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Cover Page Footnote

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The Role of Familiarity and the Age-Based Double Standard in Evaluating Memory and IADL

Errors

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Abstract

Research suggests that errors committed by older adults are viewed as more problematic than identical errors committed by younger adults. This study is the first to examine whether these age-based biases are found when evaluating social partners. The current study ($N = 162$) used a 2 X 2 (target age: young vs. old; familiarity: hypothetical vs. social partner) between-subjects design to assess the extent that familiarity influences the evaluations of errors committed by others. Findings suggest that age-based biases do not differ when evaluating social partners compared to hypothetical targets. Implications for counselors and other healthcare professionals are included.

Keywords: age-based double standard; memory; instrumental activities of daily living; aging; attributional biases

The Role of Familiarity and the Age-Based Double Standard in Evaluating Memory and IADL Errors

Previous researchers have examined individual biases related to causal attributions (e.g., Gilbert & Malone, 1995). More specifically, some researchers have examined how age relates to these attribution biases due to negative aging stereotypes (Chasteen et al., 2021; Kimbler, 2015;). This research has revealed a consistent age-based double standard, with errors committed by older adults viewed as indicative of a serious and long-lasting condition, while identical errors committed by younger adults are viewed as less serious and temporary issues. This bias could potentially contribute to explanations of research indicating that caregivers and healthcare providers tend to view older adults as more functionally disabled than the individual might be (Ben-Harush et al., 2017; Horowitz et al., 2004; Schroyen et al., 2016).

This age-based double standard has been found in both memory and instrumental activities of daily living (IADLs; Erber et al., 1997; Kimbler, 2015). Memory failure is one of the most salient stereotypes associated with old age, resulting in consistent attribution biases (Swift et al., 2017). The age-based double standard suggests that even memory failures considered common at all ages could be interpreted as indicative of problems like dementia. IADLs consist of functional behaviors needed to remain independent, such as meal preparation, housekeeping, transportation, and managing finances (Lawton & Brody, 1969). Although negative stereotypes related to IADLs are not as salient as those related to memory, stereotypes related to general incompetence in old age could be a factor in examining these attribution biases (Kimbler & Ehman, 2015; Swift et al., 2017). Because IADLs can be predictive of being admitted to institutional settings such as assisted living or nursing homes (Swift et al., 2017), it is important to understand any biases when evaluating errors in these domains. Previous research has

indicated that the causes of both memory and IADL errors tend to be attributed to lasting cognitive deficits when committed by older adults, while identical errors committed by younger adults are attributed to less serious, more temporary causes, such as a lack of effort (Kimbler, 2015). These biases could also extend to evaluations older adults make about themselves, as previous researchers have suggested that negative views of aging might be internalized, resulting in decreased performance on tasks (Chasteen et al., 2015).

An age-based double standard in these domains could be especially problematic since older adults' autonomy could be jeopardized if well-intended individuals (including counselors, healthcare providers, and informal sources of social support) misinterpret common mistakes as being caused by long-lasting age-related conditions. Previous researchers have demonstrated potential detrimental effects of internalizing negative age-based stereotypes, such as memory decline, on self-evaluations in older individuals (Garrido et al., 2021). This has resulted in older adults reporting more anxiety, poorer self-evaluation of their health, increased loneliness, and other dependent behaviors (Mazerolle et al., 2012; Meisner, 2012; Ramirez & Palacios-Espinosa, 2016).

Negative stereotypes could also affect how healthcare professionals view or interact with older individuals, including attributions related to problems that older clients are experiencing (Ben-Harush et al., 2017; Kessler et al., 2020; Schroyen et al., 2016). Dobrowolska et al. (2019) surveyed groups of older adults and healthcare students (medical students and master's level nursing students) about age-based discrimination. Results suggested frequent ageism in healthcare settings: 30% of older adults reported experiencing ageism within the context of the healthcare system and 47% of medical and nursing students reported witnessing age-based discrimination while completing their clinical experiences. The sources of this discrimination, as

indicated by both older adults and students, included physicians, nurses, staff, and younger patients (Dobrowolska et al., 2019). Considering the prevalence of age-based discrimination among those delivering healthcare services, it is important to better understand these biases and the extent to which they could manifest when interpreting problematic behaviors such as memory failures or IADL errors that might not be attributable to age-related issues.

Age and Responsibility for Errors

In addition to age-based biases being related to causal attributions, research also suggests age-based biases are relevant when interpreting whether an individual is responsible for the errors that they commit in several domains. Older individuals are held to a lower level of responsibility (for causing and solving their problems) while younger individuals committing the same errors are viewed as more responsible for causing and solving their problems (Chasteen et al., 2021; Li et al., 2020).

These findings suggest that mistakes made by older adults are seen as more serious and longer lasting issues that the older adult was not responsible for creating or fixing. Identical errors made by younger adults, however, are viewed as more state-dependent, and younger adults are viewed as responsible both for causing and solving their problems. This is especially relevant to the domains of memory and IADLs given their role in maintaining independence in old age. If common mistakes are viewed as indicative of lasting problems that the older adult is not responsible for creating or solving, then well-meaning social support members or professionals could intervene in situations even if it is not necessary or beneficial.

Familiarity and Methodological Concerns

Research examining the age-based double standard in causal attributions and the responsibility of older adults for causing and solving their problems have used similar

methodologies. Participants read vignettes describing different types of mistakes committed by hypothetical targets. The age of the vignette targets was experimentally manipulated (e.g., Erber et al., 1997). Although this technique is effective in demonstrating the causal role of age when demonstrating age-based biases, there are also concerns related to this method. In previous studies, vignettes intentionally do not indicate the potential cause of the mistake or problem. Aside from age and gender, very little information about the target being judged is provided to participants. This method has high internal validity by suggesting that target age has a causal relationship to the different causes that are attributed to the error. One concern, however, relates to ecological validity. In practice, it is likely that individuals and professionals who encounter day-to-day memory or IADL mistakes are not strangers. These acquaintances would likely have some contextual knowledge of these individuals beyond their age. Previous research has not addressed whether individuals would display the same age-based biases when evaluating a familiar social partner. It is plausible that they will use information other than age when attributing the cause of mistakes made by individuals they know. The extent to which the age-based double standard is present when evaluating social partners is largely unknown.

Ultimately, these findings add to current research by clarifying whether the age-based double standard is an experimental artifact resulting from a lack of contextual information about the individuals committing errors or is also present when assessing more familiar individuals. If age-based biases are present when evaluating hypothetical targets but not when evaluating social partners, it could indicate that the age-based double standard is an experimental artifact resulting from participants only having access to the age of individuals being judged. If familiarity does not factor into the types of attributions that are made, it would indicate that people extend these age-based biases to their social partners, even when they have access to more contextual

information about the individual. These findings have practical implications for assisted living institutions, caretakers, counselors, and those healthcare professionals evaluating the mental fitness of older adults by illuminating biases that could potentially affect decisions regarding another's autonomy.

Research Questions and Hypotheses

RQ1: Do participants exhibit the age-based double standard when making causal attributions, and do these findings vary based on target familiarity? It was hypothesized that the age-based double standard would be exhibited. It was also hypothesized that an interaction between target age and familiarity would be found. Specifically, due to the knowledge of a variety of contextual factors that could influence judgments, it was anticipated that the age-based double standard would not be as prevalent when evaluating a familiar target.

RQ2: Do experimental groups vary in the extent to which they view the targets responsible for both causing and solving the described problems as well as the seriousness of the problem? Aligned with previous research (e.g., McCracken et al., 1997), it was anticipated that older targets would be viewed as less responsible for causing and solving the described error and their errors would be viewed as more serious. Like the first hypothesis, however, it was anticipated that individuals evaluating errors made by familiar partners would be less likely to exhibit the age-based biases.

Methods

Participants

Since judgments about older adults are likely made by individuals across adulthood, recruitment efforts spanned a range of ages. This resulted in a convenience sample of 162 participants (60 men and 101 women); age range: 18-89; ($M = 47.99$ $SD = 20.02$); 74.1%

reported being White, 14.2% Latinx, 4.9% African-American, 2.5% Asian, 1.2% Native American, and 3.1% other ethnic groups. Initial comparisons indicated that none of the dependent variables differed based on participant age, participant gender, or target gender. Similarly, previous research suggests that attribution biases do not differ based on participant age or gender (Kimbler, 2015). Participant age and gender were therefore excluded from additional analyses.

Procedures and Measures

The current study used a 2 X 2 (target age: young vs. old; familiarity: hypothetical vs. social partner) between-subjects design. Participants were randomly assigned to conditions. Participants were presented with vignettes that described either young adults or older adults committing memory and IADL errors. In the hypothetical condition, similar to previous research (e.g., Chen & Blanchard-Fields, 1997), participants were presented vignettes describing unknown characters making a variety of errors. In the social partner condition, participants were asked to identify the person that they know best within their assigned age condition. This name was then inserted into the same vignettes as the hypothetical condition. Participants were instructed to assume that their self-identified social partner committed the errors described in the vignette and to consider everything they know about that individual when evaluating potential causes of their mistakes.

After being assigned to groups and providing basic demographic information, participants were provided with seven vignettes (five IADL and two memory) describing an individual making an error. The vignettes used in this study were consistent with previous research (Erber et al., 1990; Kimbler, 2015).

Following each of the vignettes, participants completed a questionnaire. Participants used a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) to rate the likelihood that poor ability, lack of effort, difficulty of the task, other things that might have been going on, and mental difficulty were causes of the error. These items have all been used in previous research (e.g., Erber et al., 1990; Kimbler, 2015). Participants also indicated the extent that targets were responsible for both causing and solving the problem using six items previously used in this line of research (e.g., McCracken et al., 1997). Finally, participants rated the seriousness of the problem, the extent that they would personally “need to provide assistance,” and the extent that “there is a need for professional assistance.”

Results

The first research question assessed whether causal attributions varied based on target age and target familiarity. To address this question, a 2 X 2 MANOVA (target age: young vs. old; familiarity: hypothetical vs. social partner) was conducted with the causal attribution scores (poor ability, lack of effort, difficulty of the task, other things that might have been going on, and mental difficulty) as dependent variables for IADL and memory domains. The MANOVA indicated a main effect for target age, Wilks' $\Lambda = .77$, $F(10,142) = 4.33$, $p < .001$. The main effect for familiarity was not significant ($p > .05$). There was a significant interaction between target age and familiarity, Wilks' $\Lambda = .87$, $F(10,142) = 2.16$, $p < .05$. Univariate effects were then explored.

In the IADL domain, errors made by young targets were attributed more to lack of effort ($M = 22.52$) compared to older adults ($M = 18.77$; $p < .001$). Errors made by older targets were attributed more to mental difficulty ($M = 18.55$) compared to younger adults ($M = 14.70$; $p = .001$). Also, task difficulty was viewed as more of a cause of errors for older targets

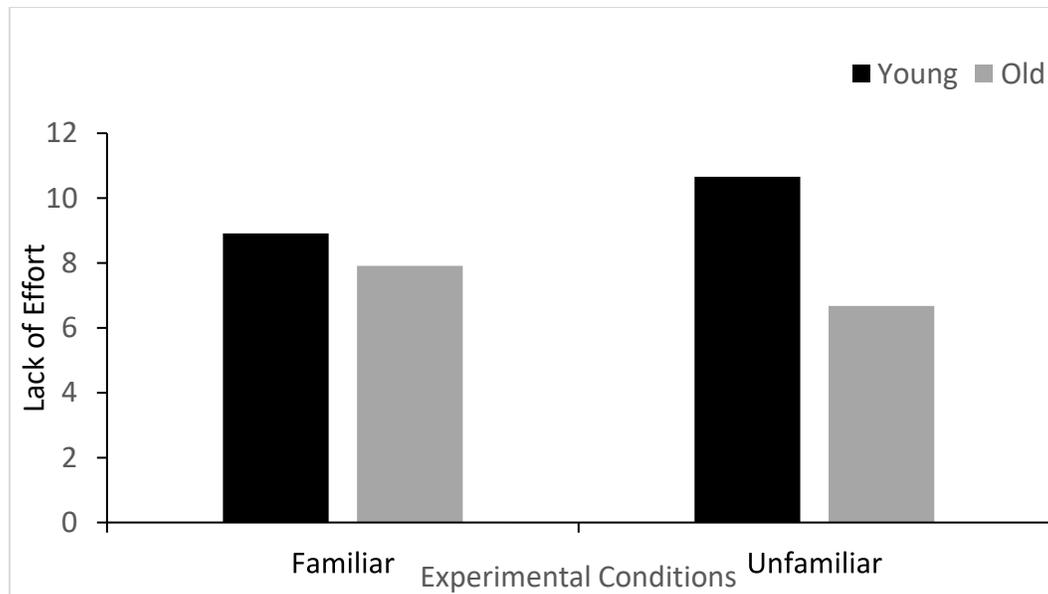
($M = 18.49$) compared to young targets ($M = 15.89$; $p < .05$). These findings support the existence of an age-based double standard for IADLs. The target age by familiarity interaction was not significant among any of the IADL attribution scores ($p > .05$).

In the memory domain, univariate main effects revealed that errors made by young targets were attributed more to lack of effort ($M = 9.76$) compared to older adults ($M = 7.27$; $p < .001$). Errors made by older targets were attributed more to mental difficulty ($M = 8.34$) compared to younger adults ($M = 6.05$; $p < .001$). These findings support the existence of an age-based double standard for memory.

Examination of the univariate findings related to the interaction between target age and familiarity revealed that this significant interaction related to lack of effort. Although the participants attributed errors of hypothetical young targets to lack of effort, errors of younger familiar targets were less likely to be attributed to lack of effort (see Figure 1). Contrary to hypotheses, the interaction between familiarity and target age related to mental difficulty was not significant ($p > .05$). Participants were not more likely to attribute older adults' memory errors to mental difficulty when the target was unknown ($M = 8.54$) compared to a familiar social partner ($M = 8.12$).

Figure 1

Target Age by Familiarity Interaction on Lack of Effort as a Cause for Memory Errors



The second research question examined the extent that target age and familiarity influenced evaluations related to whether the target was viewed as responsible for causing or solving their problem. A 2 X 2 MANOVA (target age: young vs. old; familiarity: hypothetical vs. social partner) was conducted. Dependent variables included the extent to which targets were responsible for causing and solving the problem, the seriousness of the problem, and the extent that professional or personal assistance was needed in both IADL and memory domains.

A significant MANOVA main effect was found for target age, Wilks' $\Lambda = .85$, $F(10,138) = 2.39$, $p < .05$. The main effect of familiarity and the interaction between familiarity and target age were not significant ($p > .05$). Univariate analyses revealed that in the IADL domain, older adults were viewed as less responsible for causing ($M = 75.43$) and solving ($M = 68.55$) the problems compared to younger adults' responsibility for causing ($M = 85.56$, $p < .001$) and solving ($M = 80.13$, $p < .001$) their problems.

In the memory domain, older adults were also viewed as less responsible for causing ($M = 28.75$) and solving ($M = 27.24$) their problems compared to younger adults' responsibility for causing ($M = 33.59, p < .001$) and solving ($M = 32.85, p < .001$) their problems. Memory errors were also viewed as more serious for older adults ($M = 7.70$) compared to younger adults ($M = 6.57, p < .05$). Older adults' memory problems were also viewed as more indicative of a need for professional assistance ($M = 6.91$) compared to younger adults ($M = 5.62, p < .05$).

Discussion

The current findings supported previous research demonstrating age-based biases when evaluating memory and IADL errors committed by others. Specifically, participants viewed both IADL and memory errors as being caused more by lack of effort for young adults and mental difficulty for older adults. Similarly, in both domains, older adults were viewed as less responsible for both causing and solving their errors. In the memory domain, errors committed by older adults were seen as more serious and evidence of a need for professional assistance compared to identical errors committed by younger adults. The role of familiarity was minimal. The hypotheses that age-based biases would be less evident when evaluating social partners were not supported. Participants attributed errors to mental difficulty at similar rates for familiar and hypothetical partners. Likewise, there were no significant differences across other dependent variables. The only significant finding related to familiarity was more relevant to younger adults: Memory errors committed by familiar social partners were less likely to be viewed as caused by lack of effort compared to hypothetical young targets. This suggests that individuals might consider contextual information when evaluating errors committed by younger adults. For older adults, however, knowing the individual being evaluated did not alter age-based biases related to the cause of the error, responsibility of the error, or the seriousness of the error.

Although the hypotheses related to the role of familiarity in decreasing age-based double standard were not supported, the current study did strengthen previous findings. This is the first study to demonstrate that these age-based biases in evaluating errors made by others extend to social partners and are not limited to evaluations of hypothetical targets. In previous research, the exclusive use of hypothetical targets resulted in a lack of contextual information on whether knowledge about the individual committing errors (beyond age and gender) would reduce or eliminate the age-based double standard. Current findings suggest that previous research demonstrating age-based double standards related to the cause and seriousness of errors (e.g., Erber et al., 1997; Kimbler, 2015) extends to social partners as well. These biases do not appear to be limited to situations where age is the only salient information known.

Implications for Practice

The current findings are relevant to a wide range of applied applications, because friends, family, and healthcare workers might be inclined to focus more heavily on age-related causes to mistakes. This could result in a loss of autonomy for older adults for making the same types of careless errors that could happen at any age or that could result from non-age-related processes. Previous research (e.g., Ben-Harush et al., 2017; Dobrowolska et al., 2019; Schroyen et al., 2016) demonstrates the prevalence of ageism within healthcare contexts. Since age discrimination is common in these contexts, it is also likely that clients' age could also influence causal attributional biases related to problematic behavior.

In addition to ageism in general healthcare, research has also revealed that similar age biases are problematic in counseling and mental healthcare. Either positive or negative ageism could undermine the quality of care. Although it seems logical that negative attitudes about older adults could result in viewing these individuals as less competent, it also appears that having

positive views of aging (compassionate or benevolent ageism) are associated with viewing older adults as incompetent or overly dependent. This can result in unnecessary and patronizing attempts to help (Vale et al., 2020; Vervaecke & Meisner, 2021). Mental health practitioners might also treat older adults differently compared to younger individuals. For example, both mental healthcare providers and trainees have expressed less willingness to treat suicidal tendencies among older adults compared to younger patients (Bodner et al., 2018; Mejia et al., 2018).

Ageism has also been shown to be predictive of counselors' interest in working with older clients and their perceptions about whether older clients are candidates for therapy (Caskie et al., 2022). This avoidance is especially problematic considering the growing need for counselors focusing on the needs of older adults due to the rapid growth of this population. One potential solution to the disproportionate lack of gerocounselors is to increase gerontology-specific training in counseling programs; previous attempts to increase training for gerocounselors have been unsuccessful due to a lack of interest (Wagner et al., 2019). Fullen (2018) reiterated this need to increase the number of gerocounselors, adding that aspiring counselors might avoid gerocounseling for reasons that extend beyond a lack of training opportunities. For example, systematic ageism and individual attitudes could also play a role; mental healthcare providers have reported that they view older adults as being less appropriate for therapy, that older adults have a poorer prognosis for recovery, and that they are less likely to accept older clients (Fullen, 2018). The current findings that older individuals were less responsible for both causing and solving their problems, and that their errors are indicative of more serious and lasting problems are consistent with these earlier findings. Specifically, if aspiring counselors believe that older clients are unlikely to improve or to play an active role in

their improvement, they might be less likely to serve this population, regardless of training opportunities.

Given the current findings and the prevalence of ageism among many healthcare professionals, it is likely that biased causal attributions could result in older clients being viewed as less capable due to age-based biases.

Limitations and Future Research

Although the current study adds to the understanding of age-related attributional biases, several limitations should be addressed in future research. One limitation is that the current study was based on hypothetical errors, even in the familiar condition. Although the current study is the first to examine whether age-related attributional biases extend to familiar partners, it still relied on hypothetical vignettes to describe various errors. Attributional evaluations of social partners in everyday life likely include interactions with the individuals being judged and a host of contextual information, including potential discussions about the nature of the errors being judged. Although these contextual factors are difficult to replicate in an experimental design, they likely play an important role in determining the types of attributions that are made regarding a specific error. A related limitation is the likelihood that for some (but not all) older adults, dementia and other age-related declines could play a role in memory or IADL errors. It is feasible that some of the participants were evaluating familiar older adults who did in fact have lasting deficits that could contribute to their errors. Further research is needed to determine the extent to which attributional biases extend to non-hypothetical errors. Similarly, research of this nature could include assessments of the individual being judged to determine whether these types of causal attributions are indicative of an age-based double standard in the case of highly competent older adults compared to potentially accurate judgments made when evaluating older

adults with dementia or other age-related conditions that could contribute to errors. The finding that the age-based double standard related to causal attributions persists even with familiar social partners is important to understanding the prevalence and implications of this type of bias, but more research is needed.

Conclusions

The current study added to previous research by being the first to demonstrate that age-based attributional biases extend to familiar social partners, since previous research has focused exclusively on hypothetical targets. This suggests that individuals might be more inclined to interpret older adults' mistakes as serious and indicative of lasting deficits compared to identical errors made by other age groups. This has several implications related to both interpersonal relationships and applied settings, since both social partners and professionals could exhibit biases when working with older adults. Although the current study focused on social partners, previous research suggests that professionals, such as counselors and mental health practitioners, are not immune to age-based biases (e.g., Caskie et al., 2022). These biases could also be present in older adult clients, as they might interpret their own errors as more problematic due to their age, as older adults tend to internalize aging stereotypes (e.g., Garrido et al., 2021). It is possible that both older adult clients and their mental health practitioners might exhibit age-based biases when interpreting problems. Although research examining the broader area of ageism suggests that these findings could apply to attributional biases in these populations, additional research is needed to assess the extent to which healthcare professionals or individuals evaluating themselves are biased when evaluating the cause of errors.

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