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Remembering Proper Names as a Potential Exception to the Better-than-Average Effect in Younger and Older Adults

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Abstract

People see themselves as better than average in many domains, from leadership skills to driving ability. However, many people – especially older adults – struggle to remember others' names, and many of us are aware of this struggle. Our beliefs about our memory for names may be different from other information; perhaps forgetting names is particularly salient. We asked younger and older adults to rate themselves compared to others their age on several socially-desirable traits (e.g., honesty), their overall memory ability, and their specific ability to remember scientific terms, locations, and people's names. Participants demonstrated a better-than-average effect in their ratings of most items except their ability to remember names, which both groups rated as approximately the same as others their age. Older adults' ratings of this ability were related to a measure of the social consequences of forgetting another's name, but younger adults' ratings were not. The better-than-average effect is present in many judgments for both younger and older adults, but people may be more attuned to memory failures when those failures involve social consequences.

Keywords

cognition; memory; metacognition; social cognition

People often do not have accurate beliefs about their own abilities, and these misconceptions can influence behavior. For example, many rate themselves as better than the average person in real-world domains such as driving ability (Svenson, 1981) and in health-related behaviors like hand-washing (Miller, Windschitl, Treat, & Scherer, 2019). This "better-than-average effect" (BTA; Dunning, Meyerowitz, & Holzberg, 1989; Goethals, Messick, & Allison, 1991; Taylor & Brown, 1988; Williams & Gilovich, 2008) reflects a misconception because, by definition, not everyone can truly be better than average on a given skill — some people must be average or below average (e.g., Klar & Giladi, 1997). In the domain of cognitive aging, inaccurate beliefs about memory abilities can influence learning and remembering. We examine the better-than-average effect among younger and older adults in several social and cognitive domains, with a particular investigation of an ability in

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which participants are expected *not* to exhibit the BTA effect: when judging their ability to remember others' names.

When making judgments about memory (i.e., metamemory judgments), people often incorporate their general beliefs about how memory works in the population, as well as specific beliefs about how their own memory works (Lineweaver & Hertzog, 1998). People across the lifespan hold the general belief that memory abilities decline with age (Hertzog, 2002; Hertzog & Hultsch, 2000; Lineweaver & Hertzog, 1998). Older adults' memory complaints have been linked more strongly to self-efficacy than to actual memory ability (Ponds & Jolles, 1996). Indeed, work by Bieman-Copland and Ryan (1998) suggests that in general, people see aging as associated with a lack of control over one's memory (see also Ryan & See, 1993). Older adults also have expectations about the aging process that reflect stereotypes (Levy, 2003; 2009; Levy, Zonderman, Slade, & Ferruci, 2012), including that older people "are absentminded" and "frequently talk to themselves." These broader perceptions may affect participants' perceptions of themselves (Lin, Ankudowich, & Ebner, 2017); that is, general beliefs can affect specific beliefs.

When making judgments about their specific beliefs (e.g., when making judgments of learning while studying), people can be overconfident in their performance (Carroll, Nelson, & Kirwan, 1997; Koriat & Bjork, 2005). That is, their expectations and actual memory performance are misaligned, or miscalibrated. Some work suggests that older adults illustrate greater miscalibration than younger adults do by being more overconfident in their judgments than are younger adults (Bruce, Coyne, & Botwinick, 1982; Devolder, Brigham, & Pressley, 1990). However, other work suggests that younger and older adults are equally as aware both in terms of what will later be remembered, and how much may have been forgotten (Connor, Dunlosky, & Hertzog, 1997; Halamish, McGillivray, & Castel, 2011).

The Better-Than-Average Effect

As discussed above, people often do not have accurate perceptions of their own abilities. In several domains, individuals see themselves as better or more capable than the average person. For example, people rate themselves highly on socially-desirable traits such as leadership ability (Alicke & Govorun, 2005) and honesty (Brown, 2012; see Dunning, Heath, & Suls, 2004; Dufner et al., 2019; and Zell, Strickhouser, Sedikides, & Alicke, in press for reviews). People often exhibit a better-than-average effect when they perceive the task at hand as easier, but a worse-than-average effect when the task is perceived as more difficult (Brenner, 2003; Burson, Larrick, & Klayman, 2005; Kruger, 1999; Larrick, Burson, & Soll, 2007).

While much of the previous work investigating BTA has focused on younger adult populations, some work suggests that self-enhancement is robust across the lifespan (see Dufner, Gebauer, Sedikides, & Denissen, 2019). For example, Zell and Alicke (2011) asked participants ranging in age from 18 to 85 years to assess their emotional stability, athleticism, honesty, and other traits compared to another person their age and gender. While participants across the adult lifespan did exhibit the BTA effect in many domains (e.g., honesty, intelligence), older adults did not rate themselves as better than average in

areas such as athleticism, skill at using technology, and physical attractiveness – domains in which, the authors argue, older adults "clearly decline" (p. 1178). In fact, in those abilities and skills thought to decline with aging, older adults rated themselves *worse* than average, compared to another person their age and gender.

Relatedly, older adults in particular struggle to remember proper names. Indeed, forgetting names is one of the most common memory complaints among adults over 65 (Fogler, James, & Crandall, 2010; Reese & Cherry, 2004; Rendell, Castel, & Craik, 2005; Troyer, Häfliger, Cadieux, & Craik, 2006), and older people have specific difficulties when learning new name information (James, Fogler, & Tauber, 2008; McWeeny et al., 1987). Substantial prior work provides evidence that this deficit is part of a general, age-related associative deficit in memory (Bastin & Van der Linden, 2005; Naveh-Benjamin, Guez, Kilb, & Reedy, 2004; cf. McGillivray & Castel, 2010; Hargis & Castel, 2017).

It may be that binding name information is particularly difficult because a person's face and name have a fairly arbitrary relationship (Cohen, 1990; Fogler et al., 2010). In fact, remembering names is hard for many people – prior work suggests that remembering a person's name is more difficult than remembering other types of biographical information about that person, such as their occupation or their hobby (Cohen & Burke, 1993; Cohen & Faulkner, 1986; McWeeny, Young, Hay, & Ellis, 1987).

While names may be difficult to learn (Cohen, 1990; Fogler et al., 2010), we often feel like we *should* learn them to communicate effectively and avoid embarrassing mistakes later. Our personal awareness of our propensity to forget names may be different from our awareness about forgetting other types of information. In fact, Tauber and Rhodes (2010) found that metacognitive awareness (measured via judgments of learning) for people's names, but not their occupations, did become more calibrated with task experience. Perhaps the opportunity to retrieve information and to make memory errors helps participants learn about their ability to remember names.

Consequences of Forgetting Names

Forgetting a name can be embarrassing for individuals across the lifespan, creating a salient consequence to forgetting that may come to mind easily when making a judgment about one's own abilities. If we encounter someone we have met before and are unable to recall their name, we may feel particularly embarrassed; indeed, forgetting a person's name may be associated with more social stigma than forgetting, for example, where we placed our car keys. While people may attribute forgetting the location of their keys to being busy or not paying attention, forgetting a person's name may lead to a sort of on-the-spot spotlight effect.

Due to perceived social cues, people may overestimate how much their behavior is noticed by others (Gilovich, Kruger, & Medvec, 2002; Gilovich, Medvec, & Savitsky, 2000; Gilovich & Savitsky, 1999). The spotlight effect can occur when people anchor their judgments on their experiences and fail to adjust to account for others' (Gilovich et al., 2000; see also Epley, Keysar, Van Boven, & Gilovich, 2004). For example, a patient who has

tried to remember the name of their doctor (see Hargis & Castel, 2017) may feel especially embarrassed if they fail to recall it at during their appointment. The doctor, however, may not even notice that the patient has failed to recall their name. This experience can create a (perhaps inaccurate) feeling that the learner's mistake is obvious to others – that is, that one's memory mistake is in the spotlight. One's own memory mistake may feel particularly embarrassing, while another's error seems inconsequential. We are all prone to forgetting names, but forgetting a name may loom especially large in the mind of the person making the error.

Older adults struggle more with learning others' names than younger adults do, and older adults are aware that learning names is difficult (Fogler et al., 2010; Reese & Cherry, 2004; Rendell et al., 2005; Troyer et al., 2006). Given that participants are less likely to give BTA judgments if the task is difficult, older adults should give judgments of their ability that are not better than average (perhaps even exhibiting a worse-than-average effect; see Zell & Alicke, 2011), Given the fairly pervasive tendency toward over-optimism and self-enhancement (e.g., Dufner et al., 2019; Zell et al., in press), it may be that the ability to remember names illustrates yet another area in which younger adults do show the BTA effect.

The Current Study

In the current study, we examined how younger and older adults may (or may not) exhibit the better-than-average effect in their ratings of socially-desirable traits (e.g., honesty) and memory abilities (e.g., remembering scientific terms, remembering other people's names). Much of the prior work on the BTA effect has been conducted with younger adult samples (e.g., Dunning et al., 1989; Pedregon et al., 2012; Williams & Gilovich, 2008; but see Zell & Alicke, 2011). We seek to determine whether the likelihood of seeing oneself as better-than-average on these dimensions differs with age, with an eye toward metacognition for names as an interesting window into potential age-related differences and similarities in the BTA effect.

When assessing social traits such as honesty and leadership ability, we expect that both age groups' responses will indicate a better-than-average effect (Alicke & Govorun, 2005). However, if older adults view certain memory abilities (e.g., remembering other people's names) disproportionately affected by aging, they may be less likely to illustrate this bias compared to younger adults. However, if younger adults are also aware that remembering names can be challenging, perhaps by bringing to mind the consequences of forgetting names (i.e., potential embarrassment), they also should also fail to exhibit the better-than-average effect when rating this ability.

Method

Participants

Participants were 84 younger adults aged 20-25 (M = 23.30, SD = 1.60) and 69 older adults aged 60-84 (M = 65.56, SD = 4.92) who were recruited to participate via Amazon Mechanical Turk (MTurk). All participants reported being fluent in English. Each reported

living in the United States, had an MTurk HIT approval rate of 95% or higher, and had completed at least 50 HITs. Participants were paid $2 for their participation in this task, which was followed by two unrelated, brief memory tasks. Two younger adults and two older adults were excluded for completing the task in more than two standard deviations above the mean time spent. On average, participants included in analyses completed the task in 4.48 minutes (SD = 2.70, ranging from 1.04 minutes to 15.40 minutes). Older adults (M = 5.56, SD = 3.18) spent more time on this task than did younger adults (M = 3.58, SD = 1.82), $t(151) = 4.83$, $p < .001$.

Before participants were able to begin the study, they were given a brief questionnaire to ensure that they met inclusion criteria. The questionnaire asked participants' gender, their age, and whether they currently resided in the United States (country of residence was asked here in addition to the MTurk screening criteria reported above). Participants were only allowed to advance to the task instructions if they reported living in the United States and their age fit criteria set forth by the experimenters (aged between 18-25 or over 60).

Of the younger adult sample, 41 were female, 40 male, and three other. When asked to report their highest level of education received, most reported completing at least some college (29.76% reported completing some college but no degree, 11.90% reported completing an Associate's Degree, 47.62% reported completing a Bachelor's Degree). Some younger adults reported completing high school as their highest level of education (9.52%), and some reported completing some high school (1.19%).

Of the older adult sample, 40 were female and 29 were male. When asked to report their highest level of education received, most reported completing at least some college (20.29% reported completing some college but no degree, 14.49% reported completing an Associate's Degree, 37.68% reported completing a Bachelor's Degree). Some older adults reported completing high school as their highest level of education (8.70%), and some reported completing graduate school (Masters, Doctorate, etc.; 18.84%).

Power analyses showed that with these sample sizes for younger and older adults, we could detect a medium effect (d = .40) or greater in more than 90% of cases using a two-tailed, one-sample t-test (as determining whether participants rate themselves as better-than-average requires comparing their rating to the midpoint of the scale). This research was approved by the UCLA Institutional Review Board.

Materials and Procedure

Participants completed a self-paced survey that assessed perceptions of their own abilities. They were asked about their overall memory ability, their ability to remember proper names, and their ability to remember scientific terms (e.g., photosynthesis), historical figures (e.g., Napoleon), and locations. The survey also included items assessing participants' perceptions of their honesty, leadership ability, ability to get along with others, and capacity for hard work (see Appendix for all BTA survey items in the order in which they were presented to participants). Each item was constructed so participants would compare themselves to others their age (e.g., "How would you say your memory for names compares to other people your age?") using 9-point Likert scales, labelled "much worse than others my age" on the extreme

left of the scale, “the same as others my age” on the middle of the scale, and “much better than others my age” on the extreme right of the scale.

To assess the social impact of forgetting another’s name, participants were then asked to imagine that they were talking with someone they did not know well and that they could not remember that person’s name after being told. They were asked to rate on a scale from 1 to 9 how they think that person would feel about them, from “s/he would recognize that we all forget names quite often” to “s/he would be unimpressed and wonder why I couldn’t manage this basic social task.” After making that rating, participants were then presented with the reverse situation. They were asked to imagine that they were speaking with someone they did not know well who forgot *their* name after being told, and asked to rate their thoughts on a similar scale (e.g., “I’d be unimpressed and wonder why the person couldn’t manage this basic social task”). The order of these two questions was randomized for each participant. Finally, participants estimated how many peoples’ proper names they know, on a scale from 1 to 1000.

Results

Better-Than-Average Effect

To determine in what domains participants rated themselves as better than average, we compared responses to the true average of the scale. Because the scale ranges from 1 to 9, placing oneself at the average on any given item would be reflected in a score of 5. Figure 1 suggests that on many of the items related to personality traits and memory abilities, participants rated themselves as above average.

We conducted a series of one-sample *t*-tests for each age group to determine whether ratings of each item were significantly different from average (see Table 1). These tests revealed that the only item on which older adult participants did *not* rate themselves as above average was when assessing their memory for people’s names, $M = 5.06$, $SD = 1.82$, $t(68) = 0.26$, $p = .79$. All other tests revealed better-than-average effects among older adults’ ratings.

There were three items on which younger adult participants’ ratings did not illustrate the better-than-average effect, and they were all in the memory domain. Participants’ ratings were no different than average when rating their memory for historical figures, $M = 5.12$, $SD = 2.12$, $t(83) = 0.52$, $p = .61$, their memory for locations, $M = 5.30$, $SD = 1.87$, $t(83) = 1.45$, $p = .15$, and, like older adults, their memory for other people’s names, $M = 5.14$, $SD = 1.86$, $t(83) = 0.71$, $p = .48$. On all other items, younger participants rated themselves as significantly above average (see Table 2). Because older adults displayed the BTA effect in some memory domains in which younger adults did not, we conducted a 2 (age group) x 5 (memory item) mixed analysis of variance. There was no main effect of age $F(1, 151) = 1.83$, $p = .18$, $\eta^2 = .01$, nor a two-way interaction between age and memory item, $F(4, 604) = 1.16$, $p = .33$, $\eta^2 = .01$. This is a secondary analysis and is therefore reported in full in the Supplementary Materials (as are analyses illustrating lack of differences among people of different education levels in this task).

We then conducted a series of Spearman correlations among participants' responses to the survey items. Many memory processes decline across the older adult lifespan (e.g., McCabe, Roediger, McDaniel, Balota, & Hambrick, 2010; see also Craik & Salthouse, 2008), but because participants were asked to compare their performance to other participants their own age, we did not necessarily expect that older adults' ratings of their memory accuracy would correlate negatively with age. Correlations are reported in Tables 3 and 4. We also calculated the extent to which each participants' rating of their ability to remember others' names deviated from the average (i.e., a negative score indicates a lower-than-average rating, and a positive score indicates a higher-than-average rating). This deviation score did not correlate with age among younger adults, $r_s = .03$, $p = .76$, or older adults, $r_s = -.005$, $p = .97$. Younger and older adults estimated that they knew $M = 380.48$ ($SD = 229.60$) and $M = 437.33$ ($SD = 250.91$) names respectively. This difference was not statistically significant, $t(151) = 1.46$, $p = .15$, Cohen's $d = .24$.

Social Consequences of Forgetting Names

When asked to rate how they felt when another person forgot their name and when they forgot another's name, both younger and older adult participants rated the first scenario significantly more negatively than the second (see Figure 2). We conducted a 2 (Age group: younger or older) x 2 (Person forgetting: self or other) mixed ANOVA, which revealed neither a significant two-way interaction, $F(1, 151) = 2.20$, $p = .14$, $\eta^2 < .01$, nor a main effect of age, $F(1, 151) = 0.46$, $p = .50$, $\eta^2 < .01$. There was, however, a significant main effect of the person forgetting, $F(1, 151) = 81.52$, $p < .001$, $\eta^2 = .12$, such that participants gave significantly more positive (i.e., lower) ratings when asked about another person forgetting their name ($M = 3.28$, $SD = 2.04$) than when they were asked about their own failure to recall another person's name ($M = 4.84$, $SD = 2.18$).

To assess whether participants' ratings depended upon the order in which participants answered the two questions, we conducted a 2 (order: rated self first or rated other first) x 2 (the person forgetting: self or other) x 2 (age: younger or older) mixed-factorial ANOVA. There was no three-way interaction among order, the forgetter, and age ($F(1, 149) = 1.10$, $p = .29$, $\eta^2 = .002$), nor was there a two-way interaction between order and age, ($F(1, 149) = 0.34$, $p = .56$, $\eta^2 = .002$), or a two-way interaction between the person forgetting and age ($F(1, 149) = 1.88$, $p = .17$, $\eta^2 = .003$). There was, however, a two-way interaction between the order in which the questions were posed and the person forgetting – that is, participants' responses depended on whether they rated their feelings about themselves forgetting another person's name first or if they rated their feelings about another person forgetting their name first, $F(1, 149) = 6.22$, $p = .01$, $\eta^2 = .01$.

Figure 3 suggests that the magnitude of the differences between rating oneself and rating another may differ based on which question was asked first; therefore, we conducted paired-samples t-tests to examine the differences between ratings of self and other for each order. Among those who rated their feelings about their own forgetting another's name first, there was a significant difference between ratings of self and other, $t(78) = 5.25$, $p < .001$, such that participants rated their own memory error as being worse ($M = 4.63$, $SD = 2.11$) as another's memory error ($M = 3.52$, $SD = 2.18$). Among those who rated their feelings about

another person forgetting their name first, there was also a significant difference between ratings of self and other, $t(73) = 7.41$, $p < .001$, such that participants rated their own memory error as being worse ($M = 5.05$, $SD = 2.24$) as another's memory error ($M = 3.03$, $SD = 1.87$). Thus, there was an effect of order on the magnitude of the difference between participants' perceptions of the social consequences of forgetting someone's name versus someone forgetting their name.

We also sought to assess whether forgetting names may be associated with an unpleasant emotional reaction (i.e., embarrassment) that is not present when another forgets their name, and whether ratings of ability predicted this response. We first created a difference score by subtracting ratings of how participants feel when someone forgets their name from how participants feel when they forget another's name. We termed this difference score an "embarrassment index," as it reflects the extent to which participants feel worse when they forget someone's name than when another forgets their name. Higher ratings on the original scale are associated with feeling worse, so a higher embarrassment index would indicate participants feeling worse when they forget another's name than when someone forgets their name.

To assess the specific contributions of age group and perceptions about one's own memory for names to participants' embarrassment index, we conducted a multiple regression analysis including participants' age group (0 = older adults, 1 = younger adults), participants' ratings of their own memory for people's names compared to an average person their age (on a scale from 1-9), and the interaction between those two factors to predict embarrassment. First, these factors and their interactions do predict embarrassment, $F(3, 152) = 5.19$, $p = .002$, adjusted $R^2 = .08$. There was a significant effect of participants' ratings of themselves on their embarrassment index, $B = -.49$, $t(149) = -3.60$, $p < .001$, but this effect differed by age; there was a significant interaction between participants' ratings of their own abilities and age group, $B = .43$, $t(149) = 2.33$, $p = .02$.

To follow up this significant interaction, we conducted tests of simple slopes to examine the influence of one's ratings of their own memory for people's names on embarrassment index within younger and older adults. The slope of memory for people's names rating was not significantly different from zero for younger adults, $B = -.07$, $t(149) = -.54$ $p = .60$. Thus, younger adults' ratings of their own memory for people's names did not predict embarrassment. However, for older adults, ratings of one's own memory for names significantly predicted embarrassment scores, such that lower memory for others' names ratings were associated with higher embarrassment, $B = -.49$, $t(149) = -3.60$, $p < .001$.

Discussion

The current study illustrated the better-than-average (BTA) effect in several judgments for both younger and older adults. Neither younger nor older adults, however, rated themselves as different from average in remembering others' names. Although older adults experience name recall failure more often than do younger adults (James, Fogler, & Tauber, 2008; McWeeny et al., 1987), their ratings reflect awareness that this experience may be "par for the course" relative to their age group and rate themselves as approximately average

compared to others their age. Younger adults also rated themselves as no different from average on their ability to remember historical figures and location information, while older adults rated themselves as above average compared to others their age in those domains. These findings support prior work indicating age-related differences in knowing how one's memory works (e.g., Bruce, Coyne, & Botwinick, 1982; Devolder, Brigham, & Pressley, 1990). Although both age groups in the current study rated themselves as above average on many domains, older adults did so on more items than younger adults did.

The current study illustrates potential boundary conditions for the BTA effect. That is, perhaps when the memory error is particularly salient with highly-available examples and easily-imaginable consequences (e.g., embarrassment or a low exam score), participants are more accurate in their ratings of themselves compared to others than when the memory error is less salient. Among younger adults, instances of forgetting information in their history courses may be easy to recall, and these errors may be made even more salient by feedback in the form of exam scores (this does not explain, however, why younger adults rate their memory for scientific terms as above average). Among older adults, perhaps examples of forgetting history or science terms are less salient than examples of forgetting names, and their ratings follow this pattern. Alternatively, perhaps older adults' greater amount of general knowledge and superior vocabulary (Horn & Cattell, 1967; Verhaeghen, 2003) allows for easier access to such information, thus inflating their judgments of their own knowledge compared to average.

Consequences of forgetting names

Across the lifespan, we may see our propensity to forget names as an embarrassing personal deficit, but when others forget our name, we see it as normal. Forgetting a name can be a salient experience, and older adults may be especially attuned to this error (Troyer et al., 2006). Older participants who rated their ability to remember names more poorly were more likely to exhibit a greater discrepancy between how bad they feel when they forget another's name compared to when another person forgets theirs. This was not the case for younger adults, however. Perhaps older adults' concerns about their forgetting experiences led them to be more aware of their struggle to remember names, making instances in which they forget others' names more salient, while younger adults may not be especially concerned with forgetting names as they also see themselves as average in remembering historical figures and location information.

Indeed, ratings of one's ability significantly predicted older adults' "embarrassment index" (i.e., the extent to which they felt worse about forgetting someone's name than they felt about someone forgetting their name), but not younger adults'. This evidence suggests that older adults may view forgetting others' names as having greater social consequences than younger adults do, particularly among those who rate their memory poorly in this domain. In other words, older adults may see forgetting names as an embarrassing personal problem. On the other hand, while younger adults do rate themselves as average at remembering names, we do not have evidence that the perceived social consequences of forgetting (as measured by the embarrassment index calculated in the current study) are influenced their personal perceptions of memory ability.

Participants of both age groups rated how *they* would feel if they forgot another person's name more negatively than if another person forgot *their* name. However, the difference was larger for those who answered the question about their own forgetting after they had already rated another person's forgetting. When they rated another person's mistake first, participants may have used the initial judgment of another person as an anchor and thus rated themselves more harshly. In contrast, when they rated themselves first, the anchor may have been adjusted to give others a more lenient score. Though the size of the interaction effect was relatively small ($\eta^2 = .01$), this finding presents an interesting avenue for future work examining social perspective-taking in metamemory judgments (e.g., see Tullis, 2018; Tullis & Fraundorf, 2017; Tauber, Witherby, & Dunlosky, 2019).

Prior work suggests that the BTA effect can be attenuated for unambiguous abilities or traits (Dunning et al., 1989). It may be that items such as "honesty" or "overall memory" are fairly ambiguous and broad, thus contributing to a BTA effect, while rating one's ability to remember names is, in comparison, unambiguous and specific. Future work incorporating a memory task into the current paradigm could assess this question directly. For example, first-hand experience could reduce the potential ambiguity in rating one's cognitive abilities, especially if participants are given feedback about their performance (Geraci, De Forrest, Hughes, Saenz, & Tirso, 2017; Miller & West, 2010; Strickland-Hughes, West, Smith, & Ebner, 2016; West, Bagwell, & Dark-Freudeman, 2005; West, Dark-Freudeman, & Bagwell, 2009). Such a task could also assess the relationship between participants' expectations about their abilities and their memory strategy use (Dunlosky & Hertzog, 1998; Dunlosky, Hertzog, & Powell-Moman, 2005; Hertzog, Lövdén, Lindenberger, & Schmiedek, 2017). For example, if participants believe their memory for names is poor (and cannot be improved, even in the short term), they may fail to engage in effortful strategies. However, those beliefs could also lead to the opposite result, in which those who believe their memory for names to be worse than average engage in more effective strategies in order to compensate for their struggles, leading to deeper processing and better performance (Artistico, Cervone, & Pezzuti, 2003; Lachman, Andreoletti, & Pearman, 2006; Wells & Esopenko, 2008).

Participants are less likely to rate themselves as above average on a difficult task than on an easy one (Kruger, 1999), and remembering names can be challenging, especially for older people (Fogler et al., 2010; Rendell et al., 2005; Troyer et al., 2006). Prior work (Lachman, Steinberg, & Trotter, 1987) has examined chronological age as a contributing factor to participants' explanations of forgetting; the current lack of BTA in older adults' ratings about names could be attributable to the belief that with older age comes a reduced ability to remember name information (Hertzog, Lineweaver, & McGuire, 1999; Lineweaver & Hertzog, 1999). Beliefs about cognitive aging provide interesting future avenues for examining the better-than-average effect, as recent work by Tauber, Witherby, and Dunlosky (2019) suggests that younger participants' beliefs about normal cognitive aging do not strongly influence their expectations about older adults' memory for specific items (i.e., judgments of learning).

In addition, prior work suggests that participants' tendency to see themselves as better than average is stronger when they rate attributes seen as relatively important (e.g., being

honest) than relatively unimportant (e.g., being outgoing; Brown, 2012). Participants of both age groups in the current study do show the BTA effect for desirable traits like honesty. However, the pattern of results cannot be fully explained by participants' belief that remembering names is unimportant, as we do meet new people and encounter acquaintances throughout the lifespan. In fact, some studies suggest equivalence in younger and older adults' ability to remember names that are important (Castel et al., 2016; Hargis & Castel, 2017; see also Festini, Hartley, Tauber, & Rhodes, 2012). Other work suggests that individuals see themselves as above-average in abilities that are common but not in abilities that are uncommon (Moore, 2007), but this account also may not explain the current findings, as remembering names is a common activity.

We also examined potential relationships among participants' chronological age, their ratings of their memory for names, and their other memory abilities. The correlations in Tables 3 and 4 indicate that among both younger and older adults, age did not correlate with any of the participants' ratings. Younger adults' ratings of their ability to remember names were positively correlated only with the ability to get along with others, suggesting that people who see themselves as more socially apt may see themselves as better at remembering names (perhaps trying to remember someone's name is a good way to get along with that person). Among older adults, in contrast, memory for people's names was positively correlated with all items except age and honesty, indicating that the social and cognitive constructs examined here may be part of a more global self-assessment of cognitive health.

Younger adults estimated that they knew 380.48 names of other people, and older adults estimated that they knew approximately 437.33 names. Although this difference was not statistically significant ($p = .15$, $d = .24$), the pattern of responses is interesting, especially when considering the scale on which participants reported. That the scale provided was from 0 to 1000 names suggests the potential for participants' anchoring between 30-50% of the scale (Scheck, Meeter, & Nelson, 2004; see also Hertzog, Saylor, Fleece, & Dixon, 1994), perhaps taking the anchor as a hint about how to respond (Epley, 2004). Future studies can assess under what conditions younger and older adults' metacognitive awareness are affected by the scale on which they report.

The current study utilizes a sample of participants obtained via Amazon Mechanical Turk (MTurk). Previous work has illustrated the imperfect nature of MTurk samples (e.g., Ahler, Roush, & Sood, 2019), and potential misuse of the platforms (e.g., by "bots") is an important issue not to be overlooked. In the current study, the description of the HIT did not mention aging, though we do note that including IP address monitoring and/or geotagging in future IRB protocols can help identify those who respond untruthfully.

Conclusion

In sum, the current study suggests that younger and older adults are susceptible to believing themselves to be above average on several dimensions in social and cognitive domains. There are, however, a few exceptions to the general pattern. Younger adults see themselves as average in remembering historical and location information, and participants of both age groups see themselves as no different from average in their ability to remember other

people's names. Due to their difficulty to learn and their importance for social interaction, proper names present an interesting case to examine age-related similarities and differences in cognition at the intersection of personal and general beliefs about memory across the adult lifespan.

The subjective experience of forgetting someone's name may have social implications that differ from those associated with forgetting other types of information, and the internal (and sometimes embarrassing) struggle to remember someone's name may have created a particularly salient memory trace that was available to participants while they rated their own abilities. For example, many of us complain about the difficulty of learning proper names of new people we meet, and we struggle to recall the names of people we have met before. While older adults experience "feelings of forgetting" that can often represent actual forgetting (Halamish et al., 2011), the present research shows that both younger and older adults are aware that forgetting names, while frustrating, can be an experience that is not specific to themselves alone, though different factors may drive younger and older adults' ratings of this ability. Perhaps if we perceive our memory errors to occur while others are paying attention (creating a spotlight effect, Gilovich et al., 2002; Gilovich et al., 2000; Gilovich & Savitsky, 1999), we create a more accurate representation of our memory's fallibility and are less likely to be overconfident in our abilities.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Appendix

Items Used to Assess the Better-Than-Average Effect, Rated on a Scale from 1-9

How would you say you compare to others your age in terms of leadership ability?

How would you say you compare to others your age in terms of ability to get along with others?

How would you say you compare to others your age in terms of honesty?

How would you say you compare to others your age in terms of capacity for hard work?

How would you say your memory compares with that of others your age?

How would you say your memory for historical figures (e.g., Napoleon) compares with that of others your age?

How would you say your memory for scientific terms (e.g., photosynthesis) compares with that of others your age?

How would you say your memory for locations compares with that of others your age?

How would you say your memory for people's names compares with that of others your age?

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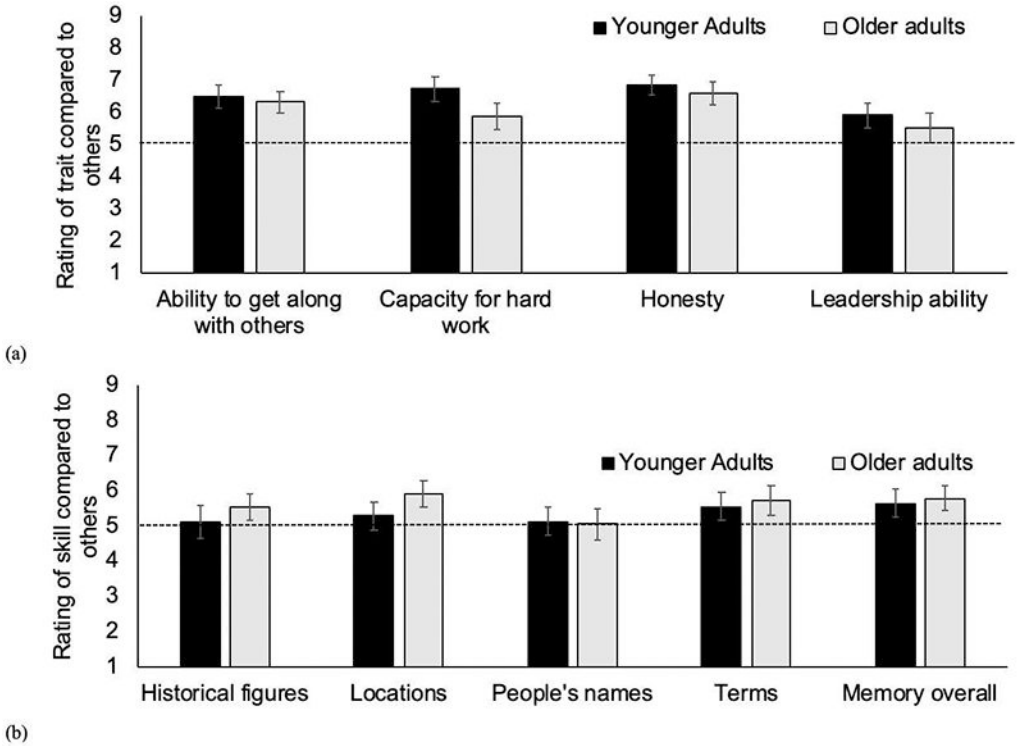

Figure 1.

Top panel (a): participants' ratings of their own ability to get along with others, their capacity for hard work, their honesty, and their leadership ability compared with other people their age. Bottom panel (b): participants' ratings of their ability to remember historical figures, locations, people's names, and scientific terms; also, their ratings of their overall memory ability. All ratings were compared with other people their age on a scale from 1 (much worse than others my age) to 9 (much better than others my age). Error bars represent 95% confidence intervals. The dotted lines represent participants' ratings of themselves as average compared to others their age.

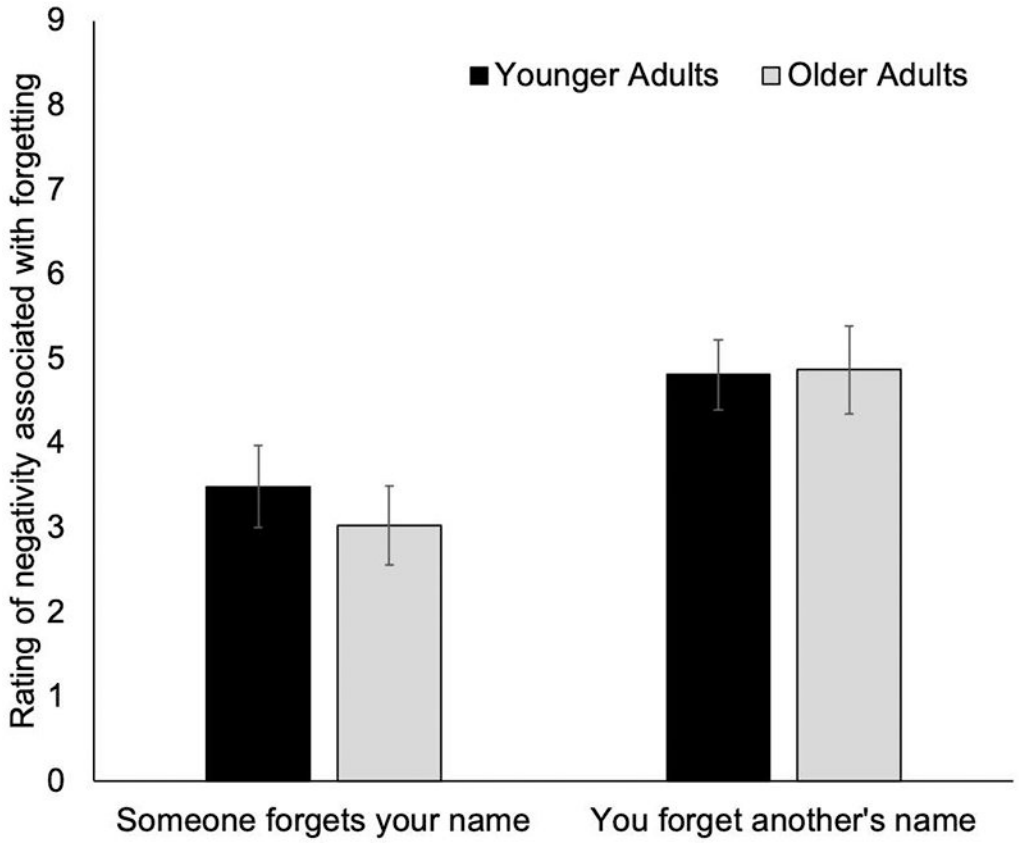

Figure 2.

Younger and older adults' ratings of the negativity associated with someone they met forgetting their own name (left) and the negativity associated with their forgetting another person's name (right). Higher scores reflect greater negativity. Error bars represent 95% confidence intervals.

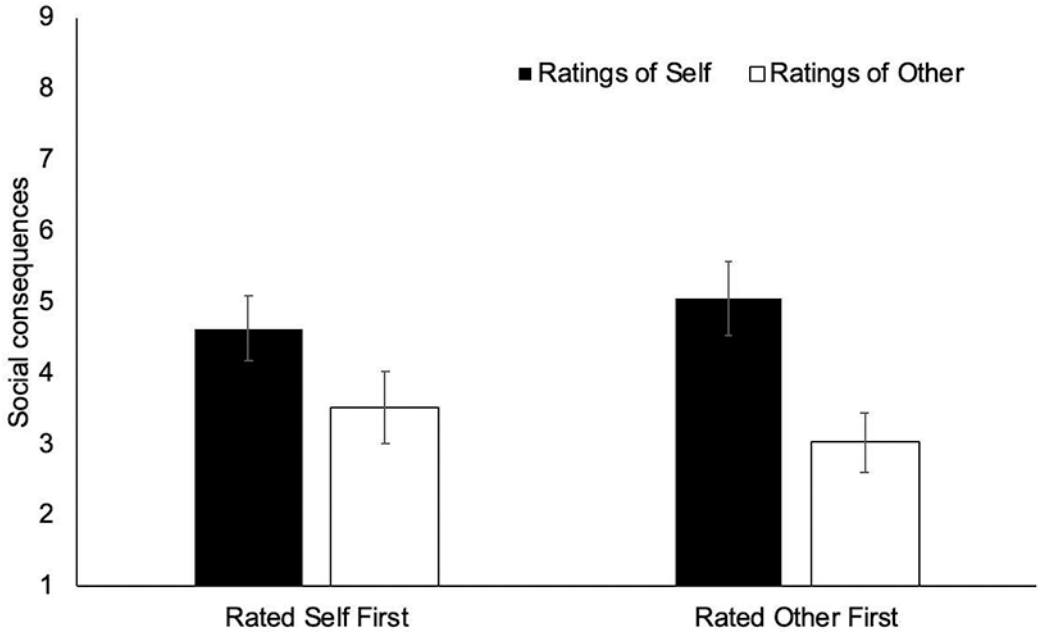

Figure 3.

Participants ratings of the social consequences associated with their forgetting someone's name (black bars) and someone forgetting their name (white bars), as a function of which of those situations they were asked to rate first. Error bars represent 95% confidence intervals. Ratings were provided on scales from 1 (lowest, e.g., "s/he would recognize that we all forget names quite often") to 9 (highest, e.g., "s/he would be unimpressed and wonder why I couldn't manage this basic social task).

Table 1

One Sample T-Test: Older Adults

	M	*SD*	*t*	*df*	*p*
Ability to get along with others	6.33	1.43	7.737	68	< .001
Capacity for hard work	5.90	1.73	4.306	68	< .001
Leadership ability	5.52	2.01	2.154	68	0.035
Honesty	6.61	1.53	8.754	68	< .001
Historical memory	5.54	1.59	2.808	68	0.007
Location memory	5.91	1.55	4.891	68	< .001
Memory for people's names	5.06	1.82	0.264	68	0.792
Memory for scientific terms	5.73	1.75	3.444	68	< .001
Memory overall	5.78	1.46	4.441	68	< .001

Note. For all tests, the alternative hypothesis specifies that the population mean is different from 5.

Table 2

One Sample T-Test: Younger Adults

	M	*SD*	*t*	*df*	*p*
Ability to get along with others	8.49	1.65	8.247	83	< .001
Capacity for hard work	6.73	1.77	8.927	83	< .001
Leadership ability	5.91	1.75	4.729	83	< .001
Honesty	6.85	1.53	11.091	83	< .001
Historical memory	5.12	2.12	0.515	83	0.608
Location memory	5.30	1.87	1.455	83	0.149
Memory for people's names	5.14	1.86	0.705	83	0.483
Memory for scientific terms	5.56	1.81	2.840	83	0.006
Memory overall	5.66	1.86	3.227	83	0.002

Note. For all tests, the alternative hypothesis specifies that the population mean is different from 5.

Table 3

Spearman Correlations: Younger Adults

	Age	Ability to get along with others	Capacity for hard work	Leadership ability	Honesty	Historical memory	Location memory	Memory for people's names	Memory for scientific terms	Memory overall
Age	—	−0.030	−0.116	−0.095	−0.091	−0.001	−0.022	0.036	−0.167	0.078
Ability to get along with others		—	0.181	0.175	0.300**	−0.122	−0.069	0.345***	−0.036	0.156
Capacity for hard work			—	0.462***	0.301**	0.091	0.158	0.212	0.161*	0.239*
Leadership ability				—	0.220*	0.085	0.119	0.099	0.268*	0.206
Honesty					—	0.062	−0.060	0.041	0.102	0.015
Historical memory						—	0.167	0.095	0.360***	0.227*
Location memory							—	0.126	0.118	0.230*
Memory for people's names								—	−0.024	0.260*
Memory for scientific terms									—	
Memory overall										—

Note.

* p < .05

** p < .01

*** p < .001.

Table 4

Spearman Correlations: Older Adults

	Age	Ability to get along with others	Capacity for hard work	Leadership ability	Honesty	Historical Memory	Location Memory	Memory for People's names	Memory for scientific terms	Memory overall
Age	—	0.100	−0.039	−0.115	0.059	0.025	−0.006	−0.039	0.035	−0.086
Ability to get along with others		—	0.390 ***	0.340 **	0.380 **	0.225	0.259 *	0.512 ***	0.061	0.243
Capacity for hard work			—	0.466 ***	0.288 *	0.208	0.013	0.415 ***	0.272 *	0.516 ***
Leadership ability				—	0.365 **	0.277 *	0.370 **	0.449 ***	0.497 ***	0.358 **
Honesty					—	0.284 *	0.316 **	0.204	0.246 *	0.183
Historical memory						—	0.355 **	0.279 *	0.319 *	0.380 **
Location memory							—	0.358 **	0.360 **	0.275 *
Memory for people's names								—	0.181	0.498 ***
Memory for scientific terms									—	.291 **
Memory overall										—

Note.

* p < .05

** p < .01

*** p < .001.