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Attitudes Toward Younger and Older Adults: An Updated Meta-Analytic Review

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This meta-analytic review of 232 effect sizes showed that, across five categories, attitudes were more negative toward older than younger adults. Perceived age differences were largest for age stereotypes and smallest for evaluations. As predicted by social role theory (Eagly, 1987), effect sizes were reduced when detailed information was provided about the person being rated. The double standard of aging emerged for evaluations and behavior/behavioral intentions, but was reversed for the competence category. Perceptions depended on respondent age also. Results demonstrated both the multi-dimensionality and the complexity of attitudes toward older adults (Hummert, 1999; Kite & Wagner, 2002).

For over half a century, gerontologists have puzzled over North Americans' fascination with youth and their reluctance to accept aging gracefully. Initially, research on these issues was based on the assumption that negative attitudes toward older adults were widespread (Butler, 1969). Subsequent reviewers have reached different, and sometimes opposite conclusions. At the same time that Green (1981)

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determined that negative age-related stereotypes were the norm, Lutsky (1980) concluded that age, in and of itself, was less important in determining attitudes toward older adults than were other types of information. More recent reviewers (Hummert, 1999; Kite & Wagner, 2002) echoed McTavish's (1971) conclusion; the answer to the seemingly simply question "Does ageism exist?" is not an unequivocal yes. Instead, people's views about aging are multidimensional, with both positive and negative elements.

This article examines the complexities of age-related attitudes and stereotypes through a meta-analytic review of literature on ageism. Specifically, we update and expand upon Kite and Johnson's (1988) previous meta-analysis. Kite and Johnson reviewed the literature on this topic prior to December 1985, examining a total of 43 independent effect sizes. Thirty of those effect sizes indicated that people were more negative toward older than toward younger people, eleven indicated more negative attitudes toward younger than toward older people, and two indicated exactly no difference in attitudes toward the two groups. The overall effect size, as indexed by the *d* statistic was 0.39, indicating that attitudes toward older persons were more negative than attitudes toward younger persons by approximately one-third of a standard deviation.

Although this finding indicated a bias against older adults, these effect sizes were not homogeneous. That is, the difference in attitudes expressed about older and younger adults varied widely across studies. Therefore, potential moderators of the effect sizes were explored to account for this variation. Results supported Lutsky's (1980) contention that people do not rely solely on information about age in judging older adults. Specifically, Kite and Johnson (1988) found that the context provided for the ratings moderated the results. That is, when specific information was provided about the target person, compared with when a general target such as "old person" was used, age-based attitude differences were reduced significantly. Results also depended on the types of questions asked; studies found larger differences in attitudes toward older and younger adults when competence was assessed and smaller differences when personality traits or willingness to have contact with the target person was assessed. In addition, as Kogan (1979a) had suggested, smaller differences between the evaluations of older and younger adults emerged when a between-subjects, compared with a within-subjects, design was used.

There are a number of reasons why the time is right for an updated meta-analytic review of this literature. First, in the 15 years since Kite and Johnson's (1988) review was published, the literature on this topic has advanced considerably. More sophisticated questions have been posed, and the methodological techniques used to answer them have evolved also (Johnson & Eagly, 2000). Because of these changes, our conceptualization of the issues is now much stronger. Although Kite and Johnson's results were consistent with social role theory (Eagly, 1987; Eagly, Wood, & Diekman, 2000), their interpretation of their results in these terms was

post hoc; we now use this theory to frame a priori hypotheses. Moreover, rather than considering attitude as a unidimensional construct for the overall analyses, as Kite and Johnson did, we instead look at attitude components (e.g., evaluation, stereotypes, competence) separately. Moreover, the present analysis is based on nearly five times the number of effect sizes (232, compared with Kite & Johnson's original 43). Finally, in part because of this increase in the available literature, we are now able to consider two critical issues concerning attitudes toward older adults. One is the double standard of aging—the hypothesis that older women are evaluated more negatively than older men (e.g., Sontag, 1979). Another is whether younger and older adults view aging through the same lens. That is, are older people more favorable toward aging because they themselves are old? We begin with a review of social role theory and its relevance to this article.

Social Role Theory

The primary theoretical guide for our research was social role theory, which proposes that viewing people in various social roles provides an important basis for beliefs about social groups (Eagly, 1987; Eagly et al., 2000). According to this theory, when we observe others, we pay attention to the social roles they occupy. In making these observations, people are likely to exhibit the correspondence bias (Ross, Amabile, & Steinmetz, 1977). That is, all things being equal, people give relatively little weight to how situational constraints influence behavior; instead, they believe a person's actions tell about the person's basic personality. Social role theory proposes that this bias leads to the development of stereotypic beliefs. Because people observe the role-driven behavior, which may or may not reflect the real personality of the person being observed, perceivers come to associate the characteristics of these roles with the individuals who occupy them.

One important social role is the employee role, which is occupied predominately by younger people; in 1993, for example, only 2.7% of the work force was 65 or older (U.S. Bureau of the Census, 1994). People perceive that this role requires agentic traits, such as self-confidence and assertiveness (e.g., Eagly & Steffen, 1984). Because those who occupy the employee role tend to be younger, people draw the conclusion that younger people are more likely to have agentic traits than are older people (e.g., Gekoski & Knox, 1990; Kite, Deaux, & Miele, 1991). However, when perceivers know that an older person is employed, their assessments are based on that information rather than their stereotypes (Kite, 1996). Other factors, such as health status, are also better predictors of attitudes toward older adults than is target age (Gekoski & Knox, 1990), again highlighting the importance of role information in people's views of others.

Hummert's (1993) work on subtypes of older individuals further supports the proposition that beliefs about older adults are linked to the roles they are perceived to occupy (see also Hummert, Garstka, & Shaner, 1997). Hummert

and her colleagues have documented a set of stereotypes about older adults—some positive and some negative—that correspond to consistent and identifiable subtypes of older people. Examples include the positive subtypes of John Wayne Conservative, Liberal matriarch/patriarch, and perfect grandparent and the negative subtypes of severely impaired, shrew/curmudgeon, and inflexible senior citizen. Subtypes that are seen as older have fewer positive traits associated with them (Hummert et al., 1997) and memory problems are seen as more serious for some subtypes (e.g., despondent) than for others (e.g., golden ager; Hummert, Garstka, & Shaner, 1995). Consistent with social role theory, Hummert and her colleagues have found that the role information contained within these subtypes outweighs age per se as a predictor of evaluations. Finally, Kite and Johnson's (1988) findings support a social role perspective: As noted earlier, differences in evaluations due to by target age were reduced significantly when specific information, compared to general information, was provided about the person being rated.

What Represents a Negative Attitude Toward Older Adults?

The multidimensional nature of age-related stereotypes has long been noted (Crockett & Hummert, 1987; McTavish, 1971), and we take this perspective by classifying dependent measures into categories that reflect this complexity. Although, arguably, all categories are evaluative to some degree, this approach preserves important differences across categories and reflects the complexity of the attitudes toward aging literature. We used five categories; evaluation, age-related stereotypes, behavior/behavioral intention, competence, and attractiveness. The first three categories map onto the traditional tripartite division of attitudes (see Eagly & Chaiken, 1993). The affective, or evaluative, category, best represents the traditional meaning of attitude, defined as psychological tendencies that are expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly & Chaiken, 1993). Representative items for this dimension include the good/bad items from the Semantic Differential Scale (Osgood, Suci, & Tannenbaum, 1957) and the personally acceptable/unacceptable items from Aging Semantic Differential Scale (Rosencranz & McNevin, 1969). Age-related stereotypes are reflected in measures of stereotypic beliefs about older adults (e.g., traditional, hard of hearing, dote on their grandchildren; Axelrod & Eisdorfer, 1961; Kogan & Shelton, 1962; Stewart & Ryan, 1985). Behavior/behavioral intention measures in the aging literature include the likelihood of recommending evaluation by professionals following memory failure (Erber, Szuchman, & Rothberg, 1990b), willingness to help (e.g., Weinberger, 1981), preferences in hiring or other competitive venues (Gaetjens, 1997; Haefner, 1977), and assessments based on observed interactions (e.g., instructions given to listeners; Kemper, Vandeputte, Rice, Cheung, & Gubarchuk, 1995; Rubin & Brown, 1975).

The competence and attractiveness categories represent important dimensions of age stereotypes also. Kite and Johnson (1988) found the largest bias against older adults when competence was assessed and this continues to be a focus of many studies; this category reflects the belief that competence declines with age (see also Cuddy & Fiske, 2002). In the aging literature, competence assessments include perceived intelligence or ability (e.g., Erber, Szuchman, & Rothberg, 1990a), and judgments of memory failure (e.g., Erber, Etheart, & Szuchman, 1992; Erber, Szuchman, & Etheart, 1993; Matyi & Drevenstedt, 1989). Finally, physical appearance is an important component of many stereotypic beliefs, particularly those based on basic category memberships, such as age and gender (see Fiske, 1998, for a review). People perceive, specific to the aging literature, that attractiveness and physical ability decrease with age (e.g., Deutsch, Zalenski, & Clark, 1986; O'Connell & Rotter, 1979). Wernick and Manaster (1984) found, for example, that unattractive faces were consistently rated as older than were attractive faces. Testing these multidimensional components is important because not only do people hold a variety of beliefs and attitudes about older adults, those beliefs are sometimes inconsistent. For example, people may believe that older people are forgetful, but at the same time value their experience and wisdom (e.g., Kite & Johnson, 1988).

Moderators of Age-Related Attitudes

Descriptors of the target. As discussed earlier, social role theory predicts that the role-related information provided about the target influences evaluations (Eagly, 1987; Eagly et al., 2000). In the aging literature, the detail provided about the target ranges from age only (e.g., 70-year-old) or a young/old label (e.g., Carmel, Cwikel, & Galinsky, 1992; Luszcz & Fitzgerald, 1986), to detailed information such as how they performed in an interview for a job (e.g., Avolio & Barrett, 1987) or interacted with a therapist (e.g., Matyi & Drevenstedt, 1989). Another common methodology involves using photographs to provide physical appearance cues (e.g., Levin, 1988; Wernick & Manaster, 1984).

Because age is a basic social-cognitive category (e.g., Kunda, 1999), when studies provided only age, we expected participants to rely on their general attitudes and beliefs about older and younger adults when reporting their evaluations. When more detail was available, people should have tempered their tendency to rely on generalities, instead using the individuating information when making evaluations (e.g., Deaux & Major, 1987; Fiske, Lin, & Neuberg, 1999). We expected age-related bias to be greatest when only demographic information about the target is provided, somewhat smaller when minimal information about the target was provided, and smallest when extensive information about the target was provided.

Theories suggesting that as information becomes more individuated, evaluations are based less on social categories and more on the specific detail

provided typically assume that this detail reflects positively on the target and is not stereotype-confirming (e.g., Deaux & Major, 1987; Fiske, Lin, & Neuberg, 1999). However, in the aging literature, many researchers manipulate the competence or success of the person being rated so that either positive or negative information is available to participants (e.g., Banziger & Drevenstedt, 1982; Matyi & Drevenstedt, 1989; Walsh & Connor, 1979). When possible, we considered the effects of this manipulation.

Gender of person being rated. A limitation of the aging attitude literature is the widespread use of labels such as *elderly* or *older person* that do not specify whether the person to be rated is a man or a woman. It is highly likely that respondents in these studies assumed or imagined the gender of the person they were evaluating anyway. Research shows that people use male as the default category and therefore assume maleness in the absence of specific information about a person's gender (see Matlin, 2004). Kite (1996) demonstrated that such assumptions are related, also, to other types of information provided. Regardless of age, for example, employed and older homemaker targets were imagined to be male whereas younger homemaker targets were thought likely to be female. Such outcomes raise questions about whether respondents can or will evaluate others without making inferences about their gender also.

By failing to designate target gender, researchers overlook an important variable. Women are thought to reach middle and old age (Drevenstedt, 1976; Kogan, 1979b) and the prime of life (Zepelin, Sills, & Heath, 1986) earlier than men. Deutsch et al. (1986) found that older men were seen as more attractive than older women, but found no differences in ratings of middle-aged or young women and men. Hummert et al. (1997) found that women were likely to be stereotyped negatively at a younger age than were men. Other research, however, has found no evidence for an age-related double standard (Drevenstedt, 1981; Locke-Connor & Walsh, 1980). Whether the sexes are viewed differently as they age may depend on what you ask, with a double standard being more likely for physical appearance ratings or gender-associated attributes than for competence. Erber et al. (1990a), for example, found no differences in perceived forgetfulness of male and female target persons. Canetto and her colleagues (1995) found older men were rated higher on intellectual competence and autonomy whereas older women were rated higher on nurturance. Because more researchers now have considered both the age and the gender of the person being rated, we can consider the aging double standard and the conditions under which it is or is not likely to emerge.

Respondent age. A number of studies have examined whether older people are more favorable toward old age than are younger people. Results are mixed, with some researchers finding this result (e.g., Anantharaman, 1979; Berg & Sternberg, 1992; Erber, 1989; Guo, Erber, & Szuchman, 1999), others finding no age differences (e.g., Bailey, 1991; Erber & Rothberg, 1991; Harris, Page, & Begay,

1988) or younger respondents being more positive than older respondents (Bell & Stanfield, 1973; Rothbaum, 1983). Despite these mixed findings, the preponderance of evidence suggests older people have more positive attitudes toward aging than do younger people, leading us to expect this result.

Age of target. It has long been noted that attitudes toward the old-old (75 and older) are more negative than attitudes toward the young-old (55–64; e.g., Neugarten, 1975). As noted earlier, Hummert (1990) found that targets fitting a positive subtype of older adults were perceived as younger than targets fitting a negative subtype of older adults. Similarly, the number of positive stereotypes associated with older people decreased significantly for photographs of the young-old to middle-old to old-old (Hummert et al., 1997; Kogan, 1979a). Canetto et al. (1995) found significant differences between 60- and 75-year-old targets. These findings suggest that as target age increases, the age-related bias will increase; we will examine this possibility.

Secondary moderators. There are a number of other factors that might moderate the expected bias against older individuals. Age-related bias, for example, depends on choice of experimental design (e.g., between- or within-subjects); as Kogan (1979a) noted and Kite and Johnson (1988) confirmed, within-subjects designs produce a greater age-related bias than do between-subjects designs. Publication year may be important also: As noted previously, recent research has been more likely to consider complex questions and may be more likely to use dependent measures with well-established validity (see Kite & Johnson, 1988). Similarly, studies that use multi-item attitude measures should produce more reliable findings than studies with fewer items (e.g., Nunnally, 1978). Finally, there may be differences due to the education, socioeconomic status, and ethnicity of the sample (Whitley, 2002). We examine these secondary moderators, but do not make predictions about which, if any, will prove important.

Method

Studies Sampled

To retrieve all the studies that had appeared by April, 2000, we carried out a computerized literature search of PsycINFO (*Psychological Abstracts*) and Social SciSearch. We searched for studies that compared attitudes toward the older adults with attitudes toward the young by using the key words *aged*, *old*, *elderly*, *attitudes*, *stereotypes*, *senior citizen*, *attributions*, and *impression formation*. In addition, bibliographies of located studies were checked. We also hand searched all published issues (up to April 2000) of *Educational Gerontology*, *The Gerontologist*, *Journal of Gerontology*, and *Psychology and Aging*. We considered only studies that compared older (55 years or older) to younger targets. Younger targets were categorized

as either young (21–35 years) or middle aged (36–54 years). Only studies in which the participants were at least 18 years of age and the younger target person was at least 21 years old were included. Included studies are marked with an asterisk in the reference section.

Effect Sizes

The effect size calculated was g, representing the standardized difference between the ratings of younger and older targets. Positive effect sizes indicate that the attitude toward the older target was more negative and negative effect sizes indicate that the attitude toward the younger target was more negative; an effect size of zero indicates exactly no difference between the attitudes expressed toward older and younger targets. Whenever possible, g was derived directly from means and standard deviations, or from F or t statistics (e.g., Lipsey & Wilson, 2001; Rosenthal, 1994). Otherwise, techniques such as probit transformations of dichotomous frequencies were used to estimate the effect sizes. Effect sizes were computed by two independent raters; a third rater randomly checked computations for each study to ensure the method employed was appropriate. Disagreements were resolved by discussion. The resulting effect sizes (ds) were corrected for bias due to sample size (Hedges, 1982).

Categories of Effect Sizes

Because attitudes toward older adults are multidimensional, we placed effect sizes into one of five categories: evaluation (e.g., generous, friendly), competence (e.g., intelligent, good memory), attractiveness (e.g., pretty, wrinkled), behavior/behavior intentions (e.g., willingness to interact with; make phone call), and age stereotypes (e.g., old-fashioned, talks about past). To accomplish this, we first compiled a list of all dependent measures used in the located studies. Three raters categorized all dependent measures into one of the five categories, with a 95% agreement rate. Disagreements were resolved by discussion. Our decisions were guided by theoretical distinctions among the categories, as well as the decisions of previous researchers. For example, items that appeared on the evaluation component of the Semantic Differential (Osgood et al., 1957) and the Aging Semantic Differential (Rosencranz & McNevin, 1969) were categorized as evaluative. Items categorized as age stereotypes by others (Axelrod & Eisdorfer, 1961; Kogan & Shelton, 1962; Stewart & Ryan, 1985) were similarly categorized for this analysis. Overall effect sizes were computed separately for each of these categories by averaging across all items relevant to that category. In the reference list, the categories for which a study produced effect sizes are marked by AS (Age Stereotype), AE (Attractiveness-Evaluative), C (Competence), E (Evaluation), or B (Behavior/Behavioral Intention).

Table 1. Summary Statistics for Categories of Dependent Variables

Category of Dependent Variable	Number of Studies	*d*	*z*	Q_w
Age Stereotype	11	.47	11.53**	118.48**
Attractiveness (Evaluative)	17	.38	16.21**	187.56**
Competence	75	.33	23.10**	825.21
Behavior/Behavioral Intention	29	.21	11.34**	377.34**
Evaluation	100	.24	19.92**	974.26**

Note. A positive *d* indicates more negative attitudes toward older adults.
Q_w represents within-category homogeneity. Higher values indicate less homogeneity of effect sizes.
$p < .01$ ***$p < .001$.

Some categories of dependent measures are theoretically important, but were represented by too few studies to be included (e.g., beliefs about language performance; Hummert, Garstka, Shaner, & Strahm, 1995). Finally, some categories of dependent measures fell outside the attitude domain; these included measures of personal concern about the consequences of being old (e.g., Kiemmack, 1980), evaluations of luck or effort (e.g., Reno, 1979), and judgments about the age at which various life markers such as middle and old age are reached (Hori, 1994). Dependent measures representing these domains were excluded from our analysis.

The unit of analysis for our research was the individual study, defined as (a) the only study reported within an article, (b) a separate study within an article (e.g., Study One, Study Two), or (c) a separate sample within the same study (e.g., a replication with a sample from a different population). In many cases, an individual study assessed more than one category of dependent variable, such as both competence and evaluation. In such cases, the effect size for each category was analyzed as part of its category; thus, the total number of effect sizes analyzed exceeds the total number of studies. Also, many studies used more than one measure to assess a particular category of dependent variable. In those cases, *d*s were computed for each dependent variable within a category and averaged to create an effect size for that category. Thus, an individual study was presented only once within a category to ensure independence of data (e.g., Johnson & Eagly, 2000). Table 1 contains the number of studies in each of the five categories.

Study Characteristics

The following information was coded for each study: (a) publication year, (b) respondent gender (recorded as the percentage of men in the sample), (c) number of items in the dependent measure, (d) number of points on the rating scale (if applicable), and (e) study design (between- or within-subjects). We coded, also, respondent age as young, middle age, old, or unknown. When actual respondent age was reported, we categorized those younger than 35 as young, those between the

ages of 35 and 54 as middle aged, and those older than 55 as old. Respondents were categorized, also, as undergraduates, graduate students/professionals, or from a general population. Target gender was coded as male, female, both, or unspecified; the *both* category was used when target gender was varied, but effect sizes could not be computed separately by that factor.

The information provided about the target was coded as demographics only (e.g., only age provided), minimal information (e.g., sick or healthy; working or not working), or extensive information (e.g., detailed description of person, detailed work history, intake report for therapy). We also coded whether the information provided was positive, negative, or neutral. The presentation of target age information varied widely. Some researchers provided only general age categories (e.g., young, old) and others provided specific ages. Also, the number of age categories used varied widely, from 2 to 14. To reduce the complexity and to ensure no one study was over-represented in the analysis of target age, we used five age categories (21–37, 38–54, 55–70, 71–85, 86 and older) that allowed us to make *relative* age comparisons; for example, 55–70 year olds could be compared to 86 and older targets, even though both categories represented "older" adults. In developing these cutoffs, we considered the actual age categories used by researchers and the distinction between young, middle-age, young-old, middle-old, and old-old targets (e.g., Neugarten, 1975). Also, we used categories with equal age intervals. When studies provided comparisons for more than two age groups within a category, we computed effect sizes separately for each comparison and then averaged the effect sizes within categories. For example, if a study provided ratings of 30- and 65-year-olds and of 35- and 65-year-olds, *d*s were averaged so that the study had only one effect size which represented a 21-37-year-old target compared to a 55-70-year-old target.

In all cases, coding was completed by two independent raters. Coders achieved 98.6% agreement; disagreements were resolved by discussion with a third rater. For all analyses, results were collapsed across all categorical variables except the variable of interest. If a study included data from more than one sample (e.g., undergraduates and general population), but separate effect sizes could not be computed, the study was excluded from the analysis of that moderator variable.

Results

Within each category of dependent variable, stem and leaf plots were computed to identify outliers. Outliers were found for evaluation ($n = 3$) and competence ($n = 3$); for these categories, analyses were computed with and without outliers. Only minor differences in the results emerged, so the analyses reported here include outliers. Occasionally, researchers reported only that effects were not significant or reported only a p value for significant results; in such cases, the accuracy of the effect size estimate is questionable (e.g., Johnson & Eagly, 2000); however,

excluding these estimates did not materially affect the results, so we report findings including those studies.

Overall Effect Sizes

Summary statistics for all categories of dependent variables are provided in Table 1. For all categories, respondents showed a preference for younger rather than older adults. Younger adults were rated less stereotypically, seen as more attractive and more competent, and were evaluated more favorably than older adults; also, behavioral preferences were given to younger adults. All mean effect sizes were significantly different from zero, as evidenced by the z statistic. In no case were effect sizes within a category homogeneous, as indicated by Q_w, so there was significant unexplained variance within each category. Therefore moderator variables were examined to try to account for this additional variance.

Moderator Variable Analyses

We report results only when at least seven studies were available at each level of categorical moderator variables and at least 15 studies were available for continuous moderator variables. Because of these criteria, analyses of moderator variables are limited to the competence, evaluation, and behavior/behavioral intention categories. Summary statistics for the categorical moderator variables are shown in Table 2 and those for the continuous moderator variables are shown in Table 3.

Amount of information about the target person. When any individuating information was provided about the people being rated, we expected smaller differences between ratings of older and younger adults. Moreover, we expected differences to be smallest when more detailed information was provided. As can be seen in Table 2, regardless of the amount of information presented, older adults were always perceived as less competent, evaluated less favorably, and treated more negatively than younger adults. However, when extensive information was presented, these age differences were smaller than when only target age was provided. When minimal information was provided, differences in perceived competence were larger than when no information or extensive information was presented. For the evaluation dependent measure, effect sizes in the minimal information category fell between the no information and extensive information categories. For the behavior/behavioral intention measure, the effect sizes in the extensive and minimal information categories were similar and both were smaller than the no information category.

Table 2. Analyses of Moderator Variables for Competence, Evaluation, and Behavior/Behavioral Intention Dependent Measures

Moderator Variable	Condition	Competence		Evaluation		Behavior/Behavioral Intention	
		d	Q_B	d	Q_B	d	Q_B
Information	None	$.39_a$ $k = 23$	98.26*	$.30_a$ $k = 51$	62.05*	$.34_a$ $k = 7$	10.60*
	Minimal	$.46_b$ $k = 17$		$.15_b$ $k = 25$		$.19_b$ $k = 7$	
	Extensive	$.11_c$ $k = 36$		$.06_c$ $k = 24$		$.18_b$ $k = 15$	
Valence of Information	Positive	$.16_a$ $k = 21$	31.88*	$.04_a$ $k = 20$	21.46*	$.55_a$ $k = 9$	243.97**
	Neutral	$.21_a$ $k = 21$		$.10_a$ $k = 23$		$-.25_b$ $k = 7$	
	Negative	$.38_b$ $k = 25$		$.27_b$ $k = 18$		$.19_c$ $k = 11$	
Respondent Age	Younger	$.34_a$ $k = 59$	19.26*	$.21_a$ $k = 78$	34.86*	$.32_a$ $k = 15$	339.74**
	Middle Age	$.50_b$ $k = 11$		$.47_b$ $k = 11$		–	
	Older	$.26_c$ $k = 10$		$.36_c$ $k = 14$		$.14_b$ $k = 11$	
Target Gender	Male	$.44_a$ $k = 23$	146.14	$.30_a$ $k = 40$	60.44*	$.08_a$ $k = 10$	28.79**
	Female	$.16_b$ $k = 20$		$.36_b$ $k = 24$		$.28_b$ $k = 11$	
	Unspecified	$.45_a$ $k = 21$		$.25_c$ $k = 34$		$.37_c$ $k = 11$	
	Both	$.03_c$ $k = 14$		$.06_d$ $k = 17$		–	
Design	Between	.21 $k = 57$	79.98*	.10 $k = 56$	145.91*	$.02_a$ $k = 17$	168.32**
	Within	.47 $k = 18$		.39 $k = 44$		$.51_b$ $k = 12$	
Population	Undergraduates	$.37_a$ $k = 47$	3.40	$.23_a$ $k = 72$	< 1	$.25_a$ $k = 12$	157.04***
	Graduate Students/ Professionals	$.31_a$ $k = 8$		$.22_a$ $k = 8$		$.51_b$ $k = 9$	
	General Population	$.34_a$ $k = 13$		$.20_a$ $k = 12$		–	

Note. k = number of studies. Different subscripts indicate conditions within dependent measures that differ at the .05 level of significance. Q_B represents between-category homogeneity. Significant values indicate effect sizes vary by category.
*$p < .05$; **$p < .01$; ***$p < .001$.

Valence of information about the target person. When minimal or extensive information was provided about the target, we coded its valence as positive, negative, or neutral. For both the competence and the evaluation dependent measures, perceived differences between younger and older targets were largest when negative, rather than positive or neutral, information was provided; *d*s in these

Table 3. Standardized Regression Coefficients for Continuous Moderator Variables

	Competence		Evaluation		Behavior/Behavioral Intention	
	k	*B*	*k*	*B*	*k*	*B*
Target age differences	69	0.0005	83	–0.0055***	29	–0.0113***
Number of items on scale	72	0.0043	94	0.0034	25	0.0006
Number of scale points	63	–0.0028	88	0.0015*	21	–0.0006
Percent male participants	63	0.0039***	82	0.0003	27	–0.0022***
Date of publication	75	–0.0179***	100	–0.0019	27	0.0042

Note. k = number of studies.
*$p < .05$. ***$p < .001$.

latter two categories did not significantly differ. Age-related differences in behavior/behavioral intentions were largest when the provided information was positive, followed by when the information provided was negative. When neutral information was presented, older individuals were treated more favorably than younger individuals.

Respondent age. Middle-aged respondents showed a greater preference for younger adults, both in assessments of their competence and in their evaluations of those groups, compared to older and younger respondents. Also, older respondents believed younger targets were more competent than older targets, but this preference was the smallest of any age group; younger respondents' competence ratings fell between those of the other age groups. Older respondents' evaluations, however, showed larger perceived age differences than did younger respondents' assessments. For behaviors/behavioral intentions, only younger and older targets could be compared; there were larger age-related differences for younger targets than for older targets.

Target gender. A double standard of aging suggests that perceived age differences will be larger when women, rather than men, are rated. This pattern emerged for evaluations and behaviors/behavioral intentions. However, raters saw greater differences in the competence of older and younger men than in the competence of older and younger women.

Often, when the gender of the target is unspecified, raters assume the person being rated is male (Kite, 1996). This suggests that ratings in the target unspecified category should be similar to those for the male target category. For the competence dependent measure these two categories did not differ. For the evaluation category, however, perceived age differences were smaller when target gender was unspecified than when either male or female targets were rated. For the behavior/behavioral intention dependent measure, perceived age differences were largest in the unspecified category. Where both women and men were rated, but separate

effect sizes for target gender could not be computed, older and younger targets were rated similarly in both the evaluation and the competence categories.

Study characteristics. Between subjects designs resulted in smaller perceived age differences in competence, smaller differences in the evaluations of younger and older targets, and smaller differences in behaviors/behavioral intentions (see Table 2). The number of items was not related to *d* for any of the dependent variables (see Table 3). In addition, the number of scale points was not related to *d* for competence or behavior/behavioral intentions. On the evaluation measure, *d* increased by 0.002 units for each additional scale point.

Research population. Whether the respondents were drawn from a sample of undergraduates, graduate students/professionals, or the general population made no difference in the size of the perceived age differences on the competence or the evaluation dependent measures. Graduate students/professionals did show a greater preference for older adults than did undergraduates on the behavior/behavioral intention measure.

Difference in ages of targets. The difference in ages between the older target and the comparison target was not related to the magnitude of the effect sizes for competence ratings (see Table 3). However, *d* became smaller for evaluations and behavior/behavioral intentions as age differences increased, with *d* decreasing by about 0.01 units (e.g., from 0.31 to 0.30) for each year the age difference increased.

Gender of research participant. Gender of research participant was not related to *d* for evaluations, but was for competence ratings and behavior/behavioral intentions. However, the pattern of these gender differences was mixed. For competence ratings, *d* increased by 0.004 units for each 1% increase in men in the sample. For behavior/behavioral intentions, *d* decreased by 0.002 units for each 1% increase in men in the sample.

Date of publication. Date of publication was not related to *d* for evaluations or behavior/behavioral intentions. However, for competence ratings, *d* decreased 0.02 units for each year the publication date became more recent.

Discussion

Does ageism exist? When a broad view is taken, the answer is yes. Across all categories of dependent variables, we found a bias against older adults. Yet this bias was largest when stereotypic beliefs and perceptions of attractiveness were assessed; the bias was reduced when behaviors/behavioral intentions or affective evaluations were measured. Competence ratings fell roughly between these

two extremes. Our results, then, confirm what has often been stated: Perceptions of older adults are complex and multidimensional (Crockett & Hummert, 1987; Hummert, 1999; Lutsky, 1980). People do seem to hold clear stereotypic beliefs that differentiate older and younger adults (Cuddy & Fiske, 2002), including beliefs that age reduces attractiveness and, to a lesser extent in our data, competence. We explored these complexities in more detail by examining a number of moderator variables. As with any meta-analysis, however, we were limited by the available literature. One outcome, in this case, was that moderators of the age stereotype or the attractiveness categories could not be examined because too few studies exist. Moderator analyses, then, were limited to the competence, behavior/behavioral intention and evaluation categories.

Role Information

We proposed that contextual information would influence people's perceptions of older adults (Eagly, 1987; Eagly et al., 2000; Kite & Johnson, 1988) and this was borne out in our results. Across the three categories of dependent variables we considered, effect sizes were reduced significantly when judgments were based on extensive, rather than minimal information. When participants knew, for example, about the history of the person they evaluated, they perceived fewer age differences. Providing even minimal additional information, such as employment or health status, reduced, also, the effect sizes in the evaluation and behavior/behavioral intention categories. The only exception was that, when judgments of competence were assessed, providing minimal information actually resulted in a larger bias against older adults. The reason for this discrepancy remains unclear; a careful examination of the 17 studies in this category showed wide variability in other factors affecting participants' responses, such as valence of information or gender of person to be rated. We suspect it is a combination of these factors that produced the unexpected result, rather than any theoretically interesting differences among the studies. Overall, our analysis of context effects supports our contention that it is not growing old, per se, that produces negative perceptions, but rather the roles that older adults occupy. Consistent with social role theory (e.g., Eagly, 1987; Eagly et al., 2000), when contextual information was made explicit, differences in evaluations of younger and older adults were significantly reduced.

As Hummert and her colleagues have demonstrated, those roles can be positive or negative (Hummert, 1993; Hummert et al., 1995; Hummert et al., 1997). Our results suggest, also, that the valence of the information provided influences judgments. When negative information was presented, perceived age differences were larger in both the competence and evaluation categories, compared with when neutral or positive information was presented. Positive information, however, produced a larger age-related bias when behaviors/behavioral intentions were assessed. This

may have been due to the fact that the three largest effects sizes, of the seven in that group, emerged in studies of employment discrimination (Bendick, Brown, & Wall, 1999; Bendick, Jackson, & Romero, 1996); a fourth positive effect size was in a study of skill assessment (Walsh & Connor, 1979). These results may reflect the actual workplace discrimination that older adults face (e.g., Finkelstein, Burke, & Raju, 1995; Gordon et al., 2000). Overall, however, these results suggest that negative perceptions of older adults can be reduced when evaluators see older and younger people as behaving similarly, especially when that behavior is in a positive context. Once again, providing additional information reduces the impact age information alone has on perceptions.

Age of Rater

As we predicted, older adults saw fewer differences between the young and old, and younger adults saw greater differences. The exception was for evaluative judgments; for that category of dependent variables, younger adults saw smaller age differences than older adults did. For younger adults, the competence and behavior/behavioral intention results are consistent with Social Identity Theory (SIT; Tajfel & Turner, 1979; Turner & Oakes, 1989), which proposes that people strive to maintain positive images of their ingroups. When they are evaluating an older person, younger adults are judging someone who is not a member of our own age group; drawing larger distinctions between older and younger adults is a way to maintain a positive social identity. More puzzling is why older evaluators did not show a bias in favor of their own group (i.e., none of the mean effect sizes were positive). One possibility is that, because they themselves were once young, and thus a member of the other group, devaluing that group does not produce a positive image. Older adults may, instead, use other options for maintaining a positive self-image, such as social mobility, social creativity, or social competition (see Harwood, Giles, & Ryan, 1995; Kite & Wagner, 2002 for discussions).

Interestingly, middle-aged respondents saw the largest age-related bias in the two categories for which this comparison could be made, competence and evaluation. As Kite and Wagner (2002) argued, this may be because middle-aged adults see old age as right over the horizon, but still are not quite ready to accept its coming (Montepare & Lachman, 1989). Accordingly, they may have a greater need than younger people to maintain their positive self-image by devaluing older adults. Only 11 studies employed a middle age sample, so any explanation is tentative. Yet the possibilities, and the general questions our results raise about respondent age differences in attitudes toward older adults, deserve attention in future research.

It should be noted that a large literature has examined rater age without also exploring target age differences; those studies are, by definition, excluded from this meta-analysis. As Kite and Wagner (2002) noted, a narrative review of this literature is insufficient to draw conclusions. The field would benefit greatly from

a meta-analysis of this expanded literature which examined both the overall pattern of effects and potential moderators of any uncovered respondent age differences. SIT offers an obvious theoretical grounding for such an endeavor (see Harwood et al., 1995 for a discussion of SIT and ageism).

Is There an Aging Double Standard?

The studies we reviewed in the introduction suggested that the aging double standard might be elusive, or at least more complex than it appears at first glance, and our results bear this out. When the assessments concerned competence, it was the aging male who was viewed more negatively; age differences were comparatively small when women were rated. Competence is a central component of the male stereotype (e.g., Deaux & LaFrance, 1988; Eagly, 1987) and men are believed to lose agency with age (Kite, 1996). It is not surprising, then, that the double standard appears to be reversed when this dimension is assessed. In contrast, when behaviors and behavioral intentions are assessed, the double standard does favor men, with larger age differences emerging for female targets. Age differences were also significantly larger for women then men when evaluative judgments were measured, but the magnitude of this difference is not compelling (.30 for male targets versus .36 for female targets).

Based on the findings that women reach middle and old age (Drevenstedt, 1976; Kogan, 1979b) and the prime of life (Zepelin et al., 1986) at a younger age then men, it is reasonable to expect the double standard of aging is most likely to operate when attractiveness is assessed. Unfortunately, too few studies were available to test this hypothesis. A critical point is that target gender does influence perceptions of older adults and researchers should, at minimum, specify this variable even if they choose not to manipulate it, especially because respondents make assumptions about target gender based on stereotypes and/or experimental manipulations (e.g., Kite, 1996; Matlin, 2004). And, of course, there are theoretical reasons, grounded in both the gender and the aging literature, to pursue this question.

Study Characteristics

As Kite and Johnson (1988) showed, and our results confirm, within subjects designs produced significantly larger perceived age differences, in some cases five times as large as those produced by between-subjects designs. Other methodological decisions, such as the properties of the rating scale, had negligible effects. Also, different populations of raters viewed the age-related comparisons similarly. We had hoped to consider cross-cultural differences in perceptions of older adults and also whether ethnic groups within the United States viewed aging differently. Unfortunately, too few studies have examined aging either cross-culturally or within

subcultures of the United States and Canada. This is without a doubt a weakness of this literature and one that deserves attention.

We did examine whether larger target age gaps (e.g., a 50-year age gap versus a 15-year age gap) would produce larger age-related differences. Unfortunately, analyses within the three categories showed either no target age effects or showed smaller age differences as the target age differences increased, which is not the pattern we predicted. Because our sample of studies represented such a mixture of procedures for varying target age, and because other factors also often varied across studies, we doubt we have provided the definitive answer. Many studies, for example, used only global labels such as young and old. Those that specified several ages were likely to use within-subjects designs, alerting participants to the study's focus. As we noted in the introduction, the declines associated with older age groups are not likely to go unnoticed. What is needed is theoretically driven research that can examine this complex issue in the context of specific predictions.

Gender of research participant produced a similarly confusing pattern of results, although there is little reason to expect either gender to be more ageist. Consistent with our early discussion of the importance of competence to the male stereotype, it is interesting that having more male respondents did increase the perceived age difference on that dimension. Finally, only for competence ratings did more recent studies show a smaller age bias. Kite and Johnson (1988) found somewhat stronger evidence that the age bias decreased by publication year, but given that the vast majority of the studies examined in the present work were published since then, it is perhaps not surprising that this effect has diminished. Overall, as with any set of studies, methodological decisions can alter outcomes, but these decisions are typically of less importance than theoretically chosen variables (Whitley, 2002).

Summary and Conclusions

Perhaps the most heartening aspect of this updated meta-analysis is the explosion of research that has taken place since our earlier meta-analysis. And, importantly, this research has improved in quality and quantity. There is little doubt that the research questions are more sophisticated and the problems being evaluated more meaningful. When the questions addressed by Kite and Johnson (1988) were reexamined here, the outcomes were similar. But certainly we can have more confidence in these results because they are based on a larger, richer data set. Moreover, we were able to pose new questions and suggest directions for future research. And some questions, such as whether older workers experience discrimination, were not reexamined because others have conducted meta-analyses specifically on that topic (Finkelstein et al., 1995; Gordon et al., 2000).

It goes without saying that the results of this meta-analysis are limited by the sample of studies that have examined this issue to date. Moreover, it seems obvious

that understanding ageism is not limited to the theoretical ideas or methodologies employed in the past. As Nelson (2002) states, "age prejudice is one of the most condoned, institutionalized forms of prejudice in the world—especially in the United States—today" (p. ix). Gerontologists in all fields are taking a closer look and, in doing so, are unmasking these hidden beliefs. Our review provides an up-to-date summary of this progress and suggests fruitful avenues for continuing the work. Perhaps it is time to get aside the question of whether ageism exists and continue to explore when and where the consequences are most severe.

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Note. References marked with an asterisk indicate studies included in the meta-analysis.
AS = Age Stereotype, AE = Attractiveness-Evaluative, C = Competence, E = Evaluation), and B = Behavior/Behavioral Intention.

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