sintek (2006) found older workers to be perceived as less adaptable than their younger counterparts across the majority of adaptability dimensions. An age bias was also found against older applicants for positions requiring financial risk taking (Rosen & Jerdee, 1976b). That

is, younger applicants were more likely to be recommended for selection than older applicants with the same qualifications.

Wilson and colleagues (2007) also found different expectations in regards to the cost of new hires. Participants in their study felt older applicants would be more expensive to hire (due to their experience and salary expectations), while younger workers may be more expensive in the long run due to higher turnover levels and the cost of having to replace them continually.

Finally, in a 2001 study, Bennington found recruiters overtly using age as selection criteria; recruiters asked applicant's age 18% of the time and explicitly stated the employer had an age preference 27% of the time. Bennington's results indicated that whether the employer had an age preference significantly predicted an applicant's chance of a successful hire. According to applicants in Bennington's (2001) study, questions regarding age are commonplace in the hiring process.

1.1.3.2. Promotion

There have been mixed results regarding the influence of age on promotion decisions. Some studies have found chronological age of the employee to have no significant impact on promotion decisions (Cleveland & Landy, 1983) or expected job performance (Cleveland et al., 1988), while other studies found age and promotability (the degree to which a person is seen as deserving of promotion) to be related. For instance, in one study, promotions and development opportunities were withheld from older employees as compared to identically qualified younger employees (Rosen & Jerdee, 1976b). Older workers, who were viewed as lacking creativity, were less likely to be promoted than a younger worker who also lacked creativity (Rosen & Jerdee, 1976b). Still another study found age to be inversely related to promotability for older employees even when performance, tenure, and education were held constant (Cox & Nkomo, 1992). This study found job tenure and education to positively contribute to promotion for younger workers, but not their older counterparts. And finally, results of Clapham and Fulford's (1997) assessment center study indicated that age is significantly and negatively related to promotability.

1.1.3.3. Access to Training

Chiu et al. (2001) reported that older workers demonstrated more favorable attitudes towards training and retaining older workers. However, the Hong Kong workers in their study felt younger workers should be given a priority in terms of training opportunities. Rosen and Jerdee (1976b) found that in regards to training, participants were less likely to recommend financial support for the development of an older worker and older workers were perceived to be less interested in learning about new technological developments.

Another aspect that may play into one's access to training is the degree to which an employee is seen as open to change. Younger workers have been described as trainable and easy to get on board quickly (Wilson et al., 2007). Older workers, on the other hand, are seen as more resistant to change, believed to be more resistant to managerial influence than their younger counterparts (Rosen & Jerdee, 1976b), and are viewed as set in their ways (Wilson et al., 2007), all of which could potentially limit the number of opportunities they are given for training. Finally, meta-analytic results indicate that older workers demonstrate poorer performance in regards to training material mastery than their younger counterparts, take longer to complete final tasks, and take more time to complete overall training programs (Kubeck, Delp, Haslett, & McDaniel, 1996). It is important to note that results from this meta-analysis provide evidence that older adults show less *mastery* of training material, not that they *learn less* in training (Kubeck et al., 1996).

Selection, promotion, and providing access to training are three critical personnel decisions organizations are currently facing, especially in light of the impact baby boomers are having on the workforce. The following is an overview of the present study which examined this pertinent topic.

1.2. Current Study

1.2.1. Study Overview

Ageism is a topic in today's world of great consequence, especially due to the multimillion dollar costs of age-related discrimination charges and the potential to ineffectively use

organizational talent. Additionally, the demographic breakdown of the workforce indicates older individuals make up the majority of workers and that trend will continue for the foreseeable future. As such, this paper sought to take past research a step further by examining the impact of ageism on personnel decision making. In order to accomplish that task, two studies were undertaken.

1.2.1.1. Hypotheses

Study one. The first study was a replication and extension of previous research (Tipton, 2005). Study one gathered responses using the Comprehensive Scale of Ageism (CSA; Tipton, 2005) which has four scales: Positive Stereotypes of Old People, Positive Stereotypes of Young People, Negative Stereotypes of Young People, and Negative Stereotypes of Old People. This ageism scale captures the cognitive and affective aspects of ageism and was used as a predictor for the behavioral aspect of ageism (collected via Study Two's in-basket exercise). The primary aim of the first study was to reduce and refine the CSA. Specifically, it was hypothesized:

H1: The four factors (scales) originally identified in the CSA will manifest in the revised version administered as an on-line survey.

Study two. The second study examined the predictive ability of the CSA; do ageist attitudes and beliefs predict how one will respond to simulated personnel decisions? It was hypothesized the four scales of the CSA will differentially predict three key personnel decisions: a selection recommendation, a promotion recommendation, and an access to training recommendation. Specific hypotheses were set forth as follows:

H2: The CSA scales will predict participant behavior when making decisions regarding organizational outcomes (e.g., selection decision, promotion decision, and access to training decision) for younger (20s), young (30s), old (50s), and older (60s) candidates during a work simulation.

H2a: Negative Stereotypes of Old People on the CSA will be negatively related to organizational outcomes for old (50s) and older (60s) candidates.

H2b: Negative Stereotypes of Young People on the CSA will be negatively related to organizational outcomes for young (30s) and younger (20s) candidates.

H2c: Positive Stereotypes of Old People on the CSA will be positively related to organizational outcomes for old (50s) and older (60s) candidates.

H2d: Positive Stereotypes of Young People on the CSA will be positively related to organizational outcomes for young (30s) and younger (20s) candidates.

CHAPTER TWO

METHODOLOGY

2.1. Study One

Since stereotypes can be either positive or negative (Aries, 1996; Glick & Fiske, 1999), and ageism affects both young and old individuals (Kalavar, 2001; Ng, 1998; Pawsey, 2000), Tipton (2005) developed the Comprehensive Scale of Ageism (CSA) to fill a gap in the literature on ageism and how it is measured. The four main scales of the CSA (Positive Stereotypes of Old People, Negative Stereotypes of Old People, Positive Stereotypes of Young People, and Negative Stereotypes of Young People) measure ageism in a more comprehensive way than measures of the past. Additionally, the scale contains items which capture both stereotypes (the cognitive aspects) and prejudices (the affective aspects) associated with ageism, yielding a more holistic measure.

The goal of the first study was to reduce the length of the CSA and refine the measure. In all, the first version of the CSA had 118 items (see Tipton, 2005) which were assessed using a 5-point Likert scale ranging from one (strongly disagree) to five (strongly agree). However, only ten items for each of the four scales were used in the present study, resulting in a total of 40 items.

2.1.1. CSA Item Reduction

Prior to data collection for Study One, a pilot study, with a separate sample of students (N = 299), was conducted to reduce the number of items on the CSA. Factor analysis was performed on data collected during the Fall 2007 semester for the original 118-item CSA. After cases were deleted for missing data, factor analysis in SPSS (2007) was performed with principle components analysis.

Exploratory factor analyses were conducting using oblique rotation methods (e.g., both Promax and Direct Oblimin), retaining eigenvaules greater than 1. All factor solutions, including

scree plots, indicated a four factor solution. However, the majority of items when employing an oblique rotation method fell loaded on the first two factors, indicating a positive stereotype factor and a negative stereotype factor. An exploratory factor analysis using an orthogonal rotation method (e.g., Equamax) also found a four factor solution with items more evenly dispersed across the four factors, supporting the factor structure found by Tipton (2005). The orthogonal factor analysis was retained because the four factors identified fit the factor structure identified in previous research, reflected the moderate correlations found in previous research, and was deemed to be a better fit with the underlying theory and model.

To reduce the number of items on the CSA, a factor analysis with principle components analysis, Equamax rotation, and four variables specified for extraction was performed. The four factor solution accounted for 30.50% of the variance. Factor loadings above .30 were retained and reliability estimates were run for each of the four scales. For each scale, item-total correlations were examined for all items to guide decisions about which items could be deleted to increase the reliability of the scale. Through an iterative process, items were deleted until only ten items remained for each scale. Therefore, the new version of the CSA, the CSA-Revised (CSA-R) used in Study One had 40 items (see Appendix A) with reliability estimates (coefficient alphas) as follows: Positive Stereotypes of Old People = .84, Positive Stereotypes of Young People = .81, Negative Stereotypes of Young People = .83, and Negative Stereotypes of Old People = .81.

2.1.2. Participants

Participants for Study One were either undergraduate psychology students at The University of Texas at Arlington who completed the online survey as part of the psychology pretest for course research requirements, or management students (undergraduate and graduate) at The University of Texas at Arlington who completed the online survey as a volunteer for extra credit. A total of 800 participants completed the study; however, after deleting missing data the remaining data set had 781 participants. Sixty-eight percent of the sample was female (n = 530) and thirty-two percent was male (n = 247). Participant age ranged from 17 to 57 years of age (M = 22.81, SD = 6.26); 30.2% of the sample was under 20 years of age, 55.7% was in their

20s, 7% in their 30s, 2.4% in their 40s, and .80% in their 50s. The ethnic breakdown of the sample was as follows: 12.2% Asian, 16.4% African American or Black, 51.7% Caucasian or White, 1.3% Hispanic or Latino, and 13.9% Multi-racial or Other. A smaller subset of these participants (*n* = 156) also participated in Study Two, the in-basket exercise.

2.1.3. Procedure

Participants completed the 40-item CSA-R as part of the psychology pretest or as part of an online management survey. The psychology pretest contained additional items from other studies, thus the CSA-R was one of many scales included in the survey. Likewise the online management survey (conducted via SurveyMonkey.com) also contained additional items from other studies (e.g., seven attitudinal items, two work-related situational judgment test items, 16 items regarding fairness and justice of compensation practices, and 20 demographic items). Ratings for the CSA-R were made on a 5-point Likert scale ranging from one (strongly disagree) to five (strongly agree).

2.2. Study One Results

2.2.1. Hypothesized Model

In order to address Hypothesis 1, confirmatory factor analysis through structural equation modeling (SEM) was performed with AMOS (2007). The path diagram for the hypothesized four factor structure of the CSA-R scales can be seen in Figure 2.1. The circles represent the four latent variables: Positive Stereotypes of Old People, Negative Stereotypes of Old People, Positive Stereotypes of Young People, and Negative Stereotypes of Young People. The ten rectangles to the right side of each factor serve as indicators for that particular factor. There are ten indicators for each factor (e.g., ten items make up each scale). The four factors are hypothesized to covary with one another.

Normality of the variables was assessed prior to analysis and none of the variables were significantly skewed or highly kurtotic. As mentioned previously, 19 cases were deleted due to missing data, leaving a total of 781 cases for the analysis.

2.2.2. Model Estimation

Maximum likelihood estimation was used to estimate the model. Results indicate the model fits the data, χ^2 (570, N = 781) = 1427.56, p < .001. Since the χ^2 Goodness of Fit Statistic is overly sensitive with large samples, several fit indices were also examined. Coovert and Craiger (2000) suggest the root-mean-square error of approximation (RMSEA; Steiger, 1990) and the comparative fit index (CFI; Bollen, 1989) are the most important fit indices. This study found CFI = .91 and RMSEA = .04, both indicating a very good fit of the model. Additionally, the incremental fit index (IFI) = .91 indicated a very good fit, while both the relative fit index (RFI) = .78 (values close to 1 indicate a very good fit) and the Tucker-Lewis coefficient (TLI; Tucker & Lewis, 1973) = .87 (accept when greater than .90) were slightly low.

The correlations between the four CSA-R scales are low and in the expected directions (see Table B1 in Appendix B). Inspection of the regression weights (see Figures B1 – B6 in Appendix B) on the Negative Stereotypes of Young People and Positive Stereotypes of Young People scales reveals overall lower regression weights than the other two scales indicating the items are not loading as well on these two factors. The error terms also appear to be carrying more weight in those factors. Covariances of error terms for each CSA-R scale can be found in Appendix B (Tables B2 – B5).

2.2.3. Reliability

Internal consistency reliability estimates were calculated for each of the four scales and item-total correlations were examined for suitability of the ten items composing each scale. Item-total correlations did not indicate deleting an item would increase any of the four scales' reliability. The final alpha values are .85, .84, .73, and .87 for the Positive Stereotypes of Old People scale (M = 3.92, SD = .52, Range = 3.80), Negative Stereotypes of Old People scale (M = 2.34, SD = .59, Range = 4.00), Positive Stereotypes of Young People scale (M = 3.72, SD = .43, Range = 2.80), and Negative Stereotypes of Young People scale (M = 3.24, SD = .63, Range = 3.80) respectively. The Positive Stereotypes of Young People scale demonstrated less reliability than the other three scales, which is consistent with the previously noted SEM findings for that scale.

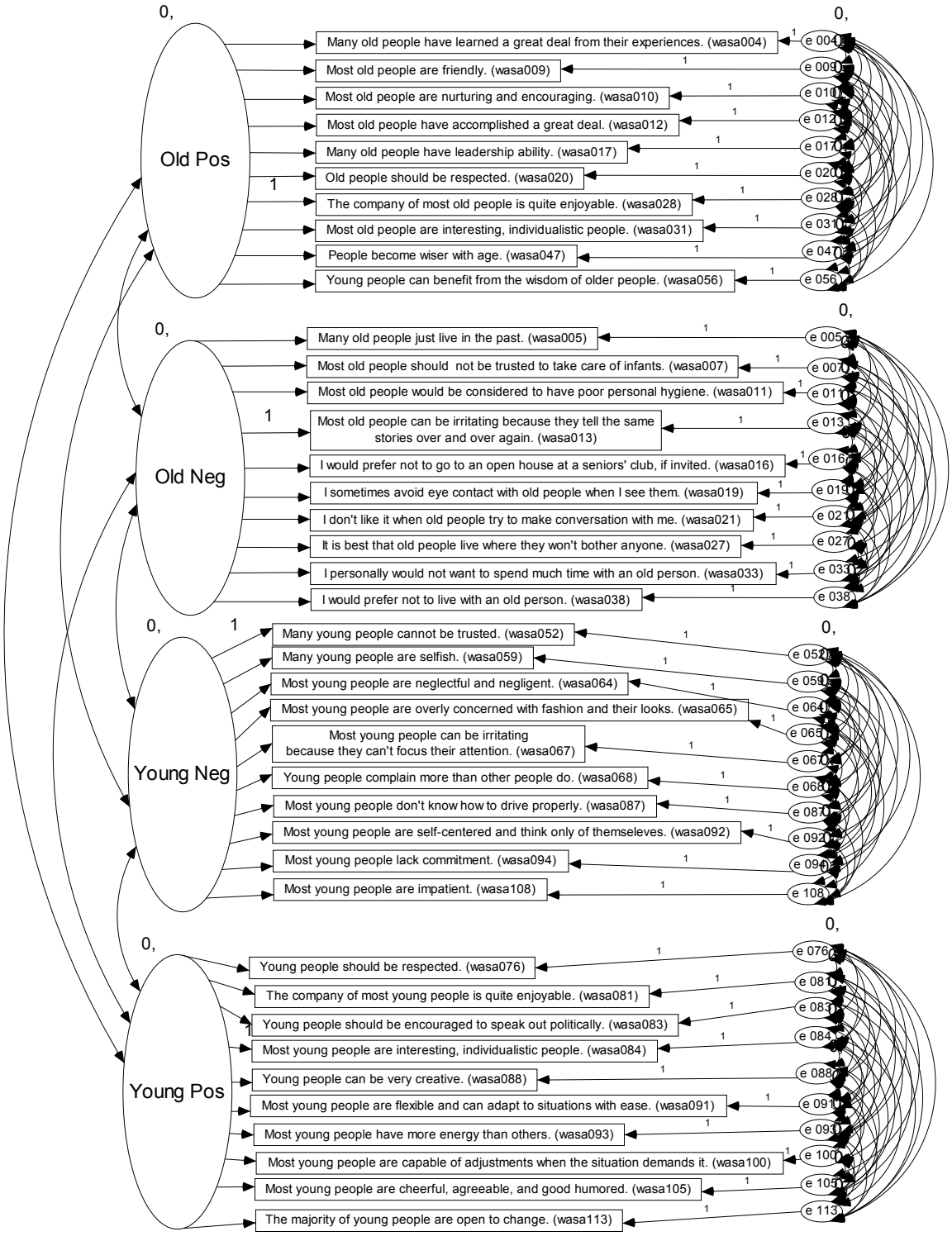

Figure 2.1: Initial Path Model: Four Factor Structure of the CSA - R.

2.2.4. Age Differences

Finally, age group differences (e.g., under 20, 20s, 30s, 40s, 50s) in CSA-R scale scores were assessed through two analyses. First, correlations were obtained for age (as a continuous variable) and CSA-R scale scores. Only two of the four scales demonstrated significant correlations with age. Specifically, age was significantly and negatively correlated with both the Negative Stereotypes of Old People scale (r = -.25, p < .001) and the Negative Stereotypes of Young People scale (r = -.15, p < .001). These correlations indicated that the older one gets the less negative stereotypes one holds toward all age groups.

Secondly, an analysis of variance for age group differences (e.g., under 20, 20s, 30s, 40s, 50s) in CSA-R scale scores was performed. Significant results were found for the Negative Stereotypes of Old People scale (F(4, 751) = 9.40, p < .001, η_p^2 = .05), the Negative Stereotypes of Young People scale (F(4, 751) = 3.73, p < .01, η_p^2 = .02), and the Positive Stereotypes of Young People scale (F(4, 751) = 3.64, p < .01, η_p^2 = .02). Tukey's post hoc analysis revealed the "Under 20" age group had higher ratings on the Negative Stereotypes of Old People scale than all other age groups and participants in their 20s had higher ratings on this scale than those in their forties. The "Under 20" group also had higher ratings than participants in their 30s on both the Negative Stereotypes of Young People and the Positive Stereotypes of Young People scales.

2.3. Study One Discussion

In the first study, support was found for the four factor structure originally identified by Tipton (2005) for the Comprehensive Scale of Ageism (CSA). Confirmatory factor analysis results indicated a good fit for the 40-item online version of the CSA-R. Factor loadings and reliability estimates indicated the items for three of the four scales were in fact good items for those scales. The Positive Stereotypes of Young People scale was the one scale that demonstrated lower reliability (α = .73), lower regression weights, and higher error terms in the final model. SEM results also indicated the Negative Stereotypes of Young People scale was not as strong of a fit as the two Old People scales. The participant population for Study One consisted largely of

individuals under the age of 30 (89.4%). It is possible the age composition of the sample in this study influenced the results in some way. However, based on in-group bias, one would think the Positive Stereotypes of Young People scale would have higher internal consistency and better fit within the model, because younger participants should have identified with and strongly agreed with the items on that scale.

2.4. Study Two

2.4.1. Participants

The participants for the second study were a subset of the Study One participants. Participants who had previously completed the online CSA-R survey were invited to complete an in-basket exercise in a controlled environment. A total of 156 participants completed Study Two. There were 88 females and 68 males with age ranging from 18 to 49 (M = 26.82, SD = 7.54). Participants under the age of 20 accounted for 5.8% of the sample, 51.2% were in their 20s, 12% in their 30s, and 7.5% in their 40s. The ethnic breakdown of the sample was as follows: 9.6% Asian, 20.5% African American or Black, 52.6% Caucasian or White, 5.1% Hispanic or Latino, and 9% Multi-racial or Other. Additionally, 70% of the participants were management students (n = 109) and 30% were psychology students (n = 47). Of the 109 management students, 35% were graduate students and 30% had been working for two or more years.

2.4.2. Measures

2.4.2.1. Comprehensive Scale of Ageism

The data collected in Study One from the 40-item revised version of the Comprehensive Scale of Ageism (CSA-R) was used in Study Two to obtain a measure of general ageist beliefs. The online CSA-R was administered as part of the psychology pretest and as part of an independent management survey as noted in Study One.

2.4.2.2. In-Basket Simulation

In-basket simulations are commonly used in assessment center methodology. An in-basket is a workplace simulation in which participants are provided background information on a fictitious company and assigned the role of an employee to play within that organization. This

type of simulation was chosen for this study because it allows the opportunity for participants to make multiple personnel decisions in one study. In-baskets also have a multitude of items, all of varying degrees of importance, allowing the true intent of the study to be more greatly masked. That is, it should not be obvious to participants completing the in-basket that the study is looking at age differences and how age influences personnel decision making.

The in-basket used in this simulation was built around a fictitious company called Athletic Arenas International and participants were given the role of Jamie Monroe, Human Resources Manager to play during the simulation. A variety of personnel or human resources related items were created for the participant to address. The items include memos, emails, and voicemails received from a variety of individuals throughout the organization. Participants were asked to respond to the items during the given time frame by writing their responses on the provided response forms.

Selection decision. The entire in-basket consisted of 12 items however, there were three main items of interest to this study. The first item of interest, Item 2, asked participants to make a selection, or hiring, recommendation for a new accountant. Research has shown that jobs can not only be sex-typed (e.g., most nurses are female, while most doctors are male), but can also be age-typed. For example, Cleveland and Landy (1983) found that the job of plant manager was considered an old-typed job, intermediate programmer a young-type job, and production planner was considered to be age-neutral.

With this in mind, a pilot study was conducted to select the job for this item because an age-neutral job was desired for this position, as to not sway the participant's decision to match the age of the candidate to the age-type of the job. Participants in the pilot study were given a list of ten jobs (see Appendix C) and asked to estimate the average age of all workers in that position. A second set of items used the same ten jobs and asked participants to rate on a 5-point scale how suitable that job is for a particular age group (1 = Suitable for younger persons only, 2 = Mostly suitable for younger persons, 3 = Equally suitable for younger or older persons, 4 = Mostly suitable for older persons, and 5 = Suitable for older persons only). Two different samples

participated in this pilot study; a sample of non-student and working individuals (*n* = 36) and a sample of undergraduate psychology students (*n* = 20). Results are presented in Table C1 of Appendix C. The job of Accountant was found by 82% of the overall sample to be a job that is equally suitable for both younger and older persons. This was the largest percentage of the 10 jobs that was found to be equally suitable for both age groups, therefore, the position of accountant was chosen for the selection decision in-basket item because it appears to be an age-neutral job.

During the in-basket simulations, participants were given a variety of materials to aid them in making the selection decision. First, they were provided with a job description for the new accounting position, which was created by combining the education, knowledge, skills, and abilities of an accountant as listed on the Occupational Information Network (O*NET, 2007). Participants were also provided with four candidate resumes, and multiple forms and checklists to complete (see Appendix D). The four resumes were equivalent in experience and education, and differed only by the candidate's ages. Age is not explicitly stated on the resumes, but could be estimated indirectly from high school graduation dates. Since the purpose of the study is not made transparent to participants until the debriefing, the New Hire Checklist, which asked about degrees, graduation dates, and experience (as found on the candidate's resumes), served as a manipulation check for the resumes, ensuring participants noticed the dates on the resumes, and thus, were able to infer the candidate's age.

Promotion decision. The second item of interest, Item 4 (see Appendix E), asked participants to recommend an individual for promotion to Human Resources Manager in a different location (the Atlanta Arena). Participants were given four performance evaluations and told that relocation was not a factor to consider when making their recommendation. The four performance evaluations were essentially equivalent, in that all candidates received an overall performance rating of "More than Satisfactory" and were given four "Satisfactory," nine "More than Satisfactory," and three "Superior" competency ratings. Additionally, the length of time each candidate had been in their position was 3 - 4 years. The only differences on the performance

evaluations were the candidate's age, which was explicitly listed (candidates were 26, 37, 54, or 65 years of age). Participants were asked to complete a Promotion Checklist which served as the manipulation check for this item and asked about each candidate's hire date, performance evaluation date, overall performance rating, and age.

Access to training decision. The third item of interest, Item 6 (see Appendix F), asked participants to recommend an employee for training. Participants were again given each candidate's performance evaluation to help them make the decision. The four performance evaluations were essentially equivalent, in that all candidates received an overall performance rating of "Satisfactory" and were given one "Improvement Needed," eleven "Satisfactory," and four "More than Satisfactory" competency ratings. Additionally, the length of time each candidate had been in their position was 2 - 3 years. The only differences on the performance evaluations were the candidate's age, which was explicitly listed (candidates are 27, 36, 56, or 64 years of age). Participants were asked to complete a Training Checklist which served as the manipulation check for this item and asked about each candidate's hire date, performance evaluation date, overall performance rating, and age.

All three of the items of interest were stressed in the in-basket as being of high priority and each item was referred to a second time in the Afternoon Mail in hopes that these items would be completed by all participants. Additionally, to decrease the chance the resumes or performance evaluations were not actually equivalent and did actually contain fundamental differences in experience or education, a Latin Square procedure was undertaken to rotate the different ages across the resumes and performance evaluations (see Appendix G). As a result, four different in-basket conditions were created and were consecutively given to different groups of participants during the study. In Study Two, Condition 1 was completed 49 times, Condition 2 was completed 59 times, Condition 3 was completed 36 times, and Condition 4 was completed 12 times.

In-basket pilot study. A pilot study of the in-basket items was undertaken to ensure the process and tool functioned correctly, adequate time was provided for completion, and to

examine item variability. Ten undergraduate psychology students completed the in-basket during the summer school session of 2007 for course research credit hours. The four different in-basket conditions were appropriately rotated through the groups, resulting in Conditions 1 and 2 being given two times each, and Conditions 3 and 4 being given three times each.

The pilot study did raise some concern around the time needed to complete the in-basket simulation. While most participants completed the Selection Item (Item 2), less than half (n = 4) completed the Promotion Item (Item 4) and the Training Item (Item 6). There are several potential solutions to this problem: length of time to complete the in-basket could be increased, a certain number of additional items may be removed from the in-basket exercise, items could be rotated so that Items 4 and 6 appear first, or it could be more greatly stressed when delivering the Afternoon Mail that the items delivered are critical and must be finished before they leave. A decision was made to give participants twenty minutes to work on the in-basket before they received the Afternoon Mail. At that time, the administrator stressed the items pertaining to those three pieces of mail must be completed before the participant leaves and the administrator encouraged the participant to use their remaining time to focus on those three issues.

During the pilot study the four conditions in the in-basket study were also examined for significant differences. Analysis of variance results identified a significant difference in conditions for the item “Top Choice for the Job” (F (3, 9) = 13.00, p = .01). Tukey’s post-hoc comparison indicated Condition 3 significantly differed from the other conditions for this item. It is important that the four conditions be equivalent, but due to the pilot study’s small sample size, it was decided more data needed to be collected and analyzed before making any changes to the four conditions.

In-Basket Administration. Two researchers, the author of this study and an undergraduate research assistant, administered the in-baskets for the second study. The undergraduate research assistant was trained by the author through direct observation and shadowing. Written experimenter instructions were also provided which offered detailed step-by-step instructions for administration. During the in-basket administration, after consent forms were

signed and collected, participants received 15 minutes to review the background information and in-basket instructions. Next, participants were given the in-basket materials (one of the four conditions) and 45 minutes to complete the study. After 20 minutes had passed, the administrator delivered the Afternoon Mail. Participants were told the new items reflected the highest priority items and were told to spend their remaining time focusing on those issues. After the Afternoon Mail was delivered, participants had the remaining 25 minutes to continue working. Upon completion of the exercise, participants were presented with information regarding the study, its design, and its intent.

In-Basket Scoring. The in-basket scoring was completed by the author, an undergraduate research assistant, and a graduate research assistant. All scorers were females in their twenties, one of which was Caucasian, another Latino, and the other African American. Four scoring guides were created; one for each condition. Only items 2, 4, and 6 were scored. Each researcher was trained by the author through direct observation, shadowing, and specific instruction on how to use the scoring guide as they entered data. The in-basket scoring was an objective process of data entry, not a process of subjective interpretation.

2.4.3. Variables

2.4.3.1. Independent Variables

The independent variables in the study were the scores on the four scales of the revised Comprehensive Scale of Ageism (CSA-R): Positive Stereotypes of Old People, Negative Stereotypes of Old People, Positive Stereotypes of Young People, and Negative Stereotypes of Young People. CSA-R scale scores were obtained by averaging the ten items composing each scale.

2.4.3.2. Dependent Variables

Several dependent variables for each personnel decision were measured. The dependent variables for the selection decision were as follows:

1. “How likely are you to recommend hiring this candidate (Candidate A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Very Unlikely) to five (Very Likely).
2. “How qualified do you think this candidate is for the position (Candidate A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Very Unqualified) to five (Very Qualified).
3. “How would you expect this candidate to perform on the job (Candidate A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Poorly) to five (Exceptional).
4. “Top Choice for the Job.” Participants rank order the four candidates from “Top Choice” to “Last Choice.”

The dependent variables for the promotion decision were as follows:

1. “Rate the promotability of the employee at this time (Employee A, B, C, and D).” This item is rated on a Likert scale ranging from one (Ready Now) to five (Appears to have reached the highest level at which the employee could reasonably be expected to be fully competent).
2. “How likely are you to recommend promoting this employee (Employee A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Very Unlikely) to five (Very Likely).
3. “How qualified do you think this employee is for the promotion (Employee A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Very Unqualified) to five (Very Qualified).
4. “How would you expect this employee to perform on the job (Employee A, B, C, and D)?” This item is rated on a Likert scale ranging from one (Poorly) to five (Exceptional).
5. “Top Choice for the Promotion.” Participants rank order the four employees from “Top Choice” to “Last Choice.”

The dependent variables for the access to training decision were as follows:

1. "How likely are you to recommend training for this employee (Employee 1, 2, 3, and 4)?" This item is rated on a Likert scale ranging from one (Very Unlikely) to five (Very Likely).
2. "How qualified do you think this employee is for the training program (Employee 1, 2, 3, and 4)?" This item is rated on a Likert scale ranging from one (Very Unqualified) to five (Very Qualified).
3. "How would you expect this employee to perform on the job after attending the training program (Employee 1, 2, 3, and 4)?" This item is rated on a Likert scale ranging from one (Poorly) to five (Exceptional).
4. "Top Choice to Attend Training." Participants rank order the four employees from "Top Choice" to "Last Choice."

2.5. Study Two Results

The aim of this study was to explore the predictive ability of ageist beliefs on personnel decision making involving candidates of differing ages. In order to analyze the hypotheses, a series of correlations were run to examine the relationship between the CSA-R scales and the organizational outcome variables. Due to the large number of DVs in this study, and as a result, the large number of analyses run to test the hypotheses, Bonferroni's correction was employed. The Bonferroni correction is a multiple-comparison correction used when several statistical tests will be conducted on the same data set. It lowers the alpha value to reduce the number of spurious positives. The Bonferroni correction states the alpha level should be 1/*n*, where *n* is the number of independent hypotheses tested on a data set. This study tested 12 hypotheses, therefore the statistical significance level for all analyses run in Study Two was .001.

Prior to analysis, all variables were examined through various SPSS (2007) programs for missing data, univariate outliers, and normality. Normality for all variables was found to be satisfactory. The four different in-basket conditions were also examined for significant differences

among the variables of interest. Analysis of variance results were non-significant at the alpha = .001 level, therefore, the four conditions were considered equivalent.

Four new variables were created for the four CSA-R scales by averaging the ten items that made up each scale. Next, correlations were assessed between the four CSA-R scales and all of the dependent variables. Descriptive statistics and correlations for the CSA-R scales can be found in Table H1 in Appendix H. Descriptive statistics and correlations for variables involved in the Selection Decision can be found in Table H2, the Promotion Decision in Table H3, and the Access to Training Decision in Table H4, all in Appendix H.

2.5.1. Hypothesis Testing

The second hypothesis in this paper states that the CSA-R scales would predict participant behavior when making decisions regarding organizational outcomes (e.g., selection decision, promotion decision, and access to training decision) for younger (20s), young (30s) old (50s) and older (60s) candidates during a work simulation. Correlation analyses were performed to assess the relationships between all variables. Correlations between the CSA-R scales and the dependent variables for the selection, promotion, and access to training decision were all non-significant at the alpha < .001 level and close to zero (see Tables H2, H3, and H4). Linear and curvilinear regressions were conducted to test hypotheses H2a, H2b, H2c, and H2d, however, non-significant results were found for all analyses. Therefore, H2a, H2b, H2c, and H2d were not supported. Participant scores on the CSA-R scales were unrelated to the decisions made during the in-basket simulation.

A repeated measures MANOVA was also conducted to examine overall differences in participants' ratings of the candidates in different age groups. Because participants in Study Two provided ratings for candidates of the same age group and made organizational decisions at different times for those candidates, a repeated measures analysis was conducted to test for within-subject effects for age of the candidate (e.g., 20s, 30s, 50s, and 60s) and decision made (e.g., selection, promotion, and access to training). Due to Bonferonni's correction, the *age of candidate* effect was non-significant, multivariate $F(3, 63) = 3.06$, $p < .03$, $\eta_p^2 = .13$. However, had

we not employed Bonferonni's correction, this effect would be significant and would indicate that candidates of different ages were rated differently. Additionally, the *decision* effect ($F(2, 64) = 1.04$, $p = .36$, $\eta_p^2 = .03$) and the effect for the interaction of *age of candidate*decision* ($F(6, 60) = 1.83$, $p = .11$, $\eta_p^2 = .16$) were non-significant at the multivariate level. The repeated measures analysis also found that results from the estimated marginal means showed that across all three decisions (e.g., selection, promotion, and access to training), the candidate in their 60s was rated the lowest, or least favorably ($M = 3.66$), and the candidate in their 30s was rated the highest, or most favorably ($M = 3.90$), with the candidate in their 50s rated as second highest ($M = 3.81$), followed by the candidate in their 30s in third place ($M = 3.77$).

2.5.2. Rank Ordering Candidates

The last decision participants were asked to make was to select their Top Choice for the Job, Top Choice for the Promotion, and Top Choice to Attend Training and rank order the remaining candidates into 2nd Choice, 3rd Choice, and Last Choice. The descriptive statistics for those items, including the frequencies the different aged candidates were selected for each, can be found in Table I1 in Appendix I. Overall, younger candidates (under 40 years of age) were selected as the Top Choice for the Job, Promotion, and to Attend Training. In fact, the candidate in their 30s was selected most often for Top Choice for the Job and Top Choice for the Promotion. The candidate chosen most often for Last Choice for the Job was equally distributed between the 25 and 65 year old candidate (both were selected 23.1% of the time). The 26 year old candidate was selected most often for Last Choice for Promotion (28.8% of the time), and the 64 year old candidate was selected most often for Last Choice to Attend Training (21.2%). All of the rank ordered variables were examined for significant differences by age, gender, ethnicity, and management student status. Analysis of variance results were non-significant at the alpha = .001 level for all analyses.

2.5.3. Interesting Patterns

Upon further examination of the three correlation matrices (e.g., Tables H2, H3, and H4), some interesting patterns of significant correlations emerged. For the selection decision, promotion decision, and the access to training decision, the dependent variables for each age group (e.g., 20s, 30s, 50s, and 60s) were significantly and highly correlated. For example, the recommendation to hire the 25 year old candidate was highly and significantly correlated with how qualified the 25 year old candidate was viewed, as well as the 25 year olds' expected performance on the job. This held true for all age groups across all three organizational outcomes.

Based on the correlational data, a series of exploratory regression analyses were run for each of the organizational outcomes (all results are summarized in Table J1 in Appendix J). As indicated by small tolerances, inflated variance inflation factor (VIF) scores, and condition index values greater than 15, multicollinearity was a problem in all of the "Top Choice" multiple regressions. In order to solve this problem, all predictor variables (e.g., the organizational outcome variables) were transformed by centering the variables and the regressions were rerun. This transformation effectively eliminated the problems of multicollinearity. All of the following reported regressions were run with the transformed predictor variables.

First, to analyze the selection decision, in SPSS (2007) linear regression "Top Choice for the Job" was entered as the dependent variable and all 12 organizational outcome variables ("How likely are you to recommend this candidate (Candidate A, B, C, and D)?", "How qualified is the candidate for the position (Candidate A, B, C, and D)?", and "How would you expect this candidate to perform on the job (Candidate A, B, C, and D)?") were entered as the independent variables. The R for regression (.68) was significantly different from zero, $F(12, 115) = 7.27$, $p < .001$. Only one of the IVs contributed significantly to prediction of Top Choice for the Job: Expected Performance of the 65 year old candidate. The 12 IVs in combination predicted 46% of the variability in Top Choice for the Job.

Next, “Top Choice for the Job” was entered as the dependent variable and “How likely are you to recommend this candidate (Candidate A, B, C, and D)?” were entered as the four independent variables. The *R* for regression (.56) was significantly different from zero, $F(4, 118) = 13.04$, $p < .001$. Only two of the IVs contributed significantly to prediction of Top Choice for the Job; Likely to Recommend the 25 year old candidate and Likely to Recommend the 65 year old candidate. The four IVs in combination predicted 31% of the variability in Top Choice for the Job.

In the third analysis for the selection decision, multiple regression was performed with “Top Choice for the Job” entered as the dependent variable and “How qualified is the candidate for the position (Candidate A, B, C, and D)?” entered as the four independent variables. The *R* for regression (.46) was significantly different from zero, $F(4, 117) = 7.67$, $p < .001$. Only two of the IVs contributed significantly to prediction of Top Choice for the Job; Qualification of the 25 year old candidate and Qualification of the 65 year old candidate. The four IVs in combination predicted 21% of the variability in Top Choice for the Job.

In the fourth analysis for the selection decision, multiple regression was performed with “Top Choice for the Job” entered as the dependent variable and “How would you expect this candidate to perform on the job (Candidate A, B, C, and D)?” entered as the four independent variables. The *R* for regression (.61) was significantly different from zero, $F(4, 117) = 16.92$, $p < .001$. Three of the IVs contributed significantly to prediction of Top Choice for the Job; Expected Performance of the 25 year old candidate, the 55 year old candidate, and the 65 year old candidate. The four IVs in combination predicted 38% of the variability in Top Choice for the Job.

To analyze the promotion decision, in SPSS (2007) linear regression “Top Choice for the Promotion” was entered as the dependent variable and all 16 organizational outcome variables (e.g., “Rate the promotability of the employee at this time (Employee A, B, C, and D)”, “How likely are you to recommend promoting this employee (Employee A, B, C, and D)?”, “How qualified do you think this employee is for the promotion (Employee A, B, C, and D)?”, and “How would you expect this employee to perform on the job (Employee A, B, C, and D)?”) were entered as the independent variables. The *R* for regression (.78) was not significantly different from zero, *F*(16,

35) = 7.88, p = .11. The same analysis was rerun except the four Promotability IVs were removed from the equation. The R for regression (.76) was significantly different from zero, F(12, 107) = 10.99, p < .001. The 12 IVs in combination predicted 58% of the variability in Top Choice for the Promotion.

Next, “Top Choice for the Promotion” was entered as the dependent variable and “Rate the promotability of the employee at this time (Employee A, B, C, and D)” were entered as the four independent variables. The R for regression (.47) was not significantly different from zero, F(4, 40) = 2.49, p = .06.

In the third analysis for the promotion decision, multiple regression was performed with “Top Choice for the Promotion” entered as the dependent variable and “How likely are you to recommend promoting this employee (Employee A, B, C, and D)?” entered as the four independent variables. The R for regression (.62) was significantly different from zero, F(4, 114) = 17.50, p < .001. Three of the IVs contributed significantly to prediction of Top Choice for the Promotion; Likely to Recommend the 26 year old employee, the 37 year old employee, and the 65 year old employee. The four IVs in combination predicted 39% of the variability in Top Choice for the Promotion.

In the fourth analysis for the promotion decision, multiple regression was performed with “Top Choice for the Promotion” entered as the dependent variable and “How qualified do you think this employee is for the promotion (Employee A, B, C, and D)?” entered as the four independent variables. The R for regression (.61) was significantly different from zero, F(4, 113) = 16.52, p < .001. Only two of the IVs contributed significantly to prediction of Top Choice for the Promotion; Qualification of the 26 year old employee and the 65 year old employee. The four IVs in combination predicted 38% of the variability in Top Choice for the Promotion.

In the fifth analysis for the promotion decision, multiple regression was performed with “Top Choice for the Promotion” entered as the dependent variable and “How would you expect this employee to perform on the job (Employee A, B, C, and D)?” entered as the four independent variables. The R for regression (.71) was significantly different from zero, F(4, 110) = 27.18, p <

.001. Three of the IVs contributed significantly to prediction of Top Choice for the Promotion; Expected Performance of the 26 year old employee, the 37 year old employee, and the 65 year old employee. The four IVs in combination predicted 51% of the variability in Top Choice for the Promotion.

Finally, to analyze the access to training decision, multiple regression was performed with "Top Choice to Attend Training" entered as the dependent variable and all 12 organizational outcome variables (e.g., "How likely are you to recommend training for this employee (Employee 1, 2, 3, and 4)?", "How qualified do you think this employee is for the training program (Employee 1, 2, 3, and 4)?", and "How would you expect this employee to perform on the job after attending the training program (Employee 1, 2, 3, and 4)?") entered as the independent variables. The *R* for regression (.66) was significantly different from zero, $F(12, 81) = 4.39$, $p < .001$. The 12 IVs in combination predicted 43% of the variability in Top Choice to Attend Training.

Next, multiple regression was performed with "Top Choice to Attend Training" entered as the dependent variable and "How likely are you to recommend training for this employee (Employee 1, 2, 3, and 4)?" entered as the four independent variables. The *R* for regression (.61) was significantly different from zero, $F(4, 81) = 11.54$, $p < .001$. Two of the IVs contributed significantly to prediction of Top Choice to Attend Training; Likely to Recommend the 27 year old employee and the 64 year old employee. The four IVs in combination predicted 38% of the variability in Top Choice to Attend Training.

In the second analysis for the access to training decision, multiple regression was performed with "Top Choice to Attend Training" entered as the dependent variable and "How qualified do you think this employee is for the training program (Employee 1, 2, 3, and 4)?" entered as the four independent variables. The *R* for regression (.53) was significantly different from zero, $F(4, 81) = 7.70$, $p < .001$. Only one of the IVs contributed significantly to prediction of Top Choice to Attend Training; Qualification of the 26 year old employee. The four IVs in combination predicted 29% of the variability in Top Choice to Attend Training.

In the third analysis for the access to training decision, multiple regression was performed with “Top Choice to Attend Training” entered as the dependent variable and “How would you expect this employee to perform on the job after attending the training program (Employee 1, 2, 3, and 4)?” entered as the four independent variables. The *R* for regression (.49) was significantly different from zero, $F(4, 81) = 6.18$, $p < .001$. Only one of the IVs contributed significantly to prediction of Top Choice to Attend Training; Expected Performance of the 27 year old employee. The four IVs in combination predicted 24% of the variability in Top Choice to Attend Training.

2.6. Study Two Discussion

Although Study One found the factor structure of the CSA-R to hold, the second study found non-significant findings in its ability to predict personnel decisions. In Tipton’s (2005) study, the original version of the CSA was unable to predict scores on a workplace ageism scale (the Age Stereotypes in the Workplace Scale; Ringenbach, 1994). In this study, the refined version of the CSA-R was unable to predict behavior in a simulated workplace. Stereotypes by definition are generalizations (Worchel & Cooper, 1983), and it is possible the CSA and CSA-R are strictly measures of *general* ageist beliefs and are unable to translate into the work domain. Although some informal qualitative data gathered from the in-baskets (e.g., participants wrote statements such as “Young,” “Middle Aged,” and “Old” on the resumes of certain candidates and wrote “Retiring Soon” next to a 65 year old candidate) suggested ageism played a role in the decisions made, perhaps the CSA and CSA-R do not tap the workplace-specific ageism construct. Since the CSA and CSA-R contain few, if any, items about the workplace, a measure of workplace specific age-related stereotypes may capture a different, more accurate, domain and be more predictive of behavior.

Additionally, 70% of the participants in Study Two were management students, and 35% of those were graduate students, some of which were enrolled in a Strategic Human Resource Management MBA class. These students learn about age-related discrimination law in class, discuss it in detail, and have been instructed and trained not to make decisions in the workplace based on age. While having a group of participants outside the walls of the psychology discipline

is beneficial for generalization, using participants from this particular MBA course may have worked against the goals of this study, in that these students may have a heightened sensitivity and awareness of age discrimination legislation and may have actively worked to avoid making decisions based on age.

Although the findings for the predictive ability of the CSA-R were not supported, some interesting trends emerged from the in-basket data that are worthy of further discussion. The correlations between the DVs (displayed in Tables H2, H3, and H4) lend support to the functionality of the in-basket simulation itself. For example, the correlations between Recommendation, Qualification, and Expected Performance were all high, positive, and significant at the .001 level for candidates in their 20s, 30s, 50s, and 60s across all three organizational decisions: selection, promotion, and access to training. Additionally, these items predict Top Choice for the Job, Top Choice for the Position, and Top Choice to Attend Training, as indicated by the exploratory regression analyses described in the results section. Therefore, although the CSA-R was not able to predict performance on the in-basket in this study, another measure may be able to predict performance because the in-basket itself appears to function as a well structured simulation. For example, the variable of age in the study could easily be tailored to reflect gender, ethnicity, disability, religious or sexual preference differences and an attitudinal or stereotype measure for one of those variables could be used as a predictor for performance in the in-basket.

CHAPTER THREE

GENERAL DISCUSSION

The overall goal of this study was to extend past research by examining the impact of ageism on personnel decision making. Specifically, it examined whether or not ageist attitudes and beliefs could be used to predict responses to simulated personnel decisions. Although the results (of Study Two) produced non-significant hypothesis findings, some interesting patterns and trends emerged from the data. Additionally, Study One supported the reduction and refinement of the Comprehensive Scale of Ageism. The following chapter will review and discuss the associated theoretical and practical implications of the two study's findings. The limitations of the study will also be noted, followed by concluding remarks.

3.1. Theoretical Implications

The present study's findings lend support to previous theorizing and research. For example, Rosen and Jerdee (1976) reported that age stereotypes are not uniformly negative towards older individuals. Study One found that the mean of the Positive Stereotypes of Old People scale was higher than the mean of the Negative Stereotypes of Old People scale, indicating the sample as a whole, agreed more with the positive stereotypes of older individuals than the negative stereotypes. The same held true for the view of younger individuals as well.

Past research has also found that younger people are likely to hold stronger ageist beliefs than their older counterparts (Finkelstein et al., 1995; Rupp et al., 2003). This finding was supported by the analysis of variance results for age group differences (e.g., under 20, 20s, 30s, 40s, 50s) in CSA-R scale scores in Study One as well. Post hoc analyses revealed the "Under 20" age group had higher ratings on the Negative Stereotypes of Old People scale than all other age groups and the "Under 20" group had higher ratings than participants in their 30s on both the Negative Stereotypes of Young People and the Positive Stereotypes of Young People scales.

The results of Study Two's regression analyses also lend support to previous research findings. For the selection decision, the prediction of Top Choice for the Job, was largely driven by the 65 year old candidate for each IV (e.g., Recommendation, Qualification, Expected Performance) as demonstrated by the significant beta weights (see Table J1). Older job candidates tend to be less preferred and are viewed as less suitable than their younger counterparts (Wilson et al., 2007). In this study, it was the older candidate that was contributing the most to prediction of Top Choice for the Job and the frequency statistics reported in Table I1 show that the candidate in their 30s was actually selected most often as Top Choice for the Job.

For the promotion decision, the prediction of Top Choice for the Promotion was largely driven by the 26 year old candidate for each IV (e.g., Recommendation, Qualification, Expected Performance) as demonstrated by the significant beta weights (see Table J1). Rosen and Jerdee (1976b) found that promotion opportunities were withheld from older employees and Clapham and Fulford (1997) found a significant and negative relationship between age and promotability. The present study found that the younger candidate was contributing the most to prediction of Top Choice for the Promotion, and frequency statistics indicated the candidate in their 30s was most often selected as Top Choice for Promotion (see Table I1).

Finally, for the access to training decision, the prediction of Top Choice to Attend Training was largely driven by the 27 year old candidate for each IV (e.g., Recommendation, Qualification, Expected Performance) as demonstrated by the significant beta weights (see Table J1). Past research has found that people felt younger workers should be given a priority in terms of training opportunities (Chiu et al., 2001), viewed younger workers as trainable (Wilson et al., 2007), and found that older workers are seen as resistant to change (Rosen & Jerdee, 1976b). The present study found that the younger candidate was contributing the most to prediction of Top Choice to Attend Training, and frequency statistics indicated the candidates in their 20s and 30s were most often selected as Top Choice to Attend Training (see Table I1).

3.2. Practical Implications

In a practical sense, the results of the first study indicate the shortened and refined version of the CSA is a reliable measure of general ageist stereotypes. However, more research still needs to be done to pinpoint the most effective way to utilize the CSA-R in the workplace, since it was unable to predict personnel decision making in this study. There may be an opportunity to use the CSA-R for diversity training for employees that work with the general public (e.g., customer service, sales, retail, and healthcare). Since the CSA-R measures general ageist stereotypes, use of the tool may heighten employee's awareness of their own ageist beliefs, and often, awareness is the first step towards elimination of stereotypical beliefs or practices. This type of diversity training has the potential to teach employees to consistently provide fair treatment to all of their customers, regardless of age.

Additionally, the in-basket simulation developed in the second study appears to function well and can be used in future research studies as a workplace simulation. With further development, the simulation may serve as a good tool for a human resources related assessment center for the hiring and development of real world human resource managers.

3.3. Limitations

The following limitations of this study are noted. First, although 156 participants completed the in-basket exercise, many participants struggled to complete the three items of interest (e.g., Items 2, 4, and 6). For many individuals, it was a matter of time; they were unable to process and attend to the items indicated as highest priority in the given time. For many other individuals, the high priority items (the items of concern to this study) were delegated to the participant's direct reports in the simulation. As a manager, delegating work is one of the primary skills used on a regular basis. Since a large proportion of participants came from the management school and many participants had several years of working experience, their best response to an item came in the form of delegation. This is a valid decision to make in an in-basket simulation, but one that cost the study in terms of data it was able to collect.

Perry and Finkelstein (1999) found that when a worker's age is more salient, age discrimination is more likely to exist because the saliency of one's age leads to activation of age-related job stereotypes. It is also possible the design of the in-basket simulation minimized the saliency of age and therefore, age-related stereotypes were not activated, which means the stereotypes were unable to influence the decisions made in the exercise. In a future study, it would be interesting to prime candidates with age before the in-basket exercise begins. This could be done by having several confederates in the waiting area for a study. In one condition, the confederates could be mostly young with one older confederate, while in another condition, the confederates could be mostly old with one younger confederate. This would serve to prime the participant with age before they began the in-basket study, making age salient, and thus activating age-related job stereotypes.

Additionally, an assumption that organizational decisions are made based on age of the candidate was central to this study. However, factors other than age of the candidate are obviously linked to how those decisions are made. For example, a variety of candidate characteristics are likely to play into the decision (qualifications, education, professionalism, etc.) and a variety of human resource manager characteristics are likely to play into the decision (past management or HR experience, personality, demographic variables such as gender or ethnicity, intelligence, etc.). The design of the in-basket itself attempted to control for some of the candidate's characteristics (e.g., equivalence of experience and qualifications), however there was still a lot of variance unaccounted for in terms of participant's characteristics.

Finally, the age range of the participants limits the generalizability of both Study One and Study Two's findings. The majority of participants in both studies were under that age of 30, and few people over the age of 40 participated in either study. With such a young population completing the CSA-R and the in-basket exercise it is likely the results will not generalize to the population as a whole. The CSA-R in particular needs to be taken by a much older population to see if the four factor structure found in this study and in Tipton's (2005) study can be replicated.

3.4. Future Research

Despite the unsupported hypotheses, the current study has set the stage for continued examination of relevant variables affecting human resource decision making and age-related stereotypes. As mentioned in the general discussion of Study Two, since the CSA-R contains few, if any items about the workplace, a measure of workplace specific age-related stereotypes should be created to capture a different domain of age-related beliefs. For example, Gringart, Helmes, and Speelman's (2008) study found several positive stereotypes of older workers. Older workers were viewed as having a stronger work ethic, more appreciation of their jobs, more common sense, more experience, more pride in their jobs, and were viewed as loyal, honest, responsible, reliable, and willing the help with all kinds of jobs. Additionally, older workers were seen as better mentors, wiser, more dependable, harder working, better under pressure, and friendlier than younger workers. Negative stereotypes of older workers were also found in their study. For instance, older workers were seen as being set in their ways, slower, resistant to change, weaker, and viewed as having a difficult time with new technology (Gringart et al., 2008).

While the Gringart et al. study did not address the positive and negative stereotypes of younger workers specifically, past research has shown on the positive side, younger workers are viewed as having higher performance potential (Morrow et al., 1990; Singer, 1986), greater potential for development (Singer, 1986), and are considered a better return on investment (Morrow et al., 1990). On the negative side, younger workers are viewed has having lower stability (Singer, 1986). Ringenbach's (1994) Age Stereotypes in the Workplace Scale (ASWS) addresses many of these workplace specific age-related stereotypes and may be a good starting place for future research. In fact, future research should explore the predictive ability of the ASWS on the present study's in-basket simulation.

Study Two provides an additional basis for future research, potentially broadening the number of variables to consider when examining personnel decision making. Specifically, the second study found recommendation of a candidate to be highly correlated with how qualified the candidate was viewed, as well as their expected future performance. Additionally, regression

analyses revealed these three variables were able to predict the final candidate chosen for a job, promotion, or training opportunity. While these results are not particularly surprising, it does expand the questions that can be asked in future research. For example, if one is able to adequately predict how likely a manager is to recommend a given candidate for a job, it will more than likely be linked to the final decision made as to which candidate is actually selected. The same should hold true for the promotion and training opportunity decision, as well as how qualified a candidate is viewed and ratings of the candidate's expected future performance.

Additionally, more data needs to be collected using the 40-item version of the CSA-R. The participants for future studies should be a more heterogeneous sample, coming from diverse backgrounds with varying degrees of work experience. It is especially important to have a wider range of ages take the CSA-R, especially older individuals. Hopefully, this type of future research will increase the reliability of the Positive Stereotypes of Young People scale.

Furthermore, as mentioned in the literature review when operationally defining ageism, there are three separate components that make up the construct: a cognitive (e.g., stereotypes), an affective (e.g., prejudices), and a behavioral component (e.g., discrimination) (Cuddy & Fiske, 2002). Past research has focused extensively on the cognitive and affective aspects of ageism while the behavioral aspect, how discrimination is actually occurring, has not received as much attention. Unfortunately, the results of this study were not able to provide insight into the behavioral aspect of ageism, and how the cognitive and affective aspects can be used to predict what behavior will actually occur. Future research will need to continue to focus on addressing the behavioral aspect of ageism and uncovering how it manifests in the workplace.

Finally, as a general topic, there are several practical aspects of ageism in the workplace that could be the focus of future research. Specifically, the future direction of policy and legislation changes in the US and abroad will continue to be of interest. With the change of employment legislation in the UK in 2006 to protect all age groups from age discrimination in the workplace, it will be interesting for future research to examine the attitudes toward similar policy change in the US as well as the impact of legislation changes if America decides to follow suit. Another relevant

topic of interest is forced retirement. A multitude of cases exist where older individuals have lost their job right before they were eligible for retirement. Studies examining how ageist beliefs and attitudes play into the personnel decision regarding forced retirement will be a timely topic especially as the baby boomers near retirement age.

3.5. Conclusion

Ageism is stereotyping or discrimination against *any* age group on the basis of age (Kalavar, 2001). By this definition, ageism affects both younger and older individuals, and anyone in the workplace has the potential to be a victim of age-related stereotyping or discrimination. Recent United Kingdom legislation, protecting all ages from employment discrimination, reflects this fact. Palmore (2004) described ageism as the "third great 'ism' after racism and sexism" (p. 41), indicating it has huge implications.

The first study advanced the measures used to assess ageist beliefs by refining and shortening the CSA, which examines positive and negative stereotypes of both younger and older individuals. This tool functioned reliably as a measure of general ageist beliefs and has potential for use in employee diversity training. However, as Study Two indicated, there is still plenty of empirical research which needs to be done to improve the CSA-R and its predictive validity, in order to better understand how ageism is carried over to the workplace. While Study Two found non-significant results for the CSA-R's predictive ability, the in-basket simulation developed for the study functioned well and was a sound simulation. In the future, the in-basket has the potential to serve as the foundation for research examining personnel decision making and the biases and stereotypes which may influence a manager's final choice of the candidate selected for a variety of organizational outcomes.

APPENDIX A

COMPREHENSIVE SCALE OF AGEISM – REVISED VERSION (CSA-R)

Positive Stereotypes of Old People (alpha = .84)

1. Many old people have learned a great deal from their experiences.
2. Most old people are friendly.
3. Most old people are nurturing and encouraging.
4. Most old people have accomplished a great deal.
5. Many old people have leadership ability.
6. Old people should be respected.
7. The company of most old people is quite enjoyable.
8. Most old people are interesting, individualistic people.
9. People become wiser with age.
10. Young people can benefit from the wisdom of older people.

Negative Stereotypes of Old People (alpha = .81)

1. Many old people just live in the past.
2. Most old people should not be trusted to take care of infants.
3. Most old people would be considered to have poor personal hygiene.
4. Most old people can be irritating because they tell the same stories over and over again.
5. I would prefer not to go to an open house at a seniors' club, if invited.
6. I sometimes avoid eye contact with old people when I see them.
7. I don't like it when old people try to make conversation with me.
8. It is best that old people live where they won't bother anyone.
9. I personally would not want to spend much time with an old person.
10. I would prefer not to live with an old person.

Positive Stereotypes of Young People (alpha = .81)

1. Young people should be respected.
2. The company of most young people is quite enjoyable.
3. Young people should be encouraged to speak out politically.
4. Most young people are interesting, individualistic people.

5. Young people can be very creative.
6. Most young people are flexible and can adapt to situations with ease.
7. Most young people have more energy than others.
8. Most young people are capable of adjustments when the situation demands it.
9. Most young people are cheerful, agreeable, and good humored.
10. The majority of young people are open to change.

Negative Stereotypes of Young People (alpha = .83)

1. Many young people cannot be trusted.
2. Many young people are selfish.
3. Most young people are neglectful and negligent.
4. Most young people are overly concerned with fashion and their looks.
5. Most young people can be irritating because they can't focus their attention.
6. Young people complain more than other people do.
7. Most young people don't know how to drive properly.
8. Most young people are self-centered and think only of themselves.
9. Most young people lack commitment.
10. Most young people are impatient.

APPENDIX B

STUDY ONE RESULTS

Table B1: CSA-R Scale Intercorrelation Matrix (*N* = 781)

Scale	Positive Stereotypes of Old People	Negative Stereotypes of Old People	Positive Stereotypes of Young People	Negative Stereotypes of Young People
Positive Stereotypes of Old People	1			
Negative Stereotypes of Old People	-.21	1		
Positive Stereotypes of Young People	.16	-.10	1	
Negative Stereotypes of Young People	.04	.19	-.07	1

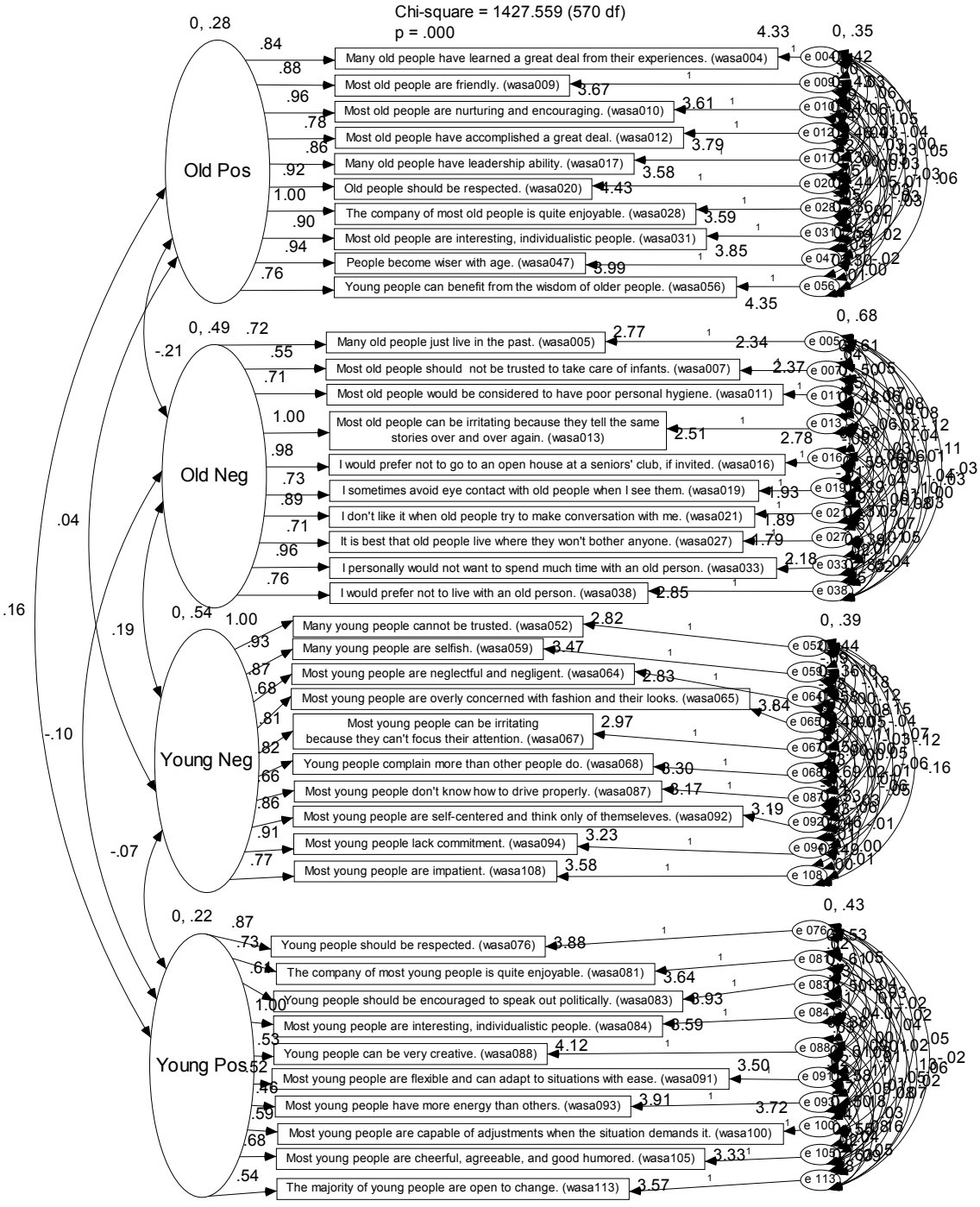

Figure B1: CFA Results from 4 Factor CSA-R Model

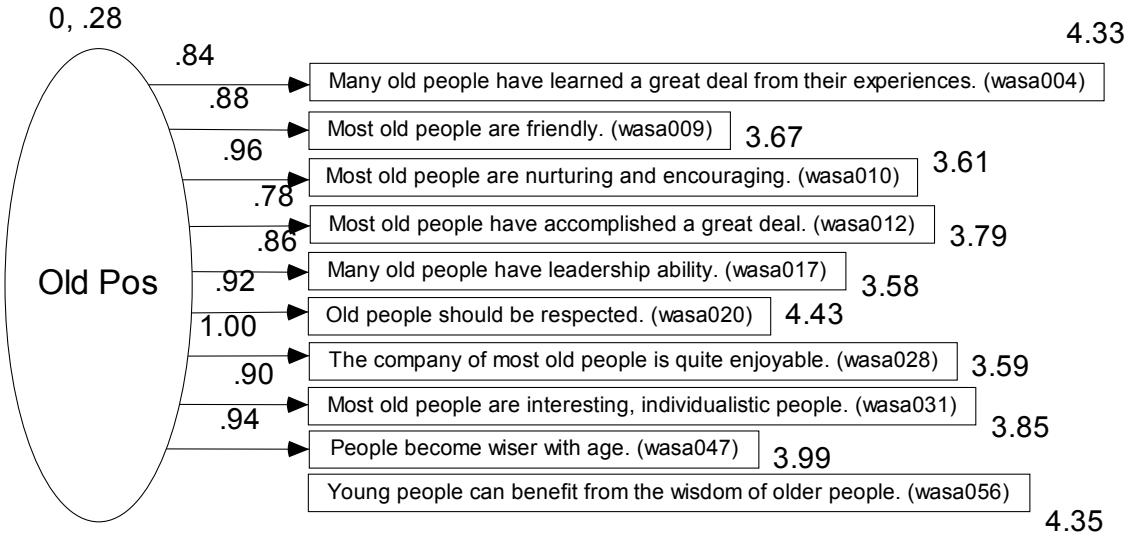

Figure B2: CFA Results from Positive Stereotypes of Old People CSA-R Scale

Table B2: Error Term Covariance Matrix for Positive Stereotypes of Old People CSA-R Scale

	e004	e009	e010	e012	e017	e020	e028	e031	e047	e056
e004	1									
e009	.00	1								
e010	.03	.09**	1							
e012	.06*	.06*	.04	1						
e017	-.01	.01	.04	.02	1					
e020	.05*	-.03	-.03	.00	-.05**	1				
e028	-.04	.03	.03	.00	-	-.05*	1			
e031	.00	.03*	-	.05*	-	-.02	.07**	1		
e047	.05*	-.03	-.01	.03	-	.01	-.09**	-.04*	1	
e056	.06**	.04	-.03*	.03	-	.02	-.02	.00	.02	1

*p < .05, **p < .001

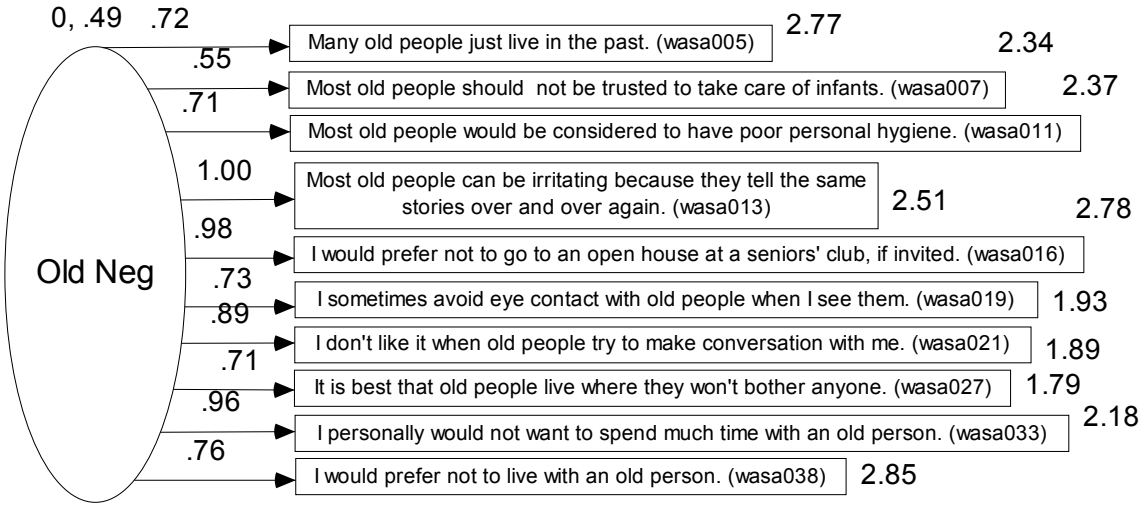

Figure B3: CFA Results from Negative Stereotypes of Old People CSA-R Scale

Table B3: Error Term Covariance Matrix for Negative Stereotypes of Old People CSA-R Scale

	e005	e007	e011	e013	e016	e019	e021	e027	e033	e038
e005	1									
e007	.04	1								
e011	.05	.05	1							
e013	.07	-.06	.00	1						
e016	-.08	-.09*	-.06	-.09	1					
e019	-.09*	-.02	-.03	-.06	-.01	1				
e021	-.12**	-.04	-.06*	-.08	-.04	.09*	1			
e027	-	-.01	-	-.03	-.06	.05	.06*	1		
e033	-.12**	-.04	-.10**	-.08	.01	-.01	.01	.02	1	
e038	-.03	-.03	.00	-.03	.07	-.05	-.04	.03	.05	1

*p < .05, **p < .001

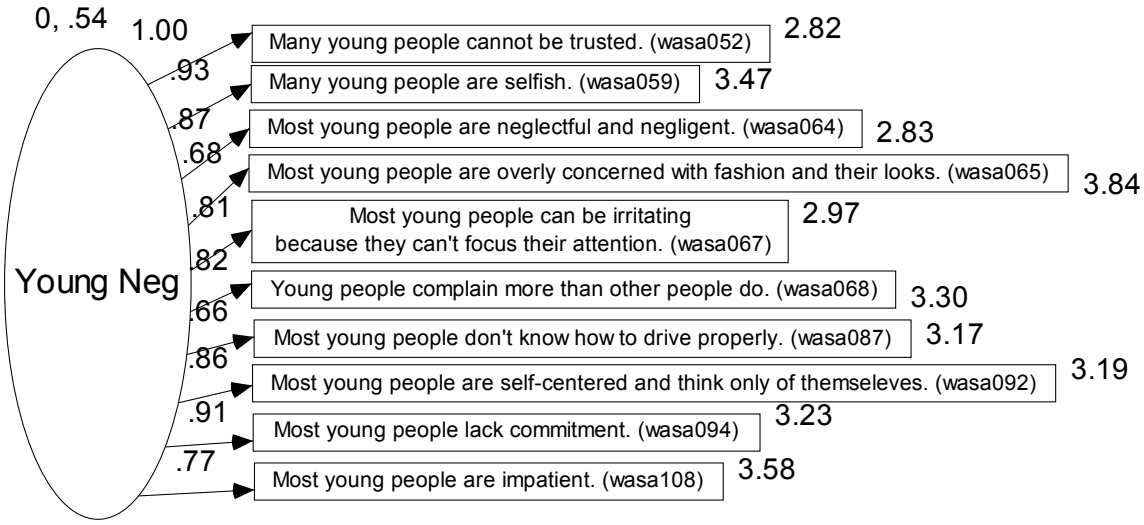

Figure B4: CFA Results from Negative Stereotypes of Young People CSA-R Scale

Table B4: Error Term Covariance Matrix for Negative Stereotypes of Young People CSA-R Scale

	e052	e059	e064	e065	e067	e068	e087	e092	e094	e108
e052	1									
e059	-.09	1								
e064	-.10*	-.08*	1							
e065	-.18**	.00	-.08*	1						
e067	-.12**	-.08*	.00	.02	1					
e068	-.15*	-.05	-.11*	-.01	.03	1				
e087	-.04	-.03	.00	.00	-	-.04	1			
e092	-.07	.05	-	.02	-	-.03	.03	1		
e094	-.12*	-.06*	-.01	.01	-	-.06	.01	-.01	1	
e108	-.17**	-	-.06*	.05	-	-.01	.00	.01	.00	1

*p < .05, **p < .001

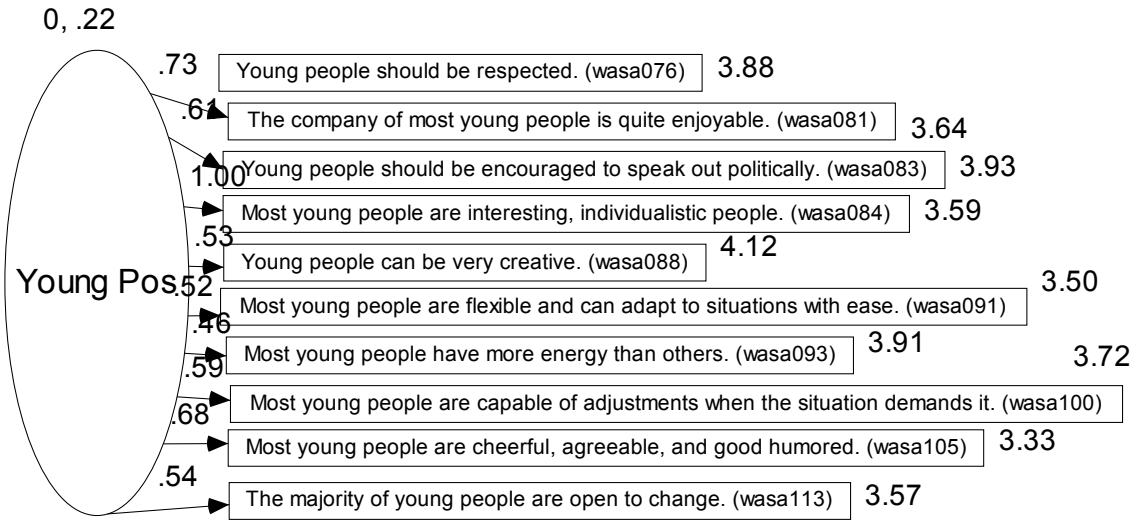

Figure B5: CFA Results from Positive Stereotypes of Young People CSA-R Scale

Table B5: Error Term Covariance Matrix for Positive Stereotypes of Young People CSA-R Scale

	e076	e081	e083	e084	e088	e091	e093	e100	e105	e113
e076	1									
e081	.02	1								
e083	.05	.03	1							
e084	-.04	.12**	-.01	1						
e088	.03	.07*	.04*	.03	1					
e091	-.02	.07*	.00	.09**	.02	1				
e093	.02	.04	.01	.03	.11**	.07*	1			
e100	-	.02	-	.01	.05*	.18**	.04	1		
e105	-.05	.13**	-.05	.08*	.01	.08*	.04	.02	1	
e113	-.02	.06*	.02	.07*	.03	.16**	.05*	.09**	.08*	1

*p < .05, **p < .001

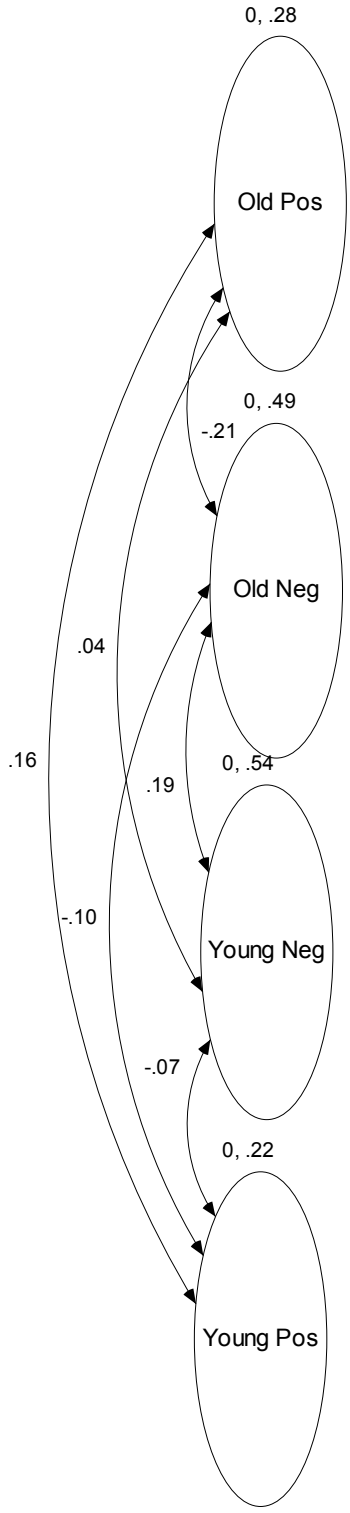

Figure B6: CSA-R Scale Correlations from CFA Results

APPENDIX C

AGE-TYPE OF JOB PILOT STUDY ITEMS

Directions: For the following jobs, provide your best estimate of the average age of all workers in the particular occupation listed. For example, if you believe most librarians are around the age of 40, write “40” in the blank.

1. Plant Manager _____
2. Production Planner _____
3. Intermediate Programmer _____
4. Attorney _____
5. Accountant _____
6. Receptionist _____
7. Security Guard _____
8. Office Manager _____
9. Janitor _____
10. Human Resources Manager _____

Directions: Consider the following jobs and rate their suitability for a particular age group using the following scale (1 = Suitable for younger persons only, 2 = Mostly suitable for younger persons, 3 = Equally suitable for younger or older persons, 4 = Mostly suitable for older persons, 5 = Suitable for older persons only).

1. In my opinion, the job of Plant Manager is:
2. In my opinion, the job of Production Planner is:
3. In my opinion, the job of Intermediate Programmer is:
4. In my opinion, the job of Attorney is:
5. In my opinion, the job of Accountant is:
6. In my opinion, the job of Receptionist is:
7. In my opinion, the job of Security Guard is:
8. In my opinion, the job of Office Manager is:

9. In my opinion, the job of Janitor is:

10. In my opinion, the job of Human Resources Manager is:

Table C1: Age-Typing Pilot Study – Average Age for Given Occupation

Occupation	Sample	*N*	*M*
Plant Manager	UTA*	20	36.70
	Non-UTA*	35	42.94
	Total	55	40.67
Production Planner	UTA*	19	31.63
	Non-UTA*	35	35.43
	Total	54	34.09
Intermediate	UTA	19	29.68
Programmer	Non-UTA	35	29.43
	Total	54	29.52
Attorney	UTA	20	34.75
	Non-UTA	35	38.20
	Total	55	36.95
Accountant	UTA*	19	31.47
	Non-UTA*	35	37.43
	Total	54	35.33
Receptionist	UTA*	20	23.45
	Non-UTA*	35	27.91
	Total	55	26.29

*$p < .05$

Table C1 – Continued

Occupation	Sample	*N*	*M*
Security Guard	UTA*	20	27.10
	Non-UTA*	35	35.71
	Total	55	32.58
Office Manager	UTA*	20	29.85
	Non-UTA*	35	37.46
	Total	55	34.69
Janitor	UTA*	20	34.15
	Non-UTA*	34	45.47
	Total	54	41.28
Human Resources	UTA*	20	32.10
Manager	Non-UTA*	35	38.71
	Total	55	36.31

*$p < .05$

APPENDIX D

SELECTION DECISION ITEM & MEASURES

ATHLETIC ARENAS INTERNATIONAL

E-MAIL

TO: Jamie Monroe, Human Resources Manager

FROM: Morgan Moore, Hiring Supervisor

DATE: June 16th

IMPORTANCE: **HIGH!**

SUBJECT: **Recommendation for New Hire in Accounting** Item 02

Pat,

Welcome to Dallas-Dome! We're excited you've joined us and I look forward to working with you.

I realize it's your first day and you don't have a lot of time, but I need your expert opinion before you leave for a week. We're hiring a new accountant (job description attached) and must make an offer to one of these four candidates by next Tuesday. All of the candidates have been prescreened for acceptability in educational and background qualifications and all have interviewed extremely well.

Please take a look at the four resumes, our top choices – I've removed their names and replaced them with "Candidate A, B, C…" etc. in accordance with our new Diversity Initiatives and Privacy Policy. I've included the New Hire Checklist and a rating form for each candidate and MUST receive these back before Alex Bloom will allow me to make an offer next week.

Thank you for taking care of this today – when you return I'll take you out to lunch as a thank you.

Sincerely,
Morgan Moore
Hiring Manager, Dallas-Dome
Athletic Arenas International

Directions: Please complete the New Hire Checklist. Your recommendation will not be considered final unless the checklist is complete.

New Hire Checklist		
Candidate A		
1. Does the candidate have a high school degree?	Y	N
a. What year was the degree awarded?		
2. Does the candidate have a college degree?	Y	N
a. What year was the degree awarded?		
3. Is the candidate a Certified Public Accountant?	Y	N
4. Does the candidate have at least 2 years of accounting experience?	Y	N
Candidate B		
1. Does the candidate have a high school degree?	Y	N
a. What year was the degree awarded?		
2. Does the candidate have a college degree?	Y	N
a. What year was the degree awarded?		
3. Is the candidate a Certified Public Accountant?	Y	N
4. Does the candidate have at least 2 years of accounting experience?	Y	N
Candidate C		
1. Does the candidate have a high school degree?	Y	N
a. What year was the degree awarded?		
2. Does the candidate have a college degree?	Y	N
a. What year was the degree awarded?		
3. Is the candidate a Certified Public Accountant?	Y	N

4. Does the candidate have at least 2 years of accounting experience?	Y	N
Candidate D		
1. Does the candidate have a high school degree?	Y	N
a. What year was the degree awarded?		
2. Does the candidate have a college degree?	Y	N
a. What year was the degree awarded?		
3. Is the candidate a Certified Public Accountant?	Y	N
4. Does the candidate have at least 2 years of accounting experience?	Y	N

Directions: Please review each candidate's resume and then rate the following questions by putting an "X" in the appropriate column.

How likely are you to recommend hiring this candidate?	Very Unlikely	Unlikely	Neither Likely or Unlikely	Likely	Very Likely
Candidate A					
Candidate B					
Candidate C					
Candidate D					

How qualified do you think this candidate is for the position?	Very Unqualified	Unqualified	Neither Qualified or Unqualified	Qualified	Very Qualified
Candidate A					
Candidate B					
Candidate C					
Candidate D					

How would you expect this candidate to perform on the job?	Poorly	Below Average	Average	Above Average	Exceptional
Candidate A					
Candidate B					
Candidate C					
Candidate D					

Directions: Please rank order all candidates by writing their "name" (e.g., Candidate A, Candidate B, etc.) in the blank next to the appropriate number. Number 1 is your top choice for the job and Number 4 is your last choice for the job.

Top Choice for the Job	**1.**	
	2.	
	3.	
Last Choice for the Job	**4.**	

ATHLETIC ARENAS INTERNATIONAL

DALLAS-DOME

Job Description for Accountant - Dallas-Dome

Purpose:

Works with limited supervision to analyze financial information and prepare financial reports to determine or maintain record of assets, liabilities, profit and loss, tax liability, and/or other financial activities within Athletic Arenas International.

Duties, Functions and Responsibilities:

The ***essential duties and functions*** for the job of accountant for Dallas-Dome may include the following (other related duties may be assigned):

1. Prepare, examine, or analyze accounting records, financial statements, or other financial reports to assess accuracy, completeness, and conformance to reporting and procedural standards.
2. Compute taxes owed and prepare tax returns, ensuring compliance with payment, reporting, or other tax requirements.
3. Analyze business operations, trends, costs, revenues, financial commitments, and obligations, to project future revenues and expenses or to provide advice.
4. Report to management regarding the finances of establishment.
5. Develop, maintain, and analyze budgets, preparing periodic reports that compare budgeted costs to actual costs.
6. Develop, implement, modify, and document recordkeeping and accounting systems, making use of current computer technology.
7. Prepare forms and manuals for accounting and bookkeeping personnel, and direct their work activities.
8. Advise management about issues such as resource utilization, tax strategies, and the assumptions underlying budget forecasts.

Knowledge, Skills, and Abilities:

Must possess required knowledge, skills, abilities, and experience and be able to explain and demonstrate, with or without reasonable accommodations, that the essential functions of the job can be performed.

- Knowledge of economic and accounting principles and practices, the financial markets, banking, and the analysis and reporting of financial data.
- Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.
- Ability to use mathematics to solve problems.
- Ability to give full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times (e.g., active listening skills).
- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Ability to consider the relative costs and benefits of potential actions to choose the most appropriate one.
- Skill in determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- Ability to communicate information and ideas both orally and in writing so others will understand.

Minimum Qualifications

Education and/or Equivalent Experience:

- Overall Experience – This position requires education in the field of finance or accounting. A four - year bachelor's degree is required. A minimum of two to four years of work-related skill, knowledge, and/or experience is desired.

APPENDIX E

PROMOTION DECISION ITEM & MEASURES

ATHLETIC ARENAS INTERNATIONAL

E-MAIL

TO: Ryan Little, Human Resources Manager, Dallas-Dome

FROM: Jordan Franklin, Human Resources Manager, Atlanta Arena

DATE: June 11th

IMPORTANCE: **HIGH!**

SUBJECT: **Promotion Decision Must Be Made ASAP** Item 04

Dear Ryan,

We talked about this a few weeks ago, but I still haven't received your recommendation for the promotion to Human Resources Manager for Atlanta. As you know, my last day is fast approaching and this decision has to be filed by the end of the week (June 18th). Per Athletic Arenas policies, I MUST include your recommendation in the file and take it into consideration before the position is filled internally.

Review the job description (same as your job description) and take a look at the performance evaluations for the top candidates and complete the checklist and rating form. Keep in mind that relocation is not an issue – all candidates are interested in relocating to Atlanta if they are given the promotion. Also, I've blacked out the employee's names and replaced them with "Employee A, B, C…" etc. in accordance with our new Diversity Initiatives and Privacy Policy. Again, I MUST HAVE THESE BY FRIDAY JUNE 18th! Please fax them over as soon as they are complete.

Thank you,

Jordan
Jordan Franklin
Human Resources Supervisor, Atlanta Arena
Athletic Arenas International

Directions: Please complete the Promotion Checklist. Your recommendation will not be considered final unless the checklist is complete.

Promotion Checklist	
Employee A	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee B	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee C	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee D	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	

Directions: Please review each employee's performance evaluation and then rate the following questions by putting an "X" in the appropriate column.

Rate the promotability of the employee at this time. This is intended as a state of readiness (as you see it) for a promotion to the next higher level of responsibility. Put an X in the most appropriate column.

1 = Ready now.
2 = Will likely be ready within one year.
3 = Will likely be ready within two years.
4 = Will need more than 2 years of further development before serious consideration.
5 = Appears to have reached the highest level at which the employee could reasonably be expected to be fully competent.

	1	2	3	4	5
Employee A					
Employee B					
Employee C					
Employee D					

How likely are you to recommend promoting this employee?	**Very Unlikely**	**Unlikely**	**Neither Likely or Unlikely**	**Likely**	**Very Likely**
Employee A					
Employee B					
Employee C					
Employee D					

How qualified do you think this employee is for the promotion?	Very Unqualified	Unqualified	Neither Qualified or Unqualified	Qualified	Very Qualified
Employee A					
Employee B					
Employee C					
Employee D					

How would you expect this employee to perform on the job?	Poorly	Below Average	Average	Above Average	Exceptional
Employee A					
Employee B					
Employee C					
Employee D					

Directions: Please rank order all employees by writing their "name" (e.g., Employee A, Employee B, etc) in the blank next to the appropriate number. Number 1 is your top choice for the promotion and Number 4 is your last choice for the promotion.

Top Choice for the Promotion	**1.**	
	2.	
	3.	
Last Choice for the Promotion	**4.**	

APPENDIX F

ACCESS TO TRAINING ITEM & MEASURES

ATHLETIC ARENAS INTERNATIONAL

E-MAIL

TO: Jamie Monroe, Human Resources Manager

FROM: Jan Watson, Sales & Marketing Manager

DATE: Wednesday, June 16th

IMPORTANCE: **HIGH!**

SUBJECT: **Help! Who should I send to training?** Item 06

Jamie,

First of all, welcome to Athletic Arenas! We've all heard wonderful things about you and are glad you've joined our team.

I know it's your first day, and you're only here briefly, but I desperately need your help with a quick decision. We just discovered in our budget that we can send one of our employees to the Professional Society for Sales and Marketing Training Annual Conference. This is a very prestigious conference and the training this employee will receive will be top notch. The final day for registration is Tuesday, June 22nd.

I'm having a difficult time deciding and need your input. Since you're our new expert in people development, I need you to recommend someone based on the performance evaluations I've included (please note that due to our Diversity and Privacy Policies, I've blacked out their names and replaced them with "Employee 1, 2, 3…" etc. I want to send the person who will benefit the most and see the most gains from the training. Can you review the evaluations and make a recommendation? Again, I MUST have this for the files by next Tuesday.

The forms you'll need and the performance evaluations are attached.
Thank you! I owe you big time for this!
Jan

Jan Watson
Sales & Marketing Manager, Dallas-Dome
Athletic Arenas International

Directions: Please complete the Training Checklist. Your recommendation will not be considered final unless the checklist is complete.

Training Checklist	
Employee 1	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee 2	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee 3	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	
Employee 4	
1. What is the candidate's hire date?	
2. What is the date of the performance evaluation?	
3. What is the candidate's age?	
4. What is the candidate's Overall Performance Rating?	

Training Recommendation Form Item 06b

Directions: Please review each employee's performance evaluation and then rate the following questions by putting an "X" in the appropriate column.

How likely are you to recommend training for this employee?	Very Unlikely	Unlikely	Neither Likely or Unlikely	Likely	Very Likely
Employee 1					
Employee 2					
Employee 3					
Employee 4					

How qualified do you think this employee is for the training program?	Very Unqualified	Unqualified	Neither Qualified or Unqualified	Qualified	Very Qualified
Employee 1					
Employee 2					
Employee 3					
Employee 4					

How would you expect this employee to perform on the job after attending the training program?	Poorly	Below Average	Average	Above Average	Exceptional
Employee 1					
Employee 2					
Employee 3					
Employee 4					

Training Recommendation Form Item 06b

Directions: Please rank order all employees by writing their "name" (e.g., Employee 1, Employee 2, etc.) in the blank next to the appropriate number. Number 1 is your top choice to attend the training and Number 4 is your last choice to attend the training.

Top Choice to Attend Training	**1.**
	2.
	3.
Last Choice to Attend Training	**4.**

APPENDIX G

LATIN SQUARE DETAILS

Table G1: Hiring Decision

Condition	Candidate A	Candidate B	Candidate C	Candidate D
Condition 1	25	65	35	55
Condition 2	65	25	55	35
Condition 3	35	55	25	65
Condition 4	55	35	65	25

Table G2: Promotion Decision

Condition	Employee A	Employee B	Employee C	Employee D
Condition 1	54	26	37	65
Condition 2	26	54	65	37
Condition 3	37	65	54	26
Condition 4	65	37	26	54

Table G3: Access to Training Decision

Condition	Employee 1	Employee 2	Employee 3	Employee 4
Condition 1	36	56	64	27
Condition 2	56	36	27	64
Condition 3	64	27	36	56
Condition 4	27	64	56	36

APPENDIX H

STUDY TWO CORRELATION RESULTS

Table H1: Descriptive Statistics and Correlations for CSA-R Scales - Study 2 (*N* = 156)

CSA-R Scale	*M*	*SD*	Positive Stereotypes of Old People	Negative Stereotypes of Old People	Positive Stereotypes of Young People	Negative Stereotypes of Young People
Positive Stereotypes of Old People	3.84	.55	1			
Negative Stereotypes of Old People	2.21	.60	-.29**	1		
Positive Stereotypes of Young People	3.67	.40	.37**	-.14	1	
Negative Stereotypes of Young People	3.15	.60	.18*	.32**	-.15	1

*$p < .05$, **$p < .001$

Table H2: Selection Decision Descriptive Statistics and Correlation Matrix

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Likely to Recommend Hiring? (25)	Likely to Recommend Hiring? (35)	Likely to Recommend Hiring? (55)	Likely to Recommend Hiring? (65)	Qualified for position? (25)	Qualified for position? (35)
CSA Old Positive Scale	3.84	.55	156	1									
CSA Old Negative Scale	2.21	.60	156	-.29**	1								
CSA Young Negative Scale	3.15	.60	156	.18*	.32**	1							
CSA Young Positive Scale	3.67	.40	156	.37**	-.14	-.15	1						
Likely to Recommend Hiring? (25)	3.78	1.08	124	-.01	.04	.18*	-.04	1					
Likely to Recommend Hiring? (35)	3.94	1.05	122	-.05	-.01	.18*	-.05	.04	1				
Likely to Recommend Hiring? (55)	3.80	1.05	123	-.01	-.07	-.03	-.03	-.08	.16	1			
Likely to Recommend Hiring? (65)	3.60	1.13	124	.04	-.03	.13	.05	.07	.31**	.13	1		
Qualified for position? (25)	3.93	.86	123	-.07	.11	.13	-.03	.65**	.01	-.07	.08	1	
Qualified for position? (35)	4.18	.84	122	-.08	.06	.22*	-.03	.10	.71**	.02	.35**	.26**	1

*$p < .05$, **$p < .001$

Table H2 – Continued

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Likely to Recom-mend Hiring? (25)	Likely to Recom-mend Hiring? (35)	Likely to Recom-mend Hiring? (55)	Likely to Recom-mend Hiring? (65)	Qualif-ied for position? (25)	Qualif-ied for position? (35)
Qualified for position? (55)	4.07	.82	123	-.03	.04	.01	-0.076	.01	.05	.65**	.18	.19*	.20*
Qualified for position? (65)	3.88	.92	122	-.04	.03	.13	0.029	.08	.28**	-.05	.63**	.20*	.37**
Expected Performance? (25)	3.78	.87	121	.07	.01	.10	-0.009	.59**	-.04	-.27**	-.18	.49**	-.06
Expected Performance? (35)	3.92	.85	120	-.07	-.03	.12	-0.114	-.15	.54**	-.02	.05	-.08	.55**
Expected Performance? (55)	3.84	.81	122	.01	.06	-.00	0	-.14	-.03	.60**	.03	.07	-.03
Expected Performance? (65)	3.73	.86	122	.06	.04	.09	0.102	-.06	.08	-.06	.55**	.08	.09
Top Choice for Job	2.39	1.08	132	.10	-.11	-.03	0.088	-.28**	-.01	.21*	.43**	-.20*	-.06
Second Choice for Job	2.52	1.12	124	-.15	-.05	-.09	-0.029	-.28**	.02	-.18	.14	-.20*	.04
Third Choice for Job	2.67	1.07	122	.03	.05	-.10	0.016	-.02	.02	.08	-.17	-.01	.08
Last Choice for Job	2.47	1.21	121	.03	.06	.19*	-0.079	.51**	-.04	-.12	-.34**	.36**	-.07

*$p < .05$, **$p < .001$

Table H2 – Continued

	Qualified for position? (55)	Qualified for position? (65)	Expected Perfor-mance? (25)	Expected Perfor-mance? (35)	Expected Perfor-mance? (55)	Expected Perfor-mance? (65)	Top Choice for Job	Second Choice for Job	Third Choice for Job	Last Choice for Job
Qualified for position? (55)	1									
Qualified for position? (65)	.15	1								
Expected Performance? (25)	-.12	.02	1							
Expected Performance? (35)	-.08	.06	.12	1						
Expected Performance? (55)	.63**	-.08	.11	.09	1					
Expected Performance? (65)	-.03	.59**	.08	.20*	.15	1				
Top Choice for Job	.18*	.29**	-.21*	-.12	.27**	.46**	1			
Second Choice for Job	-.14	.06	-.23*	.09	-.19*	.01	-.32**	1		
Third Choice for Job	.07	-.02	.02	.01	.07	-.09	-.22*	-.32**	1	
Last Choice for Job	-.10	-.30**	.41**	-.04	-.12	-.37**	-.34**	-.33**	-.42**	1

*$p < .05$, **$p < .001$

Table H3: Promotion Decision Descriptive Statistics and Correlation Matrix

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Nega-tive Scale	CSA Young Posi-tive Scale	Promot-ability? (26)	Promot-ability? (37)	Promot -ability? (54)	Promot -ability? (65)	Likely to Recom-mend Promo-tion? (26)	Likely to Recom-mend Promo-tion? (37)
CSA Old Positive Scale	3.84	.55	156	1									
CSA Old Negative Scale	2.21	.60	156	-.29**	1								
CSA Young Negative Scale	3.15	.60	156	.18*	.32**	1							
CSA Young Positive Scale	3.67	.40	156	.37**	-.14	-.15	1						
Promotability? (26)	3.74	1.20	86	-.08	-.16	-.02	-.15	1					
Promotability? (37)	4.15	1.20	97	.13	.07	.19	.13	.15	1				
Promotability? (54)	3.96	1.24	103	-.01	-.02	.02	-.08	.30*	.14	1			
Promotability? (65)	3.61	1.56	102	.03	-.08	-.06	-.04	.27*	-.01	.48**	1		
Likely to Recommend Promotion? (26)	3.41	1.03	120	-.12	-.09	-.15	-.03	.64**	-.16	.04	.03	1	
Likely to Recommend Promotion? (37)	3.97	.89	118	.06	.08	.05	.15	-.06	.43**	-.18	-.29**	.00	1

*$p < .05$, **$p < .001$

Table H3 – Continued

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Promot-ability? (26)	Promot-ability? (37)	Promot-ability? (54)	Promot-ability? (65)	Likely to Recom-mend Promo-tion? (26)	Likely to Recom-mend Promo-tion? (37)
Likely to Recommend Promotion? (54)	3.72	.97	119	-.13	-.06	-.06	-.21*	.11	-.08	.55**	.22*	.00	-.16
Likely to Recommend Promotion? (65)	3.51	1.17	119	-.05	-.08	-.04	-.11	.19	-.17	.21*	.69**	.03	-.24**
Qualified for Promotion? (26)	3.59	.83	120	-.14	-.25**	-.15	-.11	.57**	-.13	.00	.02	.69**	-.11
Qualified for Promotion? (37)	4.02	.80	119	.02	.06	.08	-.02	-.16	.27**	-.22*	-.19	-.12	.75**
Qualified for Promotion? (54)	3.91	.74	117	-.16	-.07	-.02	-.23*	.05	-.15	.43**	.46**	-.06	-.18
Qualified for Promotion? (65)	3.85	.84	117	.05	-.07	.07	-.09	.02	-.14	.28**	.14	-.08	-.30**
Expected Performance? (26)	3.60	.82	114	-.08	-.09	.04	-.18*	.57**	.03	.14	-.23*	.67**	.01
Expected Performance? (37)	3.88	.87	114	.09	.14	.13	.03	-.19	.35**	-.14	.22*	-.15	.73**
Expected Performance? (54)	3.71	.91	114	-.05	.06	.02	-.10	.00	.00	.51**	.57**	-.12	-.19
Expected Performance? (65)	3.71	.91	114	-.06	.10	-.02	-.21*	.01	-.31**	.30**	.32**	-.07	-.25**

*$p < .05$, **$p < .001$

Table H3 – Continued

	Likely to Recom-mend Promo-tion? (54)	Likely to Recom-mend Promo-tion? (65)	Qualified for Promotion? (26)	Qualified for Promotion? (37)	Qualified for Promotion? (54)	Qualified for Promotion? (65)	Expected Performance? (26)	Expected Performance? (37)	Expected Performance? (54)	Expected Performance? (65)
Likely to Recommend Promotion? (54)	1									
Likely to Recommend Promotion? (65)	.35**	1								
Qualified for Promotion? (26)	.03	.03	1							
Qualified for Promotion? (37)	-.17	-.12	-.13	1						
Qualified for Promotion? (54)	.66**	.14	.11	-.10	1					
Qualified for Promotion? (65)	.23*	.52**	.04	-.10	.44**	1				
Expected Performance? (26)	.09	.15	.62**	-.04	.05	.06	1			
Expected Performance? (37)	-.15	-.14	-.17	.77**	-.17	-.15	.08	1		
Expected Performance? (54)	.65**	.25**	-.06	-.10	.61**	.29**	.14	.03	1	
Expected Performance? (65)	.25**	.56**	-.03	-.10	.35**	.67**	.09	-.07	.39**	1

*$p < .05$, **$p < .001$

Table H3 – Continued

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Promot-ability? (26)	Promot-ability? (37)	Promot-ability? (54)	Promot-ability? (65)	Likely to Recommend Promotion? (26)	Likely to Recommend Promotion? (37)
Top Choice for Promotion	2.48	1.02	124	-.03	.10	.04	-.13	-.30**	-.27**	.18	.32**	-.43**	-.33**
Second Choice for Promotion	2.58	1.08	118	.09	-.06	-.11	.13	-.23*	-.02	.08	.12	-.23*	-.08
Third Choice for Promotion	2.63	1.12	118	-.03	-.20*	-.13	-.04	.00	.04	-.19	-.05	.16	.16
Last Choice for Promotion	2.33	1.25	118	-.04	.16	.19*	.01	.43**	.17	-.04	-.31**	.39**	.20*

*$p < .05$, **$p < .001$

Table H3 – Continued

	Likely to Recommend Promotion? (54)	Likely to Recommend Promotion? (65)	Qualified for Promotion? (26)	Qualified for Promotion? (37)	Qualified for Promotion? (54)	Qualified for Promotion? (65)	Expected Perfor-mance? (26)	Expected Perfor-mance? (37)	Expected Perfor-mance? (54)	Expected Perfor-mance? (65)
Top Choice for Promotion	.21*	.36**	-.35**	-.21*	.30**	.41**	-.42**	-.30**	.27**	.48**
Second Choice for Promotion	.21*	.18	-.28**	-.06	.05	.15	-.20*	-.04	.26**	.20*
Third Choice for Promotion	-.17	-.16	.24**	.16	-.11	-.05	.21*	.17	-.17	-.20*
Last Choice for Promotion	-.20*	-.29**	.30**	.08	-.19*	-.42**	.31**	.14	-.30**	-.38**

*$p < .05$, **$p < .001$

Table H3 – Continued

	Top Choice for Promotion	Second Choice for Promotion	Third Choice for Promotion	Last Choice for Promotion
Top Choice for Promotion	1			
Second Choice for Promotion	-.10	1		
Third Choice for Promotion	-.42**	-.29**	1	
Last Choice for Promotion	-.34**	-.52**	-.31**	1

*$p < .05$, **$p < .001$

Table H4: Access to Training Decision Descriptive Statistics and Correlation Matrix

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Likely to Recommend Training? (27)	Likely to Recommend Training? (36)	Likely to Recommend Training? (56)	Likely to Recommend Training? (64)	Qualified for Training? (27)	Qualified for Training? (36)
CSA Old Positive Scale	3.84	.55	156	1									
CSA Old Negative Scale	2.21	.60	156	-.29**	1								
CSA Young Negative Scale	3.15	.60	156	.18*	.32**	1							
CSA Young Positive Scale	3.67	.40	156	.37**	-.14	-.15	1						
Likely to Recommend Training? (27)	3.94	.81	85	.29**	-.14	.11	.19	1					
Likely to Recommend Training? (36)	3.84	1.03	85	.08	-.15	-.04	.15	.18	1				
Likely to Recommend Training? (56)	3.69	1.04	86	-.04	-.05	-.15	.07	-.08	.25*	1			
Likely to Recommend Training? (64)	3.34	1.16	85	.07	.02	-.01	.07	.17	.05	.47**	1		
Qualified for Training? (27)	3.99	.76	83	.16	-.12	.12	.17	.51**	-.16	-.19	-.04	1	
Qualified for Training? (36)	3.94	.72	84	-.02	-.11	-.17	.02	-.07	.53**	.22*	-.09	.02	1

*$p < .05$, **$p < .001$

Table H4 – Continued

	M	*SD*	*N*	CSA Old Positive Scale	CSA Old Negative Scale	CSA Young Negative Scale	CSA Young Positive Scale	Likely to Recom-mend Training? (27)	Likely to Recom-mend Training? (36)	Likely to Recom-mend Training? (56)	Likely to Recom-mend Training? (64)	Qualified for Training? (27)	Qualified for Training? (36)
Qualified for Training? (56)	3.90	.80	84	-.03	-.17	-.17	.04	-.21	.23*	.59**	.13	-.08	.45**
Qualified for Training? (64)	3.79	.81	84	-.01	.03	.02	.14	-.02	.02	.23*	.46**	.23*	.27*
Performance after Training? (27)	3.89	.79	82	.11	-.11	-.05	.20	.47**	-.24*	-.15	.04	.58**	-.14
Performance after Training? (36)	3.86	.80	83	-.04	-.14	-.23*	.18	-.18	.63**	.21	-.25*	-.13	.62**
Performance after Training? (56)	3.76	.77	83	-.07	-.09	-.19	.11	-.24*	.17	.63**	.13	-.17	.24*
Performance after Training? (64)	3.65	.82	83	.11	.01	-.07	.07	-.11	-.02	.25*	.49**	-.13	.09
Top Choice for Training	2.20	1.05	92	.03	.12	-.11	-.01	-.38**	.01	.39**	.37**	-.38**	-.05
Second Choice for Training	2.51	1.05	84	.13	.03	-.09	-.01	.15	-.01	.18	.36**	-.06	-.13
Third Choice for Training	2.55	1.09	83	.07	.14	.20	-.12	.03	.05	-.24*	-.11	-.03	.04
Last Choice for Training	2.75	1.22	83	.01	-.24*	.02	.09	.18	-.05	-.28*	-.53**	.42**	.12

*$p < .05$, **$p < .001$

Table H4 – Continued

	Qualified for Training? (56)	Qualified for Training? (64)	Performance after Training? (27)	Performance after Training? (36)	Performance after Training? (56)	Performance after Training? (64)	Top Choice for Training	Second Choice for Training	Third Choice for Training	Last Choice for Training
Qualified for Training? (56)	1									
Qualified for Training? (64)	.43**	1								
Performance after Training? (27)	-.17	.06	1							
Performance after Training? (36)	.32**	.05	-.06	1						
Performance after Training? (56)	.63**	.19	.04	.42**	1					
Performance after Training? (64)	.23*	.56**	.21	.18	.39**	1				
Top Choice for Training	.27*	.18	-.26	-.06	.21	.27*	1			
Second Choice for Training	-.18	.03	-.03	-.13	.01	.09	-.10	1		
Third Choice for Training	.00	.04	.14	.08	-.07	.13	-.17	-.50**	1	
Last Choice for Training	-.08	-.21	.13	.09	-.13	-.44**	-.58**	-.25*	-.32**	1

*$p < .05$, **$p < .001$

Appendix I

Study Two Rank Ordered Variables

Table I1: Descriptive Statistics for Rank Ordered Variables

Variable	*N*	*M*	*SD*	Candidate Age	Frequency
Top Choice for Job	132	2.39	1.08	25	33
				35	42
				55	31
				65	25
2nd Choice for Job	124	2.52	1.12	25	30
				35	32
				55	30
				65	32
3rd Choice for Job	122	2.67	1.07	25	24
				35	24
				55	42
				65	32
Last Choice for Job	121	2.47	1.21	25	36
				35	28
				55	21
				65	36

Table I1 – Continued

Variable	*N*	*M*	*SD*	Candidate Age	Frequency
Top Choice for Promotion	124	2.48	1.02	26	22
				37	47
				54	28
				65	27
2nd Choice for Promotion	118	2.58	1.08	26	26
				37	25
				54	39
				65	28
3rd Choice for Promotion	118	2.63	1.11	26	26
				37	25
				54	34
				65	33
Last Choice for Promotion	118	2.33	1.25	26	45
				37	22
				54	18
				65	33

Table I1 – Continued

Variable	*N*	*M*	*SD*	Candidate Age	Frequency
Top Choice to Attend Training	92	2.20	1.05	27	30
				36	27
				56	22
				64	13
2nd Choice to Attend Training	84	2.51	1.05	27	17
				36	25
				56	24
				64	18
3rd Choice to Attend Training	83	2.55	1.09	27	18
				36	21
				56	24
				64	20
Last Choice to Attend Training	83	2.75	1.22	27	20
				36	14
				56	16
				64	33

Appendix J

Study Two Regression Analyses

Table J1: Regression Analyses for Top Choice Variables

DV	IVs	*R*	R^2	*F*	Age	β
Top Choice for the Job	Likely to Recommend (Candidate A, B, C, and D)?	.56	.31	13.04*	25	-.28*
					35	-.15
					55	.16
					65	.48*
Top Choice for the Job	How Qualified (Candidate A, B, C, and D)?	.46	.21	7.67*	25	-.27*
					35	-.17
					55	.22
					65	.38*
Top Choice for the Job	Expected Performance (Candidate A, B, C, and D)?	.61	.38	16.92*	25	-.24*
					35	-.21
					55	.23*
					65	.50*

*$p < .001$

Table J1 – Continued

DV	IVs	*R*	R^2	*F*	Age	β
Top Choice for Promotion	Promotability (Employee A, B, C, and D)?	.47	.22	2.49	26 37 54 65	-.38 -.24 .26 .32
Top Choice for Promotion	Likely to Recommend (Employee A, B, C, and D)?	.62	.39	17.50*	26 37 54 65	-.44* -.25* .06 .29*
Top Choice for Promotion	How Qualified (Employee A, B, C, and D)?	.61	.38	16.52*	26 37 54 65	-.41* -.21 .18 .33*
Top Choice for Promotion	Expected Performance (Employee A, B, C, and D)?	.71	.51	27.80*	26 37 54 65	-.45* -.24* .15 .43*

*$p < .001$

Table J1 – Continued

DV	IVs	*R*	R^2	*F*	Age	β
Top Choice to Attend Training	Likely to Recommend (Employee 1, 2, 3, and 4)?	.61	.38	11.54*	27	-.43*
					36	-.01
					56	.18
					64	.37*
Top Choice to Attend Training	How Qualified (Employee 1, 2, 3, and 4)?	.53	.29	7.70*	27	-.41*
					36	-.24
					56	.25
					64	.24
Top Choice to Attend Training	Expected Performance (Employee 1, 2, 3, and 4)?	.49	.24	6.18*	27	-.35*
					36	-.25
					56	.21
					64	.32

*$p < .001$

REFERENCES

AMOS. (2007). *AMOS for Windows* (Release 16.0). Chicago: SPSS, Inc.

Aries, E. (1996). *Men and women in interaction: Reconsidering the differences.* New York: Oxford University Press.

Avolio, B. J., Waldman, D. A., & McDaniel, M. A. (1990). Age and work performance in nonmanagerial jobs: the effects of experience and occupational type. *Academy of Management Journal, 33,* 407 – 422.

Ayman, R. (1993). Leadership perception: The role of gender and culture. In Chemers, M. & Ayman, R. (Eds.), *Leadership theory and research: Perspectives and directions* (pp. 137-166). NY: Academic Press.

Bartol, K. M. (1999). Gender influences on performance evaluations. In G. Powell (Ed.), *Handbook of gender and work* (pp. 165-178). Thousand Oaks, CA: Sage Publications.

Bennington, L. (2001). Age discrimination: converging evidence from four Australian studies. *Employee Responsibilities and Rights Journal, 13,* 125 – 134.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods and Research, 17,* 303–316.

Carli, L. L. (2001). Gender and social influence. *The Journal of Social Issues, 57*, 725-742.

Chiu, W. C. K., Chan, A. W., Snape, E., & Redman, T. (2001). Age stereotypes and discriminatory attitudes towards older workers: an East-West comparison. *Human Relations, 54,* 629 – 661.

Clapham, M. M., & Fulford, M. D. (1997). Age bias in assessment center ratings. *Journal of Managerial Issues, 9,* 373 – 388.

Cleveland, J. N., & Landy, F. J. (1983). The effects of person and job stereotypes on two personnel decisions. *Journal of Applied Psychology, 68,* 609 – 619.

Cleveland, J. N., & Landy, F. J. (1987). Age perceptions of jobs: Convergence of two questionnaires. *Psychological Reports, 60,* 1075-1081.

Cleveland, J. N., Festa, R. M., & Montgomery, L. (1988). Applicant pool composition and job perceptions: Impact on decisions regarding an older applicant. *Journal of Vocational Behavior, 32,* 112 – 125.

Coovert, M., & Craiger, P. (2000). An expert system for integrating multiple fit indices for structural equation models. *New Review of Applied Expert Systems and Emerging Technologies, 6,* 39–56.

Cox, T., & Nkomo, S. M. (1992).Candidate age as a factor in promotability ratings. *Public Personnel Management, 21,* 197 – 210.

Cuddy, A. J., & Fiske, S. T. (2002). Doddering but dear: Process, content, and function in stereotyping of older persons. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 3-26). Cambridge, MA: The MIT Press.

DeArmond, S., Tye, M., Chen, P. Y., Krauss, A., Rogers, D. A., & Sintek, E. (2006). Age and gender stereotypes: new challenges in a changing workplace and workforce. *Journal of Applied Social Psychology, 36*, 2184 – 2214.

EEOC. (2007a). Age discrimination. Retrieved from http://www.eeoc.gov/types/age.html on May 17, 2007.

EEOC. (2007b). Age discrimination in employment act charges: FY 1997 – FY 2006. Retrieved from http://www.eeoc.gov/stats/adea.html on May 17, 2007.

Finkelstein, L. M. & Burke, M. J. (1998). Age stereotyping at work: The role of rater and contextual factors on evaluations of job applicants. *The Journal of General Psychology, 125,* 317-345.

Finkelstein, L. M., Burke, M. J., & Raju, N. S. (1995). Age discrimination in simulated employment contexts: An integrative analysis. *Journal of Applied Psychology, 80,* 652-663.

Finkelstein, L. M., Higgins, K. D., & Clancy, M. (2000). Justifications for ratings of old and young job applicants: An exploratory content analysis. *Experimental Aging Research, 26,* 263-283.

Fraboni, M., Saltstone, R., & Hughes, S. (1990). The Fraboni Scale of Ageism (FSA): An attempt at a more precise measure of ageism. *Canadian Journal on Aging, 9,* 56-66.

Gatewood, R. D. & Field, H. S. (2001). *Human resource selection.* New York: Harcourt College Publishers.

Glick, P., & Fiske, S. T. (1999). Sexism and other “isms”: Interdependence, status, and the ambivalent content of stereotypes. In W. B. Swann, Jr., H. H. Langlois, & L. A. Gilbert (Eds.), *Sexism and*

stereotypes in modern society: The gender science of Janet Taylor Spence (pp. 193-221). Washington DC: American Psychological Association.

Gordon, R. A., & Arvey, R. D. (1986). Perceived and actual ages of workers. *Journal of Vocational Behavior, 28,* 21 – 28.

Gringart, E., Helmes, E., & Speelman, C. (2008). Harnessing cognitive dissonance to promote positive attitudes toward older workers in Australia. *Journal of Applied Social Psychology, 38,* 751 – 778.

Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). *The aging workforce: Realities, myths, and implications for organizations.* American Psychological Association: Washington, DC.

Heron, A., & Chown, S. (1967). *Age and junction*. Boston: Little, Brown.

Hummert, M. L. (1990). Multiple stereotypes of elderly and young adults: a comparison of structure and evaluations. *Psychology and Aging, 5,* 182-193.

Kafer, R. A., Rakowski, W., Lachman, M., & Hickey, T. (1980). Aging Opinion Survey: A report on instrument development. *International Journal of Aging and Human Development, 11,* 319-333.

Kalavar, J. M. (2001). Examining ageism: Do male and female college students differ? *Educational Gerontology, 27,* 507-513.

Kilty, K. M., & Feld, A. (1976). Attitudes toward aging and toward the needs of older people. *Journal of Gerontology, 31,* 586-594.

Kite, M. E., & Johnson, B. T. (1988). Attitudes toward older and younger adults: A meta-analysis. *Psychology and Aging, 3,* 233-244.

Kogan, N. (1961). Attitudes toward old people: The development of a scale and an examination of correlates. *Journal of Abnormal and Social Psychology, 62,* 44-54.

Korabik, K. (1997). Applied Gender Issues. In Sadava, S. W., & McCreary, D. R. (Eds.), *Applied Social Psychology* (pp. 292-309). New Jersey: Prentice Hall.

Kubeck, J. E., Delp, N. D., Haslett, T. K., & McDaniel, M. A. (1996), Does job-related training performance decline with age? *Psychology and Aging, 11,* 92 – 107.

Lawrence, B. S. (1984). Age grading: The implicit organizational timetable. *Journal of Occupational Behaviour, 5,* 23-35.

Loscocco, K. A., & Kalleberg, A. L. (1988). Age and the meaning of work in the United States and Japan. *Social Forces, 67,* 337-357.

McCann, R., & Giles, H. (2002). Ageism in the workplace: A communication perspective. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 163-199). Cambridge, MA: The MIT Press.

McEvoy, G. M., & Cascio, W. F. (1989). Cumulative evidence of the relationship between employee age and job performance. *Journal of Applied Psychology, 74,* 11 – 17.

McFarland, R. A. (1973). The need for functional age measurement in industrial gerontology. *Industrial Gerontology, 19,* 1-20.

Morrow, P. C., McElroy, J. C., Stamper, B. G., & Wilson, M. A. (1990). The effects of physical attributes and other demographic characteristics on promotion decisions. *Journal of Management, 16,* 723 – 736.

Netz, Y. & Ben-Sira, D. (1993). Attitudes of young people, adults, and older adults from three-generation families toward the concepts “ideal person,” “youth,” “adult,” and “old person.” *Educational Gerontology,19,* 607-621.

Ng, S. H. (1998). Social psychology in an ageing world: ageism and intergenerational relations. *Asian Journal of Social Psychology, 1,* 99-116.

Ostroff, C. & Atwater, L. E. (2003). Does whom you work with matter? Effects of referent group gender and age composition on managers' compensation. *Journal of Applied Psychology*, 88, 725-740.

Palmore, E. (1982). Attitudes toward the aged: What we know and need to know. *Research on Aging, 4,* 333-348.

Palmore, E. (2001). The ageism survey: First findings. *The Gerontologist, 41,* 572-575.

Pawsey, V. (2000). Youth fall prey to ageism. *People Management, 6,* 9.

Perry, E. L. & Finkelstein, L. M. (1999). Toward a broader view of age discrimination in employment-related decisions: A joint consideration of organizational factors and cognitive processes. *Human Resource Management Review, 9,* 21-49.

Perry, E. L. (1997). A cognitive approach to understanding discrimination: A closer look at applicant gender and age. *Research in Personnel and Human Resources Management, 15,* 175-240.

Perry, E. L., Kulik, C. T., & Bourhis, A. C. (1996). Moderating effects of personal and contextual factors in age discrimination. *Journal of Applied Psychology, 81,* 628-647.

Rabbitt, P. (1993). Does it all go together when it goes? The nineteenth Bartlett Memorial Lecture. *Quarterly Journal of Experimental Psychology, 46A,* 385-434.

Riley, M. W., Johnson, M., & Foner, A. (1972). Elements in a model of age stratification. In Riley, M. W., Johnson, M., & Foner, A. (Eds.), *Aging and society, volume 3: A sociology of age stratification* (pp. 3-26). Russell Sage Foundation.

Ringenbach, K. L. (1994). Age stereotypes in the workplace. Unpublished doctoral thesis, Pennsylvania State University, University Park, PA.

Rosen, B., & Jerdee, T. H. (1976). The nature of job-related age stereotypes. *Journal of Applied Psychology, 61,* 180-183.

Rosen, B., & Jerdee, T. H. (1976b). The influence of age stereotypes on managerial decisions. *Journal of Applied Psychology, 61,* 428 – 432.

Rosencranz, H. A., & McNevin, T. E. (1969). A factor analysis of attitudes toward the aged. *The Gerontologist, 9,* 55-59.

Rupp, D. E., Vodanovich, S. J., & Credé, M. (2003). Ageism: Group differences and construct validity. *Manuscript submitted for publication.*

Salter, C. A., & Salter, C. (1976). Attitudes toward aging and behaviors toward the elderly among young people as a function of death anxiety. *The Gerontologist, 16,* 232-236.

Shaie, K. W. (1974). Translations in gerontology – from lab to life: Intellectual functioning. *American Psychologist, 29,* 802-807.

Singer, M. S. (1986). Age stereotypes as a function of profession. *The Journal of Social Psychology, 126,* 691 – 692.

SPSS. (2007). *SPSS for Windows* (Release 16.0). Chicago: Author.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25*, 173–180.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn and Bacon.

Tipton, A. B. (2005). *The development and validation of the comprehensive scale of ageism.* Unpublished master's thesis, University of Texas at Arlington.

Tucker, L. R., & Lewis, C. (1973). The reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1–10.

Tuckman, J. & Lorge, I. (1953). Attitudes toward old people. *Journal of Social Psychology, 37,* 249-260.

Waldman, D. A., & Avolio, B. J. (1986). A meta-analysis of age differences in job performance. *Journal of Applied Psychology, 71,* 33 – 38.

Weiss, E. M., & Maurer, T. J. (2004). Age discrimination in personnel decisions: A reexamination. *Journal of Applied Social Psychology, 34,* 1551 – 1562.

Wilson, M., Parker, P., & Kan, J. (2007). Age biases in employment: impact of talent shortages and age on hiring. *University of Auckland Business Review, 9,* 33 – 41.

Worchel, S., & Cooper, J. (1983). *Understanding social psychology.* Homewood, IL: The Dorsey Press.

BIOGRAPHICAL INFORMATION

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