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Preferences for Choice Across Adulthood: Age Trajectories and Potential Mechanisms

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Across a variety of decision domains, older adults were found to desire fewer choice options than younger adults, but the age trajectory and underlying mechanisms of these effects remain unknown. The present study examined the pattern and correlates of age differences in choice set size preferences using self-report and behavioral measures. Self-reported choice set size preferences were assessed in a large-scale survey using an adult life span sample (N = 318, ages 18–90 years). A subset of younger and older adults (n = 109) also completed behavioral measures of choice preferences and information seeking. Based on prior research and theorizing on aging and decision making, we tested for a variety of possible covariates, including maximizing and decision-making self-efficacy. Combined results indicated that the age trend of choice set size preferences is linear, gradual, and domain-general. Findings also indicated a significant association between choice preferences and the extent of predecisional information search. Although age differences were evident in both self-report and behavioral measures, they were not explained by any of the covariates tested. We discuss the implications of these findings for research on aging and decision making, as well as public policy.

Keywords: aging, choice, preferences, decision making

Contemporary decision makers are often faced with a glut of options from which to choose, whether the choice itself is as trivial as a candy bar or as significant as health insurance. Because people typically prefer larger over smaller choice sets (Chernev, 2006; Haynes, 2009; Iyengar & Lepper, 2000), most decision makers may welcome having so many options, but accumulating evidence suggests that the desire for large choice sets wanes with age. Older adults prefer fewer options (Reed, Mikels, & Simon, 2008; Rozin, Fischler, Shields, & Masson, 2006) and place lower value on increased choice relative to younger adults (Mikels, Reed, & Simon, 2009). Such age differences in choice set size preferences appear to be robust and generalize across various decision domains (Reed et al., 2008). However, because most previous research focused on extreme age comparisons (i.e., older vs. younger adults) and adopted descriptive rather than explanatory perspectives, the age trajectory of choice preferences and potential mechanisms remain unclear. The present study was designed to address these open issues.

Although people typically prefer larger versus smaller choice sets in decisions ranging from the mundane (e.g., snacks, chocolates, and pens) to the consequential (e.g., vacation hotels; Chernev, 2006), emerging research indicates that the so-called "lure of choice" (Bown, Read, & Summers, 2003) wanes across the adult life span. Older adults prefer significantly fewer options relative to younger adults across a variety of decision domains, from hospitals to apartments (Reed et al., 2008) and even for significant medical decisions (Levinson, Kao, Kuby, & Thisted, 2005). Age differences in preferences for choice also transcend nationalities, as demonstrated by a cross-cultural study in which age was negatively associated with preferences for large (50 options) versus small (10 options) sets of ice cream flavors across the United States and several European countries (Rozin et al., 2006).

Because so few studies have explicitly examined age differences in choice preferences, two critical questions remain unanswered: First, the age trajectory of these preferences is unclear, with one study indicating a linear decline with age (Rozin et al., 2006) and another study indicating a curvilinear trend peaking in midlife (Levinson et al., 2005). Importantly, neither of these studies examined multiple domains or used fine-grained measures of choice preferences, creating the need for additional research. Second, because prior studies were largely descriptive in nature and did not include relevant covariates, the underlying mechanisms of age differences in choice set size preferences remain opaque.

One potential explanation is that older adults are more likely than younger adults to *satisfice* (i.e., strive to choose options that are merely "good enough") versus *maximize* (i.e., strive to select the best possible option; Schwartz et al., 2002). Existing research indicates that people who satisfice, relative to those who maximize, prefer and place greater value on smaller versus larger choice sets (Dar-Nimrod, Rawn, Lehman, & Schwartz, 2009). Furthermore, older adults report more satisficing tendencies than young adults (Tanius, Wood, Hanoch, & Rice, 2009). However, no

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prior study has examined whether age differences in maximizing are associated with choice set size preferences.

Alternatively, older adults may simply perceive large choice sets as exceeding their decision-making abilities. There is little question among researchers that increased choice poses a greater challenge to decision makers through elevated information-processing demands (Iyengar, 2010; Schwartz, 2004). Whether such demands deter versus attract decision makers, however, may depend on individuals' decision-making self-efficacy (DMSE). People with higher DMSE prefer decisions that are more challenging and complex (Tabernero & Wood, 2009) and seek more information when making decisions than those who are relatively low in efficacy (Seijts, Latham, Tasa, & Latham, 2004). This pattern was found for a range of domains from consumer choices (Hu, Huhmann, & Hyman, 2007) to health-related decisions (Woodward & Wallston, 1987). Moreover, recent evidence indicates both correlational and causal associations between DMSE and preferences for choice among younger adults (Reed, Mikels, & Löckenhoff, 2012). Thus, older adults may prefer less choice because they have lower DMSE and wish to avoid the excessive challenges posed by large choice sets. To date, empirical evidence for age differences in DMSE is equivocal, with one study finding an increase in DMSE with age (Löckenhoff & Carstensen, 2007), a second reporting a decrease (Woodward & Wallston, 1987), and a third reporting no association between age and DMSE (Finucane & Gullion, 2010). However, no studies have examined DMSE in relation to age differences in choice preferences.

Other factors related to aging and/or decision making may also play a role. For instance, older adults may desire fewer options compared with younger adults because they have less need for cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996), which is associated with a desire for complex and cognitively challenging tasks. Age-related limitations in future time perspective that have been associated with reduced motivation to seek information may play a role as well (Carstensen, 2006; Mather, 2006). Alternatively, age differences in choice preferences may stem from age-related impairments in fluid cognitive abilities linked with decision-making competence, such as short-term memory (STM) and numeracy (Finucane & Gullion, 2010), or age-related declines in the personality traits of openness and conscientiousness (Terracciano, McCrae, Brant, & Costa, 2005), which are associated with information-seeking and desire for autonomy (Flynn & Smith, 2007). Finally, it is possible that older adults have less accessible decision-making preferences, an important predictor of choice preferences in younger adults (Chernev, 2003), or that older adults simply perceive larger choice sets to be less beneficial than younger adults. To explore these possibilities, we included brief measures of each of these constructs in the present research.

The present research also extended prior work by comparing age effects across self-report and behavioral measures. A large-scale survey examined self-reported choice set size preferences for a wide range of decision domains and across the adult life span. Expanding on previous work (Reed et al., 2008; Rozin et al., 2006), the domains ranged from everyday choices among cellular phones and restaurants to consequential health-related decisions among physicians and prescription drug plans. A subset of younger and older participants also completed a behavioral decision task involving hypothetical choices for cars, a domain that has been successfully used in previous studies examining age differences in decision making (Johnson, 1990; Mather, Knight, & McCaffrey, 2005). Using a behavioral task not only addressed the limitations of self-report measures but also allowed us to investigate the relationship between choice set size preferences and predecisional information search. Information search is conceptually linked with choice set size preferences (Reed et al., 2008) and inversely associated with age (for a review, see Mata & Nunes, 2010). However, to our knowledge, no studies have directly investigated the link between information search and choice set size preferences across age groups. All participants also completed established measures of DMSE, maximizing, need for cognition, future time perspective, cognitive abilities, and personality traits, as well as novel measures of preference clarity and beliefs about choice.

Consistent with the prior literature, we hypothesized that self-reported choice set size preferences would be negatively associated with age. Following Rozin et al. (2006), we expected that age effects would follow a linear trend. For the behavioral decision task, we hypothesized that older adults would prefer fewer options and seek less information than younger adults, and that choice set size preferences and information search would be positively associated. As discussed above, existing evidence for explanatory variables is strongest for maximizing and DMSE, and we expected that these variables would be negatively associated with age and positively associated with choice preferences. Exploratory analyses examined the role of the remaining covariates.

Method

participants

Online participants ($N = 215$) between 18 and 89 years of age were recruited from across the United States via Craigslist volunteer boards as well as e-mail listservs and physical postings at community-based organizations (e.g., churches, senior centers). Participants completed the survey remotely via the Internet in exchange for $5 (all participants had to provide a valid mailing address to receive payment). Conducting the survey via the Internet afforded a larger and more diverse sample than could be obtained through traditional on-site testing (Gosling, Vazire, Srivastava, & John, 2004). To screen out fraudulent or unreliable data, we excluded responses in the remote sample ($n = 21$) if they showed an unusually brief completion time (i.e., less than 20 min), stereotyped response patterns (e.g., responding "7" for all questions), or numerous responses from the same computer (based on identical IP addresses). An additional 12 remote participants were not included because they failed to indicate their age (final $n = 182$).

To compare Internet-based responses with data from a controlled testing environment, we also recruited a sample of 136 participants (ages 18–90 years) from the Ithaca, New York, community, including 34 undergraduate students (who received course credit) and 102 community-dwelling individuals (who were paid $15). These participants completed the survey in a private testing room in the Healthy Aging Laboratory of Cornell University.

Participant characteristics for the survey participants are presented in Table 1. The remote and on-site samples did not differ significantly in terms of age, sex, or racial/ethnic composition, although the remote sample reported relatively higher socioeconomic status and was better educated than the on-site sample.

Table 1
Participant Characteristics

Measure	Overall (N = 318)	Remote sample (n = 182)	On-site sample (n = 136)	t	χ^2
Mean (*SD*) age (years)	47.5 (21.4)	47.3 (18.4)	47.8 (24.9)	−0.18 (df = 316)	
Age range (years)	18–90	19–87	18–90		
Socioeconomic status	3.0	3.1	2.9	2.00 (df = 314)*	
Mean education (years)	16.2	16.7	15.5	4.14 (df = 309)**	
Sex (% female)	68.5	65.7	72.1		1.43
Hispanic (%)	4.4	4.4	4.4		
Race (%)					2.73
Caucasian	89.3	89.0	89.6		
Asian or Pacific Islander	6.3	7.7	4.4		
African American	2.5	1.6	3.7		
Other	1.9	1.6	2.2		

Note. Socioeconomic status was assessed via self-reports on a 5-point Likert-type scale from 1 = *lower income* to 5 = *upper income*. Statistical tests compare remote and on-site sample.
* $p < .05$. ** $p < .01$.

A subsample of participants from the on-site sample (n = 120; 65 younger adults and 55 older adults) also completed a behavioral decision task. Ten participants from this subsample were excluded from data analyses because of computer malfunctions and one was excluded because of suspicion regarding the study aims (final n = 109). Demographic characteristics for the final behavioral decision task subsample are depicted in Table 2.

Measures

All participants completed a computerized survey containing a demographics form and the following measures:

Choice preferences were measured using an adapted version of the scale developed in our previous work (Reed et al., 2008, 2012), which asks participants how many choices they would prefer (from two to 30 options in increments of four) when making decisions for six everyday domains (apartments, vacations, restaurants, cars, cellular phones, and jams) and six health-related domains (hospitals, health insurance plans, physicians, hearing aids, prescription drug plans, and nursing homes). The choice preferences measure showed high internal consistency (Cronbach's alpha = .93) and responses were averaged into a composite measure.

DMSE was measured via a scale adapted from Löckenhoff and Carstensen (2007) that asks participants to rate their confidence in their ability to make optimal decisions across the same 12 domains listed above using a 7-point Likert-type scale (1 = *not at all confident* to 7 = *extremely confident*). The DMSE measure demonstrated high internal consistency (Cronbach's alpha = .90). To differentiate the role of decision-making self-efficacy from other types of self-efficacy, we also measured participants' memory self-efficacy using the Capacity subscale of the Metamemory in Adulthood Questionnaire (Dixon & Hultsch, 1983), which showed acceptable internal consistency (Cronbach's alpha = .82).

To measure participants' preference accessibility, we asked participants to list the three most important attributes when making decisions in each of the 12 domains (e.g., for decisions among restaurants: a relaxing atmosphere, fast service, and a wide variety of entrees), and then rate how easy it was to think of these factors on a 7-point scale (1 = *very difficult* to 7 = *very easy*). Internal

Table 2
Participant Characteristics for Behavioral Task Subsample

Measure	Younger adults (n = 60)	Older adults (n = 49)	t	χ^2
Mean (*SD*) age (years)	23.6 (6.6)	72.5 (8.3)	−34.23 (df = 107)***	
Age range (years)	18–37	60–89		
Socioeconomic status	3.1	3.0	0.51 (df = 107)	
Mean education (years)	14.6	16.3	−3.54 (df = 103)***	
Sex (% female)	68.3	73.5		0.34
Hispanic (%)	8.3	2.0		2.05
Race (%)				8.82
Caucasian	81.7	95.9		
Asian or Pacific Islander	6.7	2.0		
African American	6.7	0.0		
Other	5.0	2.0		

Note. Socioeconomic status was assessed via self-reports on a 5-point Likert-type scale from 1 = *lower income* to 5 = *upper income*. Two participants (one older and one younger adult) who completed the decision task but did not provide demographic data were excluded from this table.
*** $p < .005$.

consistency for accessibility ratings was acceptable (Cronbach's alpha = .86).

Maximizing was assessed via the 13-item Maximization Scale (Cronbach's alpha = .70; Schwartz et al., 2002), personality traits were screened via the 10-item version of the Big Five Inventory (Rammstedt & John, 2007), need for cognition was measured using that subscale of the 10-item version of the Rational Experiential Inventory (Cronbach's alpha = .78; Pacini & Epstein, 1999), and future time perspective was measured via the 10-item Future Time Perspective scale (Cronbach's alpha = .91) developed by Lang and Carstensen (2002).[1]

We measured participants' cognitive abilities in terms of STM (Digit Span test; Wechsler, 1997), numeracy (11-item Numeracy Scale; Lipkus, Samsa, & Rimer, 2001), and vocabulary (Shipley Vocabulary subtest; Zachary, 1986).

We also administered a single-item measure of the extent to which individuals believe that larger versus smaller choice sets are more likely to contain the optimal alternative (labeled below as *optimal choice belief*). Participants responded to this item using a 7-point Likert-type scale (from 1 = *strongly disagree* to 7 = *strongly agree*).

A behavioral decision task comprised a computerized decision among 20 cars using a standard information grid (see Figure 1) presented via E-Prime 2.0 experimental software. The cars were portrayed as hypothetical and labeled with names of rare birds (e.g., "Pipit," "Turaco," and "Xenops"), but in reality they represented the 20 most common midsized sedans sold in the United States. The information grid contained information on the following six attributes for all 20 cars: gas mileage, horsepower, turning radius, safety rating, comfort, and dependability.[2]

Following standard practice (Mata & Nunes, 2010), each piece of information was contained in a separate cell within the grid, and all information was initially hidden from participants, who were instructed to use the computer mouse to click on a cell to reveal the corresponding information (see Figure 1). Each piece of information remained visible until the participant clicked on another cell, at which point the initial information would disappear. Thus, only one piece of information was visible at any time, although participants were allowed to revisit any cell. Participants were allowed to view as much information as they desired, and were given unlimited time to search for information within the grid prior to selecting a car.

Prior to making the decision, each participant was given an information sheet providing details about the decision attributes. This helped address any interindividual differences in background knowledge of automobiles, and ensured that all participants were able to make an informed decision among the cars. The information sheet was modeled after buyers' guides provided by consumer information Websites (e.g., *Consumer Reports* and Amazon.com) and contained explanations for each of six decision attributes. For instance, *safety rating* was defined as follows:

> The safety rating refers to the amount of protection provided by the car to its passengers during a crash. These ratings are provided by the National Highway Traffic Safety Administration, which tests all vehicles in terms of their crash safety and rates them from 1 (Worst) to 5 (Best).

Procedure

After providing informed consent, all participants completed a computerized survey containing the following measures in order: demographics, choice set size preferences, DMSE, memory self-efficacy, future time perspective, maximizing, need for cognition, personality, optimal choice beliefs, preference clarity, numeracy, vocabulary, and STM. Completion of the survey took approximately 45–60 min.

After finishing the survey and taking a 5-min break, a subset of participants completed the behavioral decision task. Participants were informed via the computer program that they would be making a hypothetical decision about cars.[3] They were subsequently asked how many options they wished to choose from, ranging from four to 20 options in increments of four (i.e., 4, 8, 12, 16, or 20). Participants were then provided with instructions regarding the decision task including the information sheet described above. All participants—independent of their reported choice set size preferences—then completed the decision task using the 20-option information grid and indicated their desired car.[4] After participants made their decisions, they were checked for suspicion and debriefed. Completion of the behavioral decision task took approximately 5–10 min.

Results

Exploratory data analyses indicated that many of the dependent measures, including choice set size preferences, were not normally distributed. Consequently, data were analyzed using nonparametric tests when appropriate. The pattern of results (including the key association between choice set size preferences and age) did not differ significantly between participants who completed the survey remotely versus on-site ($ps > .05$). Therefore, further analyses collapsed both participant groups into a combined sample. Furthermore, no significant associations were observed between choice set size preferences and any of the demographic variables besides age, so they are not discussed further.

Self-Reported Choice Preferences

As depicted in Figure 2, age was inversely associated with preferred choice set size (Spearman's $\rho = -.29$, $p < .01$). The negative correlation between age and choice preferences was significant for all domains except for jam varieties ($\rho = -.03$, *ns*). Post hoc *t* tests indicated that middle-age participants (ages 40–59 years; $n = 74$) desired significantly more choices among varieties of jam ($M = 10.6$, $SD = 8.2$) than older (ages 60+ years; $n = 108$)

[1] Correlation coefficients for pairs of items in the Big Five Inventory ranged from $r = .24$ (Openness) to $r = .53$ (Extraversion), $ps < .01$.

[2] Attribute information was retrieved from Edmunds.com, the National Highway Traffic Safety Administration Website, and the JD Power and Associates Website. We deliberately chose to omit pricing information from the grid so that participants did not simply select the most expensive car. For some cars, it was not possible to obtain full information for all six attributes; in those cases, the missing attribute was calculated as the mean attribute value for all other cars in the information grid.

[3] At this time, all participants who completed the behavioral task were randomly assigned to receive instructional manipulations designed to raise or lower their decision-making self-efficacy levels (for details on the specific instructions, see Reed et al., 2012). However, because these manipulations did not significantly affect DMSE, choice preferences, or information search, further analyses collapsed the sample across experimental conditions.

[4] We opted against adjusting the size of the information grid to participants' choice set size preferences to avoid confounding measures of choice set size preferences and information search.

Figure 1. Sample information grid for behavioral decision task.

participants (M = 8.3, SD = 6.6) but not younger (ages 18–39 years; n = 133) participants (M = 9.8, SD = 8.3). For all other domains, correlations between age and choice set size preferences ranged in size from −.12 (vacations) to −.33 (physicians; ps < .05) and the size of this association did not differ systematically between everyday (ρ = −.26), and health-related domains (ρ = −.25). Consistent with our hypothesis of a linear age trend, regression analyses indicated that neither the quadratic nor cubic effects of age on choice preferences were significant. Thus, the association between age and choice set size preferences appears to be linear and generalizable across domains.

Consistent with previous research, age was negatively associated with maximizing, memory self-efficacy, future time perspective, neuroticism, STM (digit span), and numeracy, but positively associated with conscientiousness and vocabulary (see Table 3). In addition, age was positively associated with DMSE and preference accessibility, but not significantly associated with need for cognition or optimal choice beliefs.

To examine the role of covariates, we computed separate regressions with choice preferences as the dependent variable and age and each of the covariates as the predictors. As depicted in Table 3, age remained a significant predictor when each of the covariates was statistically controlled (ps < .01), suggesting that none of them could account for age differences in choice preferences. Of all the covariates, only vocabulary (β = −.14) and optimal choice belief (β = .17) were significantly associated with choice preferences when controlling for age, indicating that, regardless of age, individuals with lower vocabulary scores and greater confidence in the benefits of choice preferred larger choice sets.

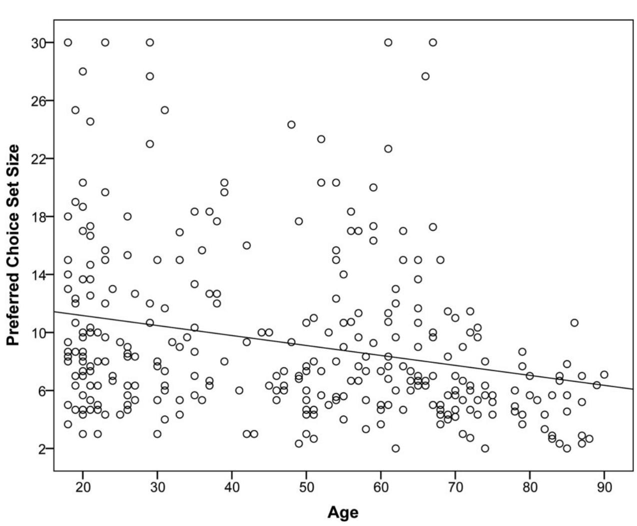

Figure 2. Scatterplot of preferred choice set size (self-reported) by age. Fit line R^2 = .064.

Behavioral Choice Preferences and Information Search

Consistent with our hypotheses, older adults desired significantly fewer choices in the behavioral decision task (M = 7.0, SD = 4.3) than younger adults (M = 10.2, SD = 5.6), t(109) = 3.34, p < .005. Following previous research (for a review, see Mata & Nunes, 2010), we calculated the extent of information search based on the proportion of cells viewed in the grid.[5] Older adults viewed significantly less information (M = 0.47, SD = 0.28) than younger adults (M = 0.63, SD = 0.25), t(107) = 3.05, p < .005. Choice set size preferences for the behavioral task were significantly correlated with information viewed (ρ = .24, p < .05) and with average self-reported choice preferences across the 12

[5] We observed the same pattern of results when information search was assessed in terms of raw number of cells viewed.

Table 3
Intercorrelations (Spearman's ρ) and Regression Analyses for Age, Self-Reported Choice Preferences, and Covariates

	Correlation		Regression on self-reported choice preferences	
Variable	Age	Self-reported choice preferences	Age β	Covariate β
Decision-relevant traits				
Decision-making self-efficacy	.11*	.00	−.26****	.08
Memory self-efficacy	−.19**	.02	−.26****	−.02
Optimal choice belief	−.09	.19**	−.24****	.17**
Preference accessibility	.39**	−.05	−.27****	.04
Maximizing	−.47**	.13*	−.25****	.01
Need for cognition	.04	.02	−.26****	.05
Future time perspective	−.54**	.16**	−.25****	.01
Personality traits				
Neuroticism	−.13*	.01	−.25****	−.01
Extraversion	.04	−.05	−.25****	.01
Openness	−.03	.04	−.25****	−.01
Agreeableness	.06	.06	−.26****	.08
Conscientiousness	.16**	−.05	−.26****	.05
Cognitive abilities				
Digit span	−.24**	.05	−.26****	−.04
Numeracy	−.21**	.07	−.27****	−.07
Vocabulary	.47**	−.14*	−.19**	−.14*

* $p < .05$. ** $p < .01$. **** $p < .001$.

decision domains ($\rho = .41$, $p < .001$); the size of these associations did not differ significantly across age groups (zs < 1, ps $> .5$).

As with the self-report data, we conducted separate regression analyses predicting behavioral choice preferences based on age and each of the covariates (see Table 4). Age remained a significant predictor when all but one of the covariates were entered; when FTP was entered in the regression, age was reduced to a trend ($p = .055$). Thus, controlling for the covariates did not substantially affect the relationship between age and choice preferences. In addition, none of the covariates significantly predicted behavioral choice preferences when controlling for age, although preference accessibility ($\beta = .19$), need for cognition ($\beta = .16$), and conscientiousness ($\beta = -.18$) approached significance (ps $< .10$).

Table 4
Intercorrelations (Spearman's ρ) and Regression Analyses for Age, Behavioral Choice Preferences, and Covariates

	Behavioral choice preferences correlation	Regression on behavioral choice preferences	
Variable		Age β	Covariate β
Decision-relevant traits			
Decision-making self-efficacy	−.02	−.31**	.12
Memory self-efficacy	.17+	−.27**	.15
Optimal choice belief	.17+	−.26**	.13
Preference accessibility	−.05	−.39****	.19+
Maximizing	.29**	−.22*	.14
Need for cognition	.15	−.29**	.16+
Future time perspective	.21*	−.22+	.12
Personality traits			
Neuroticism	.09	−.29**	.01
Extraversion	−.13	−.29**	−.05
Openness	−.09	−.29**	.00
Agreeableness	−.01	−.29**	−.09
Conscientiousness	−.19*	−.26**	−.18+
Cognitive abilities			
Digit span	.10	−.33**	−.08
Numeracy	.23*	−.27*	.09
Vocabulary	−.10	−.29**	.01

\+ $p < .10$. * $p < .05$. ** $p < .01$. **** $p < .001$.

Discussion

The present study was designed to elucidate the pattern and underlying mechanisms of age differences in choice set size preferences. As predicted, age was negatively associated with self-reported choice preferences for nearly all choice domains, and this age pattern was linear in nature. Moreover, age effects were consistent across self-reports and a behavioral task, and choice preferences were associated with information search tendencies. However, none of the hypothesized mechanisms could account for age effects: Age remained a significant predictor of choice preferences when controlling for a wide array of covariates, ranging from trait-like variables related to decision making (i.e., maximizing, self-efficacy, future time perspective, need for cognition, and personality) to cognitive variables (i.e., digit span, numeracy, and vocabulary) to optimal choice beliefs.

Findings from the present study replicate and extend prior research on age differences in choice preferences in several ways. Whereas previous studies in this area only compared choice set size preferences at the extreme ends of the adult life span (Reed et al., 2008) or were restricted to a single choice domain (Rozin et al., 2006), the present study systematically examined age differences across a variety of domains and the full adult life span. Results from the survey component suggest that choice set size preferences decrease in a gradual, linear manner over the course of adulthood, and that this trend applies to many choice domains. Findings from the behavioral component confirm that age effects extend beyond self-report measures, supporting the construct validity of choice preferences.

The present research also reports the first evidence for an empirical link between choice preferences and information search. Consistent with our hypotheses, older adults desired fewer options for the behavioral decision task and viewed less information than younger adults. Whereas the average younger adult desired roughly half as many options as were available and viewed nearly two thirds of the information grid, the average older adult desired only one third of the total number of options and failed to view half of all available information. Combined with results linking choice preferences and information search, these findings raise the possibility that older adults seek less information because the amount of choice and/or available information exceeds their preferences. This notion is buttressed by the observation that age differences in information search are exacerbated in studies where relatively more information is available to view (Mata & Nunes, 2010).

At the same time, the lack of support for the hypothesized mechanisms underlying age differences in choice preferences is puzzling. Although we tested for a wide range of possible explanations, none of the covariates could account for age differences. The finding that maximizing did not play a role is especially surprising given prior research that maximizers prefer more choice relative to satisficers (Dar-Nimrod et al., 2009) and that older adults are less likely to maximize than younger adults (Tanius et al., 2009). It is possible that eliciting choice set size preferences through a hypothetical and abstract self-report measure—one that provided no incentive to select the optimal choice—may have diluted the effect of maximizing. However, maximizing also failed to account for age differences in behavioral choice preferences. Furthermore, in contrast to previous findings in younger adults (Reed et al., 2012), DMSE was not associated with choice set size preferences. It is possible that this effect is specific to student samples or does not generalize across contexts. The mechanisms underlying the age trajectory of choice preferences therefore remain unclear.

There are several important limitations to the present study that should be noted. First, although our findings cast doubt on a range of plausible theoretical explanations for age differences in choice preferences, ruling out these factors will require future replication using alternative measures and more diverse samples. Additional factors that were not measured could potentially explain age differences in choice preferences. For instance, although we incorporated measures of both crystallized (i.e., vocabulary) and fluid cognitive abilities (i.e., STM), we did not measure working memory. Because working memory is critical to effective decision making (for a discussion, see Mather, 2006) and declines with age across adulthood (for a review, see Salthouse, 2004), it may influence age differences in choice set size preferences. Alternatively, it is possible that older adults prefer fewer options than younger adults because of their accumulated life experience with respect to decision making. For instance, they might be more cognizant than younger adults of the cognitive burdens and potential regret associated with decisions among larger versus smaller choice sets. Thus, their preference for reduced choice may reflect age-related development of everyday decisional wisdom and strategies for dealing with choice. It is also possible that the driving factors behind choice set size preferences may not be accessible to conscious thought or insight and therefore ill-suited to measurement via self-report. This interpretation is supported by mounting evidence that unconscious, automatic, and/or intuitive processes play a significant role in decision making (Simonson, 2005). Future research on choice preferences would benefit from considering a broad array of factors such as these.

Given the lack of reliable correlates of choice preferences observed in the present study, it is also possible that age differences in choice set size preferences are the product of cohort effects, as opposed to developmental changes. Older adults' formative years are likely to have occurred before the recent proliferation of choice, whereas contemporary younger adults live in an era of unprecedented choice in almost every domain imaginable (Iyengar, 2010; Schwartz, 2004). Thus, older adults may desire fewer options than younger adults because they are relatively more accustomed to limited choice in decision environments, an interpretation that could be tested by adopting longitudinal, as opposed to cross-sectional, designs.[6]

Although the age trajectory of choice preferences may result from cohort effects instead of age effects per se, the practical implications of the present findings are nonetheless significant. For instance, given that older adults desire fewer choices across a wide range of domains, and because having too much choice is often counterproductive to decision quality and satisfaction (for a review, see Scheibehenne, Greifeneder, & Todd, 2010), public policymakers would benefit from considering the present findings when designing decision contexts for individuals of varying ages. For instance, the Medicare Part D prescription drug plan offers a degree of choice—typically dozens of options—that individuals of all ages, but especially older adults, would likely find excessive. Restricting choice sets for such decisions may be more beneficial than detrimental. Conversely, it could be argued that public services that already offer comparatively restricted choice sets (e.g., Medicare Parts A and B, Social Security) may be serendipitously tailored to the choice preferences of their older beneficiaries, in which case, increasing choice for those domains would be maladaptive. Reducing discrepancies (and promoting concordance) between available choice and individual preferences for choice would therefore benefit decision makers across the life span.

[6] It should be noted that the age differences in choice preferences observed by Rozin and colleagues (2006) appeared relatively stable across cultures. At first blush, this could be interpreted as evidence against the cohort effect explanation. However, their study incorporated only Western cultures (i.e., the United States and five European countries), and the authors themselves argued that the historical increase in choice among foods pervaded the developed world. Thus, study samples across all included countries were likely to contain latent age differences in the experience of food choice parallel to the observed differences in preferred choice.

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