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Nostalgia and self-humanity: processes and consequences

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ABSTRACT

Nostalgia is prevalent across ages and cultures, confers multiple psychological benefits, and has wider appeal in arts, humanities, media, and the popular imagination. We proposed that a key reason for nostalgia's prevalence, impact, and appeal is that it brings to the fore self-humanity – namely, internalizing the qualities regarded as uniquely human (e.g. moral reasoning, rational thought, personal agency, emotional complexity) and integrating them into one's self-concept. We obtained support for this proposition in seven studies ($\Sigma N = 3,039$), using both cross-sectional and experimental designs. The influence of nostalgia on self-humanity was transmitted by self-esteem and meaning in life. Further, self-humanity mediated the promotive influence of nostalgia on friendship-approach goals and social efficacy. Nostalgia serves as a profound reminder of one's humanity.

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Nostalgia; self-humanity; self-esteem; meaning in life; authenticity; social connectedness; self-continuity; friendship goals; social efficacy; emotion

Nostalgia is gaining traction in the psychological literature, and not only. Why so? We propose that the foundation of nostalgia is its capacity to bring to the fore one's humanity. In seven studies, we test this proposition, delve into underlying mechanisms, and examine downstream consequences.



Nostalgia

Nostalgia is a sentimental longing for one's past (Sedikides et al., 2008). When nostalgizing, one fondly and tenderly reflects on their experiences, while pining for them (Hepper et al., 2012; Wildschut & Sedikides, 2020). Indeed, nostalgia entails or elicits contentment and happiness along with sadness. Yet, it is predominantly positively toned, and engenders more positive affect than negative affect (Leunissen, 2023; Sedikides & Wildschut, 2016). It also has a distinct appraisal profile, as the emotion is instigated by temporally distant, unique, and pleasant but irrevocable occasions (Van Tilburg, 2023; Van Tilburg et al., 2019). Nostalgia is experienced frequently (several times a week; Hepper et al., 2021; Wildschut et al., 2006), and by persons across ages (Juhl et al., 2020; J. R. Turner & Stanley, 2021) or cultures (Hepper et al., 2024; Sedikides & Wildschut, 2022).


The past to which nostalgia refers is acutely personal. It encompasses momentous life events such as graduations, birthday celebrations, weddings, childbirth, or cultural rituals (e.g. Thanksgiving dinner, folkloric festivals; Abeyta, Routledge, Roylance, et al., 2015; Wildschut et al., 2006; Yin, Jian, et al., 2024). These events strongly implicate the self. Indeed, in nostalgizing, the self takes center stage: the individual is the protagonist of the action, narrating it from a first-person perspective (Abeyta, Routledge, Roylance, et al., 2015; Madoglou et al., 2017; Wildschut et al., 2006). By nostalgizing, the individual reaches into the roots of their selfhood, clarifying its context (i.e. how one came to be) and form (i.e. who one is).

Self-humanity

We articulate a construct that reflects the context and form of selfhood: self-humanity. This emerging construct represents a synthesis of ideas from self-concept theory (Markus, 1977; Markus & Kunda, 1986), (de)humanization (Haslam, 2006; Haslam & Loughnan, 2014), moral psychology (Aquino & Reed, 2002; Narvaez & Lapsley, 2009), existential psychology (May, 1975; Yalom, 1980), and philosophical anthropology (Kant, 1785/1996; Scheler, 1928/2008). Self-humanity is the ascription of distinctly human characteristics to the self – traits that set the

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person apart from other animals, underscoring what it means to be human in a cognitive, moral, and experiential sense. The construct encompasses more than merely identifying as a person; it involves recognizing oneself as an entity embodying quintessentially human qualities. Such qualities include moral reasoning or sensibility, rational thought or flexibility, personal agency or autonomy, and emotional complexity or warmth. Put otherwise, self-humanity involves internalizing the qualities regarded as uniquely human and integrating them into one's self-concept. Self-humanity, then, encompasses 'deep self' attributes, which cogently express the core of humankind.

Self-humanity varies predictably. For example, it increases in tandem with openness to experience (Lee et al., 2015), honesty/humility (Lee et al., 2015), agreeableness (Kang et al., 2008), gratitude (Shi et al., 2023), awe (L. Cheng & Wang, 2024), forgiveness (Schumann & Walton, 2022), or intergroup contact (Vezzali et al., 2012). Further, it decreases in tandem with phubbing (L. Yin et al., 2024), assignment to repetitive tasks (Baldissarri & Andrighetto, 2021), exposure to competitive settings (Wang et al., 2022), or exclusion and abuse (Bastian & Haslam, 2010; Caesens et al., 2019).

Nostalgia, self-humanity, and the psychological pathways connecting them

As mentioned above, the emotion of nostalgia refers to a meaningful past. Nostalgia serves as a psychological bridge, linking the individual to what matters to them. It reinforces the sense of self by reconnecting the individual with significant aspects of their personal history and identity. We advocate, however, that nostalgia does not just strengthen selfhood; it also profoundly cuts into it, highlighting what is special about being human. Nostalgia is associated with self-humanity, or increases self-humanity, a hypothesis we aim to test.

But how does nostalgia relate to or augment self-humanity? We explored, for the first time, five plausible underlying mechanisms. These are self-esteem, meaning in life (hereafter: meaning), authenticity, social connectedness, and self-continuity. In doing so, we leveraged a functional perspective on nostalgia, and specifically the well-being benefits that it provides (Sedikides & Wildschut, 2020, 2023a; Wildschut & Sedikides, 2022). We asked, in particular, whether the emotion conduces to, or elevates, self-humanity by conferring any or all of the above benefits.

A rich literature affords a strong rationale for exploring the mediational role of said five benefits. Nostalgia is linked to *self-esteem*, one's sense of self-worth (Donnellan et al., 2015). Specifically, it is related to, or

increases, self-esteem (Evans et al., 2021; Hepper et al., 2012; Sedikides & Wildschut, 2024). Nostalgia is also linked to *meaning*, the perception that one's life is purposeful, coherent, and significant (King et al., 2016). Specifically, it is related to, or elevates, meaning (Abeyta & Pillarisetty, 2023; Sedikides & Wildschut, 2018; Van Tilburg et al., 2013). Further, nostalgia is linked to *authenticity*, the sense that one is being their true self (Kernis & Goldman, 2006). Specifically, it is associated with, or augments, authenticity (Baldwin et al., 2015; Kelley et al., 2022; Stephan et al., 2012). Moreover, nostalgia is linked to *social connectedness*, a sense of acceptance and belongingness (Baumeister & Leary, 1995). Specifically, it is associated with, or strengthens, social connectedness (Naidu et al., 2024; Juhl et al., 2021; Sedikides & Wildschut, 2019). Finally, nostalgia is linked to *self-continuity*, a sense of connection between one's past and present (Chandler et al., 2003). Specifically, it is related to, or promotes, self-continuity (Hong et al., 2021; Layous et al., 2022; Sedikides et al., 2016).

Further, the five proposed mediators are positively linked to the diverse correlates of self-humanity discussed in a previous section. In particular, self-esteem is associated with openness to experience (Robins et al., 2001), meaning with forgiveness (Van Tongeren et al., 2015), authenticity with awe (Jiang & Sedikides, 2022), social connectedness with agreeableness (Tov et al., 2016), and self-continuity with gratitude (Fowler et al., 2024). Initially, we employed an exploratory approach to investigate the associations between specific mediators and self-humanity, but we supplanted it later with a confirmatory approach.

Nostalgia, self-humanity, and consequential outcomes

Finally, we addressed – for the first time – the consequences of nostalgia-induced self-humanity. Nostalgia is associated with, or encourages, an approach orientation (Stephan et al., 2014), including a social approach orientation. In particular, the emotion is related to, or strengthens, friendship-approach goals (Abeyta, Routledge, & Juhl, 2015; Abeyta et al., 2019), such as deepening existing relationships and meeting new friends (Elliot et al., 2006). Nostalgia also increases social efficacy or perceived social competence to carry out a desired course of action (Abeyta, Routledge, & Juhl, 2015; Wildschut et al., 2006), such as initiating relationships or self-disclosing (Bandura, 1977; Buhrmester et al., 1988). Notably, self-humanity is associated with a social approach orientation: self-humanity predicts belongingness (Schumann & Walton, 2022) and connection to diverse others (Oveis et al., 2010). Hence, we

hypothesized that nostalgia would strengthen friendship-approach goals and social efficacy via increased self-humanity.

Overview

We conducted seven studies. Their methodologies varied (i.e. cross-sectional and experimental, using differing nostalgia induction techniques, employing distinct self-humanity measures) and, to a limited extent, their cultural context differed (British in Study 2B, Chinese in all other studies). In Study 1, we examined the association between nostalgia and self-humanity. In Studies 2A–2B, we tested the causal influence of nostalgia on self-humanity. In Study 3, we explored whether the causal influence of nostalgia on self-humanity is mediated by self-esteem, meaning, authenticity, social connectedness, and self-continuity. In Studies 4A–4B, we manipulated the mediators that were supported by Study 3, hypothesizing that they would directly augment self-humanity. Finally, in Study 5, we examined whether self-humanity mediates the downstream consequences of nostalgia.

All studies were approved by the ethics committee of the first author's institution. We report how we determined sample sizes, data exclusions, manipulations, and measures (Kazak, 2018). We preregistered hypotheses, analyses, and exclusion criteria. We include the research protocol in Supplemental Online Material. We also provide data and analysis codes at <https://osf.io/3u5gn/>.

Study 1

In Study 1 (https://aspredicted.org/RFY_ZFG), we tested the hypothesis that nostalgia is associated with self-humanity. We also assessed the discriminant validity of self-humanity – specifically, whether nostalgia was more strongly linked to it than to self-ascribed primary emotions.

Method

Participants

According to Monte Carlo simulations, correlations generally stabilize at a sample size of approximately 250 (Schönbrodt & Perugini, 2013). We recruited 304 participants through the online platform Credamo (<https://www.credamo.world/#/>), compensating them with 3 CNY (\$0.42). Credamo workers represent a broad demographic spectrum, spanning various regions and socioeconomic backgrounds across China. We excluded four

participants: two for failing the attention check and two for being under 18. The final sample comprised 300 participants (197 women, 103 men) aged from 18 to 62 years ($M = 29.87$, $SD = 8.81$).

Procedure and materials

Nostalgia. We assessed nostalgia with two scales, for convergent validity purposes (Campbell & Fiske, 1959; Wildschut et al., 2023). One was the 7-item Southampton Nostalgia Scale (Barrett et al., 2010; Routledge et al., 2008). Participants read a definition of nostalgia ('sentimental longing for the past') and indicated the frequency (e.g. 'How often do you experience?' 1 = *very rarely*, 7 = *very frequently*) and personal importance (e.g. 'How significant is it for you to feel nostalgic?' 1 = *not at all*, 7 = *very much*) of nostalgizing. We averaged responses ($\alpha = .84$). The other was the 5-item Nostalgia Prototype Scale (Cheung et al., 2017). Participants viewed items that were centrally prototypical of the construct 'nostalgia' (Hepper et al., 2012, 2014). They rated each item for frequency (e.g. 'I bring to mind rose-tinted memories'; 1 = *I do this rarely*, 7 = *I do this very often*) and personal importance (e.g. 'I bring to mind rose-tinted memories'; 1 = *this is not important to me*, 7 = *this is very important to me*). We averaged the 10 responses (5 items \times 2 ratings; $\alpha = .89$).

The two nostalgia scales were highly correlated, $r(300) = .77$, $p < .001$, suggesting shared variance in capturing the emotion. We conducted confirmatory factor analyses to evaluate scale integration using R. The two-factor model ($\chi^2 = 706.43$, $df = 118$, $p < 0.001$, CFI = .79, TLI = .76, GFI = .79, RMSEA = .13, SRMR = .07, AGFI = .72) showed marginally better fit than the one-factor model ($\chi^2 = 755.31$, $df = 119$, $p < 0.001$, CFI = .77, TLI = .74, GFI = .78, RMSEA = .13, SRMR = .07, AGFI = .71). However, the scaled chi-square difference test for robust estimators (Satorra & Bentler, 2001) indicated no significant improvement in model fit for the two-factor solution over the single-factor model: $\Delta\chi^2(2.5) = 12.34$, $p = .12$. As per prior practice (Lasaleta et al., 2024; Yin, Jiang et al., 2024; Zhou et al., 2008), we standardized (z scores) and then averaged the two scales ($\alpha = .93$). We reported the results for the composite here, and for each scale in Supplemental Online Material, Table 1S.

Self-humanity. We assessed self-humanity with two scales, for convergent validity. The first one, Humanness Scale, comprised 10 items (Haslam, 2006) drawing on two aspects of humanness: human uniqueness (e.g. civility, moral sensibility; $\alpha = .79$) and human nature (e.g. interpersonal warmth, cognitive openness; $\alpha = .80$). Response options ranged from 1 (*not that much*)

Table 1. Descriptive statistics and correlations among variables in Study 1.

Variables	<i>M (SD)</i>	1	2	3	4
1. Nostalgia composite	0.00 (0.68)	—			
2. HS	7.09 (1.01)	.39***	—		
3. AHS	6.70 (1.07)	.49***	.72***	—	
4. PES	4.62 (1.35)	.15**	.10	.23***	—
5. FVI	4.89 (1.60)	.45***	.41***	.47**	.17**

Note. HS = Humanness Scale, AHS = Attribution of Humanness Scale, PES = Primary Emotions Scale, FVI = face-valid items. * $p < .05$. ** $p < .01$. *** $p < .001$.

to 9 (*very much*), and the overall α was .88. The second one was the 16-item Attribution of Humanness Scale (Kofta et al., 2014). A sample item is: 'I am able to imagine things that have never existed' (1 = *not that much*, 9 = *very much*; $\alpha = .89$).

Primary emotions. For discriminant validity (Campbell & Fiske, 1959), participants rated their ability to experience eight primary emotions, such as anger and pleasure (Haslam et al., 2008, $p = 1 = \textit{not that much}$, 9 = *very much*; $\alpha = .83$).

Face-valid items. For convergent validity (Campbell & Fiske, 1959), participants responded to two face-valid items that we generated. The items assessed the link between nostalgia and self-humanity (e.g. 'Nostalgia makes me feel like a human'; 1 = *not that much*, 9 = *very much*; $r[300] = .23$, $p < .001$).

Results and discussion

The hypothesis was supported (Table 1). Nostalgia was positively associated with self-humanity, as assessed by both the self-humanity scales and the face-valid items.

The results also established the discriminant validity of self-humanity. The association between nostalgia and self-humanity, as assessed by the Humanness Scale, was stronger than the association between nostalgia and primary emotions, $z = 3.30$, $p < 0.001$. Similarly, the association between nostalgia and self-humanity, as assessed by the Attribution of Humanness Scale, was stronger than the association between nostalgia and primary emotions, $z = 5.23$, $p < .001$. Lastly, the association between nostalgia and the two face-valid items was stronger than the association between nostalgia and primary emotions, $z = 4.38$, $p < .001$.¹

Study 2A

In Study 2A (https://aspredicted.org/3YL_V7H), we tested the hypothesis that nostalgia directly augments self-humanity.

Method

Participants

A power analysis indicated that $N = 210$ would suffice to achieve 95% power for detecting a medium-size effect ($d = 0.50$) at $\alpha = .05$. We recruited 245 Credamo workers, reimbursing them with 1.5 CNY (\$0.21). We excluded seven of them: three for not following instructions (i.e. providing no lyrics or pasting a link from an unintended website), two for failing the attention check, and two for being under 18. The final sample consisted of 238 participants (133 women, 105 men) aged from 18 to 63 years ($M = 29.46$, $SD = 9.33$). We randomly assigned them to the nostalgia ($n = 118$) or control ($n = 120$) condition.

Procedure and materials

Nostalgia manipulation. We induced nostalgia via songs (Abeyta & Routledge, 2016; Sedikides et al., 2022). In the nostalgia condition, participants read definitions of nostalgia ('a sentimental longing for one's past' or 'feeling sentimental about a fond and valued memory from one's personal past') and were directed to Bilibili, the Chinese equivalent of YouTube, to search for and listen to a song that 'makes you feel nostalgic'. In the control condition, participants searched for and listened to an ordinary song that they heard for the first time recently. All participants were instructed to block the bullet-screen comments while listening and to paste the internet address of the song after listening. Afterward, they were allotted 3–5 min to recall and write down the name of the song, its performing artist, at least two lyrics, and how the song made them feel. Next, they completed a 3-item manipulation check (e.g. 'Right now, I am feeling quite nostalgic'; Wildschut et al., 2006, $p = 1 = \textit{strongly disagree}$, 7 = *strongly agree*; $\alpha = .94$).

Self-humanity. We measured this construct with the 8-item Self-Humanization Scale (Bastian et al., 2013; Chen & Wang, 2024; Schumann & Walton, 2022). A sample item is: 'I feel like I am rational and logical, like I am intelligent' (1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .79$). Items were preceded by the stem: 'After listening to the song, right now ...'.

Results and discussion

Participants in the nostalgia condition ($M = 6.12$, $SD = 0.81$) felt more nostalgic than those in the control condition ($M = 4.79$, $SD = 1.78$), $t(236) = 7.42$, $p < .001$, $d = 0.96$, 95% CI M_{diff} [0.98, 1.69]. The manipulation was effective. Further, nostalgic participants ($M = 5.58$, $SD = 0.81$) reported higher self-humanity than controls ($M = 5.30$, $SD = 0.94$), $t(236) = 2.51$, $p = .013$, $d = 0.33$, 95% CI M_{diff} [0.06, 0.51]. As hypothesized, nostalgia increased self-humanity.

The observed effect size ($d = 0.33$) was smaller than the medium effect size ($d = 0.50$) on which we based our a priori power analysis. As a result, achieved power was only 72%. We revisited the issue in the next study.

Study 2B

In Study 2B (https://aspredicted.org/6VC_12B), we tested the replicability of Study 2A's findings using a different nostalgia induction technique, an alternative self-humanity measure, and a Western sample.

Method

Participants

According to a power analysis, $N = 210$ would suffice to attain 95% power for detecting a medium-size effect ($d = 0.50$) at $\alpha = .05$. We recruited 290 Prolific UK workers to allow for the possibility that the effect size would be smaller than $d = 0.50$, as it had been in Study 2A. A sensitivity power analysis indicated that this sample size afforded 95% power to detect $d = 0.42$ and 80% power to detect $d = 0.33$ (i.e. the effect size observed in Study 2A). We excluded four participants for not following instructions (i.e. providing no written event description or writing irrelevant sentences) and three for failing the attention check. The final sample comprised 283 participants (158 women, 125 men) aged from 18 to 79 years ($M = 43.24$, $SD = 12.89$). We randomly assigned them to the nostalgia ($n = 139$) or control ($n = 144$) condition.

Procedure and materials

Nostalgia manipulation. We induced nostalgia with the Event Reflection Task (Sedikides et al., 2015; Wildschut & Sedikides, 2025). In the nostalgia condition, participants thought of a past event from their lives that made them feel most nostalgic. In the control condition, they thought of an ordinary event from their lives. Then, all participants expressed the gist of the corresponding event in four keywords and wrote a brief description of it.

Finally, they completed a manipulation check ($\alpha = .99$), as in Study 2A.

Self-humanity. We measured this construct with the same 10-item Humanness Scale (Haslam, 2006) as in Study 1 but preceded by the stem 'Right now, with the event I wrote about in mind, I feel that I am ...'. (1 = *not very much*, 7 = *very much*; overall $\alpha = .91$; human uniqueness $\alpha = .85$; human nature $\alpha = .87$).

Results and discussion

Participants in the nostalgia condition ($M = 6.11$, $SD = 0.89$) felt more nostalgic than those in the control condition ($M = 4.11$, $SD = 1.88$), $t(281) = 11.42$, $p < .001$, $d = 1.36$, 95% CI M_{diff} [1.66, 2.35]. The manipulation was successful. Moreover, nostalgic participants ($M = 5.03$, $SD = 0.99$) reported more self-humanity than controls ($M = 4.08$, $SD = 1.29$), $t(281) = 6.93$, $p < .001$, $d = 0.82$, 95% CI M_{diff} [0.68, 1.22]. The results replicated those of Study 2A in support of the hypothesis.

The observed effect size ($d = 0.82$) was larger than the one observed in Study 2A ($d = 0.33$) and achieved power in Study 2B exceeded 99%. Across Studies 2A-2B, the weighted average effect size was $d = 0.60$, suggesting that it was reasonable to base our a priori power analyses on a medium effect size ($d = 0.50$). Nevertheless, the larger effect size in Study 2B than Study 2A underscores how repeated studies of the same phenomenon often produce effect sizes that fluctuate more than can be explained by sampling error alone (Kenny & Judd, 2019). Future research could examine the source(s) of this variability.

Study 3

In Study 3 (https://aspredicted.org/YSD_346), we retested the replicability of Study 2A and Study 2B findings. More importantly, we explored the unique mediational influence and relative strength of self-esteem, meaning, authenticity, social connectedness, and self-continuity.

Method

Participants

We used Monte Carlo power analysis to determine the sample size required to observe the indirect effects of induced nostalgia on self-humanity through the five putative mediators.² A power analysis, based on a pilot study ($N = 100$) with Credamo workers (paid 2 CNY/\$0.28), indicated that $N = 430$ would suffice to achieve 90% power for detecting the five indirect effects at a

= .05, corresponding to a medium effect size ($d = 0.50$). We recruited 458 Credamo workers for 2 CNY. We excluded 15: 12 for not following instructions (i.e. copy-pasting content unrelated to the song's URL or links from other websites) and 3 for failing the attention check. The final sample comprised 443 participants (259 women, 184 men) aged from 18 to 63 years ($M = 28.54$, $SD = 7.35$). We randomly assigned them to the nostalgia ($n = 220$) or control ($n = 223$) condition.

Procedure and materials

Nostalgia manipulation. We induced nostalgia and administered a manipulation check ($\alpha = .95$), as in Study 2A. Next, we assessed self-esteem, meaning, authenticity, social connectedness, and self-continuity in a separate random order for each participant. The stem 'After listening to the song, right now ...' preceded all items (1 = *strongly disagree*, 7 = *strongly agree*).

Self-esteem. We measured this construct with the 4-item self-esteem subscale of the Nostalgia Functions Scale (Hepper et al., 2012; e.g. 'I have many positive qualities'; $\alpha = .87$).

Meaning in life. We measured this construct with the 4-item meaning in life subscale of the Nostalgia Functions Scale (Hepper et al., 2012; e.g. 'I feel that life is meaningful'; $\alpha = .87$).

Authenticity. We measured this construct with the 4-item Southampton Authenticity Scale (Kelley et al., 2022; e.g. 'I feel like the real me'; $\alpha = .85$).

Social connectedness. We measured this construct with the 4-item social connectedness subscale of the Nostalgia Functions Scale (Hepper et al., 2012 e.g. 'I feel connected to loved ones'; $\alpha = .88$).

Self-continuity. We measured this construct with the 4-item Self-Continuity Index (Sedikides et al., 2016; e.g. 'I feel connected with who I was in the past'; $\alpha = .76$).

Self-humanity.. We measured this construct with the 8-item Self-Humanization Scale (Bastian et al., 2013; $\alpha = .76$), as in Study 2A.

Results and discussion

Participants in the nostalgia condition ($M = 6.27$, $SD = 0.69$) felt more nostalgic than those in the control condition ($M = 4.84$, $SD = 1.68$), $t(441) = 11.71$, $p < .001$, $d = 1.11$, 95% CI M_{diff} [1.19, 1.67]. The manipulation was successful. Further, nostalgic participants ($M = 5.60$, $SD = 0.76$) reported greater self-humanity than controls ($M = 5.41$, $SD = 0.80$), $t(441) = 2.58$, $p = .010$, $d = 0.25$, 95% CI M_{diff} [0.05, 0.34]. We present correlations among the measured variables in Table 2.

We proceeded with a mediation analysis (PROCESS Model 4; Hayes, 2013). We modeled condition as independent variable (control condition = -1, nostalgia condition = 1), self-humanity as dependent variable, and self-esteem, meaning, authenticity, social connectedness, and self-continuity as parallel mediators. (See Table 3 for descriptive statistics.) As depicted in Figure 1, nostalgia increased self-esteem ($b = 0.16$, $SE = 0.05$, $p < .001$, 95% CI [0.07, 0.26], $b^* = .16$) and meaning ($b = 0.18$, $SE = 0.04$, $p < .001$, 95% CI [0.09, 0.26], $b^* = .19$),

Table 2. Correlations among variables in Study 3.

Variable	<i>M</i> (<i>SD</i>)	1	2	3	4	5	6
1. Nostalgia manipulation	0.50 (0.50)	—					
2. Self-esteem	5.39 (1.02)	.16***	—				
3. Meaning in life	5.80 (0.93)	.19***	.68***	—			
4. Authenticity	5.54 (0.98)	.33***	.61***	.62***	—		
5. Social connectedness	5.32 (1.17)	.21***	.60***	.60***	.54***	—	
6. Self-continuity	5.65 (0.85)	.30***	.50***	.50***	.61***	.53***	—
7. Self-humanity	5.50 (0.79)	.12*	.56***	.54***	.47***	.39***	.40***

Nostalgia manipulation: control condition = -1, nostalgia condition = 1. Correlations between nostalgia condition and continuous variables (variables 2~7) are point-biserial correlations. Correlations between variables 2~7 are Pearson correlations. * $p < 0.05$. *** $p < .001$.

Table 3. Descriptive statistics for the effect of condition on the mediators in Study 3.

Mediators	Control condition		Nostalgia condition	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self-esteem	5.23	1.05	5.56	0.97
Meaning in life	5.63	1.03	5.98	0.79
Authenticity	5.23	1.11	5.86	0.69
Social connectedness	5.07	1.28	5.57	0.99
Self-continuity	5.39	0.97	5.90	0.62

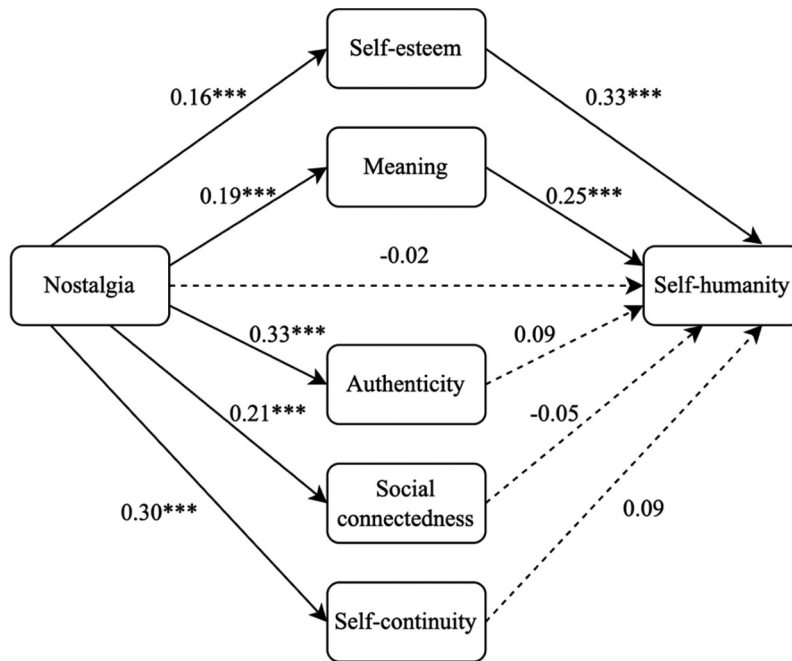


Figure 1. Path model of parallel mediation effects in Study 3. Path coefficients are standardized. *** $p < .001$

which in turn positively predicted self-humanity ($b_{\text{self-esteem}} = 0.25$, $SE = 0.04$, $p < .001$, 95% CI [0.17, 0.34], $b^* = .33$; $b_{\text{meaning}} = 0.21$, $SE = 0.05$, $p < .001$, 95% CI [0.11, 0.30], $b^* = .25$). Although nostalgia also increased authenticity ($b = 0.32$, $SE = 0.04$, $p < .001$, 95% CI [0.23, 0.40], $b^* = .33$), social connectedness ($b = 0.25$, $SE = 0.05$, $p < .001$, 95% CI [0.14, 0.36], $b^* = .21$), and self-continuity ($b = 0.26$, $SE = 0.03$, $p < .001$, 95% CI [0.18, 0.33], $b^* = .30$), none of these was significantly associated with self-humanity ($b_{\text{authenticity}} = 0.07$, $SE = 0.05$, $p = .11$, 95% CI [-0.02, 0.16], $b^* = .09$; $b_{\text{social connectedness}} = -0.03$, $SE = 0.04$, $p = .36$, 95% CI [-0.10, 0.04], $b^* = -.05$; $b_{\text{self-continuity}} = 0.08$, $SE = 0.05$, $p = .09$, 95% CI [-0.01, 0.17], $b^* = .09$). The indirect effects through self-esteem ($ab = 0.04$, $SE = 0.01$, 95% CI [0.02, 0.07]) and meaning ($ab = 0.04$, $SE = 0.01$, 95% CI [0.01, 0.07]) were significant but the indirect effects through authenticity, social connectedness, and self-continuity were not significant (Table 4). Self-esteem and meaning in life mediated the effect of nostalgia on self-humanity.

We conducted an ancillary (non-preregistered) and exploratory analysis (PROCESS Model 4; Hayes, 2013). In

particular, we asked whether each of the variables independently mediated the effect of nostalgia on self-humanity. Self-esteem and meaning emerged as significant mediators in simple mediation analyses but so did authenticity, social connectedness, and self-continuity (Table 4).

In summary, we replicated the finding from Studies 2A–2B that nostalgia augments self-humanity. We also replicated prior findings that nostalgia increases each of the five mediators. Crucially, we identified self-esteem and meaning in life as uniquely mediating the effect of nostalgia on self-humanity. We proceeded to further examine the mediating influence of these two variables.

Study 4A

As per the logic of experimental-causal-chain design for testing mediation (Spencer et al., 2005), in Study 4A (https://aspredicted.org/KTP_DVK) we manipulated self-esteem – one of the two presumed mediators – and measured self-humanity. We hypothesized that the former would increase the latter.

Table 4. Indirect effects of nostalgia on self-humanity via mediators in Study 3.

Mediators	Parallel mediation analysis			Simple mediation analysis		
	Effect	SE	95% CI	Effect	SE	95% CI
Self-esteem	.04	.01	[.02, .07]	.07	.02	[.03, .11]
Meaning in life	.04	.01	[.01, .07]	.08	.02	[.04, .12]
Authenticity	.02	.02	[-.01, .06]	.12	.02	[.09, .16]
Social connectedness	-.01	.01	[-.03, .01]	.06	.02	[.03, .10]
Self-continuity	.02	.01	[-.01, .05]	.09	.02	[.06, .13]

Method

Participants

A power analysis indicated that $N = 210$ would suffice to achieve 95% power for detecting a medium-size effect ($d = 0.50$) of self-esteem on self-humanity ($\alpha = .05$). We recruited 240 Credamo workers, paying them 1 CNY (\$0.14). We excluded three for being under 18. The final sample comprised 237 participants (153 women, 84 men) aged from 18 to 75 years ($M = 31.37$, $SD = 9.09$). We randomly assigned them to the high ($n = 120$) or low ($n = 117$) self-esteem condition.

Procedure and materials

Self-esteem manipulation. We adopted the self-esteem manipulation introduced by Mahadevan et al. (2023, Study 5). In the high self-esteem condition, participants thought about ways in which they felt they were a person of worth, had a number of good qualities, and were satisfied with themselves. In the low self-esteem condition, participants thought about ways in which they felt a bit of failure, like they did not have much to be proud of, and a bit useless. All participants then listed three related keywords and spent at least 3 min writing about the pertinent ways in which they felt good or bad about themselves. Next, they responded to a 3-item manipulation check (e.g. 'How do you feel about yourself now?'; $\alpha = .91$).

Self-humanity. We measured this construct with the 8-item Self-Humanization Scale (Bastian et al., 2013; $\alpha = .88$), as in Study 2A.

Results and discussion

Participants in the high self-esteem condition ($M = 6.99$, $SD = 0.69$) reported greater self-esteem than those in the low self-esteem condition ($M = 4.38$, $SD = 1.71$), $t(235) = 15.47$, $p < .001$, $d = 2.01$, 95% CI M_{diff} [2.28, 2.95]. The manipulation was effective. Moreover, participants in the high self-esteem condition ($M = 5.80$, $SD = 0.61$) reported greater self-humanity than their low self-esteem counterparts ($M = 4.85$, $SD = 1.23$), $t(235) = 7.53$, $p < .001$, $d = 0.98$, 95% CI M_{diff} [0.70, 1.19]. Consistent with the hypothesis of mediation, self-esteem raised self-humanity.

Study 4B

Following again the logic of experimental-causal-chain design for testing mediation (Spencer et al., 2005), in Study 4B (https://aspredicted.org/TFP_GTF) we manipulated meaning – the second of the two presumed

mediators – and measured self-humanity. We hypothesized that the former would augment the latter.

Method

Participants

As per a power analysis, $N = 210$ would suffice to achieve 95% power for detecting a medium-size effect ($d = 0.50$) of meaning on self-humanity ($\alpha = .05$). We recruited 241 Credamo workers for 1 CNY. We excluded two: one for failing the attention check and another for being under 18. The final sample comprised 239 participants (147 women, 92 men) whose age ranged from 18 to 75 years ($M = 31.52$, $SD = 9.56$). We randomly assigned them to the high meaning ($n = 120$) or low meaning ($n = 119$) condition.

Procedure and materials

Meaning in life manipulation. We adapted the Study 4A manipulation of self-esteem to induce meaning. In the high meaning condition, participants thought about ways in which they felt their lives had purpose, were significant, and made sense to them. In the low meaning condition, participants thought about ways in which they felt their lives were ordinary, mundane, and common. Next, all participants listed three relevant keywords and spent at least 3 min writing about ways in which they felt their lives were meaningful or ordinary in greater detail. Lastly, they responded to a 3-item manipulation check (e.g. 'My life is full of meaning'; $\alpha = .93$).

Self-humanity. We measured this construct the 8-item Self-Humanization Scale (Bastian et al., 2013; $\alpha = .81$), as in Study 2A.

Results and discussion

Participants in the high meaning condition ($M = 7.01$, $SD = 0.81$) reported greater meaning than those in the low meaning condition ($M = 5.53$, $SD = 1.88$), $t(237) = 7.90$, $p < .001$, $d = 1.02$, 95% CI M_{diff} [1.11, 1.84]. The manipulation was effective. Further, participants in the high meaning condition ($M = 5.66$, $SD = 0.81$) reported greater self-humanity than their low meaning counterparts ($M = 5.40$, $SD = 0.91$), $t(237) = 2.40$, $p = .017$, $d = 0.31$, 95% CI M_{diff} [0.05, 0.49]. Consistent with the hypothesis of mediation, meaning elevated self-humanity.

The observed effect size ($d = 0.31$) was smaller than the medium effect size ($d = 0.50$) on which we based our a priori power analysis. As a result, achieved power was only 67%.

Table 5. Direct and indirect effects of nostalgia on friendship-approach goals and social efficacy in Study 5.

Pathway	Effect	SE	95% CI
Total effect on friendship-approach goals	.34	.03	[.27, .40]
Direct effect on friendship-approach goals	.18	.03	[.13, .24]
Nostalgia → Self-humanity → Friendship-approach goals	.15	.02	[.11, .20]
Total effect on social efficacy	.17	.03	[.11, .24]
Direct effect on social efficacy	.02	.02	[−.03, .07]
Nostalgia → Self-humanity → Social efficacy	.15	.02	[.11, .20]

Study 5

In Study 5 (https://aspredicted.org/ZZB_32S), we addressed the broader consequences of nostalgia's influence on self-humanity. Specifically, we hypothesized that self-humanity would transmit the effect of nostalgia on friendship-approach goals and social efficacy.

Method

Participants

We used G*Power to determine the sample size based on the results of a pilot study ($N = 97$) involving Credamo workers whom we reimbursed with 2 CNY. This analysis indicated that $N = 1,302$ would be required to achieve 95% power for detecting a small effect (Cohen's $d = 0.20$, $\alpha = 0.05$, two-tailed). We recruited 1,326 Credamo workers, also for 2 CNY. We excluded 27 of them: 13 for not following instructions (i.e. copy-pasting links that did not lead to the song), six for failing the attention check, five for quitting halfway through the experiment, two for being under 18, and one for claiming to be 300 years old. The final sample comprised 1,299 participants (797 women, 502 men) ranging in age from 18 to 65 years ($M = 27.96$, $SD = 7.70$). We randomly assigned them to the nostalgia ($n = 657$) or control ($n = 642$) condition.

Procedure and materials

Nostalgia manipulation. We used the same nostalgia induction and manipulation check as in Study 2A ($\alpha = .94$). In the nostalgia condition, participants searched for and listened to a song on Bilibili that made them feel nostalgic, whereas, in the control condition, they searched for and listened to an unfamiliar, ordinary song.

Self-humanity. We measured this construct with the 10-item Humanness Scale (Haslam, 2006; overall $\alpha = .87$; human uniqueness $\alpha = .85$; human nature $\alpha = .76$), as in Study 1.

Friendship-approach goal striving. We assessed friendship-approach goals with the 4-item subscale of

the Friendship Approach/Avoidance Goal Scale (Elliot et al., 2006; see also Abeyta, Routledge, & Juhl, 2015) preceded by the stem 'Listening to the songs makes me want to ...'. (sample item: 'deepen my relationship with my friends'; 1 = *strongly disagree*, 7 = *strongly agree*; $\alpha = .90$).

Social efficacy. We assessed social efficacy with six items (Bandura, 2006; see also Abeyta, Routledge, & Juhl, 2015) preceded by the stem 'Listening to the song makes me feel that I can ...'. (sample item: 'communicate effectively in social relationships'; 1 = *cannot do at all*, 7 = *certain can do*; $\alpha = .89$).

Results and discussion

Participants in the nostalgia condition ($M = 6.18$, $SD = 0.72$) felt more nostalgic than controls ($M = 5.00$, $SD = 1.64$), $t(1297) = 16.97$, $p < .001$, $d = 0.94$, 95% CI M_{diff} [1.05, 1.32]. The manipulation was effective.

Consistent with the literature, the nostalgia main effects were significant. Nostalgic participants ($M = 5.33$, $SD = 0.81$) reported higher self-humanity than controls ($M = 4.96$, $SD = 1.04$), $t(1297) = 7.22$, $p < .001$, $d = 0.40$, 95% CI M_{diff} [0.27, 0.47]. Also, nostalgic participants ($M = 5.67$, $SD = 0.99$) reported stronger friendship-approach goals than controls ($M = 5.00$, $SD = 1.41$), $t(1297) = 9.96$, $p < .001$, $d = 0.55$, 95% CI M_{diff} [0.54, 0.81]. Lastly, nostalgic participants ($M = 5.06$, $SD = 1.03$) reported stronger social efficacy than controls ($M = 4.72$, $SD = 1.27$), $t(1297) = 5.38$, $p < .001$, $d = 0.30$, 95% CI M_{diff} [0.22, 0.47].

Next, we conducted mediation analyses (PROCESS Model 4; Hayes, 2013) modeling condition (control condition = -1 , nostalgia condition = 1) as independent variable, friendship-approach goals and social efficacy as dependent variables and self-humanity as mediator. Nostalgia increased self-humanity ($b = 0.19$, $SE = 0.03$, $p < .001$, 95% CI [0.14, 0.24], $b^* = .20$), which in turn positively predicted friendship-approach goals ($b = 0.82$, $SE = 0.03$, $p < .001$, 95% CI [0.77, 0.88], $b^* = .62$) and social efficacy ($b = 0.81$, $SE = 0.03$, $p < .001$, 95% CI [0.76, 0.86], $b^* = .66$). Further, nostalgia promoted friendship-approach goals through self-humanity ($ab = 0.15$, $SE = 0.02$, 95% CI [0.11, 0.20])

and strengthened social efficacy through self-humanity ($ab = 0.15$, $SE = 0.02$, 95% CI [0.11, 0.20]). As hypothesized, self-humanity mediated the effects of nostalgia on friendship-approach goal striving and social efficacy (Table 5).

General discussion

Summary of findings

Nostalgia is a valued and prevalent emotion. People derive comfort and joy from revisiting and reliving meaningful moments from their past. Our focus centered on a key explanatory mechanism underlying this phenomenon – namely, the way nostalgia accentuates self-humanity. We defined this construct to capture the process of internalizing attributes considered uniquely human (e.g. moral reasoning, rational thought, personal agency, emotional complexity) and integrating them into one's self-concept.

In seven studies, we documented the relation between nostalgia and self-humanity both cross-sectionally (Study 1) and experimentally (Studies 2A–2B, Study 3, Study 5), using varied methodologies. Further, we showed that nostalgia augments self-humanity via self-esteem and meaning (Study 3), and that self-esteem and meaning each causally impact on self-humanity (Studies 4A–4B). Lastly, we demonstrated that self-humanity transmits the promotive effect of nostalgia on friendship-approach goals and social efficacy.

Implications and future research directions

The findings contribute substantially to the nostalgia literature and the nascent self-humanity literature. The association of nostalgia to self-humanity, and its causal influence on it, clarifies the character and gravitas of the emotion. The capacity of nostalgia to evoke a deeper sense of humanity in oneself may help explain its enduring presence in poetry, prose, theatre, and film, as well as its growing appeal within the behavioral and social sciences (Batcho, 2023; Li et al., 2024; Sedikides & Wildschut, 2023b).

Given the centrality of self-humanity in nostalgic experiences, this construct may mediate additional behavioral outcomes of the emotion. For example, nostalgia affects donations to charity (Zhou et al., 2012), purchasing (Y. Cheng & Yan, 2023), time taken to request help (Juhl et al., 2021), choice of incentivized reward (Huang et al., 2016) and recycling (Zhang et al., 2021). Future research may examine these variables as potential outcomes of nostalgia-induced self-humanity.

It is further possible that self-humanity, as instigated by nostalgia, has consequences for intergroup perceptions. Nostalgizing (vs. not) about a social encounter with a member of the outgroup (i.e. the elderly, overweight individuals, persons with mental illness) leads to more positive attitudes toward the ingroup and a stronger willingness for intergroup contact (R. N. Turner et al., 2013, 2018, 2022). One explanation for this phenomenon is a nostalgia-driven enhancement of self-humanity, which subsequently fosters perceptions of shared humanity.

Additionally, the findings have implications for the regulatory model of nostalgia (Wildschut & Sedikides, 2023a, 2023b, 2024). According to this model, nostalgia acts as a homeostatic corrective, buffering individuals against threats to competence (i.e. negative performance feedback), social well-being (i.e. social exclusion), or existential stability (i.e. loss in meaning). Nostalgia may maintain psychological equanimity, in part, by enhancing self-humanity.

Furthermore, self-humanity may have ramifications for responses to innovative technology, such as artificial intelligence (AI). That is, self-humanity may foster more favorable responses to AI as a function of nostalgia. A literature stream has indicated that nostalgia is linked to, or provokes, unfavorable responses (i.e. negative attitudes or behaviors) to AI by increasing skepticism about change and technological uncertainty (Dang et al., 2024, 2025a). Heightened self-humanity may act as mediator, offsetting the effect of nostalgia on unfavorable responses to AI. Further, heightened self-humanity may transmit nostalgia's role in shaping perceptions of AI tools (e.g. ChatGPT, Jibo Robots) as friendly companions rather than as impersonal utilities or sources of threat (Dang et al., 2025b).

Limitations

Our research has limitations. In particular, its cross-cultural scope was rather restricted. We relied predominantly on East Asian (i.e. Chinese) samples, with the exception of a single Western (i.e. British) sample. Future research could benefit from a more balanced representation of East Asian versus Western cultures, and, more crucially, assess the replicability of our findings across cultural contexts that transcending the East/West divide (Krys et al., 2025; Vignoles et al., 2016). Future research may also test the replicability of our findings with longitudinal designs or ecological momentary assessment designs.

Coda

Nostalgia foregrounds self-humanity, primarily through enhancements in self-esteem and meaning. Also, self-humanity mediates the facilitative impact of nostalgia on friendship-approach goals and social efficacy. The findings enrich scholarly understanding of why and how this emotion exerts its influence and appeal.

Notes

1. We exploratorily broke down the primary emotions into positive (excitement, passion, pleasure, surprise; $\alpha = .78$) and negative (anger, disgust, fear, rage; $\alpha = .94$). Consistent with the literature (Leunissen, 2023; Leunissen et al., 2021), nostalgia was associated with positive emotions, $r(300) = .38, p < .001$, but showed no relation to negative emotions, $r(300) = -.06, p = .32$. The association between nostalgia and self-humanity remained significant and positive controlling for primary emotions, face-valid items, or both (Supplemental Online Material, Table 2S). In this and all studies, we obtained very similar results controlling for age and gender.
2. We provide the relevant parameters in Supplemental Online Material.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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