

## Remember Me: Virtues in Self-Defining Memories Across Adulthood

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Self-defining memories help one describe the self to others. Identifying *virtue* (Peterson & Seligman, 2004) in self-defining memories connotes reflection on the self as embodying valued human characteristics. Virtues may be differentially identified in self-defining memories about the *current self* and *memorialized self* in young (18–28 years), middle (40–50 years), and older (60–72 years) adulthood. In this study, younger and older participants ( $N = 202$ ) were randomly assigned to recall a self-defining memory in a current-self or a memorialized-self condition. They rated their self-defining memory for demonstration of five specific virtues. Unlike middle-aged and older adults, young adults reported more virtue in the memorialized-self condition than the current-self condition at the overall virtue level and across most individual virtues. Prioritization of normative developmental tasks and awareness of time left in life for self-development may motivate current-self or memorialized-self condition differences in identification of virtue in young adults compared to middle-aged and older adults.

*Key Words:* Autobiographical Memory; Developmental Tasks; Lifespan Development; Memorialization; Narrative Identity

Across the adult lifespan, an individual's *narrative identity* (e.g., McAdams & McLean, 2013) contributes to their sense of meaning and purpose (McAdams & Pals, 2006) and supports their sense of self-continuity (Bluck & Habermas, 2000; Costabile et al., 2018). *Self-defining memories* (Singer & Salovey, 1996) are a critical aspect of narrative identity (Singer & Blagov, 2004) because they

are memories of vivid, meaningful life experiences that root an individual in their personal past (e.g., Conway et al., 2019; Singer, 2004). They are considered to be integral in characterizing one's self and describing one's self to others.

Standard instructions for eliciting self-defining memories direct individuals to recall memories that powerfully convey how they have come to be the person they currently are (Moffitt & Singer, 1994), often characterizing their *current*, present-moment version of the self. Most previous research has examined self-defining memories in young adulthood, given that it is a critical period for narrative identity formation (Habermas & Bluck, 2000; Thorne et al., 2004). In the current research, we examine self-defining memories in three adult age groups (i.e., young, middle, and older adulthood) and focus on the extent to which life phase may shape perceptions of virtue—human attributes that are valued across cultures and societies—in these memories (Peterson & Seligman, 2004). Importantly, we also compare self-defining memories elicited via standard sharing instructions with a new type of self-defining memory prompt devised to elicit a memory which represents the *memorialized self*. This refers to a self-defining memory that a person hopes to be remembered by—to characterize them—after death. This idea of a memorialized self has ecological validity: it is common practice to share significant memories from the life of the deceased during

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memorialization rituals (i.e., funerals, memorial services; Bluck & Mroz, 2018). At present, there is no direct evidence to explain how young, middle-aged, and older adults perceive virtue in their self-defining memories, or whether this may vary based on the context (i.e., current or memorialization) within which the memory is recalled.

### *Virtues in Self-Defining Memories*

Among a range of personal characteristics (e.g., strengths & weaknesses, Goldner & Scharf, 2017) that are evident in memories of personal experiences is virtue (Park & Peterson, 2009; Park et al., 2006). Virtues denote positive moral character aimed to benefit society (Baltes et al., 2002) and being virtuous has been related to positive self-outcomes (e.g., leadership; Gandz et al., 2010; resilience; Martinez-Marti & Ruch, 2017). Across the adult lifespan, there is an inherent motivation to strive toward personification of virtue in behavior (Dahlsgaard et al., 2005; Park et al., 2006) and, in general, people of all ages view virtuous behavior as meritorious.

Peterson & Seligman (2004) have rigorously identified and classified a set of universal human virtues: humanity, courage, justice, wisdom, temperance, and transcendence. Each is exhibited through demonstration of certain character strengths (Peterson & Seligman, 2004). For example, the virtue *humanity* is behaviorally instantiated through character strengths such as showing love and kindness. *Temperance* is manifested in character strengths such as showing self-regulation and modesty (See Table 1). Given the positive societal view of virtue, when individuals select self-defining memories, some may focus on lived experiences that show them as having exemplified virtuous behavior.

1948/1972; McCormick et al., 2011). As a result, life phase and corresponding developmental tasks may shape the way individuals integrate life experiences into their life story (Bohn, 2010). Importantly, they may also shape the extent to which virtues are identifiable in recalled self-defining memories. Specifically, because they are just entering adulthood and tend to concern themselves with achievement of scripted, self-focused developmental tasks (e.g., career planning, higher education, finding a partner; Arnett, 2001; Carstensen, 1992; Carstensen et al., 1999; Rubin et al., 2009; Scherman et al., 2017), young adults may be more inclined than middle-aged and older adults to define themselves through memories which convey personal achievement, growth, or goal-setting, and which consequently do not directly display virtue. Indeed, research to date indicates that young adults' self-defining memories tend to emphasize personal accomplishments (e.g., developing high quality relationships, scholastic achievement; Chung et al., 2014; Jones et al., 2014; Singer et al., 2007). Narration of self-defining memories with an emphasis on achievement themes in young adulthood is fitting with life phase needs to prepare for adult roles (Havighurst, 1948/1972) and become autonomous, successful adult members of society (Arnett et al., 2007). Vivid representations of virtuous qualities may thus be less prominent in young adults' self-defining memories.

On the other hand, middle-aged and older adults have already achieved many societally scripted, self-focused developmental milestones (McAdams & Zapata-Gietl, 2015; Newton et al., 2020; Torges et al., 2008). Developmental tasks in middle-age are often situated in child-rearing and uptake of involvement in civic engagement (McCormick et al., 2011), while those associated with old age are rooted in life review, continued

Table 1  
*Virtues and their Associated Character Strengths*

Courage/Justice	Humanity	Temperance	Transcendence	Wisdom
• Bravery	• Kindness	• Forgiveness	• Spirituality	• Curiosity
• Persistence	• Love	• Mercy	• Hope	• Love of Learning
• Integrity	• Social Intelligence	• Modesty and Humility	• Gratitude	• Perspective Taking
• Citizenship		• Self-Regulation	• Appreciation of Beauty and Excellence	• Open-Mindedness
• Leadership				• Creativity

*Note.* Based on Peterson & Seligman (2004). Given conceptual overlap between courage and justice, they are combined.

### *Relation of Adult Life Phase to Virtue in Self-Defining Memories*

Age-normative developmental tasks (Havighurst, 1948/1972) vary across adulthood (Arnett, 2000; Röcke & Cherry, 2002; Roisman et al., 2004). Individuals develop and pursue goals based on societal expectations for them at different points across the lifespan and internalize beliefs about the self based on whether they have successfully fulfilled those expectations (Havighurst,

civic engagement, and multifaceted life transitions that can affect physical, emotional, and financial wellbeing (e.g., age-related decline, end of life, retirement; Butler, 1963; Röcke & Cherry, 2002). As such, self-defining memories recalled by middle-aged and older adults may display greater evidence of virtuous character, guided by participation in other-focused developmental tasks. Indeed, the limited research on self-defining memories in older adulthood suggests that memories narrated by older adults to describe their current selves involve more

integrative attempts at meaning-making and less focus on achievement than memories narrated by young adults (Singer et al., 2007). Furthermore, older adults' self-defining memories are characterized by themes of growth, integration (Bauer et al., 2005), and self-transformation (Pasputhi & Mansour, 2006). In sum, existing research suggests that virtue would be more evident in self-defining memories of middle-aged and older adults, compared to those of younger persons.

### *A New Lens for Self-Defining Memories: Remember Me When I'm Gone*

While the content of self-defining memories selected within standard recall contexts may reflect salient themes that correspond to one's developmental life phase, the content of self-defining memories recalled in alternative sharing contexts may deviate from such patterns. We implemented a novel approach to eliciting self-defining memories which prompts selection of a memory that one would most want to be remembered by after their life has ended. We constructed this sharing condition because considerations of mortality shape human thought (Pyszczynski et al., 2019). Decades of research suggest that considering personal mortality evokes a need to uphold personal, moral standards and beliefs, which often involves a focus on prosocial activities (Vail et al., 2012). As a result, it is likely that recall of self-defining memories with reference to the memorialized self may transcend life phase-specific motivations and include high levels of depictions of virtue, regardless of adult life phase.

Differences between self-defining memories elicited in reference to the current versus the memorialized self may reveal broader developmental gaps between how individuals view their current selves and how they hope to be recalled by others when their lives are complete. Reflecting on the current self may conjure self-defining memories that showcase character traits which are more readily apparent in the context of certain contemporaneous, normative developmental tasks. On the other hand, reflecting on a memorialized version of the self may invoke self-defining memories that are not consistently framed by life phase-specific goals. Importantly, differences in understanding of the current and memorialized selves are likely to emerge across the lifespan and subsequently shed light upon the ways in which key normative developmental tasks shape self-definitions. Therefore, using a different frame of reference (i.e., memorialization), may encourage adults of all ages to transcend life phase-specific contextualization and, in turn, focus on virtuous self-qualities.

### *The Present Study*

The current study was designed to examine differences in self-rated (see Dunlop et al., 2020) virtue in self-defining memories of young, middle-aged, and older adults in two memory conditions (i.e., current self,

memorialized self). The aims and hypotheses of the study were as follows:

*Aim 1 (exploratory):* Assess the extent to which each of five virtues is rated as present in self-defining memories narrated about either the current self or the memorialized self.

*Aim 2a:* Examine differences in a virtue composite score in self-defining memories narrated about the current self or the memorialized self, by age group and current-self/memorialized-self condition.

*Hypothesis 2a:* There will be an interaction effect of age group and current-self/memorialized-self condition on virtue composite score, such that young adults will report less virtue in SDMs in the current-self condition compared to middle-aged and older adults, but young adults will report similar virtue to middle-aged and older adults in the memorialized-self condition.

*Aim 2b:* Examine differences in each of five virtues in self-defining memories, by age group and current-self/memorialized-self condition.

*Hypothesis 2b:* There will be an interaction effect of age group and current-self/memorialized-self condition at the individual virtue level, such that young adults will report less virtue in SDMs in the current-self condition compared to middle-aged and older adults, but young adults will report similar virtue to middle-aged and older adults in the memorialized-self condition.

## Method

### *Participants*

The study was approved by the lead author's institutional review board (Protocol # 201904001). Study recruitment occurred through Amazon Mechanical Turk (MTurk), a platform that offers monetary rewards to participants who complete survey studies. Multiple recent studies suggest that Amazon MTurk is a reliable and valid method of survey data collection compared to traditional methods (Hauser & Schwarz, 2016; Landers & Behrend, 2015). Individuals who complete survey tasks are called Amazon MTurk workers: MTurk workers receive the designation of "Master status" when they have successfully completed a wide range of surveys posted by a similarly large range of survey requestors. Furthermore, MTurk workers are assigned approval ratings by survey requestors based on whether they successfully completed the task, with research suggesting that individuals with higher approval ratings may be more attentive to survey tasks (Peer et al., 2014).

Participants ( $N = 232$ ) were MTurk workers with Master status or approval ratings above 98%, who fit predetermined age groups, lived in the United States, and spoke English as their native language. To ensure high quality data, 30 individuals were excluded from analyses:

18 because survey response time was less than 12 minutes or over one hour, indicating that they used less or more time than required for reasonable completion; nine because they missed one or more items designed to ensure that participants were paying attention (e.g., please answer “Mostly Agree” for this item), and three because they did not follow self-defining memory sharing instructions. Participants who were excluded did not differ from the final study sample by age group, gender, or current-self/memorialized-self condition ( $ps > .10$ ). The final sample consisted of 202 participants: young adults ( $M_{age} = 25.3$ ,  $SD_{age} = 2.06$ ), middle-aged adults ( $M_{age} = 45.1$ ,  $SD_{age} = 2.98$ ), and older adults ( $M_{age} = 63.7$ ,  $SD_{age} = 3.10$ ). Table 2 provides additional demographic information. Participants were compensated \$3 for completion.

Table 2

*Demographic Characteristics*

Characteristic	Young Adults ( $n = 63$ )		Middle-Aged Adults ( $n = 67$ )		Older Adults ( $n = 72$ )	
	N	%	N	%	N	%
Gender						
Male	38	60.3	31	46.3	22	30.6
Female	25	39.7	35	52.2	50	69.4
Transgender	0	0	1	1.5	0	0
Race/Ethnicity						
Asian	7	11.1	2	2.9	0	0
Black	6	9.5	2	2.9	2	2.8
Caribbean	1	1.6	0	0	0	0
Hispanic/Latino	3	4.7	1	1.4	1	1.4
Multiple Races	2	3.1	3	4.5	0	0
Native Hawaiian/ Pacific Islander	0	0	1	1.4	0	0
White	43	68.2	58	86.6	69	95.8
Missing	1	1.6	0	0	0	0

*Measures**Manipulation Check: Self-Defining Memory Significance Questions*

Given that a primary feature of self-defining memories is that they are personally significant to the narrator, participants responded to three questions about the personal significance of their self-defining memory as a manipulation check. These manipulation check questions included: “How significant was this memory for your development as a person?” “To what extent does this memory represent who you are as a person?” and “How much have you thought about this particular memory?” Items were rated on a Likert scale: 1 (*not at all*), 2 (*slightly*), 3 (*somewhat*), and 4 (*quite a bit*). The 3-item

scale demonstrated acceptable reliability (Cronbach’s  $\alpha = .67$ ).

*Virtues Self-Rating Inventory*

Participants completed the Virtues Self-Rating Inventory, a 15-item scale developed by the study authors, which measures the extent to which they felt their self-defining memory showed them as virtuous. It included items about exhibiting three character strengths associated with each of five<sup>1</sup> virtues (See Table 1). Items were rated on a 5-point scale: 1 (*not at all*), 2 (*slightly*), 3 (*somewhat*), 4 (*quite a bit*), and 5 (*extremely*). We created a virtues composite score (i.e., mean across all 15 items) and individual virtue subscale scores (i.e., mean across three character strength items) for Courage/Justice, Humanity, Temperance, Transcendence, and Wisdom. Virtue subscales had acceptable reliability (Cronbach’s  $\alpha = 0.65$ – $0.80$ ), and the virtues composite had excellent reliability ( $\alpha = 0.92$ ). Virtue subscales were inter-correlated, with Pearson’s  $r$  ranging from 0.56 to 0.71, indicating that responses were interrelated but not completely overlapping.

*Procedure*

All study procedures occurred online in Qualtrics. Participants completed an informed consent and reported demographic information. They were then randomly assigned to recall a self-defining memory in one of two conditions: *current self* or *memorialized self*. In the current-self condition, participants were told: “In your daily life, someone might tell a story about you to a group of others. Think of memories from your own life that you would most want to be told about you... a story that lets people know who you are in your current life today.” In the memorialized-self condition, participants were told: “At a funeral or memorial service, sometimes people will stand up and tell a story about the deceased person. Think of memories from your own life that you would most want to be told about you at your funeral ... a story for people to remember you by.” Across both memory recall conditions, participants were then instructed to think for two minutes and briefly list (i.e., provide a title for) up to five memories from their lives that satisfied the parameters of these condition-specific instructions. In line with the definition of self-defining memories, participants were told that each listed experience should be clearly remembered, personally significant, representative of an enduring life theme, and help explain who they are as a person. They were then instructed to select a single memory of the memories from their list that best described the targeted self (i.e., current or memorialized) and to describe it in greater detail. This task encouraged participants to

<sup>1</sup> Peterson & Seligman (2004) classify virtues into six categories. The authors noted conceptual overlap between two of the six virtues—courage and justice—which are defined by interconnected character strengths (e.g., integrity and citizenship). For parsimony, we combined these virtues into one virtue category in the current study. Hereafter, we refer only to “five” virtues included in our measure development and analyses.

thoroughly engage with the memory they chose before completing the Memory Significance Questions and the Virtues Self-Rating Inventory. Study completion took an average of 26 minutes.

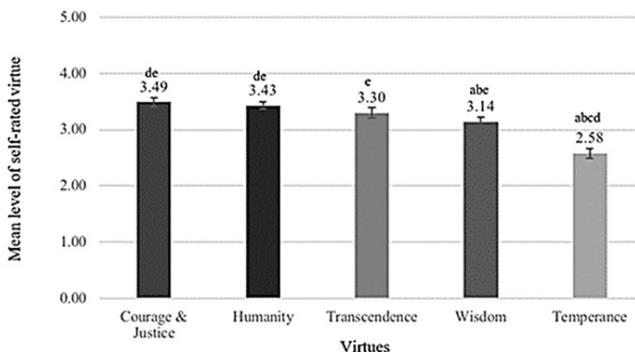
## Results

### Preliminary Analyses

We conducted preliminary analyses to test for potential relations between gender and self-rated virtue in self-defining memories. As a manipulation check, we also conducted analyses in order to confirm that memory recall condition assignment did not affect the quality of self-defining memories in terms of personal significance to the participant. ANOVA revealed no gender, age group by gender, or memory recall condition by gender effects for the virtues composite or any of the virtues subscales ( $p > .05$ ). As such, gender was not included in subsequent analyses. There were no differences in memory significance in the current-self ( $M = 3.61$ ;  $SD = 0.50$ ) and memorialized-self ( $M = 3.63$ ;  $SD = 0.49$ ) conditions ( $p = .84$ ).

### Aim 1 (exploratory): Relative Levels of Self-Rated Virtue

A repeated measures ANOVA using a Greenhouse-Geisser correction for absence of sphericity was conducted to describe mean ratings of the five virtues in the full study sample prior to investigating inferential study aims. Self-ratings of level of virtue differed across subscales,  $F(3.83, 770.631) = 50.32, p < .001, \eta_p^2 = .20$ . The virtue courage and justice was most highly endorsed ( $M = 3.49, SD = 1.06$ ), and temperance was least endorsed ( $M = 2.58, SD = 1.30$ ). See Figure 1 for a description of differences between virtue subscales.



Note. <sup>a</sup>significantly different than humanity, <sup>b</sup> significantly different than courage & justice, <sup>c</sup>significantly different than transcendence, <sup>d</sup> significantly different than wisdom, <sup>e</sup>significantly different than temperance. All differences significant at  $p < .05$ .

Figure 1. Mean differences between self-rated items.

### Aim 2a: Composite Virtues by Age Group and Condition

We conducted a two-way ANOVA with age group (young, middle-aged, older) and condition (current self, memorialized self) as between-subjects variables and using the composite score on the Virtues Self-Rating Inventory as the dependent variable (Figure 2). There was a main effect of age group,  $F(2, 196) = 3.91, p = .02, \eta_p^2 = .04$ . However, results indicated that age effects were moderated by an age group by condition interaction,  $F(2, 196) = 5.50, p < .01, \eta_p^2 = .05$ . Young adults rated their self-defining memories as less virtuous in the current-self condition ( $M = 2.54, SD = 0.93$ ) than in the memorialized-self condition ( $M = 3.34, SD = 0.95$ ),  $t(61) = 3.39, p = .001$ . Middle-aged adults' virtue ratings did not differ between current-self ( $M = 3.31, SD = 1.03$ ) and memorialized-self conditions ( $M = 3.00, SD = 1.01$ ),  $t(65) = 1.23, p = .22$ , nor did older adults' ratings differ (current-self condition,  $M = 3.35, SD = 0.92$ ; memorialized-self condition,  $M = 3.46, SD = 0.94$ ),  $t(70) = 0.50, p = .62$ . The simple effect of age group for participants in the memorialized-self condition did not reach statistical significance,  $F(2, 100) = 2.14, p = .12, \eta_p^2 = .04$ . In contrast, the simple effect of age group for participants in the current-self condition was significant ( $F(2, 96) = 7.04, p < .01, \eta_p^2 = .13$ ). Bonferroni-corrected comparisons indicated that young adults in the current-self condition self-rated their level of virtue as significantly lower than middle-aged ( $p < 0.01$ ) and older adults ( $p < 0.01$ ), who did not differ from one another ( $p > .98$ ).

### Aim 2b: Individual Virtues by Age Group and Condition

A repeated-measures ANOVA was conducted to examine whether the interaction effect between age group and condition that was observed in Aim 2a was also present across the individual virtue subscales (See Tables 3 & 4). There was a main effect of age group for transcendence,  $F(2, 196) = 6.08, p < .01, \eta_p^2 = .06$ . Older adults ( $M = 3.65, SD = 1.01$ ) self-reported a higher level of transcendence than middle-aged ( $M = 3.16, SD = 1.26$ ;  $t(137) = 2.55; p = .01$ ) and young adults ( $M = 3.03, SD = 1.17$ ;  $t(133) = 3.27; p < .01$ ), across conditions. There was a main effect of condition for humanity,  $F(1, 196) = 5.56, p < .02, \eta_p^2 = .03$ . Participants in the memorialized-self condition reported higher humanity ( $M = 3.61, SD = 1.19$ ) than in the current-self condition ( $M = 3.24, SD = 1.20$ ;  $t(200) = 2.24; p = .03$ ), across age groups. No other main effects were significant.

Age group by condition interaction effects were detected for virtue self-ratings of humanity,  $F(2, 196) = 3.52, p = .03, \eta_p^2 = .04$ ; courage and justice,  $F(2, 196) = 4.57, p = .01, \eta_p^2 = .05$ ; wisdom,  $F(2, 196) = 5.17, p = .006, \eta_p^2 = .05$ ; and transcendence,  $F(2, 196) = 5.65, p = .004, \eta_p^2 = .06$ . For each individual virtue except temperance, we observed the same interaction pattern that was evident for the virtues composite: in the current-self condition, young

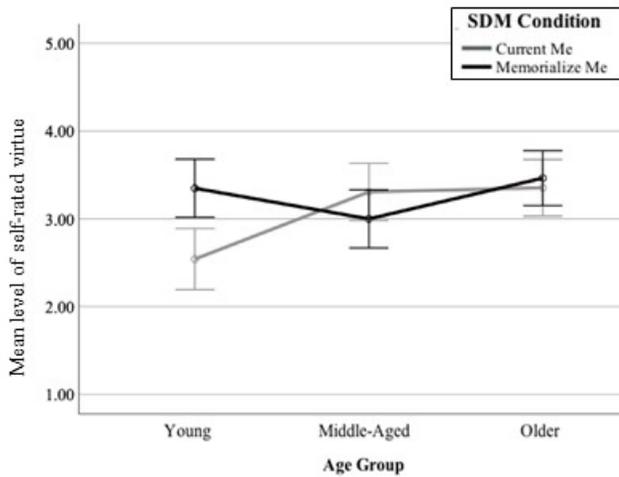


Figure 2. Mean level of self-rated virtue: Age group X self-defining memory condition interaction

adults rated their level of virtue lower than did middle-aged and older adults ( $ps < .05$ ). In the memorialized-self condition, there were no age group differences for any virtue ( $ps > .05$ ). This age group by condition interaction pattern was not evident for the temperance subscale,  $p > .10$ .

### Discussion

The current study adds to a growing body of research (e.g., Costabile et al., 2018; McAdams, 2018; Prebble et al., 2013) on the role of personal memory in human psychological development; namely, in characterizing the self across the adult lifespan. This study was novel in examining self-ratings of virtue in self-defining memories in young, middle-aged, and older adults. It also introduces

a memorialization self-defining memory recall condition and compares perceptions of current and memorialization-focused self-defining memories. Previous investigations of the content of self-defining memories highlight a variety of self-focused attributes (e.g., Bauer et al., 2005; Goldner & Scharf, 2017; Singer et al., 2007). Virtues are, however, indicative of actions that transcend the self and aim to support the common good (Peterson & Seligman, 2004), and that may be more characteristic of developmental tasks that normatively occur later in life (McCormick et al., 2011). The current findings suggest that self-defining memories which characterize the current and memorialized selves are associated with virtue content differently across the lifespan: young adults, but not middle-aged and older adults, differentiate between their current and memorialized selves in terms of endorsed virtue. Our findings shed light on the ways in which lifespan development shapes perceptions of the self's prominent attributes.

### Presence of Individual Virtues in Self-Defining Memories

Individual virtues were each present, though not perceived to the same extent, in self-defining memories across all age groups. Courage and justice, humanity, and transcendence were more common than wisdom and temperance. The master narrative of Western societies supports recall of dynamic stories from our lives (e.g., McAdams, 2006) that include dramatic turning points, confident self-direction, or redemption of difficult situations. Themes of courage and justice, humanity, and transcendence may be more readily perceived in self-defining memories compared to other virtues because they lend themselves to these dramatic scenes of self-direction

Table 3

Mean Ratings of Individual Virtues in Self-Defining Memories Across Age Group and Condition

Characteristic	Young Adults			Middle-Aged Adults			Older Adults		
	M	SE	95% CI	M	SE	95% CI	M	SE	95% CI
<b>Current-Self Condition</b>									
Courage/Justice	2.92	0.18	[2.55,3.30]	3.65	0.19	[3.29,4.00]	3.57	0.17	[3.22,3.92]
Humanity	2.72	0.21	[2.30,3.14]	3.56	0.19	[3.16,3.95]	3.37	0.20	[2.98,3.76]
Temperance	2.17	0.21	[1.71,2.62]	2.81	0.23	[2.38,3.24]	2.73	0.20	[2.31,3.16]
Transcendence	2.59	0.20	[2.19,2.99]	3.37	0.20	[3.00,3.75]	3.69	0.17	[3.32,4.07]
Wisdom	2.31	0.22	[1.89,2.73]	3.15	0.21	[2.75,3.54]	3.40	0.18	[3.01,3.79]
<b>Memorialized-Self Condition</b>									
Courage/Justice	3.65	0.18	[3.29,4.00]	3.27	0.18	[2.91,3.63]	3.78	0.15	[3.45,4.12]
Humanity	3.64	0.20	[3.23,4.05]	3.38	0.22	[2.97,3.79]	3.80	0.19	[3.41,4.19]
Temperance	2.60	0.23	[2.15,3.04]	2.32	0.22	[1.88,2.77]	2.78	0.21	[2.36,3.20]
Transcendence	3.44	0.19	[3.05,3.84]	2.94	0.23	[2.54,3.33]	3.61	0.17	[3.24,3.99]
Wisdom	3.42	0.21	[3.00,3.85]	3.08	0.22	[2.65,3.51]	3.34	0.20	[2.94,3.74]

Table 4  
Fixed-Effects ANOVA Results for Individual Virtues

Virtue	F	<i>p</i>	Partial $\eta^2$
Courage/Justice			
Age Group	2.44	.090	.024
Condition	1.64	.201	.008
Age Group x Condition	4.57	.012	.045
Humanity			
Age Group	2.11	.123	.021
Condition	5.56	.019	.028
Age Group x Condition	3.52	.031	.035
Temperance			
Age Group	1.48	.231	.015
Condition	0.00	.984	.000
Age Group x Condition	2.15	.119	.021
Transcendence			
Age Group	6.08	.003	.058
Condition	0.51	.477	.003
Age Group x Condition	5.65	.004	.055
Wisdom			
Age Group	2.95	.055	.029
Condition	3.79	.054	.019
Age Group x Condition	5.17	.006	.050

and redemption that are valued in Western countries, including the United States (Nguyen et al., 2017). For example, demonstrating courage and justice easily portrays interpersonal salvation, while humanity is embedded in major, socially meaningful life events and societal betterment—in other words, stories of dynamic life turning points or redemption that are reflective of the master narrative (McLean et al., 2020). In contrast, temperance and wisdom lend themselves to stories which involve quieter positive themes, such as choosing safety over danger or solving problems through cleverness and humility. Temperance in particular, though established as a universal virtue (Peterson & Seligman, 2004), is emphasized far more in collectivist than individualist cultures due to its relation to group harmony and cohesion (Sandage & Williamson, 2005). Thus, our finding of the scarcity of temperance and wisdom in self-defining memories compared to other virtues may be acutely reflective of Western prioritization of some virtues more than others.

#### *Self-Rated Virtue in Self-Defining Memories: Effects of Age Group and Condition*

Compared to young adults, middle-aged and older adults perceived virtue at similar rates in their self-defining

memories, regardless of whether they were shared in reference to the current self or the memorialized self. This finding supports our hypothesis and also provides insight that is consistent with the field's understanding of how normative developmental tasks shape impressions of the self across the life course (Havighurst, 1948/1972). Our results suggest that middle-aged and older adults emphasize greater virtuous characterization in self-definition compared to young adults, which dovetails with previous work demonstrating that older adults are generally less self-focused in self-defining memory narratives (Singer et al., 2007). We argue that differences emerged across adult life phases because individuals who have successfully completed developmental tasks characteristic of young adulthood situate their self-defining memories in a unified representation of the self (McLean, 2008) rooted in tasks that inherently reflect virtue. We also hypothesize that our findings may be reflective of one's expectations about developmental tasks remaining in life, and that progression—or lack thereof—through those tasks shapes beliefs about virtue in present and memorialized selves. Middle-aged and older adults can situate their narrative identities in a range of experiences that is much broader compared to young adults. Importantly, they have myriad memories associated with socially scripted and unscripted life events (Rubin et al., 2009) from which to select a memory that expresses their stable and enduring self (Rathbone et al., 2008).

This finding was ultimately driven by differences in virtue across current and memorialization-focused self-defining memories shared by young adults. Young adults who shared self-defining memories about their current selves perceived their narratives as having less virtue than those who provided self-defining memories in the context of memorialization. Greater perceived virtue in young adults' memorialization-focused self-defining memories may be understood in terms of *virtues striving*, or a desire to strive towards a virtuous future version of one's self across a subjectively long remaining lifespan (Ritter & Freund, 2014). That is, while perceptions of the present self may not fully reflect one's anticipated final self in young adulthood (Oyserman et al., 2015), memories of specific past experiences can bridge present strivings with future virtue embodiment. Compared to middle-aged and older adults, young adults normatively have more time left to live between their current selves and the selves that they hope to achieve by the time of their death. Accordingly, when considering how they hope to be memorialized, young adults may select a memory that demonstrates a more virtuous self that they wish to fully embody in the future (Prebble et al., 2013), and that they believe more cohesively represents the self that will persist after they have achieved normative developmental tasks. We suspect that while older individuals characterize their *real* selves in both the current-self and memorialized-self memory sharing conditions (Heintz & Ruch, 2021), young adults characterize their *ideal* selves in the memorialized-self sharing condition.

In contrast to content described in memorialization-focused self-defining memories, virtuous behavior may not be a primary theme of current self-defining memory content for young adults. Given pressing life phase-specific motivation to accomplish goals and build social relationships that are fundamental for success in middle and late adulthood (Barry et al., 2009; Malin et al., 2017), young adults may feel contented by current self-defining memories which highlight such endeavors. Indeed, accomplishing goals and participating in self-exploration are viewed as catalysts for success in young adulthood (Ravert et al., 2019), but the relative priority of these socially scripted tasks may fade in the context of mortality. This is reflected in recent research (Cyr & Hirst, 2019) suggesting that when young adults are prompted to select a memory to “bring into the afterlife,” those memories are less often imbued with themes of personal achievement or scripted developmental tasks.

For young adults, the divergence in ratings of virtue in the current and memorialized selves held across all virtue subscales except temperance. As mentioned, virtues of humanity and courage and justice are glorified in Western culture (Joshanloo, 2014); thus, it is possible that these virtues are already closely related to other key strivings associated with young adults’ imagined, memorialized selves. In addition, from the perspective of young adults, the character strengths that comprise wisdom and transcendence are highly associated with older adulthood (e.g., knowledge, gratitude; König & Glück, 2013; Weststrate & Glück, 2017), or more specifically, a rounding off of one’s life classically associated with aging. As a result, these virtues may naturally be associated with memories that embody young adults’ memorialized selves, even if they are less common in current self-defining memories. It is possible that the interaction observed among the other outcomes of interest did not hold for temperance simply because there was not enough variation in ratings of this virtue across the sample.

### Limitations

The current study was limited by its between-participants, cross-sectional design. An internally valid extension of this work would include a longitudinal design that measures prospective endorsement of virtues in self-defining memories across discrete adult life phases, beginning in young adulthood. This modified design would offer insight into the ways in which striving toward self-representations of virtue evolve over time and at what precise time point in adulthood perceptions of the current and memorialized self may begin to converge. Another important expansion of the current study would be a within-subjects approach to the same research question: all participants would respond to a prompt about a current-self memory and a memorialized-self memory, which would allow for more direct comparisons of representations of virtue between conditions and across age groups. Our analysis was also limited in that we did not consider how

subjective perceptions of time remaining in life (i.e., future time perspective; Lang & Carstensen, 2002) may uniquely predict virtue content in self-defining memories. Future iterations of the current study should incorporate a measure of future time perspective in order to examine the relations between orientation toward the future and representations of virtue in self-defining memory narratives between age groups.

An additional limitation is that the current study was conducted with a sample of mostly White participants living in the United States with English as a first language. As such, generalization is limited. Some research demonstrates that there may be differences in personal values across cultures (Fung et al., 2016). Thus, additional work with the specific goal of evaluating how inclusion of virtue in self-defining memories might vary across societies is essential. Although the virtues delineated by Peterson and Seligman (2004) are endorsed across cultures (Park et al., 2006), it remains unclear whether some virtues might be rated more highly in samples with different cultural backgrounds.

### Conclusion

Findings from the current study highlight life phase-specific differences in use of memories for one’s current and memorialized self-definitions. Previous research has explored the expression of attributes of the current self (e.g., achievement) through self-defining memories, both within and across life phases. This study expands on the utility of self-defining memories as a mechanism to capture elements of one’s life course narrative by introducing the memorialization-focused self-defining memory in contrast to the classic, current self-defining memory. Demonstrated variation in virtue across young adults’ current and memorialization-focused self-defining memories provides evidence of life phase-specific contrasts between one’s present self-concept and anticipated self by end of life, which appear to converge across the lifespan. Our findings expand the field’s understanding of self-development across the lifespan and highlight reflection on personal memories as a potentially directive strategy in the process of distinguishing between or merging current and memorialized selves.

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