

GRANDMA GOT PASSED OVER BY A MANAGER: THE INTERSECTION OF AGE AND
GENDER IN HIRING

by

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ABSTRACT

Research has demonstrated how age stereotypes influence judgment and decision making at work, but older workers are more than just older. All individuals are members of multiple demographic categories, yet we know surprisingly little about how multiple category membership affects judgments and decision making at work. Competing models have been suggested, such as the category activation and inhibition model (Kulik et al., 2007) and the intersectional salience of ageism at work model (Marcus & Fritzsche, 2015). However, empirical tests of these models are scarce. In the present study, the age and gender of job applicants were manipulated in a mock job interview. Job context was also manipulated through a recruitment ad that described the ideal applicant using age and gender stereotypic language. One hundred and seventy-three human resource professionals rated the mock interview. It was expected that when the demographic characteristics of the job applicant matched the stereotypes identified by the job ad, hiring professionals would rate the applicant as more suitable in hireability, qualifications, and recommended starting salary. Results showed a bias against older job applicants, as they were rated as less qualified and as requiring higher starting salaries than younger job applicants, even though their interview transcripts were identical. Moreover, a 3-way interaction showed that the highest salaries were suggested for older job applicants whose gender matched the gender stereotypes presented in the job ad. These results illustrate a hurdle faced by older workers; they will be perceived as less capable yet more expensive. Ageism emerged as the most salient category in this study of individuals seeking re-employment beyond traditional working age, but the results suggest intersectional effects as well. Future research should further examine how ageism is experienced by different multi-group members in other job contexts.

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INTRODUCTION

The U.S. workforce is becoming increasingly diverse. According to the federal bureau of labor statistics (Bureau of Labor Statistics, 2008), the older workforce is increasing at a dramatic rate, with a 101% increase in workers over the age of 65 and a 172% increase in workers over the age of 75 between the years 1977-2007. In that same time frame, women over the age of 65 increased in employment by a rate of 147%. Workers over 65 have also dramatically increased full-time over part-time employment, with 56% of workers over the age of 65 working full-time. By the year 2022, 25.6% of the estimated 163.5 million workers in the United States will be in the 55 and older age range, meaning one in four American workers is expected to be considered a “senior citizen.” As women have consistently made up a substantial portion of the global workforce (International Labor Organization, 2016), and the workforce is rapidly aging (Phillips & Siu, 2012), it is important to consider these demographic shifts at play, especially when it comes to employment discrimination.-

In the past 20 years, the Equal Employment Opportunity Commission (EEOC) has seen approximately 1,730,959 discrimination charges filed (U.S. Equal Employment Opportunity Commission, 2016). According to the U.S. Equal Opportunity Employment Commission, each year since 2008, nearly 100,000 individuals have filed discrimination charges. In 2015, for example, 89,385 individuals filed discrimination charges against an employer. These lawsuits cost employers millions, with more than \$400 million dollars secured annually by the EEOC through such cases. There is also a cost for employees who do not file discrimination charges, as

an estimated \$64 billion dollars is spent annually due to the loss and replacement of over 2 million American workers who abandoned their jobs due to perceived discrimination (Level Playing Field Institute, 2007).

Because people belong to multiple demographic categories, employment discrimination based on a demographic characteristic such as gender, age, or race is complicated. For example, a 55-year-old black woman could be denied employment based on her age, her race, or her gender, or perhaps a unique reaction to the combination of these categories. Surprisingly, very little research has examined the effects of multiple group membership on workplace outcomes. Competing theories (e.g., Kulik, Roberson, & Perry, 2007; Marcus & Fritzsche, 2015) have been proposed to explain what might occur, but few studies have empirically tested either theory. This paper presents an empirical test of the effects of multiple group membership on workplace outcomes, specifically for older, white women.

The Unique Experience of Older Women

Within intersectional research, there are many multiple group combinations, but for the sake of feasibility (and as a starting point), this paper will focus on only two group categories, age and gender. Age diversity and gender diversity are increasing in the global workforce. Even in more racially or ethnically homogeneous nations, which lack the racial diversity of the U.S. workforce, there is an increasing number of women and older workers. Furthermore, some researchers have suggested that women are more heavily impacted by ageism than men (Atkinson, Ford, Harding, & Jones, 2015; Jones, Sabat, King, Ahmad, McCausland, & Chen, 2017). It has been posited that women are more often the targets of ageism due to societal fixations on women's beauty, sexuality, and youth (Clarke & Griffin, 2008; Duncan & Loretto,

2003). The tendency for older women to experience unique discrimination is described by literature on double jeopardy, which suggests that being a member of more than one disadvantaged category (e.g., both female and older) results in combined negative effects greater than being a member of only one disadvantaged category (Chappell & Havens, 1980). Women may also be at greater risk of negative outcomes later in their careers as they often experience discrimination upon returning to work following time spent raising children (Ramsay, 2016). Thus, older women at work are likely to be uniquely impacted because of cultural tendencies to associate womanhood with beauty, youth, and motherhood. Prejudice of this nature against older women begins in childhood, as found by researchers looking at the impact of children's stories on depictions and perceptions of older women (Hollis-Sawyer & Cuevas, 2013).

Despite the disadvantages associated with being an aging woman, an increasing number of older women are working and it is expected that the labor force participation rates of older women will continue to increase. Many factors influence the increasing number of older women at work, including women's longer life expectancy (Population Reference Bureau, 2016) as well as women's higher rate of poverty later in life compared to men of the same age, particularly for women who are widowed or unmarried (O'Grady-LeShane, 1990). Women earn less money of the course of their careers compared to men (Thompson, 2009) and furthermore, women typically bear the weight of caregiving roles and responsibilities regardless of whether or not they are working, which is behavior and responsibility not typically expected of men (Moen, Robison, & Fields, 1994; Pavalko & Artis, 1997) The tendency for women to bear the burden of caregiving and unpaid work roles at home has been found to result in heightened stress levels in women compared to their male counterparts, which is detrimental to working women's well-being over time (MacDonald, Phipps, & Lethbridge, 2005). Furthermore, the unpaid caretaking

roles women fill early in their lives have been linked to increased poverty rates later in life (Wakabayashi & Donato, 2006). All of this indicates that older women at work are a critical population for researchers studying the workforce and job discrimination.

Despite their increasing workforce participation and unique experiences, older women and their work experiences are scarcely studied in the literature on any workplace issues. While some research exists for older workers and a breadth of studies have been conducted on women in general, there is a lack of research on how being a member of *both* categories of “female” and “older” impacts workplace outcomes. Some theories have proposed explanations for how multiple group membership (e.g., older and female) is perceived at work (Kulik, Roberson, & Perry, 2007; Marcus & Fritzsche, 2015), but there are few empirical tests on the subject, and no empirical evidence on multi-group membership that specifically focuses on workplace outcomes. The focus of the present study will therefore be an empirical test of perceptions of multiple group members, in particular, this important and unique intersection of being an older woman at work. Specifically, the present study will examine reactions to older women in a hiring context, with a focus on whether responses are to her sex, her age, or a combination of sex and age.

The Stereotype Content Model

To fully understand and reduce discrimination, it is important to understand how it begins: with the emergence of stereotypes. Stereotypes are a part of a cognitive process of categorizing elements of the environment and have been defined as widely held and fixed (but often oversimplified) ideas or beliefs about a particular person, group, or object (Allport, 1954). Although discrimination affects many different groups, the stereotypes associated with different groups vary. That is, for example, stereotypes about women are vastly different from stereotypes

about people of color, and yet both groups experience discrimination at work. To understand how and why discrimination occurs, Fiske, Cuddy, Glick, and Xu (2002) proposed the Stereotype Content Model.

The Stereotype Content Model proposes that there are two key dimensions which individuals consider when identifying and responding to others' group membership. These dimensions are warmth and competence. The Stereotype Content Model identifies general perceptions or stereotypes associated with people categories (e.g., old/young, male/female, black/white) as groups. Perceptions and stereotypes of the elderly, for example, place the entire group of "older people" in a quadrant of the model. Individuals are thus grouped based not on their own actual unique behaviors but on their membership to any given group. An older person, regardless of whether he or she does fit the "old" stereotypes, will still be viewed in the same quadrant as all older people. Thus, it is not the individual's actual warmth or competence that is taken into account, but the perceived warmth and competence of the *group* to which that individual belongs. Fiske and colleagues (2002) define two variables, commonly associated with intergroup relation studies, that are predictive of the dimensions of competence and warmth. These two dimensions are status (related to competence) and competition (related to warmth). By using these dimensions, it is possible to predict where a group, and therefore all individual members of that group, will fall within the quadrants of the Stereotype Content Model and ultimately predict associated stereotypes, prejudice, and discrimination. This model also explains how hostility and competition emerge between groups, which can lead to discrimination.

The first predictive dimension, status, is related to competence and is defined as the relative social, professional, or other standing of a person. According to Fiske and colleagues'

findings, status predicts competence. Therefore, those who tend to be high in status, such as a social or professional leader, would be perceived as high on competence in the Stereotype Content Model. Likewise, groups low on status, such as the poor or homeless, would likely be perceived as low in competence. The second predictive dimension, competition, is related to the warmth variable within the model and is defined by Merriam-Webster as a “the act or process of competing” which is “to be in a state of rivalry” (2017). Fiske et al. indicate that competition predicts warmth. Therefore, someone with whom there is strong competition or rivalry is viewed as less warm, whereas those with whom there is no competition are perceived as high on warmth. In sum, based on the Stereotype Content Model, groups that are considered to have high status are viewed as highly competent, and groups that were highly competitive were low in warmth.

In the Stereotype Content Model, the two dimensions of warmth and competence cross to form quadrants. The first quadrant is high warmth, low competence. This quadrant includes elderly people, disabled people, and housewives. Reactions to these groups typically result in what are known as benevolent or positive forms of discrimination. Glick and Fiske (2001) refer to this as “paternalistic prejudice,” which can appear to be a positive, kind, or loving perception of others but in reality refers to the desire to domesticate and exploit groups that are low in status. The next quadrant is high competence and high warmth. Individuals who fall into the high/high quadrant are expected to be viewed as the most favorable group. Typically, this high competence/high warmth quadrant is where the dominant social in-groups fall, which in the U.S., for example, includes groups such as the wealth and middle class, whites, and Christians. Next, groups are perceived to be low in competence and low in warmth, such as the poor, jobless, addicts, and homeless people. People in this group are typically regarded with disdain and disgust, viewed as lazy, and dehumanized (Harris & Fiske, 2006). Finally, there are groups

viewed as high in competence but low in warmth. In contrast to paternalistic prejudice described previously, Glick and Fiske (2001) also describe an alternative, “envious prejudice.” Envious prejudice refers to the attitudes of jealousy, disdain, and distrust towards more successful groups, which fall in the high competence, low warmth quadrant at the bottom right of the SCM. Groups in this quadrant include the wealthy, Jewish people, Asians, and feminists. For example, a group that is viewed as high in competence but low in warmth in the U.S. are Asian immigrants. While stereotypes about these high competence/low warmth groups can be somewhat “positive” (i.e., Asian Americans are intelligent and successful), the result is a negative feeling due to the competition aspect of their low warmth (e.g., they are sneaky, distrustful). Following, I will demonstrate how the Stereotype Content Model applies to the understanding of stereotypes, prejudice, and discrimination against women and older adults in the workplace.

Gender discrimination at work based on the SCM

Biases against women at work are well documented, especially for leadership positions (Eagly & Karau, 2002). Based on the SCM, women fall into one of two different subgroups, the high warmth low competence of a more “traditional” female role, and the low warmth high competence of the modern “feminist” working woman. The literature describes discrimination against women in reactions to both the high warmth/low competence and low warmth/high competence quadrants that women fall.

Traditionally, women are stereotypically viewed as submissive, gentle, and emotional. Women who remain in line with these stereotypes by maintaining traditional roles in society fall into the high warmth/low competence stereotype content quadrant (i.e., grade school teachers, nurses, etc). These “traditional” women are often treated with condescension and what is

sometimes known as “benevolent sexism” (Glick & Fiske, 1996). Benevolent sexism is less likely to be perceived as sexism than its more hostile counterpart, and as a result, benevolent sexist behaviors are more pervasive and accepted (Barreto & Ellemers, 2005). However, benevolent sexism is still detrimental to women. Studies have shown that benevolent sexism worsens women’s cognitive performance through women’s feelings of lack of competence (Dardenne, Dumont, & Bollier, 2007). Dardanne and colleagues also found that although women’s gender identification (or identifying strongly with other women) could protect them from the harmful negative effects of hostile sexism, this did not protect them against benevolent sexism. The study seems to suggest that while hostile sexism is harmful, women are likely to *reject* hostile sexism but at the same time accept and even internalize benevolent sexism (Becker & Wright, 2011). Benevolent sexism also may affect a woman’s psychological view of herself, specifically in viewing themselves and their bodies in a more negative and shameful way (Shepherd, Erchull, Rosner, Taubenberger, Queen, & McKee, 2011).

In addition to the above psychological concerns, broader societal values have influences perceptions of working women. Careers that are traditionally feminine are often undervalued, ridiculed, and earn significantly less pay than “masculine” careers. Indeed, as women enter traditionally male dominated jobs, pay rates tend to decrease (Miller, 2016). The devaluation of careers that are viewed as feminine aligns with Fiske et al.’s model that traditional women are low in competence, therefore the jobs they do (e.g., grade school teacher, nurse) must be easy and unimportant.

Role Congruity Theory (Eagly & Karau, 2002) explains why women tend to be discriminated against in more male-type roles, particularly positions of leadership. Role congruity theory posits that individuals are evaluated based on whether they are occupying roles

that align with their typical social positions. Stereotypes about women's roles and stereotypes about leadership do not align, and this misalignment or "incongruence" causes negative reactions to female leaders. Leadership, a traditionally masculine role, is a high competence position and often low warmth (although some leaders can be warm). Since traditional women fall into the high warmth, low competence quadrant of stereotype content, it is incongruent for them to be leaders. However, by leaving traditional roles and assuming a masculine role in the workforce, women are perceived as having low warmth although they may obtain high competence. Thus, by assuming leadership positions, women may be assigned to the SCM's quadrant of high competence and low warmth. Women who fall into this quadrant are recipients of envious, competitive prejudice. Negative reactions to women in such masculine roles include less favorable evaluation and reactions to women in the same positions as men; a view of the woman as less likeable, attractive, or hireable; women's leadership being less effective; and greater obstacles faced by female leaders compared to male leaders (Eagly & Karau, 2002).

In summary, women are typically sorted into one of the two opposite quadrants within the SCM, low warmth/high competence (leaders, career women, feminists) or high warmth/low competence (traditional women, mothers, housewives). As Fiske and colleagues (2002) describe the two 'subgroups' of women: ". . . disliked, dominant, competent, nontraditional women (e.g., career women, feminists, lesbians, athletes) versus likable, dependent, incompetent, traditional women (e.g., housewives, sometimes "chicks," p. 879)." The implications of the negative views towards women, whether "disliked but competent" women or "liked, incompetent" women have worrying implications for the workforce. For example, Catalyst (2017) reports that while women in S&P 500 companies made up 44.3% of total employees in 2017, the percentage of

women narrowed more and more at positions with higher earnings all the way to CEOs, of whom only 5.6% were women.

Age discrimination at work based on the SCM

The Stereotype Content Model also provides solid theoretical ground for organizing research on stereotypes against older workers (Fiske, Cuddy, Glick, & Xu, 2002). Like “traditional” women, older adults fall into the low competence/high warmth category. The elderly are perceived by others as though their time has passed, they cannot keep up with the demands of work, and they are poor performers (Posthuma & Campion, 2009). Older workers are viewed to be resistant to change and unable to learn (Hedge, Borman, & Lammlein, 2006), and ultimately are seen as generally incompetent (Kite, Stockdale, Whitley, & Johnson, 2005). However, older workers may also be associated with positive stereotypes as they are expected to be more dependable (Cuddy & Fiske, 2002) happy and wise (Hummert, 1990), as well as helpful and kind (Brewer, Dull, & Lui, 1981). Both positive and negative stereotypes of the elderly align with Fiske et al’s model of stereotype content, as the model places older people in the low competence/high warmth quadrant of paternalistic prejudice.

Discrimination against older employees may be more “acceptable” relative to other forms of discrimination because of older adults' warmth and stability (Cuddy & Fiske, 2002; Gordon & Arvey, 2004; Posthuma & Campion, 2009; Hummert, 1990). This “acceptable” discrimination occurs because elderly people, like other groups that fall into the category of warm and incompetent, are often viewed with pity and sympathy (Cuddy & Fiske, 2002), which makes reactions to these individuals seem to be “coming from a good place” as opposed to a place of hostility, fear, or anger. However, the reactions to supposedly positive or kind stereotypes do not

necessarily help older workers. Warmth in work settings does not help with getting ahead, being competitive, or earning promotions and raises. Instead, the view of older employees as “warm” and agreeable can result in a paternalistic view of older colleagues and ultimately prejudices similar to the stereotype of women as supportive, nurturing figures but mentally and physically weak. These stereotypes, whereas often perceived as positive, result in the patronizing view of older workers, particularly older women, as incompetent though endearing (Marcus & Fritzsche, 2015).

Age discrimination has been found to have an evolutionary basis as a result of mortality salience and fear of dying (Marcus & Sabuncu, 2016). Fear of death as a function of ageism has been found by researchers studying terror management theory (Martens, Goldenberg, & Greenberg, 2005). Terror management theory considers the unique psychological conflict experienced by humans resulting from a person's awareness of his or her own mortality and eventual death. The knowledge of mortality causes "terror" for which people must constantly seek coping mechanisms (Greenberg, Pyszczynski, & Solomon, 1986). Based on terror management, seeing aging individuals is a reminder to us that aging and death are inevitable. Indeed, Bodner, Shrira, Bergman, Cohen-Fridel, and Grossman (2015) found that individuals with higher levels of anxiety towards death and ageing were more likely to express ageist behaviors and attitudes. A similar study found that making mortality salient resulted in younger individuals distancing themselves from older adults, suggesting that concerns about mortality can instigate ageism (Martens, Greenberg, Schimel, Landau, 2004). Others have also described, studied, and found a similar relationship between the fear of death, disease, and disability and ageism (Butler, 1969; Nelson, 2011; Chonody & Teater, 2016). Age discrimination, thus, is unique from other discrimination based on group membership. That is, though belonging to a

groups such as "woman" or "black" is a category that people carry with them throughout their life, being "older" is a category that people grow into over time. All workers will belong to the "older worker" category given enough time. When a younger person discriminates against an older individual, that person is exhibiting prejudice towards a group to which they will someday belong. Therefore, terror management theory suggests that this discrimination is, in some way, a defensive reaction in the face of mortality.

In addition to its antecedents, ageism has been linked to a number of negative outcomes. An individual's perception and belief that she is being discriminated against has been shown to result in psychological harm (anxiety, depression, lower satisfaction, psychological distress, etc), particularly for disadvantaged groups (Schmitt, Branscombe, Postmes & Garcia, 2014). Research has found that perceived discrimination based on age results in lower self-esteem for older employees, which is also linked to burnout, personal strain, and somatic complaints (Hassel & Perrewe, 1993). Furthermore, low self-esteem may result in self-fulfilling prophecies in which older workers, who might otherwise have been capable, begin behaving in ways that are more congruous with harmful stereotypes and low self-esteem (Korman, 1976). Negative stereotypes about older adults can and does lead to many forms of employment discrimination, including increased time spent in unemployment (Tugend, 2013), greater difficulty securing interviews to be hired (Lahey, 2008), and difficulty adapting to training that does not meet their needs (Zwick, 2011).

Theories of multiple group membership

Human beings are complex, and no one is just a woman, just older, or just a racial minority. One person can belong to all three of those minority groups. Although most studies

on discrimination focus on categories that analyze differences between the treatments of males compared to females, young compared to old, or black compared to white, far less is known about how the intersection of the categories impacts stereotyping, prejudice, and discrimination (Marcus & Fritzsche, 2015). Therefore, questions remained unanswered in regard to how multiple group membership affects stereotyping, prejudice, and ultimately, workplace discrimination. In particular, do decision makers perceive older women similarly to how they perceive younger women? Do they stereotype them similarly to how they stereotype older men? Or, is there a unique perception and stereotype associated with older women? By examining and testing theories of multiple group membership, the present study aims to begin to address the experience of older women at work.

Kulik's Model of Category Activation/Inhibition

A model describing how multiple-group membership affects hiring decisions was developed by Kulik, Roberson, and Perry (2007). The authors suggested, in alignment with common social psychological theories, that when an individual belongs to more than one category, it is too cognitively taxing to view and respond to multiple categories at the same time. Social and cognitive psychologists postulate that the process of navigating through a complex world with a multitude of stimuli is too much for human beings to process all at once (Fiske & Taylor, 2013). This is known as cognitive overload (Sweller, 1988; 1989). To avoid cognitive overload, people tend to act as “cognitive misers” (Taylor, 1981). As humans have limited cognitive capacity for information processing, we act as cognitive misers by taking mental “shortcuts” whenever possible. That is, people find ways to simplify the perception process (Macrae & Bodenhausen, 2000). Kulik et al. argue that, as “cognitive misers,” people tend to

fixate on one salient category over others and focus on that single category when perceiving and responding to the individual.

Thus, Kulik et al.'s model of category activation and inhibition suggests that stereotypes related to the salient category become activated while conflicting stereotypes related to less salient categories are inhibited. This process involves two stages. The first stage, *spontaneous category activation and inhibition*, is where one category is made salient and the others suppressed automatically. That is, one category is activated unconsciously. In this stage, the most important factors in determining the activated category are *category salience*, or which category is more immediately noticeable, and *decision maker attitudes*, which are the pre-existing thoughts, feelings, and beliefs of the individual that already exist before being presented with the multiple group member. In the second stage, *motivated category activation and inhibition*, a more conscious effort is made to focus on one category or another. This stage is influenced by the decision-maker's self-enhancement motivation and motivation to avoid prejudice. Going through these two stages of category activation will determine the dominant category.

Kulik's model focuses in particular on the organizational process of employment interviewing. Understanding how stereotypes and biases play a role in hiring is critical because these decisions have important implications for individuals' lives, livelihoods, and society as a whole. Interviews are a particularly critical moment in which an important decision about someone's life is made based upon a brief interaction with a stranger. That is, it is a situation that is very high stakes but relies on very little information about another person, in which stereotypes are very likely to emerge when trying to "fill in the gaps" about another person (Purkiss, Perrewe, Gillespie, Mayes, & Ferris, 2006). Stereotypes inform impressions of

individuals, categorizing individuals into groups such that it is assumed that any member of a target group possesses all the same traits as any other member of that group. The assumption of stereotypic traits makes interviews so crucial in the hiring process, Kulik and colleagues argue, as hiring managers are likely to form an impression of an applicant based upon stereotypes about a target group and then match the job applicant whose stereotyped traits best fit the role of the job. Indeed, research confirms that this stereotype to job match can be true for sex (Cohen & Bunker, 1975), race (Chang & Kleiner, 2003), and age (Bendick, Jackson, & Romero, 1997). Thus, it is critical to understand how and why this occurs, not only for individual groups but for multiple group members.

Kulik and colleagues argue that although stereotypes *would* inform judgments in the hiring context, there are likely to be competing stereotypes in multiple group members (e.g., older woman). In their example, the authors describe a black, disabled applicant and indicate how job context and certain interviewer characteristics may play a role in determining which of two categories (black, disabled) becomes salient and informs judgments.

Empirical research demonstrates this concept of category salience, although mostly outside of the context of hiring. One prominent example of stereotype category salience is a study conducted by Macrae, Bodenhausen, and Milne (1995). In this experiment, the researchers were interested in the emergence of a salient category of an Asian female subject. Participants were shown a videotape of the Asian woman either eating a bowl of noodles or applying her makeup. After viewing the clip, participants were given a lexical decision task containing words related to China, women, or neutral topics. Results were as hypothesized, in that participants in the noodle eating videotape condition responded more quickly to stereotypic Chinese words while participants in the makeup video condition responded quickly to stereotypic female words.

Participants in a control condition responded in a similar speed to all words. These results indicate that one category can emerge as salient over the other (e.g., Chinese or female). Further, they also indicate that certain cues or primers, such as the noodles or the makeup, function to activate categories. However, in the context of hiring, such blatant displays of femininity (applying makeup) or racial primers (eating noodles) do not exist. Kulik et al. argue through their model that there is a process by which many factors play a moderating role in determining a salient category within the context of hiring, including the job itself.

In the model, there are two job-related factors that play a role in the final hiring decision beyond activation and inhibition of stereotypes. The first job-related factor is the time delay between the interview and the final hiring decision. Although one category may emerge as salient during the course of an interview, Kulik's model indicates that over time, the salient category may switch to another. The example of this switch that the authors provide occurs during the *motivated category inhibition* stage of the model. When an individual is motivated to inhibit a category that lends to negative stereotypes and prejudice, it can result in what is known as the "rebound effect," in which attempts to remove a category from its associated stereotypes in turn actually strengthens those stereotypes (Wegner, 1994). Kulik postulates that if the hiring decision is made immediately after the interview, the inhibited category may remain inhibited, but given enough time between the interview and ultimate hiring decision, the rebound effect may cause that inhibited category to emerge more strongly and become a factor in the hiring decision.

The second job related factor influencing hiring decisions in Kulik's model is the job requirements, particularly in the way the job requirements relate to salient stereotypes. Kulik et al. (2007) did not assume that discrimination against women, or minorities, would always lead to

these groups failing to be hired. In fact, depending upon the job for which the individual is applying, stereotypes about a particular group could be either harmful or beneficial, regardless of overall group discrimination. Kulik's example is the hiring of a black disabled man for a sales position. Stereotypes about black individuals being more aggressive may be negative stereotypes in general but are possibly beneficial to the sales job which requires a more aggressive personality.

Kulik's model has not yet been empirically tested in a hiring context. In part, the lack of studies examining the model might be due to the fact that it is difficult to test an internal cognitive process as the one laid out by the stereotype activation/inhibition model. In order to truly examine these processes, one would have to be able to understand how both unconscious (automatic stereotype activation) and conscious (motivated stereotype activation) occur. That is, in the event that an old woman was applying for a job, based on Kulik's model, first there would be an automatic stereotype activation in which the perceiver's unconscious attitudes and category salience are important. If the older woman, for example is dressed or talking in a way that makes age the salient category, that would be category salience. Then, if the decision maker has relatively little bias against women, but tends to feel that older people should be retired, that would be the decision maker's attitudes towards older workers making the age category salient. After the unconscious process, the model describes the motivated category activation/inhibition, in which the perceiver actively considers categories and tries to activate or inhibit certain categories. So, for example, if the decision maker is motivated to hire more women as it reflects well on their business (self-enhancement motivation), then that person may try to focus on the woman category rather than old. There is also motivation to avoid prejudice, which may cause

the perceiver to try to suppress a category like age towards which they are discriminatory. After both stages, a dominant category emerges.

However, within Kulik's hiring context, there are two more factors that play a role between the emergence of a dominant category and the final decision. First, there are job requirements. If the job requires behaviors that stereotypically do not align with the dominant category, a decision might be made against the applicant. For example, a position that requires high energy would not match with stereotypes of an older person. There is also the time delay between a dominant category and the decision. As the author's describe, when individuals actively attempt to suppress stereotypes and biases, this attempt can backfire. Therefore, the authors argue, that if the hiring decision maker was attempting to avoid stereotyping the applicant as "old," while they might succeed and instead view the individual as a woman, over time it is likely that the category of "older" cannot remain suppressed and will emerge as more salient than before.

Because there are many pieces to this model, empirically testing the entire process would be an enormous feat. Some studies support the stereotype activation/inhibition model, but only in pieces and outside of the hiring context. The importance of Kulik's model, however, is that it is within the context of a hiring decision. The Asian woman example provided by Macrae and colleagues (1995) does support the stereotype activation and inhibition model, but the study provides extreme primers and cues to activate particular categories, which do not exist in hiring situations. Indeed, when presented with the image of an Asian woman eating noodles, participants were cued to "Asian" stereotypic words; likewise, when she was applying makeup, the participants were quick to respond to "female" stereotypic words. This study provides insight, but it is extremely rare that an interviewee would be eating noodles or applying makeup

while answering job-relevant questions. Thus, the study says little of hiring processes described by Kulik.

Furthermore, Macrae et al.'s study predicted and found that category salience did *not* emerge in the control condition. That is, within the context of this experiment, without direct primers like makeup or noodles to indicate one category, there was no definite category salience. Therefore, there may be something else at play for multiple category members. That early study, while informative, certainly does not provide results that may generalize to all conditions. Whereas Kulik et al. argue that the same processes would occur in hiring, this assertion has not been tested. Furthermore, while stereotypes *emerged* in the Macrae study, participants simply responded to works to indicate the category salience, but no evaluation of the target was made, as would be made in a hiring context. Thus, stereotypes emerged, but it is uncertain if these stereotypes would lead to prejudice and discrimination. Further research is needed to better understand how multi-group members are perceived and evaluated in a hiring context.

Marcus and Fritzsche's Intersectional Salience of Ageism at Work (ISA)

In contrast to Kulik et al.'s (2007) model, Marcus and Fritzsche (2015) developed a model of multiple group membership known as the Intersectional Salience of Ageism at Work (ISA) model. Marcus and Fritzsche describe individuals as "demographic constellations" in terms of group membership. They postulate that a combination of one's age based membership (objective and subjective age), gender based membership (sex and gender), and tribe membership (race, ethnicity, nationality, religion) result in an archetype. The archetypes, such as the older white female as a "grandmother" and the younger minority male as the "rebel," are what people notice about an individual, rather than focusing only on age, race, or gender alone.

While this model appears to contradict category activation as multiple categories surface at once, it can be argued that an archetype is a single category of its own. That is, rather than the category “old” or “female” or two categories at once, the archetype “grandmother” is a single category that can emerge above the category “female” or “old” alone. The ISA model argues that it is possible to simply access the archetype to serve as the informative category about a target individual. Thus, it may not be more cognitively taxing to activate the archetypical stereotype than to activate a stereotype of one demographic category.

Marcus and Fritzsche posit that there are three major group memberships, each containing multiple facets, that make up group membership of all individuals. The first membership category is age-based membership, which includes both objective age, or actual chronological age, and subjective age, which refers to how old an individual feels and appears to be (Barak & Schiffman, 1981). Second, there is gender-based membership, which includes biological sex as well as gender, or whether an individual identifies with being male, female, or otherwise. Third and finally, Marcus and Fritzsche describe tribe-based membership, which includes race (e.g., White, Black, Asian, etc), ethnicity (e.g., Irish, Nigerian, Chinese) religion (e.g., Christian, Muslim, Hindu), nationality (e.g., national origin in international contexts), as well as nativity (e.g., local or immigrant). While all of these factors may play an important role in an individual’s identity and multiple-group membership, Marcus and Fritzsche focus in particular on objective age, sex, and race. They posit that the combination of these three categorical group memberships form a unique multiple group-membership known as an archetype.

Marcus and Fritzsche describe how multiple group membership may result in unique age-based outcomes. Individual self-perception combined with how others’ perceptions in the form

of stereotypes, prejudice, and discrimination influence behavioral and affective outcomes. These outcomes are also affected by situational salience. Namely, aspects and context of the job may or may not create an age-salient situation in which a person's age becomes the focal category. In other circumstances, the job content may make gender or race the more salient group membership. This proposition by Marcus and Fritzsche is similar to Kulik et al.'s (2007) theory. However, Marcus and Fritzsche go on to propose that the salience of age may depend on demographic factors such as gender or race as well, and that in fact ageism affects women differently from men and members of different races in different ways and to varying degrees. The Intersectional Salience of Ageism framework posits that there is an effect of multiple group membership that cannot be explained by a single category, and thus it is the archetype, not *only* the age, that plays a decisive role in how older workers are perceived. The "constellation" of category thus acts as a new activated category, such as *grandmother* (older White female) that is as accessible as the single category of "female" or "old."

Some intersectionality research supports the idea that archetypes, or multi-group membership, can be readily activated and perceived. A study conducted by Maner and colleagues (2005) examined people's perception of aggression in the neutral faces of others. Their results show that people perceive greater anger in the faces of black males than other groups, including white males and black females. These results give some basis for the notion of archetypes. It wasn't the maleness or the blackness of the target face that primed aggression for participants, but rather the young black male that uniquely caused participants to perceive the target as aggressive. Black females in particular also face unique discrimination, which has been well documented and often referred to as *double jeopardy* (Beal, 2008). This effect has been

documented particularly in the workplace, with minority women reporting more harassment than all other groups (Berdahl & Moore, 2006). This literature supports the notion of archetypes.

Other studies have directly tested the idea of archetypes through an adjective checklist. Previous literature on stereotypes utilized adjective checklists to understand the perceptions of particular marginalized groups (e.g., Schein, 1973). Marcus, Fritzsche, Smith, Gebben, Perez Shapiro, Sahin, Emiroglu, and Martinez (under review) developed an adjective checklist by combining adjectives used in prior literature to study stereotypes associated with a single category (from Brewer, Dull, & Liu, 1981; Hummert, 1990; John & Srivastava, 1999; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994; Schmidt & Boland 1986; Williams & Bennett, 1975). The adjectives were developed from participant responses in the initial studies, who were often asked to either group adjectives presented to them into categories of people, to freely generate adjectives, or to select adjectives from lists and apply them to corresponding individuals. In all studies, the categories were single categories such as old/young, male/female, etc with two exceptions. Niemann et al. (1994) examined race and gender combined. Furthermore, the adjectives collected from John and Srivastava (1999) were actually *personality* related adjectives corresponding to the big 5 personality traits (McCrae & Costa, 1987).

Initially, an adjective list of 253 was compiled from these studies, but was narrowed down by a group of SMEs to remove duplicates, adjectives that simply described appearances (e.g., blue eyes), were too specific (e.g., bad at driving), were synonymous (between fussy and irritable, fussy was removed) or may have been vague and confusing to participants (e.g, robust). Ultimately, a list of 173 adjectives was used in the adjective checklist. The authors also conducted a second study using free response data. Participants were asked to consider an individual described with three words, either old or young, white or black, and male or female.

Participants in the adjective checklist study were asked to respond to only one randomly assigned archetype (e.g., old white female) and select whether they felt all 173 adjectives either *apply* or *do not apply* to that individual. In the free response study, participants were given two minutes to write general impressions of those written descriptors for all eight archetypes, the order of which was counterbalanced.

Results of both the free response data and adjective checklist provided evidence for archetype theory. For example, the old white female was considered kind, family-oriented, honest, caring, and gentle, which match the “grandmother” archetype. The same was true with the free response data, where trends of warmth and nurturing like “old,” “kind,” “wise,” and even “cookies” emerged for free responses to an old, white woman. In fact, all eight groups exhibited significant differences from one another in adjective cluster responses, suggesting that people *do* have accessible stereotypes about individuals based on multiple group membership.

If an archetype exists as an accessible category to perceivers, it still must be activated by some cue or reason, just as with single categories. In Maner et al.’s (2005) study, the researchers first activated participants’ self-protection goals by showing them a clip from a horror film in which a killer is stalking another character. The authors predicted that this would cause participants to feel fear and thus engage in heightened vigilance to perceived threats, which was expected to result in greater perceived aggression in the target faces. It is likely that, because the archetype of the young black male is already known to most as aggressive, the effect was found for black male faces and not other groups. The archetype of the black male, in this circumstance, became salient, rather than the category of male (because white men were not perceived as threats) or black (because black women were not).

For an archetype to become the salient category, the perceiver of the archetype must already have knowledge and associated stereotypes with the archetype, as with the “aggressive” young black male. In the same way that stereotypes exist about single categories such as “female” or “old,” there must be pre-existing stereotypes about the combination of categories. That is, having knowledge of older white women as “grandmothers” can create the possibility for the grandmother archetype to be activated. As suggested by Kulik et al. (2007), contextual salience indicates situational forces or contextual cues that influence which stereotype, whether “old” or “female” or “grandmother,” is activated. Based on Kulik’s theory, the cue for age may perhaps be something more like physical feature such as grey hair or wrinkles, or more explicit cues such as if the older individual takes medication or a date of birth is mentioned. Meanwhile, Kulik and Macrae may argue that it is something more explicit, such as if she is dressed in a feminine way or applying makeup, that would cue the female category to become salient. Visual cues indicative of the grandmother archetype may be some unique style of “older woman,” such as a way of dressing that is both feminine and older. For example, baking and cooking are often associated with grandmothers, as is caregiving. All of these things indicate situational salience, which causes cues to be activated and categories to emerge. That is, in particular based upon Kulik’s theory, the salience of the situation helps to explain emergent categories. Certain cues and motivations can cause one category or group membership to activate, and often these relevant cues are provided by the environment in which the individual operates (e.g., the job itself, the pool of applicants).

THE MAIN STUDY

The present study provides an initial test of both the situational boundaries associated with category salience, as well as how multiple group members are responded to in work contexts with ratings of hireability. As this research is primarily focused on the way older women are perceived in work contexts, the present study aims to examine differences in feedback provided to applicants who are equal in qualifications but differ only in group membership (age and gender, with race remaining constant). The present study aims to show evidence supporting Marcus and Fritzsche's idea of an accessible archetype.

Kulik and colleagues indicate that the job itself acts as the cue, such that the content of the job functions as the category activator. For example, some studies have shown that there are certain jobs that are "sex-typed" as feminine (e.g., nurse, librarian) and others that are masculine (e.g. paramedic, construction worker) (Glick, Wilk, & Perreault, 1995). Other research has found similar "age-typing" effects of different occupations (Reeves et al., 2013). Therefore, in the present study, a generally gender and age neutral job was used, but a job ad for the position was manipulated to appear more stereotypic of certain individuals. Specifically, the job chosen was that of real estate property manager. This job was selected as a sex- and gender-neutral job, as demographic statistics indicate that people in the United States who have the job of property manager are 49.7% women and vary greatly in age, with relatively even spread across age groups from 25 to 65+ and a median age of 49.8 (Bureau of Labor Statistics, 2019). Whether the manipulated job ad *matches* with the individual's group membership, as Kulik suggested, ratings of these applicants may become more or less favorable. As the focus of this study is to see how discrimination occurs against older women, job descriptions were designed to be based upon archetypes. For the full job ads, please refer to appendix 1.

The job description consisted of general information about the job and organization that is hiring. This job content was intended to resemble a call for applicants to an open position, and was mostly constant across conditions, except that certain words were altered to fit archetypal adjectives based on Marcus and colleagues findings. Specifically, a list of “desirable” traits of the ideal fitting applicant was given in each job and varied by archetype, such that those adjectives that came out in the previous adjective checklist study were used for each archetype of interest: the “everyman” (young white man), “sweetheart” (young white woman), “gentleman” (old white man), and grandmother (old white woman). These conditions were expected to serve as salient cues for the archetype, and it is expected that the archetypes will emerge. These conditions were expected to serve as salient cues for the archetype, and it was expected that the archetypes would emerge and job applicants would be judged according to whether their sex and age matched the activated stereotypes.

In the present study, human resource recruiters were recruited and randomly assigned to review one job ad (with archetype primes embedded) and a transcript of employment interview responses from one job applicant (where age and sex are manipulated but interview response content remains constant). Participants were asked to rate interview performance, the job applicant’s person-job fit, and hireability; describe the personality of the job applicant using an adjective checklist; and provide open-ended developmental feedback to the job applicant. The following hypotheses are proposed:

Hypothesis 1: Raters are expected to choose more archetypal adjectives to describe the job applicant when the job applicant’s demographic characteristics match the archetype represented in the job description. In other words, when the grandmother archetype is represented in the job description and the job applicant is an older woman, raters are expected

to check more grandmother adjectives to describe her than when other archetypes are represented in the job description. This would provide some evidence for stereotype activation.

Hypothesis 2: When the job description fits the archetype of grandmother (old, white, female), the older female job applicant will receive better interview performance, person-job fit, and hireability ratings and more positive feedback than the younger female, younger male, or older male job applicant

Hypothesis 3: The older female job applicant will be rated more poorly and will receive more negative feedback than the younger female applicant when the sweetheart (young, white, female) archetype is described in the job description.

Hypothesis 4: The older female job applicant will be rated more poorly and will receive more negative feedback than the younger male applicant when the everyman (young, white, male) archetype is described in the job description.

Hypothesis 5: The older female job applicant will be rated more poorly and will receive more negative feedback than the older male applicant when the gentleman (old, white, male) archetype is described in the job description.

The present research takes an important look at how age and gender intersect for hiring managers. That is, most research on job discrimination and most policies that companies incorporate in order to reduce discrimination tend to focus on single categories. For example, the focus of pay gaps and hiring practices often is on how women compare to men; however, if the present study uncovers a particular effect of discrimination towards *older* women, then organizations and researchers alike need to rethink the way diversity interventions are approached. If older women are facing unique discrimination, then increasing the pay or the rate

of women in an industry will not resolve the issue, as hiring managers and decision makers can still discriminate against older women and it would not be reported by data that focuses solely on gender. Moreover, most jobs are inconsistent with the perceptions of the “grandmother” archetype. If hiring decisions are driven by archetypes and beliefs about multiple group members, older women are at a disadvantage in almost all careers. In particular, given that women are more inclined to exit the workforce for brief periods (e.g., having a child) and then re-enter at a later time, women as they age will experience exponentially increased difficulty in finding work. Therefore, the present research may fill a critical gap in both science and practice that could have massive implications for policy and practice regarding this growing and vulnerable population of workers.

PILOT STUDY

Prior to conducting an experimental study to examine archetypes at work, an initial study was conducted to examine if there is any evidence for the existence, uniqueness, and emergence of archetypes. Furthermore, in order to properly build the main study, a good quality measure of archetype emergence was needed, yet none existed previously. Thus, this pilot study functioned to build a measure that could be used as a DV in the main study in order to indicate emergence of stereotypes of multi-group members. It was possible to build the pilot and measure of stereotype emergence by first identifying measures used previously in the literature to look at stereotype emergence regarding gender, age, and race. The pilot study was a randomized experiment with 8 groups based on Marcus and Fritzsche's ISA model.

Participants

The pilot study's participants were 360 undergraduate Psychology students at UCF, who voluntarily participated through UCF's SONA system for extra credit in their psychology courses. The participants were 54.7% female, 53.7% White, and their mean age was 20.67 (SD = 4.52).

Procedure

Participants were randomly assigned to one of the eight "archetype" conditions, including young white male (everyman), young white female (sweetheart), old white male (gentleman), old white female (grandma), young black male (rebel), young black female (invisible), old black male (sage), and old black female (matriarch). In each condition, participants were given a combination of the three demographic characteristics, e.g., "old white female" and then asked indicate whether a number of different trait-related adjectives were typically associated with

people fitting that description. For each of the 173 adjectives, participants were instructed to choose whether the given adjective “Applies” (score = 1) or “Does not Apply” (score = 0).

Materials

The list of 173 adjectives were chosen based on previous literature on stereotypes that has used adjective lists to understand perceptions (Schein, 1973). Specifically, this list was developed based on literature that utilized adjectives to define age, sex, and racial stereotypes and general personality types (i.e., from Brewer, Dull, & Liu, 1981; Hummert, 1990; John & Srivastava, 1999; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994; Schmidt & Boland 1986; Williams & Bennett, 1975). From these studies, a total of 253 adjectives were initially compiled. Five graduate students in psychology then removed adjectives or descriptors that were too specific (e.g., bad at driving), may cause confusion to the participants (e.g., robust), relied too much on physical traits (blue eyes, dark skin), or were synonyms (e.g., irritable and fussy, fussy was removed). After this process was complete, the final list was 173 adjectives.

Participants were also asked to report a few basic demographic characteristics: age, gender, and race.

Results

For the adjective checklist, the most frequently endorsed adjectives for each target archetype were selected and an exploratory factor analysis (EFA) with varimax rotation was conducted, utilizing the scree plot coupled with the Kaiser criterion to ascertain retention of final factors. The adjective sets ultimately corresponded well with the hypothesized trait patterns. For example, the old white female was kind, family-oriented, honest, caring, gentle, etc. (see Table 1), which align well with the “grandmother” archetype.

Table 1: Archetypical adjectives from pilot adjective study

Young White Male	Old White Male	Young White Female	Old White Female
"Everyman"	"Gentleman"	"Sweetheart"	"Grandmother"
Active	Clever	Active	Kind
Ambitious	Educated	Adventurous	Family-Oriented
Capable	Logical	Affectionate	Honest
Competitive	Knowledgeable	Attractive	Caring
Confident	Honest	Caring	Gentle
Happy	Conservative	Charming	Good-natured
Sociable	Traditional	Energetic	Sentimental
Outgoing	Forgetful	Enthusiastic	Friendly
Educated		Friendly	Generous
Patriotic		Happy	Knowledgeable
Upper-class		Kind	
		Outgoing	
		Supportive	
		Flirtatious	

With the free response data with the U.S. sample, similar patterns were uncovered. For example, in line with the caregiving grandmother archetype, old white females were described mainly using themes related to warmth and nurturance such as “old,” “kind,” “wise,” and even “cookies.” Overall, the results supported predictions made by Marcus and Fritzsche (2015), supporting the existence of the posited archetypes.

Although there are some limitations to this pilot study (e.g., sample characteristics being undergrads, the nature of the lab study, the lack of real-world application), it served as an initial examination of the emergence of archetypes. If a single category was salient, then adjective patterns should have emerged such that all women had similar results, or all older people, or all members of the same race. Because there was this initial support for the idea that people *can* in fact perceive unique characteristics of individuals based on a combination of categories and not always based on single category alone, the pilot study produced strong enough basis to move into a more empirical examination of multiple group members at work.

MAIN STUDY

Design

The study used a 2 (job applicant age: young, old) x 2 (job applicant sex: male, female) x 4 (job content by archetype: everyman, sweetheart, gentleman, grandmother) factorial design. The dependent variables are the participant's ratings of the interview performance, person-job fit, adjective checklist, and free-response feedback.

Participants

An initial batch of participants was recruited through word-of-mouth, email, and online postings through websites like LinkedIn and HR forms. This initial data collection period lasted over a month and yielded only 36 usable responses. To collect the remaining data, the study was then re-submitted through the IRB in order to alter the data collection method and participants to be collected through amazon's mechanical turk. The following 137 participants in the study were paid \$1.50 USD through MTurk. In order to participate in the survey through MTurk, participants were required to be living in the United States and have experience in HR, employment, or management positions.

More than half of the final sample was female (58.4%) and the majority were white (77%). The age range was wide, with a minimum of 21 and a maximum of 69. The mean age was 41.33. All respondents were required to have at least some sort of management experience in order to participate in the survey, but HR or employment service experience was preferred. The mean number of years employed in HR or employment services was 9.49, with a minimum of 0 and a maximum of 43 years. Only 13 respondents answered 0 years in employment service

or HR. When asked whether they *currently* were employed in an HR or employment service job, 51.4% answered yes and 45.7% percent answered no.

Procedure

The online survey built in Qualtrics began with a page asking for consent to participate. Participants were randomly assigned to 1 of 16 conditions (applicant age: young/millennial, old/baby boomer x applicant sex: male/female x job ad condition: everyman, sweetheart, gentleman, grandmother). Participants were told that the study is designed to examine how to help job applicants become more competitive for jobs. Participants were asked to review a job description and a job applicant's responses to an employment interview for that job. It was also said that, in order to protect the identities of the job applicants, their full names were not provided, and instead only a single first name was used.

The names, Claire and Steven, were borrowed from Milkman, Akinola, and Chugh (2015). The authors of that study found that Claire and Steven were identified as the names of a white female and white male, respectively, by 100% of participants.

The applicant's age was manipulated by altering some brief statements in the interview script in which the applicant either identified themselves as a millennial and young or a baby boomer and old (see appendix A for interview transcript). It is important to recognize what can be considered "old age" in terms of a worker. Specifically, the Age Discrimination in Employment Act (ADEA; 1967) in the United States protects workers from age discrimination beginning at age 40. Furthermore, in the United States "senior citizen" status begins at age 55 and the traditional retirement age is 65. The literature is somewhat conflicted on what qualifies as an "older worker" in terms of age, with some policies such as the ADEA using age 40, other

experts describing old age as beginning at 45 (Warr, 2001) and policies in other nations preferring over 55 (OECD, 2004). Perceptions of old age can also vary based on the appearance of any given individual and whether they “look old” (Marcus & Fritzsche, 2015). However, because baby boomers were born between 1946 and 1964 (thus being aged 55-74), it is expected that by stating that the applicant is born in that generation, regardless of which definition is applied, they should be sufficiently perceived as “older.”

The participants were first asked to review the job description of the real estate property manager, where archetype salience was manipulated. Archetype salience was manipulated through use of the adjectives that were found in an adjective checklist pilot study to be associated with those archetypes. The job descriptions included adjectives associated with one of the four archetypes of interest (see appendix B for job ads). Participants were asked to review the job ad and keep it open in a separate tab to refer to it throughout the study. Then, the participants were moved on to the transcript of an employment interview from the job applicant. The interview content remained constant across all conditions (except for the applicant’s name and the statement of age). The interview consisted of seven questions that are commonly asked of interviewees and which serve to provide information regarding the subject’s knowledge, skills, abilities, and qualifications. For example, the first question, *tell me about yourself*, provides opportunity to explain educational attainment and career goals. The second question, *can you name some past work experience that qualifies you for this job*, gave a good sample of what might appear on a resume in terms of working experience. Other questions include *why should we hire you*, *why do you want this job*, *give an example where you carried your team through a stressful period*, *describe a time you disagreed with a decision*, and *what can we expect from you in the first three months*.

After reading the job description and interview transcript, participants were asked to provide feedback to the interviewee. They rated the job applicant on interview performance, person-job fit, and hireability. Then, they had the opportunity to provide the job applicant with open-ended feedback. They were also told that the researchers are interested in personality traits of individuals who do well in interviews and asked to rate, to the best of their ability, adjectives that describe the applicant they reviewed using of a variation of the adjective checklist. Once these main parts were complete, participants completed manipulation checks with questions about the applicant, job ad, and interview to ensure they were paying attention and that the manipulation of age and gender was indeed noticed. Finally, they completed demographics questionnaire, manipulation check, and age and sex stereotyping measures. Participants were debriefed, thanked for their responses, and offered the opportunity to sign up in order to be shared the results of the study.

Measures

Interview Performance. These scales were adapted from Gilmore and Ferris (1989). All questions except for one were answered on a 7-point *Likert* type scale. First, participants were asked how likely they are to recommend hiring the applicant, with 1 being *not at all likely* and 7 being *extremely likely*. Applicants were then given information about the average salary of the job of Property, Real Estate, and Community Association Managers (given that the pilot study confirms its neutrality, of which the BLS seems to indicate). O*NET (National Center for O*NET Development) indicates that the median salary is \$57K annually in the United States with a low earners earning around \$28K and high earners earning around \$126K. With this information provided, participants rated what they recommended for starting salaries on a bar scale, scaled from the low end (\$28K) to high end (\$126K). The third question asked how

qualified the participants perceive the applicant to be, from *not at all qualified* to *extremely qualified* on a 7-point scale. Also on a 7-point scale, applicants rated the adequacy of information obtained about the job applicant as well as their own confidence in their ratings' accuracy. Gilmore and Ferris (1989) found that these dependent measures were all significantly correlated with the exception of the raters' confidence.

Person-Job Fit. The degree to which participants believe the target individual would *fit* in the presented organization was measured using Cable and DeRue's (2002) measure, altered slightly from the first to third person, and from current job to prospective job. For example, the person-organization fit item "*My personal values match my organization's values and culture*" were changed to "*the applicant's personal values match the organization's values and culture.*" The nine items are from three perceived fit scales presented in a random order, including person-organization fit values congruence, needs-supplies fit, and demands-abilities fit (Cable & Judge, 1996). An example item for needs-supplies fit is "The attributes that I look for in a job are fulfilled very well by my present job," and for demands-abilities fit is ""The match is very good between the demands of my job and my personal skills." Cable and DeRue found the scales exhibited reliabilities ranging from .84 to .93, all well above acceptable levels. The questions are all measured on a 7-point Likert scale from 1, "strongly disagree" to 7, "strongly agree."

Open-ended Feedback Measure. Participants were asked to give open-ended feedback. They were asked for their general impression of the applicant, what they believe the applicant did well, where they believe the applicant went wrong, and how the applicant can do better. They will be provided space to input their comments with as much detail as they prefer.

Adjective Checklist. Archetype adjectives were measured by providing a list of adjectives to the participants and asking them to check off the adjectives that they felt applied to the job applicant's personality. This is based loosely on the methodology used by Schein (1975). The adjective list included all archetypal adjectives as well as some distractor personality adjectives that are not related to any one archetype.

Demographics Questionnaire. The following demographic information were collected: Participant age, race, gender, nationality, language, and years of experience in HR field.

Manipulation Check. Participants were asked a series of questions about the manipulations and content in order to ensure that they were paying attention. They were asked to identify the age and gender of the applicant they reviewed in order to ensure the manipulation was detected. They were also asked about the job ad and the interview questions as attentional questions, to ensure that participants were paying enough attention to the materials to give accurate feedback.

Age Stereotyping. Participant level of ageism was collected using the work-related age-based stereotypes scale (Marcus et al., 2016). The WAS is a 20-item scale with 3 dimensions; competence ($\alpha = .89$), adaptability ($\alpha = .88$), and warmth ($\alpha = .92$). An example item for competence is "Older workers are high achievers," for adaptability "Older workers are fast learners" and for warmth, "Older workers are likeable." All items are measured on a six point scale from 1, very much disagree to 6, very much agree.

Sex Stereotyping. The 22-item Ambivalent Sexism Inventory (ASI) by Glick and Fiske (1996) was used to collect participant's level of prejudice against women. Items include "Women should be cherished and protected by me" as an example of benevolent sexism and

“Women seek to gain power by getting control over men” as an example of hostile sexism. All items are scaled on a 6-point scale from 0, “disagree strongly” to 5, “agree strongly.” The hostile sexism and benevolent sexism scales, as well as the entire ASI, exhibited acceptable levels of reliability across 6 studies ranging from .73 to .92, with most scores being over .80.

Demographics. Lastly, participants were asked to report their gender, age, years in HR, whether or not they are *currently* working in HR, and where they learned about the survey.

ANALYSIS PLAN

Table 2 represents the 16 conditions of the present study. Specifically, the job applicant varied by age (young/old) and gender (man/woman). The job ad varied in whether it matched the specific archetypes. Within the table, the conditions are either marked as M, O, or X. M signifies matching conditions. In other words, when there is an M or match, this means that the job applicant and the job ad align, such as an older woman applicant being in the condition of the older female job ad. O, or opposite, indicates that the applicant was the exact opposite in terms of both age and gender than the job ad, such as the older woman applicant with the younger male job ad. The X's indicate that there was match of one category but not the other, such as the old woman applicant paired with the young female job ad.

Table 2: Representation of the 16 study conditions and number of participants per condition

	Job Applicant			
	Young		Old	
Job Ad	Man	Woman	Man	Woman
Young Male	M	X	X	O
Young Female	X	M	O	X
Old Male	X	O	M	X
Old Female	O	X	X	M

The above table is a visual aid for understanding the conditions, particularly for the adjective analyses and main analyses used to test the hypotheses. First, analyses were run to examine whether there was a difference in frequency of endorsement for stereotypic adjectives

of each applicant based on job ad. In order to examine this, each applicant type was examined separately, and chi-square tests of independence were run comparing frequency of adjective endorsement between match condition and opposite condition as well as between match condition and non-matching conditions (all three non-matching conditions combined, including the opposite). This was done by creating new variables under each archetype in which conditions were coded as match = 1 and opposite = 0 or match was coded as 1 and all three other conditions were coded as 0. These new matching variables were analyzed with chi-squares, entering the key adjectives listed as stereotypic of each archetype by that new match/non-match variable. Thus, a total of 8 chi-square analyses were run to examine significant differences in adjective endorsement for each of the four applicants in two ways, match compared to opposite conditions and match compared to all other three conditions.

The next analyses was to examine whether match between job ad and job applicant would influence overall number of stereotypic adjectives endorsed. To do this, a new variable was created for each archetype's adjective list. In this new variable, endorsement of each of the stereotypic adjectives was coded as a 1 while not endorsing the stereotypic adjectives was coded as a 0. So for example, because the grandmother archetype had 10 total "stereotypic" adjectives that could be endorsed, the score on the new variable of overall "grandmother" adjective endorsement could be a 0-10. One-Way ANOVAs were conducted within each applicant type using these new variables scores as the DVs and job ad condition (match, non-match, or opposite) as the IV.

One more analysis was run with the adjective data in order to examine if there were overall differences in trait endorsements related to the applicant's demographic characteristics regardless of job ad condition. These were also run as chi-squares in three separate analysis. All

adjectives were entered into rows and compared first by archetype of applicant, then by age of applicant (young, old), and finally by gender of the applicant (male, female). When significant differences emerged in the age and gender analyses, it was clear which of the two conditions was more or less frequently endorsed. However, for the archetype analyses, a follow-up Bonferroni post-hoc was utilized with adjectives that showed significant differences to determine where these differences exist.

For the main analysis, MANCOVA was utilized with 6 DVs (hire, qualified, salary, adequacy of information, confidence in ratings, and overall fit), 3 IVs (age: young/old; gender: male/female; and job ad: everyman/sweetheart/gentleman/grandma), and all three facets of the workplace ageism scale as covariates. Interactions were examined using post-hoc pairwise comparisons with Fisher's Least Significant Difference test.

RESULTS

Of the 229 participants, 56 participants failed the manipulation/attention checks. Specifically, 45 participants failed to correctly identify the condition they were in (applicant gender and age or job ad) and 11 failed to correctly identify the job for which the applicant was applying. See Figure 1 for a flow chart delineating how many participants were removed at each phase. An outlier analysis was conducted following Tabachnick and Fidell's (2013) recommendations for multivariate analysis for Mahalanobis distance, but no multivariate outliers were identified. Thus, 173 participants were included in the final analyses.

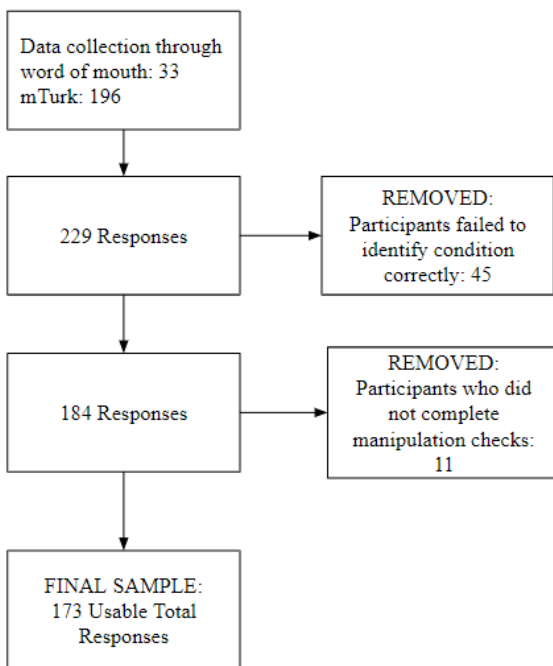


Figure 1: Flow chart of the participants

Despite random assignment to conditions, cell sizes in the final sample ranged from 4 (older female applicant in the gentleman condition) to 19 (young female applicant in the sweetheart condition). Table 3 indicates the sample sizes per condition. In order to examine why

the number of participants by condition varied, further analyses were conducted to examine if differential attrition occurred. A Chi-square test of independence revealed that there was no significant difference that emerged for participant sex by condition $X^2(1) = .222, n.s.$, meaning that sex was not related to condition. A One-Way ANOVA was tested to see if participants varied by age per condition, with participant age as the independent factor and applicant age, applicant gender, and job ad as the dependent variables. No significant difference emerged, indicating that participant age did not vary by condition.

Table 3: Number of participants per condition

	Job Applicant			
	Young		Old	
Job Ad	Man	Woman	Man	Woman
Young Male	n = 9	n = 13	n = 8	n = 12
Young Female	n = 7	n = 19	n = 10	n = 9
Old Male	n = 11	n = 15	n = 13	n = 4
Old Female	n = 12	n = 9	n = 12	n = 10

Table 4 shows scale means, standard deviations, coefficient alphas, and intercorrelations. Of note, applicant age had a significant relationship with recommended salary and how qualified the candidate was perceived, with older applicants commanding a higher salary and younger applicants being judged more qualified. Recommendation for hiring, recommended salary, perception of applicant qualifications, adequacy of information obtained, and confidence in ratings were all correlated, as expected. Furthermore, the outcomes of interest (hireability, salary,

qualifications, and applicant fit) were all correlated, although not all as expected. Median starting salary recommendations were negatively related to both likeliness to recommend hiring and how qualified the applicant is perceived to be. Participant age was related to ageism, such that older participants were more likely to endorse older workers as *more* competent and adaptable. Additionally, participant sex was related to recommended median starting salary, with men offering higher starting salaries than women. No other differences were found based on participant demographics.

Table 4: Means, Standard Deviations, and Correlations of All Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1. Hire	-																			
2. Salary	.25**	-																		
3. Qualified	.70**	.34**	-																	
4. Adequacy of Information	.45**	-.19*	.50**	-																
5. Confidence in Ratings	.23**	-.09	.26**	.43**	-															
6. PO Fit	.61**	.26**	.51**	.50**	.30**	.88														
7. NS Fit	.64**	.23**	.56**	.56**	.31**	.76**	.82													
8. DA Fit	.67**	.37**	.73**	.56**	.28**	.59**	.66**	.88												
9. Fit Total	.73**	.33**	.69**	.6**	.34**	.88**	.90**	.86**	.92											
10. Benevolent Sexism	-.08	-.12	-.07	-.14	.00	-.02	-.02	.00	-.01	.88										
11. Hostile Sexism	.04	-.05	.05	.03	.04	.10	.13	.06	.10	.55**	.92									
12. Ageism - Competence	-.14	.06	-.18*	.21**	-.18*	-.16*	-.17*	-.14	.18*	.16*	-.01	.88								
13. Ageism - Adaptability	-.13	.05	-.19*	-.15*	-.15	-.14	-.12	-.13	-.15	.07	-.09	.81**	.85							
14. Ageism - Warmth	-.09	.08	-.15*	.20**	-.14	-.12	-.16*	-.13	.15*	.20*	.12	.75**	.65**	.90						
15. Applicant Sex	.08	-.01	.02	.00	-.09	.08	.08	.05	.08	-.07	.05	.05	.03	.04	-					
16. Applicant Age	-.13	.26**	-.19*	-.02	.15*	.03	.01	-.11	-.03	-.01	-.10	.09	.12	.08	.13	-				
17. Job Ad	-.10	.02	-.03	-.10	-.02	-.07	-.04	-.05	-.06	.04	.09	.07	.12	.08	.01	.03	-			

Table 4: Means, Standard Deviations, and Correlations of All Variables

18. Participant Age																			
19. Participant Sex																			
Mean	1.91	55.10	1.90	1.84	1.87	2.18	2.02	2.11	2.10	3.22	2.78	4.44	4.49	4.40					
Standard Deviation	0.98	12.09	0.79	0.89	0.74	0.82	0.76	0.92	0.74	0.93	1.02	0.66	0.66	0.67					

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Note: Cronbach's alphas for scales are presented on diagonal

Hypothesis 1 predicted that participants would select adjectives to describe the applicant that were more “archetypical” when the job ad *matched* the applicant archetype. For example, the adjectives selected to describe the older woman would match adjectives previously found to be typical of the older white female when the job ad contained cues and adjectives indicating a preference for the older white female archetype. The adjectives previously found to describe the archetypes are presented in Table 1.

Chi-square tests of independence were run within each archetype to compare the adjective match groups (e.g., old female applicant in old female job ad condition) with non-match groups (old female applicant with any other job ad condition) and then to compare the match condition to the opposite condition (old female applicant with young male job ad). Results are presented in the tables below with asterisks indicating the cases in which there was a statistically significant difference. No statistically significant differences emerged for the young male applicant. For the young female applicant, she *was* significantly more likely to be endorsed as enthusiastic in the match condition than the opposite condition ($\chi^2(1) = 4.14; p = .04$), and more likely to be endorsed as supportive in the match than the non-match conditions ($\chi^2(1) = 4.826; p = .03$). The old male was significantly more frequently endorsed as logical in the match than the non-match conditions ($\chi^2(1) = 4.74; p = .03$). The old female applicant was significantly more likely to be endorsed as kind in the match condition than the non-match condition ($\chi^2(1) = 5.0; p = .03$).

Tables 5-8 represent the differences in adjective selection by condition. Specifically, for each archetype, the previously found stereotypic adjectives are listed in the left column. The frequency with which these adjectives were endorsed by condition are in the following columns with match (job ad fits the archetype of the job applicant), non-match (every other job ad besides

the archetype matching one) and opposite (only when the job ad was the archetypical opposite of applicant; e.g., old woman applicant with everyman job ad) as the different possible arrangements. Non-match conditions adjective endorsement were combined and statistically compared with matching, and opposite condition was also compared statistically to matching condition. Thus, differences indicate that the participants either in non-matching conditions combined or in the opposite job ad conditions differed significantly in their endorsement of stereotypic adjectives compared to participants in the matching condition.

Table 5: Chi-square results for adjectives for everyman (young white male)

"Everyman"	Match	Non-Match	Opposite
	n = 9	n = 33	n = 12
	Freq	Freq	Freq
Active	33%	27%	64%
Ambitious	56%	47%	27%
Capable	67%	53%	55%
Competitive	33%	17%	9%
Confident	78%	77%	73%
Educated	44%	50%	64%
Happy	11%	13%	9%
Outgoing	67%	43%	45%
Sociable	44%	37%	36%
Upper-class	0%	0%	0%

Table 6: Chi-square results for adjectives for sweetheart (young white female)

"Sweetheart"	Match	Non-Match	Opposite
	n = 19	n = 26	n = 10
	Freq	Freq	Freq
Active	37%	33%	27%
Adventurous	0%	6%	0%
Affectionate	0%	0%	0%
Caring	16%	8%	7%
Charming	0%	6%	7%
Energetic	32%	42%	40%
Enthusiastic	68%	44%	33%*
Flirtatious	0%	3%	0%
Friendly	53%	39%	40%
Happy	16%	19%	20%

Kind	11%	22%	13%
Outgoing	63%	56%	67%
Supportive	26%	6%*	7%

Table 7: Chi-square results for adjectives for gentleman (old white male)

"Gentleman"	Match	Non-Match	Opposite
	n = 13	n = 30	n = 15
	Freq	Freq	Freq
Clever	8%	17%	0%
Conservative	8%	20%	38%
Educated	46%	43%	38%
Honest	31%	53%	50%
Knowledgeable	62%	60%	63%
Logical	69%	33%*	38%
Traditional	31%	13%	13%

Table 8: Chi-square results for adjectives for grandma (old white female)

"Grandma"	Match	Non-Match	Opposite
	n = 10	n = 33	n = 12
	Freq	Freq	Freq
Caring	40%	15%	8%
Family-Oriented	0%	0%	0%
Friendly	70%	46%	58%
Generous	0%	0%	0%
Gentle	10%	12%	8%
Good-natured	70%	35%	50%
Honest	60%	38%	33%
Kind	30%	4%*	8%
Knowledgeable	80%	54%	50%
Sensitive	50%	54%	42%

*Note: * = significant at .05 level*

The above results indicate that some differences emerged in adjective endorsement for a few specific adjectives. Next, to examine if there was an overall effect of job ad on endorsement of stereotypic adjectives, each set of adjectives was combined into a new variable. Endorsement of adjectives was coded as 1, when the adjective was endorsed, or 0, when the adjective was not endorsed. New variables were created for each of the archetype lists by computing the sum of

those lists. So, for example, for the grandmother list, the 10 adjectives that were stereotypic of that archetype were summed together in a new variable. Thus, a score of 1 meant only one of the ten adjectives grandmother adjectives had been endorsed, and a score of 10 would mean that all ten adjectives grandmother adjectives had been endorsed. This new variable was then used to compare groups within applicant by job ad conditions. One-Way ANOVAs were conducted within applicant type, with the new adjective score variable as the dependent variable and condition (match, non-match, opposite) as the independent variable. No significant differences emerged for the young man applicant, the young woman applicant, or the old man applicant. However, significant differences were found for the older woman applicant, where participants endorsed significantly more stereotypic adjectives for the older woman in the *match* condition ($M = 3.70$, $SD = 2.31$) than in the non-match condition ($M = 2.08$, $SD = 1.26$), $F(1, 34) = 7.355$, $p = .01$. They were also more likely to endorse stereotypic adjectives of the “grandmother” for the older woman in the match condition than in the opposite condition ($M = 2.17$, $SD = 1.27$), $F(2, 33) = 3.611$, $p < .05$. Thus, hypothesis 1 is partially supported.

As an additional analysis, a Chi-Square Test of Independence was run to examine if there were statistically significant differences in the endorsement of adjectives by the job applicant characteristics, regardless of job ad condition. This was run in three separate analysis, the first with “archetype” (combination of age and gender in one variable), the second with age alone, and the third with gender alone, all three with the full list of adjectives. Statistically significant differences emerged that indicated an effect of age. For age, warm ($\chi^2(1) = 4.371$; $p = .04$), reliable ($\chi^2(1) = 8.753$; $p = .00$), traditional ($\chi^2(1) = 5.711$; $p = .02$), wise ($\chi^2(1) = 3.716$; $p = .05$), mature ($\chi^2(1) = 5.942$; $p = .02$), sensitive ($\chi^2(1) = 4.122$; $p = .04$), conservative ($\chi^2(1) = 12.325$; $p = .00$), calm ($\chi^2(1) = 6.085$; $p = .01$), caring ($\chi^2(1) = 7.149$; $p = .01$), dependable ($\chi^2(1) = 5.566$; p

= .02), and supportive($\chi^2(1) = 8.951; p = .00$) were all more likely to be endorsed for older applicants than younger applicants, whereas energetic($\chi^2(1) = 8.050; p = .01$) and clever ($\chi^2(1) = 3.934; p = .05$) were more frequently endorsed for younger applicants. A difference was found by gender for family-oriented($\chi^2(1) = 5.582; p = .02$) and good-natured($\chi^2(1) = 3.788; p = .05$), with male applicants more likely to be endorsed as both family-oriented and good natured than female applicants. Finally, the archetype had an effect on a few of the adjectives as well. The analyses run to examine this difference began the same way, with Chi-Square Test of Independence using all adjectives and the archetypes. However, where significant differences emerged, follow-up univariate analyses were used with the archetype as the fixed factors and only the significantly different adjective as the dependent variable. Bonferroni tests determined where significant differences lie. Specifically, good-natured was more likely to be endorsed for older male applicants ($M = .49, SD = .50$) than younger female applicants ($M = .22; SD = .42$), $F(3, 169) = 3.12, p = .03$. Confident was more frequently endorsed for young men ($M = .77; SD = .43$) than old men ($M = .47; SD = .51$), $F(3, 169) = 3.13, p = .03$. Finally, ambitious was more frequently endorsed for young women ($M = .65; SD = .48$) than old men ($M = .30; SD = .47$), $F(3, 169) = 4.709, p = .00$. In order to test hypotheses 2-5, a 2 (applicant age) x 2 (applicant gender) x 4 (job type: everyman, sweetheart, gentleman, grandmother) between-subjects multivariate analysis of covariance with workplace ageism dimensions as covariates and 6 dependent variables: hireability, starting salary, qualification, confidence in ratings, adequacy of information obtained, and applicant fit. Although participant sex was correlated with the outcome variable of recommended starting salary (such that male participants tended to offer higher salaries than female participants), there were no differences in participant gender across conditions, so it was not included as a control variable. The MANCOVA revealed that there was

a significant main effect of applicant age, $F(4, 146) = 3.542, p < .05$. Partial $\eta^2 = 0.09$. No other main effects were significant, and none of the tested two-way interactions were significant (see Table 9 for the results of the multivariate analysis). However, the three way interaction of applicant age, sex, and job ad was significant, $F(12, 386.57) = 2.07, p < .05$. Partial $\eta^2 = 0.05$.

Table 9: MANCOVA Results

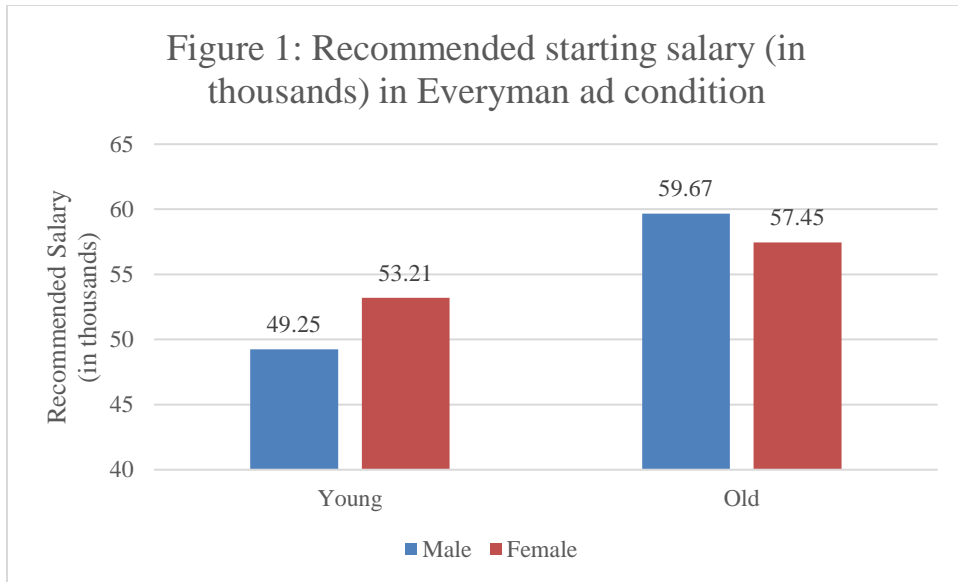
Variable(s)	Wilks' Lambda	Hypothesis Df	error df	F	p	partial η^2	power
Intercept	.485	4	146	38.70	0.00	0.52	1
Covariates							
WAS Competence	.985	4	146	0.55	0.70	0.02	0.18
WAS Adaptability	.993	4	146	0.25	0.91	0.01	0.10
WAS Warmth	.986	4	146	0.55	0.71	0.01	0.18
Independent Variables							
Applicant Gender	.985	4	146	0.55	0.70	0.02	0.18
Applicant Age	.912	4	146	3.54	0.01	0.09	0.86
Job Ad	.938	12	386.57	0.79	0.66	0.02	0.41
Applicant Gender X Applicant Age	.99	4	146	0.36	0.83	0.01	0.13
Applicant Gender X Job Ad	.92	12	386.57	1.03	0.42	0.03	0.54
Applicant Age X Job Ad	.922	12	386.57	1	0.45	0.03	0.52
Applicant Gender X Applicant Age X Job Ad	.848	12	386.57	2.07	0.02	0.05	0.89

Note. n = 173; WAS = Workplace Ageism Scale. Dependent Variables = Hireability, qualifications, starting salary, adequacy of information, confidence in ratings, and fit.

Tests of between-subjects effects revealed that the significant difference for applicant age emerged among the variables of median salary, $F(1, 933.70) = 6.803 p < .05$. and how qualified

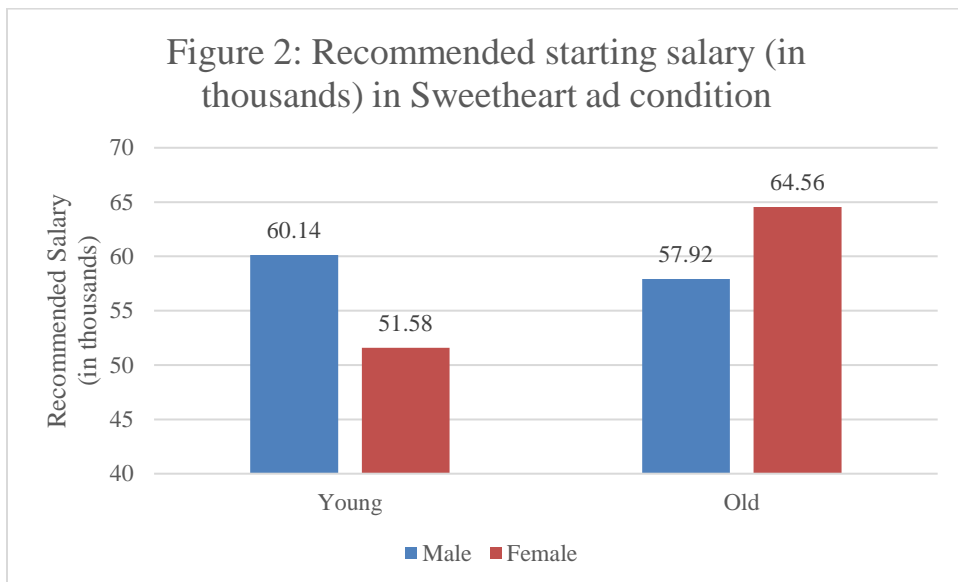
the candidate was believed to be, $F(1, 2.82) = 4.65, p < .05$. Specifically, the “millennial” applicant was offered a significantly lower starting salary ($M = 52.55, SD = 10.00$) than the “baby boomer” applicant ($M = 58.50, SD = 12.47$), $p < .05$. Furthermore, how qualified the candidate was perceived to be differed by age in the opposite direction, with the younger, millennial applicant receiving a higher rating ($M = 2.03, SD = .831$) than the older, baby boomer applicant ($M = 1.74, SD = .70$), $p < .05$.

For the three-way interaction, univariate tests revealed a significant difference for the variable of recommended starting salary $F(3, 431.17) = 3.14, p < .05$. In the everyman job ad condition, the young man applicant (Mean = 49.25, SD = 6.08) was offered a lower salary than the old man applicant ($M = 59.67, SD = 12.01$). In the sweetheart job ad condition, the young woman applicant ($M = 51.58, SD = 10.77$) was offered a lower starting salary than the old woman applicant ($M = 66.63, SD = 11.19$). In gentleman job ad condition, the old man applicant was offered a higher starting salary ($M = 61.58, SD = 11.94$) than the young woman applicant ($M = 51.67, SD = 12.46$) and the young man applicant ($M = 50.13, SD = 10.27$). No differences emerged within the grandmother job ad condition.



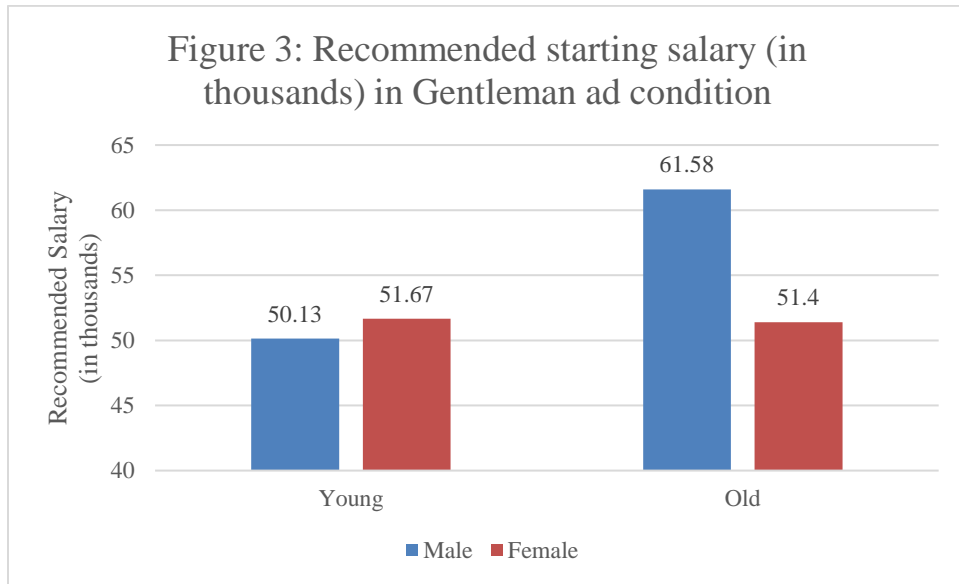
Note: difference is significant between older male and younger male applicant

Figure 2: Interaction of applicant age and applicant gender on recommended starting salary in everyman job ad condition



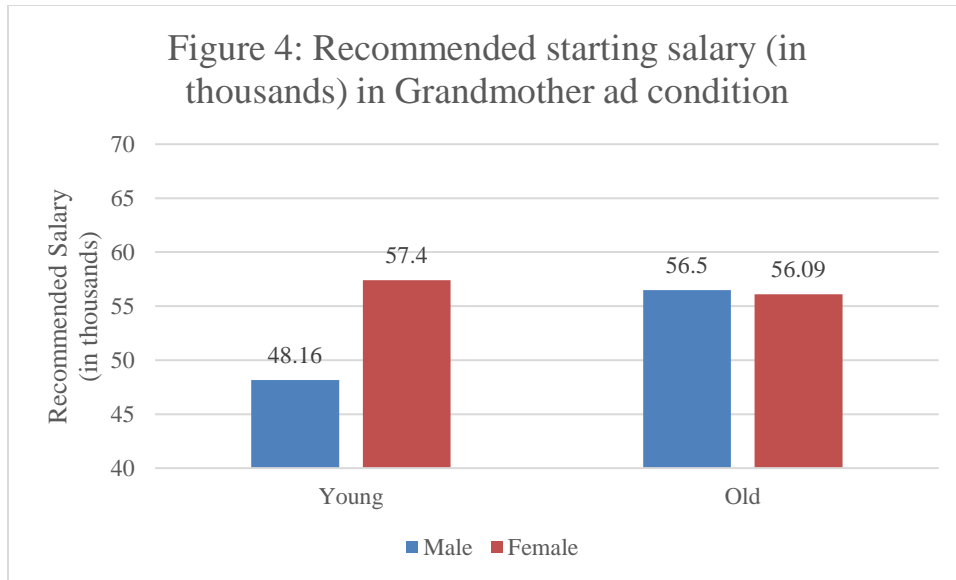
Note: difference is significant between young female and old female applicants

Figure 3: Interaction of applicant age and applicant gender on recommended starting salary in sweetheart job ad condition



Note: difference was significant between older male and younger male, as well as between older male and younger female applicants.

Figure 4: Interaction of applicant age and applicant gender on recommended starting salary in gentleman job ad condition



Note: no significant differences found in this condition.

Figure 5: Interaction of applicant age and applicant gender on recommended starting salary in grandmother job ad condition

These results indicate no support for Hypotheses 2-5. Hypothesis 2 predicted that, in the grandmother job ad condition, the older woman was expected to be rated more favorably than other applicants. Hypothesis 2 was not supported because no significant differences were found for the grandmother job ad. Hypothesis 3 stated that, in the sweetheart job ad condition, the older woman would receive poorer ratings compared to the younger woman applicant. However, in the sweetheart condition, the older woman was offered a significantly higher salary than younger woman applicant. Thus, hypothesis 3 was not supported. Hypothesis 4 stated that the older woman would receive poorer ratings than the younger man when in the everyman job ad condition. Although significant differences were found with the everyman job ad, they were not in the directions predicted; thus, no support was found for hypothesis 4. Finally, hypothesis 5 predicted that the older woman job applicant would receive poorer ratings than the older man applicant when the gentleman ad was presented. Although some differences emerged when the

older male job ad was used, they were not related to the older female applicant; thus, hypothesis 5 is not supported.

DISCUSSION

The present study examined the influence of multiple group membership on hiring decisions for older women. Theoretically, some literature has posited that when faced with a multiple-group member, hiring decision makers will go through a process of category activation in which ultimately, one single category ultimately becomes the focus (Kulik et al., 2007). Kulik and colleagues argue that this aligns with the idea that we are “cognitive misers,” as it is simpler to judge people based on one focal characteristic than to attend to multiple demographic characteristics at once (Macrae & Bodenhausen, 2000; Taylor, 1981). However, others have suggested that when the combination of characteristics form a unique, familiar category, referred to as an *archetype* (Marcus & Fritzsche, 2015) or a *subcategory* (Hinzman & Maddox, 2017), it may be just as simple for us to judge others based on that combination category.

In order to manipulate demographic categories, this study utilized a mock interview script in which the name of the applicant (Steven or Claire) represented the category of gender (male or female) and a few brief statements within the interview (millennial or baby boomer) indicated the category of age. By manipulating these two demographic categories, participants were presented with two demographic categories in which one may become salient *or* both will work together. The job ad was also manipulated to target certain group members based upon the pilot study in which adjectives were determined for each archetypical category, as both Kulik and Marcus and Fritzsche’s theories identify the importance of contextual cues. Specifically, stereotypes about applicants may be activated based on job context; however, this can occur for single categories *or* multiple group members. Based on results of the pilot adjective checklist, there is evidence of unique stereotypes associated with multigroup members. Thus, it was expected that Kulik’s idea of stereotype activation in hiring could occur for the “archetypes” as

much as it can occur for single-groups, with the job context functioning as the archetype stereotype primer. Whether the job ad *matched* the applicant (e.g., “grandmother” job ad with an older female applicant) was expected to influence ratings of interview performance, with job ad/applicant match resulting in the most favorable ratings.

Although the results of the present study did exactly as hypothesized, several interesting findings emerged. These findings can be discussed in terms of three major points: first, older applicants are perceived and responded to in hiring situations as less qualified, but more expensive, hires. Second, the way that multiple group members were perceived in the present study appears to be more complex than what was proposed by either Kulik and colleagues (2007) or by Marcus and Fritzsche (2015). Third and finally, there *was* evidence that an influence of contextual cues such as job ad wording effects how applicants are perceived.

How older job applicants are perceived

Consistent with literature on age discrimination (Finkelstein, Higgins, & Clancy, 2010; Goldberg, Finkelstein, Perry, & Konrad, 2004; Kite, Stockdale, Whitley, & Johnson, 2005), the present study found that older workers were rated as *less* qualified and *more* expensive than younger workers. Additionally, there were some effects of the combination of age and gender, although not in the hypothesized direction. Although some of the results did point to job ad/applicant match resulting in more stereotypic perceptions of the applicant (specifically, through adjectives selected to describe that applicant), the three-way interaction of job ad, applicant gender, and applicant sex showed that older applicants were typically offered a higher salary, specifically when they matched the *gender* of the job ad but not necessarily the age of the job ad. Participants’ perspectives of applicant personality traits did vary based on the age and

gender combination of the applicant. Indeed, the present research found similar patterns of results to the initial adjective study in terms of how otherwise equivalent job applicants are viewed as a basis of their demographic characteristics.

The results present a critical issue for the aging workforce. That is, despite all things being equal, older job applicants are perceived as being less qualified workers and yet more costly to the organization than their younger counterparts. These results are consistent with and perhaps even explain other findings in the literature that indicate that older adults face increased difficulty when seeking employment. Specifically, older workers who are seeking re-hiring tend to spend more time in unemployment and job search than their younger counterparts (Tugend, 2013). In part, this may be due to the false idea that older workers will expect and demand higher salaries simply as a function of their age, as previous studies have found this assumption to be commonplace (Finkelstein, Higgins, & Clancy, 2000). Furthermore, the present findings are also consistent with previous literature that older workers tend to be viewed as incompetent and poor performers (Posthuma & Campion, 2009). Indeed, older job applicants are *perceived* as more expensive yet less qualified, despite all things being equal. Although older workers have the same qualifications as their younger counterparts and did *not* actually mention or expect higher salaries, hiring managers may be more reluctant to hire older workers. This could also explain why older workers face more difficulty securing interviews at all (Lahey, 2008), let alone being hired when competing with younger workers. The results of the main effect of age indicate that people tend to *assume* that older workers will demand or require a higher salary, even when the applicant herself never made any comment on salary. This assumption puts older workers at an immediate disadvantage for hiring. Furthermore, the main effect of age on perceived qualification is consistent with career timetable theory (Lawrence, 1984). The theory

of career timetables posits that the normal distribution of age within an organization causes individuals to implicitly develop a ‘*career timetable*’ in which it is expected that people of a certain age should be at a certain position in their careers and thus, those who are older in the same position of younger workers are “behind.” Indeed, this theory explains the finding of this study that equal interviews for the *same* position resulted in lower ratings for older applicants in how qualified they were perceived to be. Implicitly, participants perceived the older applicants as “behind time” in their careers.

Not only are there negative effects associated with being stereotyped by *others*, but stereotypes often become internalized. This means that people hold stereotypes about the groups they themselves belong to and begin to believe that these stereotypes are true. At times, the internalization of certain stereotypes produces negative outcomes. In particular, Levy (2009) proposed this occurring for older adults who internalize age stereotypes in Stereotype Embodiment Theory. Specifically, Levy suggested that stereotype embodiment, or internalization of stereotypes, is a unique concern for aging, because people begin to internalize negative stereotypes related to age while they are still young. For other demographic characteristics, such as race or gender, we typically stay in the same group throughout our lives. However, with aging, all people will, given enough time, move from the category of young to the category of old. Thus, we begin to hold stereotypes about aging while we are young and still view older people as “others.” Then, as people begin to age, those long-held stereotypes regarding old age become “self-stereotypes.” Because we begin to hold these ideas about aging while still perceiving “old” as an outgroup, it may be harder to psychologically combat negative stereotypes about aging, which could lead to deep internalization of these stereotypes and harmful outcomes for older people. Indeed, Stereotype Embodiment Theory is supported by

evidence that there are negative health outcomes associated with age stereotypes, such as functional health, defined as the ability to perform regular daily activities of life) and longevity, or the length of a person's life (Levy, Slade, & Kasl, 2002). This presents an additional challenge for research, to examine how internalization of negative stereotypes can have an impact on employees and job applicants in terms of their confidence and ultimate performance. In the present study, mock interviews were created, so the job applicants were fake and thus did not have any differences in self-stereotypes; however, this idea of stereotype internalization should be addressed in future research using real job applicants. Furthermore, stereotypes still influenced participants, as the age range of our participants was broad, yet clear age-biased effects emerged. People, regardless of their own age, likely still hold negative ideas about older workers, even if they themselves belong to the category of "older workers."

What is noticed: age AND gender

There was evidence that participants noticed *both* the demographic characteristics rather than a focus on only one salient category. To this point, the examination of multiple category stereotype *emergence* in hiring, this study empirically examined category activation based on Kulik's theory of the hiring process (2007) while also incorporating the concept of archetypes, or multiple group members, presented by Marcus and Fritzsche (2015). Participants were asked to select adjectives that accurately described the interviewee that they reviewed. These results were compared to previous, pilot adjective data on multiple group members. Results of overall adjective endorsement indicated that the manipulation of applicant archetype, age, and gender were *all* noticed to some extent across job ad conditions. Thus, there is further evidence that stereotypic job applicant traits emerge and are recognized by hiring professionals.

Specifically, findings show that older workers (regardless of gender) were endorsed more frequently with adjectives such as warm, traditional, wise, conservative, and dependable, all of which are consistent with the literature. Specifically, older workers are among the “warm” but “incompetent” quartile of the stereotype content model (Fiske et al., 2002). Moreover, in the previous adjective studies on which the present adjective list was based, older people had been considered “wise” (Hummert, 1990), “dependable” (Cuddy & Fiske, 2002), and resistant to change, or in other words, more traditional than younger workers (Hedge, Borman, & Lammlein, 2006). These findings then not only indicate that the older workers were identified as older workers, but in stereotypic ways that are consistent with previous theory and empirical research. Additionally, in the present study, younger workers were more likely to be considered energetic and clever than older workers.

Gender also had some effect, with family-oriented and good-natured being more frequently endorsed for male than female applicants. Although this is inconsistent with general stereotypes about men and women, this pattern of results may be explained by the situational context. For example, as explained by role congruity theory (Eagly & Karau, 2002) as well as Fiske et al’s Stereotype Content Model (2002), it is expected that women will be supportive homemakers while men are leaders and the primary breadwinners. Thus, given that the context is seeking better employment, men seeking employment are more family-oriented than women doing the same, as men are expected to provide. Meanwhile, women seeking employment fail to be family-oriented because they are, in the eyes of some, abandoning their familial responsibilities of staying home (Okimoto & Heilman, 2012; Pew, 2013).

Finally, some effects emerged by archetype. Archetypal adjectives were found such that young men were the most frequently endorsed as confident, significantly more so than older

men. Young women were endorsed most frequently as ambitious, significantly more so again than older men. Good-natured was most frequently endorsed for older men, significantly more so than for young women. All of these findings show that there *were* some traits that were thought of as typical of applicants based on their age, based on their gender, and as a function of a combination of the two.

All of the above adjective results indicate that age, gender, and the combination of both were all noticed. Thus, both Kulik's theory and Marcus and Fritzsche's models could be true simultaneously, perhaps with some undetected (in this study) moderators explaining when each demographic characteristic (or combination thereof) becomes salient. However, the main analysis presents another interesting perspective, perhaps different from previous theories of multiple-group members.

Specifically, the three-way interaction of applicant age, gender, and job ad was significant. Applicants were expected to be rated more favorably when the applicant and job ad matched; however, this only held partially true. In the case of the older male applicant, where the old man was offered a higher starting salary in the gentleman ad condition. However, in the everyman ad condition, the highest starting salary was still offered to the older man. In the sweetheart job ad condition, the highest salary was offered to the old woman. No difference emerged for the grandmother job ad condition. Despite the unexpected pattern of results, the significant three-way interaction indicates some evidence of archetype emergence, as it appears that participants were influenced by the combination of the applicant's traits and the cues hidden within the job ads.

It is interesting that the older *woman* is offered the highest salary in the sweetheart condition, and the older *man* is offered the highest salary in the everyman condition. Despite general thoughts on social cognition and the single-category focus (e.g., Macrae & Bodenhausen, 2000), these findings suggest that *both* age and gender are salient in these situations at the same time. Recently, Hinzman and Maddox (2017) posited that the way we group individuals works as a hierarchy, with superordinate categories (e.g., age, gender) and subcategories (the combination of the two). Hinzman and Maddox's theory was more based on whether individuals match a preconceived notion (subgroup, e.g., white business man) or do not match (subtype, e.g., black business man); in other words, whether a person's demographic categories match to some known stereotype or conflict with stereotypes influences our perception of those people. Similarly, Marcus and Fritzsche suggested that age functions as the primary, or most salient, category and the other demographic categories have smaller, albeit still important, effects on perceptions of an individual. Indeed, the results of the present study do seem to indicate that age was more important than gender, although gender still played some role. The present study also indicates some degree of importance for match or mismatch of stereotypes to context (in this case, the job). For example, age was more important than gender as more adjectives were significantly different by age than gender. With the main results, it was apparent that age had the biggest influence on ratings, despite some differences emerging for the three-way interaction. Indeed, through the superordinate/subcategory perspective, the results of this study do offer some support to this theoretical perspective on hierarchies of categorization. In particular, Kulik's theory raised the question of when and how one group category becomes salient over another. However, combining this added perspective of Hinzman and Maddox (2017) with Marcus and Fritzsche (2015), it is possible that there is a hierarchical order by which group membership is

analyzed, with age as the most salient category, but other categories still provide additional information.

In addition to the ratings, the free response comments indicated a greater focus on age. Many participants made note of the applicant's age, but none made a comment regarding their gender. It is unclear why age was more salient than gender. It could be due to a hierarchy, with age being a higher-level attribute than gender, or because of the nature of the manipulation, in which the applicant *mentioned* age but gender was suggested by only their names. Career timetables theory (Lawrence, 1984) offers another explanation for the salience of age, where older workers seeking to begin careers are more unusual or striking because they are expected to be further along, whereas no such stereotype exists for men compared to women, particularly not in a relatively gender-neutral job such as property manager. Regardless of the reason, age clearly emerged as more salient to participants than gender within the present study. As such, there is ample opportunity for further study. What order do *other* categories matter in the hierarchy? Furthermore, are environmental cues able to alter the order of the hierarchy? For example, could a situation that *strongly* elicits *gender*-based information override the usual hierarchy and make gender the most important category over age? Or, perhaps, could the job type, level, or organizational role of the individual cause a different category to be slightly more salient? More future directions for study, as well as limitations of the present research are presented below.

The influence of match

Further analysis of adjectives tested the hypothesis regarding job ad-applicant match and revealed that job ad *did* have an effect in some cases. When the job ad matched the job

applicant, it was expected that adjectives selected for each archetype in the pilot adjective study would be more frequently endorsed. Indeed, the young woman was more frequently endorsed as supportive and enthusiastic in the match condition than in the non-match and opposite conditions, respectively. The old man was more frequently endorsed as logical in the match than the non-match condition. The old woman applicant was more frequently endorsed as kind in the match than non-match condition, and more stereotypic adjectives were chosen *overall* for the older woman when she matched her job ad than when she did not. These findings, overall, indicates that to some degree, there was an effect of job ad making the stereotypic traits salient. Interestingly, effects in the adjective analysis were found for at least one adjective in all applicants except the young man. This result could be due to a lack of power or a weak manipulation, but it also raises an interesting question. Typically, the young white man is seen as the “norm” in society, even being called the “everyman” in Marcus & Fritzsche’s (2015) initial archetype paper. Perhaps stereotypic traits are less likely to become salient for the young white man because he is what is considered typical, expected, and thus is more likely to be judged on individual characteristics than stereotypic ones.

LIMITATIONS & FUTURE DIRECTIONS

This study had several limitations. First and foremost, the sample size may have not been large enough to attain the necessary power to detect some effects. As a 2x2x4 design, there were 16 groups, and because the study required professionals, the sample had a limited number of participants. In addition, cell sizes were not equal; however, analysis of group differences indicated no detectable differences in demographics between participants in each cell. Despite this, interesting significant effects still emerged.

Another limitation of the study is an issue of internal validity. The job ad was written to target specific “archetypes,” but those archetypes may not have been made salient. The “gentleman” targeted ad may have in fact cued older men for participants, as the results did indicate a preference for older men in the recommended salary, but not all ads may have primed the archetype in the way that was intended. For example, the everyman ad did not produce significantly more “everyman” adjectives selected for the young male applicant. Further, in the everyman ad condition, the younger female applicant seemed to be preferred to the younger male. Perhaps this “everyman” ad did not capture “young male” but instead simply youth, or even youthful female. It is also possible that, consistent with the title Marcus and Fritzsche (2015) gave to the young white male, the “everyman” job ad is seen as default or standard and thus showed no significant favoritism or differentiation across applicants. Indeed, feminist theory has long described this “male-as-norm” concept, specifically in language (Motschenbacher, 2010). The same can be said for race, with white (and specifically white male) tending to be viewed as a default, and thus privileged, in the United States (McIntosh, 2007).

The inherent challenge of studies such as this one which examine the cognitive process of stereotype activation is the difficulty of accurately capturing the internal cognitive processes involved. It is not clear how participants were primed for certain stereotypes or responses. Perceptions may have been influenced by the job ad, as we hoped, or by the interview, the applicant themselves, or some other features within the study. Further studies may be needed that break down the stereotype activation process into smaller, more measurable steps. Specifically, the present study was interested in the experience of older women, and future research may need to focus more closely on older women. For example, rather than manipulating archetype, a future study may benefit from keeping the older woman constant and simply manipulating other contextual variables.

An issue with the design of the study may be a lack of strength of the manipulation in the interview itself. It is possible that differences between applicants were not significant due to a floor effect. Ratings of hirability and applicant qualifications were very low, averaging around 2 on a 7-point scale. Results may have been influenced by the quality of the mock interview. Alternatively, it may have been interesting to manipulate the quality of the interview such that performance level is varied. Future studies of this nature may uncover interesting nuances if, within applicant, performance level is varied, and ratings of performance are measured.

Furthermore, having job applicants mention their age may have been a situational cue making age a *more* salient variable than gender. Gender was only salient due to the names of the applicants provided, whereas the applicant specifically mentioned their own age within the context of the interview. Furthermore, there was an issue of the job ads being perhaps not truly age neutral. Specifically, the beginning part of the job ad (prior to the stereotypic adjectives), it was stated that an ideal applicant would be able to work in a “fast-paced” environment. This

could have primed age and ageism, which is a possible limitation of the current manipulation. Despite the idea of a hierarchical pattern of group membership salience, the way the manipulation was set up could be an alternate explanation why more effects were found based on age than on gender. However, all conditions contained this same language, so differences *between* conditions are still meaningful. Indeed, although the free response feedback didn't show any extremely notable trends favoring one group over another, the free response feedback often involved criticizing the applicant for mentioning age at all. For example, "*the applicant put too much emphasis on his age*" was said of the young man, "*I didn't like the fact that she continually mentioned her age,*" was said about the young woman, "*he might not have mentioned his age so frequently,*" was said about the old man, and "*she seems concerned about age gaps,*" was said of the older woman applicant. Thus, the present study may have failed in making both age and gender *equally* salient. Further research should attempt other ways to manipulate these "archetypes" or categories, perhaps using pictures or different adjectives and words used in either job descriptions, applicant interview responses, or some other variable not utilized by the present study.

One final and important limitation of this study is the lack of real stakes for the participants. In other words, the participants were providing feedback on an interviewee who they never met or would meet. In a real interview setting, the hiring managers not only would see and interact with the person they are interviewing, but also know that the person they choose to hire would become a part of their organization and even potentially work closely with them. Thus, participants in the present study may have less vested interest in the outcome of the hiring process. Additionally, some researchers have indicated that the use of "paper people" (in other words, those who are only known through written descriptions and content) is not comparable to

real-life in-person situations, and the judgments made about paper people are not representative of how judgments would be made in real life (Gorman, Clover, & Doherty, 1978; Murphy, Herr, Lockhart, & Maguire, 1986). Thus, the use of these written interview “paper people” may lack external validity.

In addition to judgments differing in real-people vs. paper-people settings, there are also psychological factors that real people would bring into job interviews that are missed by the mock interviewees. Specifically, Levy’s Stereotype Embodiment Theory suggests that stereotypes, especially those pertaining to age, are internalized throughout a person’s life and influence self-perceptions. Future research will need to examine not *only* how older job applicants are perceived by hiring managers, but also how self-stereotypes affect their performance. Age stereotypes are particularly interesting because age is the only demographic category in which all people will, over time, shift group membership. Thus, future research should consider examining how age and age stereotypes can influence the perceptions and behaviors of both the interviewer and interviewee in hiring settings.

In order for stereotypes to be relied upon, it is important there is limited alternative information. For example, seeing a stranger in passing and being asked to make a judgement about them will result in the most stereotypic responses, as opposed to being asked to make judgments about a very close friend. As a result, a limitation of this study may be in the breadth of information provided to participants and the lack of stereotype-activating cues. The participants were not able to interact with the interviewee, which is usually the way that stereotype-salient cues (such as the sights, sounds, smells, mannerisms, etc.) would emerge. Second, participants were provided with a long interview script, a job ad, and a great deal of information about the study. This may have taken their focus away from applicant

characteristics and onto other more relevant information, which ultimately weakens the strength of the manipulation and the tendency for people to rely on stereotypes.

The focus of the present study was on older women. Future studies should examine the intersection of age, gender, race, disability status, sexuality, and more to fully understand how these categories interact and influence workers' lives. Notably, the strongest effects within the present study were for the question of recommended starting salary. Some research indicates that the wage gap that exists between men and women increases even more when race is factored in (Browne & Misra, 2003), and so a study of multiple group members should be interested in the influence of race as well as gender and age. Additionally, sexual orientation and gender expression may be interesting categories to examine in the current diversifying workforce. Furthermore, these intersections should be examined in other workplace situations apart from just *hiring*. Research should examine these effects in leadership roles, work teams, within different industries, and across occupational settings.

The unique experience of older women is a particular concern for research on multigroup members, as ageism has been posited to more strongly affect women than men (Atkinson, Ford, Harding, & Jones, 2015; Jones, Sabat, King, Ahmad, McCausland, & Chen, 2017). Indeed, women live longer (Population Reference Bureau, 2016), are more likely to struggle financially (O'Grady-LeShane, 1990; Thompson, 2009), are expected to take on more caregiving responsibilities (Moen, Robison, & Fields, 1994; Pavalko & Artis, 1997), and deal with negative impacts related to aging and becoming parents (Clarke & Griffin, 2008; Duncan & Loretto, 2003; Ramsay, 2016). These caregiving responsibilities also often cause women to take several years off of work and then seek re-employment later in life more frequently than do men.

According to the stereotype content model (Fiske et al., 2002), both “women” (at least traditional women) and “older people” are both in the high warmth, low competence category, suggesting that ageism and sexism are similar through the process of stereotype, prejudice, and discrimination. Theoretically, both have been posited to include a more “acceptable” and “well-meaning” form of discrimination, whether through benevolent sexism or paternalistic prejudice (Glick & Fiske, 2001). Thus, not only is the aging workforce likely to be disproportionately female, it is possible that ageism at work affects women *more* than it affects men. However, little empirical research has been conducted on whether older women face unique difficulties in organizations. The effects of such a combination of traits on hiring and workplace outcomes may be a critical component for understanding and addressing the unique experiences of the changing workforce.

The present study was intended to address the older working woman’s experience of hiring discrimination; however, its broad focus may have lost some of the focus on the older female applicant. Human resource professionals were solicited to review a fabricated job interview in which the job content and applicant demographic characteristics were manipulated. Based on theories of ageism and hiring of multigroup members, this study was designed with both contextual cues and multiple categories in mind. The purpose of this design was two-fold. First, this study examines the emergence of stereotypes in a hiring context and whether stereotypes emerged based on single categories or the combination of categories. It was expected that stereotypes would emerge by combination of categories, and specifically emerge when the applicant categories matched the job ad categories. Second, this study was built to examine, to some degree, whether the emergence of stereotypes may also result in discrimination

in hiring, and whether the discrimination occurs as a function of a single category (age or gender) or a combination of categories (age *and* gender).

IMPLICATIONS

The present study offers several theoretical and practical implications for researchers and organizations interested in better hiring practices, more inclusiveness, and resolving issues of workplace discrimination. Perhaps the most prominent result in the present study comes from the finding that older workers are offered higher starting salaries and yet endorsed less as qualified candidates than younger workers. This finding is consistent with the literature on age discrimination. Specifically, Finkelstein, Higgins, and Clancy (2010) examined manager's justification of their ratings of older and younger job applicants. Their findings were that typically, managers had age-related concerns about older applicants more than younger applicants and specifically economic concerns. The managers in this study felt that older workers would demand or require more pay, regardless of whether this was true or not. These findings compound the effects of discrimination against older workers. Organizations need to be more proactive about hiring candidates based on actual qualifications and not perceived qualifications or the cost of hiring. It is already an uphill battle for older workers seeking reemployment, and although the present study does not necessarily provide any concrete interventions that may minimize this discrimination, it sheds light on what some of the reasons may be that older workers struggle to find work.

Additionally, although results were not exactly as predicted, and some nuance is left to be understood, the study offers support for theoretical arguments on multiple group members such as Marcus and Fritzsche's (2015) Intersectional Saliency of Ageism and Hinzman and Maddox's (2017) concept of subcategories and subtypes. Specifically, the reason for *why* certain categories were more or less attended to in certain situations remains uncertain, but it is clear that participants were able to identify and respond both to age and gender simultaneously. The three-

way interaction of age, gender, and job ad indicated that when the job ad was meant to target the sweetheart (younger woman), the older woman was offered the highest starting salary. Likely, this result was because the sweetheart ad *did* cue femininity/woman but participants still felt that *older* workers are more expensive. The same was found for the everyman (younger man) ad, where older men were offered the highest salary. This contribution is crucial, as social cognition has largely focused on single categories, and little empirical research has been conducted to examine the nuance of complex multiple group members. Theoretically, this supports the concept of a hierarchy of multiple categories. Indeed, there are still large gaps in our broader understanding of multi-group members, but the present research may serve as a start to filling those gaps.

The implications of the present study should of course be taken with caution, as the entire study took place in a simulated environment with “paper people.” To fully understand the implications for older workers and multigroup members, it is critical that future research be conducted in real-world environments. Real-world consequences could change the results. For example, Kulik et al. (2007) describe “motivation to avoid prejudice” which could, potentially, lessen any discrimination. However, it’s also possible that the opposite is true. Specifically, as Finkelstein et al. (2000) found, it *has* been expressed by managers that older workers may be an economic concern. Thus, fear of the perceived higher cost of older workers would be amplified when real hiring decision makers are involved and not simply study participants. In addition, the present study only used mock interviews that were identical, but in the real world, no two applicants are going to be exactly the same, even if they do have similar or equal qualifications. This is one way in which internalized stereotypes may present some interesting differences for older workers and other disadvantaged groups, as their perceptions of themselves and fears may

in fact play in the interaction between interviewer and interviewee. Future studies should examine more specifically how interactions between real-world job applicants and hiring managers might be influenced by stereotypes and stereotype internalization, whether by the applicant or interviewee. Indeed, while the present study still holds some interesting implications for research, the implications for practice may be even more complex once more field research has been conducted.

In the case for the older woman at work, there are some implications for practice in the form of organizational diversity initiatives. Often, initiatives focusing on lowering wage gaps or hiring discrimination tend to take a single-category focus. For example, many fields or companies with gender disparities try to hire more women. However, the single category focus may compound the issues faced by older women at work. This means that an initiative targeting women specifically without considering the factor of age may only increase discrimination against older women. It may appear that gender gaps are closing, but it may only be true for young women, whereas older women continue to struggle to find and keep work. More specific research and policy practice is needed to further understand and address these unique experiences for older women at work.

Discrimination can take many forms and occur in a wide variety of contexts. Workplace discrimination has often been one of the biggest concerns, whether it be hiring decisions, pay differences, or treatment at the workplace, researchers and organizations alike have tried to understand and mitigate discrimination in order to better the lives of employees, strengthen the human capital of organizations, and prevent lawsuits. However, the majority of initiatives and empirical study have focused on discrimination against single groups - women, minorities, older workers, and so on. However, there is reason to be concerned about the experiences of multiple

group members, in particular older women, as unique and vulnerable populations in need of study. Although results did not emerge in the way as predicted, there is evidence that multiple categories can influence organizational decision makers' perceptions about a job applicant.

APPENDIX A: MATERIALS

Informed Consent

Informed Consent

Principal Investigator: *Alyssa Perez*

Faculty Advisor: *Barbara Fritzsche, PhD*

Introduction and Purpose: You are being invited to take part in a research study consisting of HR and employment professionals. This study is interested in these professional judgments of applicant interview performance and applicant personality. You will be asked to read about a job and then a job applicant and provide ratings for the applicant. All data will be collected through an online survey software. Participation should take no longer than 1 hour. You must be 18 years of age or older to be included in the research study.

The principal investigator on this study is Alyssa Perez, doctoral student in Industrial/Organizational Psychology at the University of Central Florida. Because the researcher is a graduate student, she is being guided by Dr. Barbara Fritzsche, a UCF faculty advisor in the psychology department.

What you should know about a research study: Participation in a research study is voluntary. Whether or not you choose to participate is entirely up to you. You may choose to or not to participate. If you choose to participate and, at any point in the study, change your mind, you may stop at any point. Participation in the study is completely anonymous, and your responses will not be traced back to you.

Risks & Benefits: There are no more risks involved in the study than those associated with everyday life. As a benefit, participants may opt to receive updates about the results of the research, which will provide insight that is directly related to their careers.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, please reach out to Alyssa Perez, Graduate Student, Industrial/organizational Psychology, College of Sciences, (352) 537-0256, alyssamariaperezs@knights.ucf.edu.

IRB contact about your rights in the study or to report a complaint: Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

Please indicate below your consent to participate in the present research:

Yes, I consent to participate. (continue to study)

No, I do not consent. (end study)

REDI Property Management

Property Manager Position

To meet the challenges of our growing business, **REDI Property Management** is seeking experienced professionals who are highly motivated team players with the ability to work in a fast-paced environment. They must possess strong customer service skills, and strong organizational and technical skills.

The ideal applicant for **REDI** is:

capable
ambitious
confident
sociable
competitive
outgoing
active

Position Summary

Seeking qualified applicant to provide management, direction, and leadership. Responsibilities include working with coworkers, board of directors, and residents, manage and operate the community, and facilitate solutions to problems between communities and internal staff. Strong management skills, customer service skills, and supervisory skills are required.

Position Responsibilities

- Provides active leadership and direction
- Ensures the property is maintained and operated aligning with company goals
- Initiates contact with the new resident representatives to coordinate the move-in process, provide introduction and orientation to the management staff and building, review available services, and explain the building rules and regulations
- Communicates in an educated, professional and composed demeanor
- Encourages staff with ambitious leadership and teamwork
- Offers confident input when asked for suggestions for improved policies and procedures
- Responds actively and effectively when the situation demands it
- Maintains accurate and organized records

Minimum Job Requirements

Bachelor's degree (B.A. or B.S.) in Business or related field from a four-year college or university, or equivalent combination of education and experience. Community Associations Manager (CAM) license is required.

Three (3) years of experience. Knowledge of customer service principles and practices. Ability to read, analyze, and interpret technical procedures, leases, regulations or documents. Strong interpersonal skills.

REDI Property Management

Property Manager Position

To meet the challenges of our growing business, **REDI Property Management** is seeking experienced professionals who are highly motivated team players with the ability to work in a fast-paced environment. They must possess strong customer service skills, and strong organizational and technical skills.

The ideal applicant for **REDI** is:

enthusiastic
adventurous
outgoing
energetic
charming
caring
supportive

Position Summary

Seeking qualified applicant to provide management, direction, and leadership. Responsibilities include working with coworkers, board of directors, and residents, manage and operate the community, and facilitate solutions to problems between communities and internal staff. Strong management skills, customer service skills, and supervisory skills are required.

Position Responsibilities

- Provides supportive leadership and direction
- Ensures the property is maintained and operated aligning with company goals
- Initiates contact with the new resident representatives to coordinate the move-in process, provide introduction and orientation to the management staff and building, review available services, and explain the building rules and regulations
- Communicates in an enthusiastic, professional and composed demeanor
- Encourages staff with honest leadership and teamwork
- Offers confident input when asked for suggestions for improved policies and procedures
- Responds actively and effectively when the situation demands it
- Maintains accurate and organized records

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REDI Property Management

Property Manager Position

To meet the challenges of our growing business, **REDI Property Management** is seeking experienced professionals who are highly motivated team players with the ability to work in a fast-paced environment. They must possess strong customer service skills, and strong organizational and technical skills.

The ideal applicant for **REDI** is:

honest
good-natured
kind
caring
energetic
family-oriented
friendly
generous

Position Summary

Seeking qualified applicant to provide management, direction, and leadership. Responsibilities include working with coworkers, board of directors, and residents, manage and operate the community, and facilitate solutions to problems between communities and internal staff. Strong management skills, customer service skills, and supervisory skills are required.

Position Responsibilities

- Provides kind leadership and direction
- Ensures the property is maintained and operated aligning with company goals
- Initiates contact with the new resident representatives to coordinate the move-in process, provide introduction and orientation to the management staff and building, review available services, and explain the building rules and regulations
- Communicates in a caring, professional and composed demeanor
- Encourages staff with honest leadership and teamwork
- Offers confident input when asked for suggestions for improved policies and procedures
- Responds kindly and effectively when the situation demands it
- Maintains accurate and organized records

Minimum Job Requirements

Bachelor's degree (B.A. or B.S.) in Business or related field from a four-year college or university, or equivalent combination of education and experience. Community Associations Manager (CAM) license is required.

Three (3) years of experience. Knowledge of customer service principles and practices. Ability to read, analyze, and interpret technical procedures, leases, regulations or documents. Strong interpersonal skills.

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APPENDIX B: INTERVIEW SCRIPT

Please read the interview responses carefully. Once you have read all the questions, you will be asked to give specific feedback on interview performance.

Interviewee: Steven/Claire

Interviewer: Tell me about yourself.

Steven/Claire: Well, I received my bachelor's degree in business from the University of Florida. While I was in school there, I was really active in a lot of different organizations. I try to keep myself busy and always take on a lot of projects. I like working with people, and I do think I'm good at it, regardless of differences. I know there's a lot of stereotypes lately about generational differences, and I am sure a lot of people applying are **older/younger** than me, but I'm one of those **millennials/baby boomers** who can work well with people of all ages. I'm proud of that. I'm also good at all the detail-oriented work and the financial side. I'm very organized. But, I'm ready to move up a bit in the organization and I know I have the skills needed for this job so, I'm excited for the opportunity.

Interviewer: Can you name some past work experience that qualifies you for this job?

Steven/Claire: Although I've been in the workforce for **only a short time/many years**, I've worked in real estate for the past five years. I was a showing assistant at first, but more recently began, after getting certified, I began working on-site as property manager for an apartment complex. I definitely have the experience, the business background, the certification, the customer service *and* the technical skills to do this job well.

Interviewer: Give me an example where you personally carried your team/yourself through a stressful period/to excellence.

Steven/Claire: We recently had some residents who complained frequently and caused problems among our staff. There were no policies in place on how to handle these issues, but these particular residents were so difficult that employees became stressed and starting lashing out at each other and at customers, and work suffered because of the conflicts. Even though I wasn't in charge, and I'm much **younger/older** than our supervisor, I suggested to him that we get everyone together to talk about our concerns. He put me in charge of solving this issue and I'm proud to say that I came up with a more structured system by which residents could voice their complaints and interact with us. I drafted a detailed program and even introduced a new sort of town-hall structure we started implementing. It's helped a lot with clarity and addressing issues directly, openly, clearly, and in a structured way.

Interviewer: What are your future goals and how does REDI property management fit in?

Steven/Claire: I want a stable job. I'm looking for a place to work where I can stay, where the culture is good and I have a positive relationship with my coworkers. I know the job is stressful and there's always going to be some problems when dealing with anyone or any job, but I'm really hoping to find work that feels like home, and your company has a good reputation. I know that this is my career. I like the work. I plan to stay for a long time. It's a good company, this job is my calling, and the location and the people seem perfect.

Interviewer: I see that you are currently employed elsewhere, so why are you looking to leave that position?

Steven/Claire: I mentioned it before, but my current job is located farther away from where I live. I was even considering moving out there, but then I realized there are other things that drew me away from that decision. I don't think the compensation is really what it should be, and I have started to feel pretty strongly rooted where I am. I don't want to have to move, but this job is kind of pulling me towards that if I stay. I don't mind moving around when necessary, doing temporary work that requires some commuting, but having a close-by home base is a plus. Your location is really perfect and I think it's a better opportunity for growth and advancement than what my current job offers. I have a really positive view of your company and I would love to be a part of it, for the long-run.

Interviewer: Tell me about a time you disagreed with a decision. What did you do?

Steven/Claire: I worked under management that collected a lot of data on resident feedback. I didn't like the system because the most vocal residents are the ones who are usually mad, so feedback was overwhelmingly negative. Some of the employees started working just to please the residents rather than solve problems, because our rewards system became based on resident feedback. I didn't do that, so my evaluations suffered. I decided that instead of complaining or changing the way I did my job, I would keep track of the records of customer complaints, repairs, spending, and other data. I brought these metrics up to the boss when we had an evaluation meeting about the bad ratings. Just showing the numbers highlighted the problem, and since then there's been talk about altering the system. I'm not extremely confrontational, but when I disagree with a decision, I keep doing my job to the best of my ability, but keep track of my complaints and bring them up reasonably, at an appropriate time.

Interviewer: What can we expect from you in your first three months?

Steven/Claire: Well, ideally it will take less than three months, but I hope to get situated in the new job and orient myself with the people and the systems. I probably will be doing a lot of reading and getting to know everything like policies to systems. But, I think since this is a job working with people, the most important thing is to establish relationships. I'll be sure to reach out to residents, to other employees, and to any important clients and introduce myself and my role. I'll be in the office extra time, learning the ropes and getting organized. Once I've gotten to know the job more fully, I'll start looking for places where there could be improvement and trying to fill gaps. I see myself as a quick learner and a problem solver, so I expect to learn the ropes really fast and be ready to start having an impact on the company soon. It's hard to say the nitty-gritty details about what that entails until I'm in the position, but I can assure you I will be quick to learn and quick to be an asset to the company.

Debriefing Statement

Thank you for your participation in this study. The true purpose of the study was to identify differences in feedback provided to applicants belonging to different demographic categories. The interview transcript that you read was the same for all participants. Only the applicant and the job description differed. We are interested if these differences have an effect on how professional hiring managers perceive job applicants.

For the sake of scientific accuracy, please do not reveal the true nature of this study to anyone as it could skew our results. If you have any questions, comments, or concerns, please reach out to Alyssa Perez, doctoral student in Industrial/Organizational Psychology at alyssamariaperezs@knights.ucf.edu.

APPENDIX C: MEASURES

Interview Performance

For each question: “Based on the applicant's response to this question, please indicate the following:”

1. *how likely are you to recommend hiring this applicant,*
2. *how qualified do you believe this candidate is,*
3. *how adequate was the information obtained from the interview about the candidate,*
4. *how confident are you in the accuracy of your ratings?*

Response options: 1 - 7

- 1 Extremely unlikely - extremely likely
- 2 Extremely unqualified - extremely qualified
- 3 Not at all adequate - completely adequate
- 4 Not at all confident - extremely confident

Post interview: “Based on the *overall* interview performance, please indicate:”

1. *how likely are you to recommend hiring this applicant,*
2. *The median salary for a real estate property manager in the United States is 57K. The lowest earners make 28K and high earners can make up to 126K. Based on that information, if this applicant was hired, what recommended starting salary would you suggest offering?*
3. *how qualified do you believe this candidate is,*
4. *how adequate was the information obtained from the interview about the candidate,*
5. *how confident are you in the accuracy of your ratings?*

Response options: Same as above, but with question 2 a sliding scale between 28K-126K.

Person-Job Fit

Person job fit: To the best of your ability, please indicate the degree to which you believe the applicant is a good fit for the organization based on the following questions:

1. “The things that this employee values in life are very similar to the things that the organization values,”
2. “The applicant’s personal values match the organization’s values and culture,”
3. “The organization’s values and culture provide a good fit with the things that the applicant values in life.”
4. “There is a good fit between what this job offers and what this applicant is looking for in a job,”
5. “The attributes that the applicant looks for in a job are fulfilled very well by this organization,”
6. “The job in question would offer the applicant just about everything that they want from a job.”
7. “The match is very good between the demands of the job and the applicant’s personal skills,”
8. “The applicant’s abilities and training are a good fit with the requirements of the job,”
9. “The applicant’s personal abilities and education provide a good match with the demands that this job would place on an employee.”

Response options:

1-7: very much disagree to very much agree

Adjective List

Active	Family-Oriented	Outgoing
Adventurous	Flirtatious	Outspoken
Affectionate	Forceful	Pleasant
Ambitious	Forgiving	Practical
Anxious	Friendly	Reliable
Assertive	Generous	Reserved
Calm	Gentle	Responsible
Capable	Good-natured	Sensitive
Careless	Happy	Show-off
Caring	High-strung	Shy
Cautious	Honest	Sociable
Charming	Ignorant	Soft-hearted
Clever	Imaginative	Spunky
Competitive	Independent	Strong-willed
Confident	Intelligent	Stubborn
Conscientious	Kind	Supportive
Conservative	Knowledgeable	Talkative
Dependable	Logical	Tense
Dominant	Mature	Traditional
Educated	Moody	Upper-class
Emotional	Shallow	Warm
Energetic	Nervous	Wise
Enthusiastic	Organized	Witty

Manipulation Checks

Attention Measures:

What is the name of the company for which the applicant is applying?

ZRS management

REDI management

BLU management

G&G management

Which of the following was not one of the interview questions?

Can you name some past work experience that qualifies you for this job?

Why are you switching jobs?

What is your greatest weakness?

Tell me about a time you disagreed with a decision. What did you do?

For what position is the applicant applying?

- Contractor
- Mechanic/Repairs
- Low level manager
- Property manager

Workplace Ageism Scale

1. Older workers will be competent workers
2. Older workers are high achievers
3. Older workers are capable employees
4. Older workers will make top performers in an organization
5. The productivity of an organization will be enhanced if one hires older workers
6. Older workers are skilled in their jobs
7. Older workers generally perform worse than younger workers (R)
8. Older workers are suitable for training
9. Older workers possess great potential for development
10. Older workers are fast learners
11. Older workers will turn out to be flexible employees
12. Older workers possess the ability to learn new things
13. The time I spend training older workers will not be wasted
14. It is a waste of time and money to train older workers to learn new skills (R)
15. Older workers are warm-hearted
16. I think older workers have warm personalities
17. Older workers are likeable
18. Older workers are cold (R)
19. Older workers are kind
20. Older workers are friendly

Response options

Very much disagree 654321 - very much agree

Ambivalent Sexism Inventory

The statements on this page concern women, men, and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement by clicking on the numbered buttons below.

- (1) No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.
- (2) Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
- (3) In a disaster, women ought not necessarily to be rescued before men.
- (4) Most women interpret innocent remarks or acts as being sexist.
- (5) Women are too easily offended.
- (6) People are often truly happy in life without being romantically involved with a member of the other sex.
- (7) Feminists are not seeking for women to have more power than men.
- (8) Many women have a quality of purity that few men possess.
- (9) Women should be cherished and protected by men.
- (10) Most women fail to appreciate fully all that men do for them.
- (11) Women seek to gain power by getting control over men.
- (12) Every man ought to have a woman whom he adores.
- (13) Men are complete without women.
- (14) Women exaggerate problems they have at work.
- (15) Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
- (16) When women lose to men in a fair competition, they typically complain about being discriminated against.
- (17) A good woman should be set on a pedestal by her man.
- (18) There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.
- (19) Women, compared to men, tend to have a superior moral sensibility.
- (20) Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
- (21) Feminists are making entirely reasonable demands of men.
- (22) Women, as compared to men, tend to have a more refined sense of culture and good taste.

Response Option

Disagree strongly 0 1 2 3 4 5 Agree strongly

Demographic Measures

What is your age

—

Select your gender

Male

Female

Other

Prefer not to indicate

Select your race

White (non hispanic)

Black or African American (non hispanic)

Native American or Alaskan Native

Pacific Islander

Hispanic

Other

Prefer not to indicate

How long have you been worked in HR or employment service field?

—

Are you currently working in an employment related field?

Yes

No

APPENDIX D: IRB APPROVAL DOCUMENT



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Alyssa M. Perez and Co-PIs: Barbara Fritzsche**

Date: **May 08, 2018**

Dear Researcher:

On 05/08/2018, the IRB reviewed the following activity as minor modifications to human participant research that is exempt from regulation:

Type of Review: Exempt Determination

Modification Type: Recruiting from Amazon M-Turk. Increased sample size from 200 to 250. Revised consent and protocol was uploaded in iRIS.

Project Title: Grandma Got Passed Over by a Manager: The Intersection of Age and Gender in Hiring

Investigator: Alyssa M. Perez

IRB Number: SBE-17-13659

Funding

Agency: Grant

Title:

Research ID: NA

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

This letter is signed by:

Signature applied by Kamille Chaparro on 05/08/2018 11:23:44 AM

EDT Designated Reviewer

REFERENCES

- Allport, G. W. (1979). The nature of prejudice. Basic books.
- Atkinson, C., Ford, J., Harding, N., & Jones, F. (2015). The expectations and aspirations of a late-career professional woman. *Work, Employment and Society*, 29(6), 1019-1028.
- Barak, B., & Schiffman, L. G. (1981). Cognitive age: A nonchronological age variable. *ACR North American Advances*.
- Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology*, 35(5), 633-642.
- Beal, F. M. (2008). Double jeopardy: To be Black and female. *Meridians: feminism, race, transnationalism*, 8(2), 166-176.
- Becker, J. C., & Wright, S. C. (2011). Yet another dark side of chivalry: Benevolent sexism undermines and hostile sexism motivates collective action for social change. *Journal of personality and social psychology*, 101(1), 62.
- Bendick Jr, M., Brown, L. E., & Wall, K. (1999). No foot in the door: An experimental study of employment discrimination against older workers. *Journal of Aging & social policy*, 10(4), 5-23.
- Bendick Jr, M., Jackson, C. W., & Romero, J. H. (1997). Employment discrimination against older workers: An experimental study of hiring practices. *Journal of Aging & Social Policy*, 8(4), 25-46.
- Berdahl, J. L., & Moore, C. (2006). Workplace harassment: double jeopardy for minority women. *Journal of Applied Psychology*, 91(2), 426.

- Bodner, E., Shrira, A., Bergman, Y. S., Cohen-Fridel, S., & Grossman, E. S. (2015). The interaction between aging and death anxieties predicts ageism. *Personality and Individual Differences, 86*, 15-19.
- Brewer, M. B., Dull, V., & Lui, L. (1981). Perceptions of the elderly: Stereotypes as prototypes. *Journal of Personality and Social Psychology, 41*(4), 656.
- Browne, I., & Misra, J. (2003). The intersection of gender and race in the labor market. *Annual Review of Sociology, 29*(1), 487-513.
- Bureau of Labor Statistics, U.S. Department of Labor (2008, July) *Older Workers*. Retrieved May 12th, 2017, from https://stats.bls.gov/spotlight/2008/older_workers/
- Bureau of Labor Statistics, U.S. Department of Labor (2017, February) *Labor Force Statistics from the Current Population Survey*. Retrieved March 21st, 2017, from <https://www.bls.gov/cps/cpsaat11.htm>
- Bureau of Labor Statistics, U.S. Department of Labor (2019, January) *Labor Force Statistics from the Current Population Survey*. Retrieved March 15th, 2019, from <https://www.bls.gov/cps/cpsaat11.htm>
- Butler, R. N. (1969). Age-ism: Another form of bigotry. *The gerontologist, 9*(4 Part 1), 243-246.
- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology, 87*(5), 875.
- Cable, D. M., & Judge, T. A. (1996). Person–organization fit, job choice decisions, and organizational entry. *Organizational Behavior and Human Decision Processes, 67*(3), 294-311.
- Catalyst. (2017) *Pyramid: Women in S&P 500 Companies*. New York: Catalyst. Retrieved July 18th, 2017 from <http://www.catalyst.org/knowledge/women-sp-500-companies>

- Chang, S. H., & Kleiner, B. H. (2003). Common racial stereotypes. *Equal Opportunities International*, 22(3), 1-9.
- Chappell, N. L., & Havens, B. (1980). Old and female: Testing the double jeopardy hypothesis. *The Sociological Quarterly*, 21(2), 157-171.
- Chonody, J. M., & Teater, B. (2016). Why do I dread looking old?: A test of social identity theory, terror management theory, and the double standard of aging. *Journal of women & aging*, 28(2), 112-126.
- Clarke, L. H., & Griffin, M. (2008). Visible and invisible ageing: Beauty work as a response to ageism. *Ageing & Society*, 28(5), 653-674.
- Cohen, S. L., & Bunker, K. A. (1975). Subtle effects of sex role stereotypes on recruiters' hiring decisions. *Journal of Applied Psychology*, 60(5), 566.
- compete. 2017. In Merriam-Webster.com. Retrieved July 18, 2017, from <https://www.merriam-webster.com/dictionary/compete>
- Cuddy, A. J., & Fiske, S. T. (2002). Doddering but dear: Process, content, and function in stereotyping of older persons. *Ageism: Stereotyping and prejudice against older persons*, 3-26.
- Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: consequences for women's performance. *Journal of personality and social psychology*, 93(5), 764.
- Dovidio, J. F., Brigham, J. C., Johnson, B. T., & Gaertner, S. L. (1996). Stereotyping, prejudice, and discrimination: Another look. *Stereotypes and stereotyping*, 276, 319.

- Dovidio, J. F., Brigham, J. C., Johnson, B. T., & Gaertner, S. L. (1996). Stereotyping, prejudice, and discrimination: Another look. *Stereotypes and stereotyping*, 276, 319.
- Drzeniek-Hanouz, M. (2015, March). Why Discrimination is Bad for Business. *World Economic Forum*. Retrieved May 12th, 2017 from <https://www.weforum.org/agenda/2015/03/why-discrimination-hurts-competitiveness/>
- Duncan, C., & Loretto, W. (2004). Never the right age? Gender and age-based discrimination in employment. *Gender, Work & Organization*, 11(1), 95-115.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological review*, 109(3), 573.
- Finkelstein, L., Higgins, K., & Clancy, M. (2000). Justifications for ratings of old and young job applicants: An exploratory content analysis. *Experimental Aging Research*, 26(3), 263-283.
- Fiske, S. T., & Taylor, S. E. (2013). *Social cognition: From brains to culture*. Sage.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.
- Gilmore, D. C., & Ferris, G. R. (1989). The effects of applicant impression management tactics on interviewer judgments. *Journal of Management*, 15(4), 557-564.
- Glick, P., & Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70(3), 491-512.
- Glick, P., & Fiske, S. T. (2001). Ambivalent stereotypes as legitimizing ideologies: Differentiating paternalistic and envious prejudice. *American Psychologist*, 56(2), 109-118.

- Glick, P., Wilk, K., & Perreault, M. (1995). Images of occupations: Components of gender and status in occupational stereotypes. *Sex Roles, 32*(9), 565-582.
- Goldberg, C. B., Finkelstein, L. M., Perry, E. L., & Konrad, A. M. (2004). Job and industry fit: The effects of age and gender matches on career progress outcomes. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 25*(7), 807-829.
- Gordon, R. A., & Arvey, R. D. (2004). Age bias in laboratory and field settings: A meta-analytic investigation. *Journal of applied social psychology, 34*(3), 468-492.
- Gorman, C. D., Clover, W. H., & Doherty, M. E. (1978). Can we learn anything about interviewing real people from “interviews” of paper people? Two studies of the external validity of a paradigm. *Organizational Behavior and Human Performance, 22*(2), 165-192. - Says no to the question that
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In *Public self and private self* (pp. 189-212). Springer New York.
- Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low neuroimaging responses to extreme out-groups. *Psychological science, 17*(10), 847-853.
- Hassell, B. L., & Perrewé, P. L. (1993). An examination of the relationship between older workers' perceptions of age discrimination and employee psychological states. *Journal of Managerial Issues, 109-120*.
- Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). *The aging workforce: Realities, myths, and implications for organizations*. American Psychological Association.

- Hinzman, L., & Maddox, K. B. (2017). Conceptual and visual representations of racial categories: Distinguishing subtypes from subgroups. *Journal of Experimental Social Psychology, 70*, 95-109.
- Hollis-Sawyer, L., & Cuevas, L. (2013). Mirror, mirror on the wall: Ageist and sexist double jeopardy portrayals in children's picture books. *Educational Gerontology, 39*(12), 902-914.
- Hummert, M. L. (1990). Multiple stereotypes of elderly and young adults: A comparison of structure and evaluations. *Psychology and aging, 5*(2), 182.
- International Labor Organization, The World Bank Group. (2016). *Labor force, female (% of total labor force)*. Retrieved May 12, 2017 from <http://data.worldbank.org/indicator/SL.TLF.TOTL.FE.ZS>
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research, 2*(1999), 102-138.
- Jones, K. P., Sabat, I. E., King, E. B., Ahmad, A., McCausland, T. C., & Chen, T. (2017). Isms and schisms: A meta-analysis of the prejudice-discrimination relationship across racism, sexism, and ageism. *Journal of Organizational Behavior*.
- Kite, M. E., Stockdale, G. D., Whitley, B. E., & Johnson, B. T. (2005). Attitudes toward younger and older adults: An updated meta-analytic review. *Journal of social issues, 61*(2), 241-266.
- Korman, A. K. (1970). Toward a hypothesis of work behavior. *Journal of Applied Psychology, 54*, 31-41.
- Kulik, C. T., Roberson, L., & Perry, E. L. (2007). The multiple-category problem: Category

- activation and inhibition in the hiring process. *Academy of Management Review*, 32(2), 529-548.
- Lahey, J. N. (2008). Age, women, and hiring an experimental study. *Journal of Human Resources*, 43(1), 30-56.
- Lawrence, B. S. (1984). Age grading: The implicit organizational timetable. *Journal of Organizational Behavior*, 5(1), 23-35.
- Level Playing Field Institute. (2007). *The Cost of Employee Turnover Due Solely to Unfairness in the Workplace*. Retrieved May 12th 2017 from <http://www.workforcediversitynetwork.com/docs/corporate-leavers-survey.pdf>
- Levy, B. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in Psychological Science*, 18(6), 332-336
- Levy, B., Slade M. D., & Kasl, S. V. (2002). Increased longevity by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, 83, 261-270.
- MacDonald, M., Phipps, S., & Lethbridge, L. (2005). Taking its toll: The influence of paid and unpaid work on women's well-being. *Feminist Economics*, 11(1), 63-94.
- Macrae, C. N., & Bodenhausen, G. V. (2000). Social cognition: Thinking categorically about others. *Annual review of psychology*, 51(1), 93-120.
- Macrae, C. N., Bodenhausen, G. V., & Milne, A. B. (1995). The dissection of selection in person perception: inhibitory processes in social stereotyping. *Journal of Personality and Social Psychology*, 69(3), 397.
- Maner, J. K., Kenrick, D. T., Becker, D. V., Robertson, T. E., Hofer, B., Neuberg, S. L., ... & Schaller, M. (2005). Functional projection: how fundamental social motives can bias interpersonal perception. *Journal of Personality and Social Psychology*, 88(1), 63.

- Marcus, J., Fritzsche, B. A., Le, H., & Reeves, M. D. (2016). Validation of the work-related age-based stereotypes (WAS) scale. *Journal of Managerial Psychology, 31*(5), 989-1004.
- Marcus, J., & Fritzsche, B. A. (2015). One size doesn't fit all: Toward a theory on the intersectional salience of ageism at work. *Organizational Psychology Review, 5*(2), 168-188.
- Martens, A., Goldenberg, J. L., & Greenberg, J. (2005). A terror management perspective on ageism. *Journal of social issues, 61*(2), 223-239.
- Martens, A., Greenberg, J., Schimel, J., & Landau, M. J. (2004). Ageism and death: Effects of mortality salience and perceived similarity to elders on reactions to elderly people. *Personality and Social Psychology Bulletin, 30*(12), 1524-1536.
- McIntosh, P. (2007). White privilege and male privilege. *Race, Ethnicity and Gender: Selected Readings, 377-385.*
- Milkman, K. L., Akinola, M., & Chugh, D. (2015). What happens before? A field experiment exploring how pay and representation differentially shape bias on the pathway into organizations. *Journal of Applied Psychology, 100*(6), 1678.
- Miller, C. C. (2016, March). As Women Take Over Male Dominated Fields, the Pay Drops. *The New York Times, Economic View*. Retrieved May 12th, 2017 from https://www.nytimes.com/2016/03/20/upshot/as-women-take-over-a-male-dominated-field-the-pay-drops.html?_r=1
- Moen, P., Robison, J., & Fields, V. (1994). Women's work and caregiving roles: A life course approach. *Journal of Gerontology, 49*(4), S176-S186.
- Motschenbacher, H. (2010). *Language, gender and sexual identity: Poststructuralist perspectives* (Vol. 29). John Benjamins Publishing.

- Murphy, K. R., Herr, B. M., Lockhart, M. C., & Maguire, E. (1986). Evaluating the performance of paper people. *Journal of Applied Psychology, 71*(4), 654.
- Nelson, T. D. (2011). Ageism: The strange case of prejudice against the older you. In *Disability and aging discrimination* (pp. 37-47). Springer New York.
- Niemann, Y. F., Jennings, L., Rozelle, R. M., Baxter, J. C., & Sullivan, E. (1994). Use of free responses and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin, 20*(4), 379-390.
- OECD. Ageing and employment policies – United Kingdom. Paris: OECD Publications, 2004.
- O'Grady-LeShane, R. (1990). Older women and poverty. *Social Work, 35*(5), 422-424.
- Okimoto, T. G., & Heilman, M. E. (2012). The "bad parent" assumption: How gender stereotypes affect reactions to working mothers. *Journal of Social Issues, 68*, 704-724.
- Pavalko, E. K., & Artis, J. E. (1997). Women's caregiving and paid work: Causal relationships in late midlife. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 52*(4), S170-S179.
- Pew (2013). Breadwinner moms: Mothers are the sole or primary provider in four-in-ten households with children; public conflicted about the growing trend. Retrieved from www.pewsocialtrends.org/files/2013/05/Breadwinner_moms_final.pdf
- Phillips, D. R., & Siu, O. L. (2012). Global aging and aging workers. *The Oxford handbook of work and aging*, 11-32.
- Population Reference Bureau. (2016) Life Expectancy at Birth, by Gender, 1970 and 2014. Retrieved on July 18th, 2017 from

<http://www.prb.org/DataFinder/Topic/Rankings.aspx?ind=6>

- Posthuma, R. A., & Campion, M. A. (2009). Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of Management*, 35(1), 158-188.
- Purkiss, S. L. S., Perrewé, P. L., Gillespie, T. L., Mayes, B. T., & Ferris, G. R. (2006). Implicit sources of bias in employment interview judgments and decisions. *Organizational Behavior and Human Decision Processes*, 101(2), 152-167.
- Ramsey, T. (2016). Mothers Returning to the Workforce: Where Ageism Meets Sexism. *EDITOR'S NOTE*, 15.
- Reeves, M. D., Fritzsche, B. A., Smith, N. A., Marcus, J., O'Steen, M., & Dhanani, L. Y. (2013, April). One shade too grey: Occupational age stereotypes and legal outcomes. Paper presented at the SIOP '13: 28th Annual Conference of Society of Industrial & Organizational Psychology, Houston, TX.
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57(2), 95.
- Schmidt, D. F., & Boland, S. M. (1986). Structure of perceptions of older adults: Evidence for multiple stereotypes. *Psychology and Aging*, 1(3), 255.
- Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin*, 140(4), 921.
- Shepherd, M., Erchull, M. J., Rosner, A., Taubenberger, L., Queen, E. F., & McKee, J. (2011). "I'll get that for you": The relationship between benevolent sexism and body self-perceptions. *Sex Roles*, 64(1-2), 1-8.

- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.
- Sweller, J. (1989). Cognitive technology: Some procedures for facilitating learning and problem solving in mathematics and science. *Journal of Educational Psychology*, 81, 457-466.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). Using multivariate statistics (Vol. 5). Boston, MA: Pearson.
- Taylor, S. E. (1981). The interface of cognitive and social psychology. *Cognition, Social Behavior, and the Environment*, 189-211.
- Thompson, M. (2009). Earnings of a lifetime: Comparing women and men with college and graduate degrees. *Context*, 10(2).
- Tugend, A. (2013). Unemployed and older, and facing a jobless future. *The New York Times*, 27, B3.
- U.S. Equal Employment Opportunity Commission (2016). *Charge Statistics (Charges filed with EEOC) FY 1997 Through FY 2016*. Retrieved May 12th, 2017, from <https://www.eeoc.gov/eeoc/statistics/enforcement/charges.cfm>
- Wakabayashi, C., & Donato, K. M. (2006). Does Caregiving Increase Poverty among Women in Later Life? Evidence from the Health and Retirement Survey. *Journal of Health and Social Behavior*, 47(3), 258-274.
- Warr, P.B. Age and work behaviour: Physical attributes, cognitive abilities, knowledge, personality traits and motives. In C.L. Cooper & I.T. Robinson (Eds), *International Review of Industrial and Organizational Psychology*. London: Wiley, 2001, pp. 1–36
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101(1), 34.

Williams, J. E., Bennett, S. M., & Best, D. L. (1975). Awareness and expression of sex stereotypes in young children. *Developmental Psychology*, *11*(5), 635.

Zwick, Thomas, Why Training Older Employees is Less Effective (2011). ZEW - Centre for European Economic Research Discussion Paper No. 11-046. Available at SSRN: <https://ssrn.com/abstract=1886428> or <http://dx.doi.org/10.2139/ssrn.1886428>