

# Nostalgia, Ritual Engagement, and Meaning in Life

Yige Yin<sup>1</sup> , Tonglin Jiang<sup>1</sup> , Tim Wildschut<sup>2</sup>, and Constantine Sedikides<sup>2</sup>

Personality and Social Psychology Bulletin  
2025, Vol. 51(10) 1884–1896  
© 2024 by the Society for Personality and Social Psychology, Inc  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/01461672241235740  
journals.sagepub.com/home/pspb



## Abstract

Rituals are pervasive and beneficial. Little is known, however, about causes or antecedents of ritual engagement. We hypothesized that nostalgia—a sentimental longing for one’s past—promotes ritual engagement, which in turn augments meaning in life. We tested this hypothesis in five methodologically diverse studies. In Study 1 ( $N = 311$ ), nostalgia was positively associated with ritual engagement. In Study 2 ( $N = 188$ ), nostalgia promoted ritual engagement, and in Study 3 ( $N = 296$ ), it did so over engagement in a neutral task. In Study 4 ( $N = 252$ ), nostalgia predicted later ritual engagement but not vice versa, convergent with Studies 2 and 3. Furthermore, nostalgia prospectively predicted meaning in life through specific ritualistic behaviors during a traditional festival. Finally, in Study 5 ( $N = 166$ ), experimentally manipulated ritual engagement augmented meaning in life. As hypothesized, nostalgia advances ritual engagement, contributing to a meaningful life.

## Keywords

nostalgia, rituals, meaning in life, emotion, ritual engagement

Received July 6, 2023; revision accepted February 4, 2024

Rituals are a hallmark of human behavior and help to regulate it. Ritualistic examples include decorating the Christmas tree, exchanging wedding rings, participating in weekly family dinners, and meditating daily. What prompts people to engage in rituals? We hypothesize, and test in five studies, that nostalgia is an antecedent or cause of ritual engagement with downstream consequences for meaning in life.

## Rituals

We define rituals as noninstrumental symbolic activities aimed at achieving a desired outcome. Let us specify our definition. Rituals are sometimes conceptualized as symbolic activities that include fixed, rigid, and repetitive action sequences lacking a direct or instrumental purpose (Brooks et al., 2016; Hobson et al., 2018). Some studies have indeed operationalized rituals in terms of rigidity and repetitiveness (Lang et al., 2015, 2022). These studies, however, conflate rituals with ritualized (as opposed to ritualistic) behaviors, which refer to action sequences with immutability, standardization, and iteration (Rossano, 2012) commonly observed in obsessive-compulsive disorders (Leonard et al., 1990). Ritualized behaviors do not require symbolic meaning (Rossano, 2012), critical for the understanding of rituals and their benefits (Scott, 2022). As a case in point, action sequences with (vs. without) symbolism improve performance (Brooks et al., 2016). More generally, an excessive

focus on rigidity and repetitiveness might contribute to an overly restrictive definition of rituals, given that they can be symbolic and achieve desired outcomes in the absence of rigidity and repetitiveness (Norton & Gino, 2014). Family rituals, for example, can be highly symbolic but low on rigidity (Hobson et al., 2018).

Rituals benefit individuals and groups. For individuals, rituals help to alleviate grief (Norton & Gino, 2014), relieve anxiety (Brooks et al., 2016), enhance enjoyment (Sezer et al., 2016; Vohs et al., 2013), and boost wellbeing (Crespo et al., 2011). For groups, rituals help to signal group membership (Lieberman et al., 2018) and strengthen group cohesion (Whitehouse & Lanman, 2014; Włodarczyk et al., 2021). The COVID-19 pandemic underscored the role of rituals in psychological functioning. Lockdowns and social-distancing measures curtailed ritual engagement, given that many rituals entail social contact. Yet, individuals created new rituals suited to their challenging circumstances, such as holding graduation ceremonies via the online video game Minecraft (Imber-Black,

<sup>1</sup>Peking University, Beijing, China

<sup>2</sup>University of Southampton, UK

## Corresponding Author:

Tonglin Jiang, School of Psychological and Cognitive Sciences, and Beijing Key Laboratory of Behavior and Mental Health, Peking University, Building Wangkezhen, Beijing 100871, China.

Email: tljiang@pku.edu.cn

2020) and streaming funerals (Pitsillides & Wallace, 2021), which replenished social connectedness and assisted with navigating life transitions.

Relative to the rich literature on the benefits of rituals, the antecedents or causes of ritual engagement are understudied. What prompts people to enact such consequential behavior? In terms of combating threats and uncertainty, the literature suggests that negative emotions (e.g., anxiety; Brooks et al., 2016; Lang et al., 2015) trigger ritual engagement, which subsequently downregulates these emotions. Viewing rituals from another vantage point, as markers of life events, we propose that nostalgia, a bittersweet yet predominantly positive emotion, also encourages ritual engagement, subsequently leading to enhanced meaning in life.

## Nostalgia and Ritual Engagement

We define nostalgia as wistful affection or sentimental longing for momentous events, close others, or important objects from one's past (Batcho, 1995; Wildschut et al., 2006). When nostalgizing, individuals reflect on these key aspects of their past warmly, fondly, and tenderly, while often experiencing yearning for bygone times and a wish to return to them (Sedikides et al., 2015; Sedikides & Wildschut, 2016a). Nostalgia, then, is an ambivalent emotion, albeit more positive than negative, with this positivity offset manifesting in lay views of the emotion (Hepper et al., 2012; Van Tilburg et al., 2019), laboratory experiments (Leunissen, 2023; Leunissen et al., 2021), and daily life (Newman et al., 2020, Study 5, Table 6; Van Dijke et al., 2019). Consistent with its predominantly positive character, nostalgia confers a wide array of self-related, social, and existential benefits (Sedikides et al., 2015; Wildschut & Sedikides, 2023). Finally, the emotion is felt frequently (i.e., several times a week; Hepper et al., 2021; Wildschut et al., 2006) and across ages (Juhl et al., 2020; Turner & Stanley, 2021) or cultures (Hepper et al., 2024; Sedikides & Wildschut, 2022).

We propose that nostalgia promotes ritual engagement, driven by the relationship between nostalgia and rituals in terms of content and function. From the perspective of *content*, rituals are a rich source of nostalgic experiences. Nostalgia refers to momentous life events (graduation, anniversary or birthday celebration, birth of a child), intimate others (e.g., partners, friends, colleagues, and family), or key objects (e.g., school, family house, and childhood toys). These events, persons, and objects are often tied to rituals (e.g., picnics, vacations, Thanksgiving dinners, school assemblies, organizational practices, and childhood play days). Hence, chronically or momentarily nostalgic individuals are likely to bring to mind and reflect upon memory content which is, to a considerable degree, ritualistic in character. In addition, nostalgic reflection, often imbued with sentimental and idealized overtones, may promote preferences for similar content (Shimp, 1981; Youn & Jin, 2017), motivation

for similar activities (Sedikides & Wildschut, 2020, 2023) and desire to relive cherished memories (Evans et al., 2021; Hepper et al., 2012). Given that rituals are a rich source of nostalgia and that nostalgia motivates the reenactment of similar experiences, when seeking to recapture nostalgic experiences, people may demonstrate a preference for rituals, exhibit a heightened readiness to partake in them, and engage more frequently in ritualistic activities.

Furthermore, from the perspective of *function*, nostalgia serves as an impetus for one's future (Sedikides & Wildschut, 2016b, 2020). By bringing to mind nostalgic memories, a person may become increasingly aware of their value (Routledge, 2023; Zaubermaier et al., 2009) and be more prone to engaging in activities that preserve them. This potential influence of nostalgia aligns with the role of rituals, which mark life events both on an individual and societal level (Kobler et al., 2007; Rook, 1985). For example, travelers send themselves postcards from the city they are visiting to memorialize their trip (individual level), and people set off fireworks to celebrate the New Year (societal level). As such, rituals help to engrave meaningful moments on one's mind rather than let them fade away and be forgotten in time. As mentioned in the novella *The Little Prince* (Saint-Exupéry, 1943), ritual is "what makes one day different from the other days, one hour different from the other hours." Thus, with the value of nostalgic memories salient, people might be more inclined to ritual engagement to consolidate their meaningful moments, safeguarding them against the inexorable march of time. In conclusion, whether viewed from the perspective of content or function, nostalgia is likely to enhance ritual engagement.

Furthermore, ritual engagement might have implications for meaning in life. Rituals are thought to entail meaning-making potential (Kobler et al., 2007; Michaels, 2021), and people may enact them to enhance meaning in life (Romanoff & Thompson, 2006; Schnell & Pali, 2013). That is, by marking special moments, rituals may accentuate life's meaningfulness. The scant literature is suggestive of this possibility. Respondents to open-ended questionnaires and semi-structured interviews indicate that religious rituals make life more meaningful (Loewenthal & Dein, 2016), and pilgrims report experiencing higher meaning in life upon their return home (Schnell & Pali, 2013). More to the point, engaging in group rituals within one's organization increases work meaningfulness (Kim et al., 2021).

## Overview

We hypothesize that nostalgia promotes ritual engagement, which in turn augments meaning in life. We tested this hypothesis in five studies. In Studies 1–3, we addressed the relation between nostalgia and preferences for, or engagement in, rituals. In cross-sectional Study 1, we examined whether nostalgia is positively associated with preferences for, or engagement in, rituals. In experimental Study 2, we

tested whether nostalgia directly strengthens preferences for, or engagement in, rituals. In experimental Study 3, we tested whether nostalgia directly promotes actual engagement in a ritual (vs. neutral) task. In Studies 4 and 5, we addressed downstream consequences for meaning in life: In longitudinal Study 4, we examined whether nostalgia-evoked ritual engagement predicts heightened meaning in life, whereas in experimental Study 5, we manipulated ritual engagement and assessed its causal influence on meaning in life. Study 1 included a U.S. sample, whereas the remaining studies included Chinese samples.

## Open Practices Statement

We have no conflict of interest to disclose. All studies were approved by the Ethics Committee of the Peking University institution and were conducted according to APA ethical standards for participant treatment. We disclose all measures, manipulations, justification of sample size, and exclusions. In all studies, we conducted analyses after completing data collection and followed Journal Article Reporting Standards (Kazak, 2018). We did not preregister the studies. We provide stimulus materials, participant educational status, and ancillary analyses in Online Supplement. We made the data sets and Online Supplement available at [https://osf.io/pxsmc/?view\\_only=521b6aabb1a748cbb0903b1bc340eb56](https://osf.io/pxsmc/?view_only=521b6aabb1a748cbb0903b1bc340eb56).

## Study 1

In cross-sectional Study 1, we examined the association between nostalgia and ritual engagement.

### Method

**Participants.** Monte Carlo simulations indicate that a sample size approaching 250 stabilizes correlation estimates (Schönbrodt & Perugini, 2013). Given that this was the first study on the topic and hedging against attrition, we conservatively oversampled, recruiting 369 MTurk participants for US\$0.30 each. We excluded 58 for failing an attention check. The final sample comprised 311 participants (192 men, 119 women;  $M_{\text{age}} = 37.91$  years,  $SD_{\text{age}} = 11.32$  years; 71.7% Caucasian, 11.3% African American, 4.5% Hispanic, 7.1% Asian, 3.5% Native American, 1.9% other ethnicities). A sensitivity power analysis indicated that this sample allows the detection of an effect size of  $r = .18$  with 90% power ( $\alpha = .05$ , two-tailed).

### Materials and Procedure

**Nostalgia.** We assessed nostalgia with two scales, for convergent validity reasons (Campbell & Fiske, 1959). These were the Southampton Nostalgia Scale (Sedikides et al., 2015; Wildschut & Sedikides, 2022) and the Nostalgia Prototype Scale (Cheung et al., 2017; Kelley et al., 2022).

The Southampton Nostalgia Scale comprises seven items. Three of them refer to whether participants find nostalgia important, valuable, and significant (e.g., “How important is nostalgia for you?”; 1 = *not at all*, 7 = *very much*). The remaining four items refer to the propensity to nostalgize (e.g., How prone are you to feeling nostalgic?”; 1 = *not at all*, 7 = *very much*) or frequency of nostalgizing (e.g., “Generally speaking, how often do you bring to mind nostalgic experiences?”; 1 = *very rarely*, 7 = *very frequently*). We averaged responses to form a nostalgia composite ( $M = 4.85$ ,  $SD = 1.19$ ,  $\alpha = .92$ ).

The Nostalgia Prototype Scale consists of five items that describe centrally prototypical features of nostalgia (e.g., “I bring to mind rose-tinted memories”); that is, laypersons regard these features as core to the construct “nostalgia” (Hepper et al., 2012, 2014). Participants rated both the frequency of involvement in each feature (1 = *I do this very rarely*, 7 = *I do this very often*) and the personal importance of doing so (1 = *this is not important for me*, 7 = *this is very important for me*). We averaged the 10 responses (5 Nostalgia Features  $\times$  2 Ratings) to form a nostalgia index ( $M = 4.98$ ,  $SD = 1.11$ ,  $\alpha = .93$ ). The two scales were positively correlated, demonstrating convergent validity,  $r(311) = .77$ ,  $p < .001$  (see also Wildschut et al., 2023).

**Ritual Engagement.** We assessed ritual engagement with a 14-item scale that we constructed on the basis of the Family Ritual Questionnaire (Fiese & Kline, 1993). Our scale comprised seven situations: dinner time, weekend, vacation, religious holidays, annual celebrations, cultural and ethnic traditions, and special celebrations. For each situation, two items captured ritual engagement. Taking birthdays as an example, the two items were “Birthdays are important milestones to be celebrated in special ways for me; every friend is expected to be there for the celebration” and “I have my own special rituals to celebrate my birthday” (1 = *not at all like me*, 5 = *very much like me*). We averaged responses to form a ritual engagement index ( $M = 3.25$ ,  $SD = 0.88$ ,  $\alpha = .94$ ).

## Results and Discussion

As hypothesized, nostalgia was positively associated with ritual engagement: for the Southampton Nostalgia Scale,  $r(311) = .57$ , 95% CI = [0.49, 0.64],  $p < .001$ ; for the Nostalgia Prototype Scale,  $r(311) = .68$ , 95% CI = [0.61, 0.73],  $p < .001$ .<sup>1</sup> The sizable correlations set the stage for examining the causal relation between the two variables.

## Study 2

In Study 2, we addressed causality. We experimentally induced nostalgia and assessed ritual engagement in daily contexts.

## Method

**Participants.** According to a power analysis in G\*Power (Faul et al., 2007), we needed 172 participants to detect a medium effect size ( $d = 0.5$ ) with a power of .90 (two-tailed  $\alpha = .05$ ). We recruited 190 participants via the online platform Credamo, remunerating them with 1 CNY (\$0.15), and excluded two participants for failing the attention check. The final sample comprised 188 participants (123 women, 65 men;  $M_{\text{age}} = 30.11$  years,  $SD_{\text{age}} = 6.09$  years), whom we randomly assigned to the nostalgia ( $n = 94$ ) or control ( $n = 94$ ) condition. According to a sensitivity power analysis, this sample size allows detecting an effect size of  $d = 0.48$  with 90% power ( $\alpha = .05$ , two-tailed).

### Materials and Procedure

**Nostalgia Manipulation.** We manipulated nostalgia with a slightly modified version of the Event Reflection Task (ERT; Sedikides et al., 2015). The standard ERT asks participants in the control condition to reflect on an ordinary event. Here, we asked them to reflect on an ordinary event from their past Wednesdays. We used a specific yet recurring time and weekday in an effort to prompt recall of regular, repetitive experiences. We instructed participants in the nostalgia condition to reflect on a nostalgic event from their lives, as per the standard ERT. Next, all participants listed four keywords summarizing the event and described it in writing for 5 min.

**Ritual Engagement.** We constructed two measures (presented in a fixed random order) to capture preferences for, and engagement in, daily rituals. The first measure consisted of two consumption-choice scenarios (displayed in a fixed random order). Each scenario described a consumption situation, and participants rated their preferences for a ritualistic versus nonritualistic option. For example, in one scenario the protagonist, Wong, traveling to a certain province, faced the dilemma of purchasing a heavy drum that reflected local culture either on the spot (ritualistic purchase) or online. We assumed that purchasing the drum in its traditional place of origin (vs. online) would imbue it with symbolic value, rendering this option more ritualistic. Participants indicated their preferences (1 = *locally*, 9 = *online*). After reverse-scoring, we averaged responses to the two scenarios to form a preference index ( $M = 5.20$ ,  $SD = 2.60$ ;  $r[188] = .60$ ,  $p < .001$ ). Higher scores reflected stronger preferences for the ritualistic option.

The second measure pertained to seven daily rituals that had symbolic value but no direct instrumental purpose (e.g., “While traveling, send yourself a postcard from the local post office”). We presented the rituals in a different random order for each participant. Participants indicated the likelihood of enacting them (1 = *very unlikely to do*, 9 = *very likely to do*). We averaged responses to form an index of preferences for daily ritual enactment ( $M = 6.86$ ,  $SD = 1.15$ ,  $\alpha = .78$ ). Higher scores reflected stronger likelihood to enact the daily rituals.

In a validation exercise, we tested whether the ritualistic options were perceived as such (Online Supplement). Participants ( $N = 78$ ; 50 women, 28 men;  $M_{\text{age}} = 29.68$  years,  $SD_{\text{age}} = 7.93$  years), recruited from Credamo, viewed our working definition of rituals and two examples: “Ritual is noninstrumental behavior with symbolic meaning. For example, eating mooncakes in the Mid-Autumn festival symbolizes family reunion, and exchanging wedding rings symbolizes commitment to marriage.” Then, they rated (1 = *strongly disagree*, 9 = *strongly agree*) nine ritualistic options (two from the consumption-choice scenarios, seven from the daily rituals), two nonritualistic options (two from the consumption-choice scenarios), and two control items (generated for the purpose of the validation exercise). We compared participants’ responses against the scale midpoint (= 5). They perceived the two ritualistic options as ritual—that is, significantly above the midpoint;  $M = 6.61$ ,  $SD = 2.03$ ,  $t(77) = 7.02$ ,  $p < .001$ ,  $d = 0.79$ , 95% CI = [0.57, 1.02], and the two nonritualistic options as nonritual—that is, significantly below the midpoint;  $M = 4.01$ ,  $SD = 1.98$ ,  $t(77) = -4.40$ ,  $p < .001$ ,  $d = -0.50$ , 95% CI = [-0.72, -0.27]. Similarly, they perceived the seven daily rituals as ritual,  $M = 6.78$ ,  $SD = 1.28$ ,  $t(77) = 12.27$ ,  $p < .001$ ,  $d = 1.39$ , 95% CI = [1.16, 1.61], and the two control activities as nonritual,  $M = 4.13$ ,  $SD = 2.65$ ,  $t(77) = -2.91$ ,  $p = .005$ ,  $d = -0.33$ , 95% CI = [-0.56, -0.10].

**Nostalgia Manipulation Check.** At the end of the study session, participants completed a three-item nostalgia manipulation check (e.g., “Right now, I am feeling quite nostalgic”; 1 = *strongly disagree*, 7 = *strongly agree*; Hepper et al., 2012; Wildschut et al., 2006). We averaged responses to create an index ( $M = 5.81$ ,  $SD = 1.05$ ,  $\alpha = .90$ ).

## Results and Discussion

Participants in the nostalgia condition ( $M = 6.26$ ,  $SD = 0.57$ ) felt more nostalgic than controls ( $M = 5.35$ ,  $SD = 1.22$ ),  $t(131.47) = 6.54$ ,  $p < .001$ ,  $d = 0.95$ , 95% CI = [0.67, 1.24]. The manipulation was effective. Furthermore, nostalgic participants ( $M = 5.60$ ,  $SD = 2.71$ ) expressed a stronger preference for the ritualistic consumption options than controls ( $M = 4.80$ ,  $SD = 2.44$ ),  $t(186) = 2.12$ ,  $p = .035$ ,  $d = 0.31$ , 95% CI = [0.02, 0.60]. Likewise, nostalgic participants ( $M = 7.19$ ,  $SD = 0.92$ ) conveyed a stronger likelihood to enact the daily rituals than controls ( $M = 6.53$ ,  $SD = 1.27$ ),  $t(170.27) = 4.02$ ,  $p < .001$ ,  $d = 0.59$ , 95% CI = [0.30, 0.87].<sup>2</sup> Nostalgia promoted ritual engagement.<sup>3</sup>

## Study 3

In experimental Study 3, we directly assessed the impact of nostalgia on actual ritual engagement in daily activities. Following a nostalgia manipulation, participants chose between completing a ritualistic and neutral task.

## Method

**Participants.** According to a power analysis through the *pwr* package (version 1.3-0; Champely et al., 2017) in R software (version 4.2.1), we needed at least 263 participants to detect a small to medium effect (Cohen's  $\omega = 0.2$ ) with a power of .90 for a chi-square test with a  $2 \times 2$  contingency table. We recruited 300 participants via Credamo (for 2 CNY or US\$0.30), but excluded four for failing the attention check. The final sample comprised 296 participants (210 women, 86 men;  $M_{\text{age}} = 28.13$  years,  $SD_{\text{age}} = 7.23$  years), whom we randomly assigned to the nostalgia ( $n = 147$ ) or control ( $n = 149$ ) condition. A sensitivity power analysis suggested that this sample size would allow for the detection of an effect size of Cohen's  $\omega = 0.19$  with 90% power ( $\alpha = .05$ ).

### Materials and Procedure

**Nostalgia Manipulation and Manipulation Check.** We manipulated nostalgia and administered a manipulation check ( $M = 5.45$ ,  $SD = 1.43$ ,  $\alpha = .94$ ), as in Study 2.

**Ritual Engagement and Manipulation Check.** We instructed participants to choose one of the two tasks to complete in the next few minutes. One was ritualistic, the other neutral. The ritualistic task involved writing a few words in their phone's memo as a farewell to the day, symbolizing a sense of closure. The neutral task involved checking the day's weather on one's mobile browser. Next, participants took a screenshot of their memo (for the ritualistic task) or mobile browser (for the neutral task), and uploaded it to the questionnaire to confirm adherence to instructions (all adhered). The ritual engagement manipulation check followed. Participants viewed our working definition of rituals and two examples (same as Study 2's validation exercise), and then proceeded to rate the extent to which they considered each task as ritual (1 = *strongly disagree*, 9 = *strongly agree*).

## Results and Discussion

The nostalgia manipulation was successful. Participants in the nostalgia condition ( $M = 6.24$ ,  $SD = 0.56$ ) felt more nostalgic than those in the control condition ( $M = 4.67$ ,  $SD = 1.60$ ),  $t(184.88) = 11.28$ ,  $p < .001$ ,  $d = 1.31$ , 95% CI = [1.08, 1.54]. The ritual engagement manipulation was also successful. Participants considered the ritualistic task ( $M = 5.76$ ,  $SD = 1.16$ ) as ritual, that is, higher than the scale midpoint of 5;  $t(295) = 11.26$ ,  $p < .001$ ,  $d = 0.65$ , 95% CI = [0.54, 0.77], but considered the neutral task ( $M = 3.73$ ,  $SD = 1.72$ ) as nonritual, that is, lower than the scale midpoint;  $t(295) = -12.66$ ,  $p < .001$ ,  $d = -0.74$ , 95% CI = [-0.85, -0.62].

As hypothesized, nostalgic participants were more likely than control participants to select the ritualistic (than neutral) task. Specifically, 38% of nostalgic participants selected the ritualistic task (56:147), whereas only 21% of control

participants selected this task (31:149),  $\chi^2(1) = 10.66$ ,  $p = .001$ ,  $\phi = .19$ . Nostalgia promotes behavioral engagement in rituals.

## Study 4

In Study 4, we turned to cultural rituals, assessing ritual engagement in a naturalistic setting, the Chinese Spring Festival. We had three objectives. First, we implemented a two-wave cross-lagged design, which enabled us to test the temporal order of nostalgia and ritual engagement. Second, for generalizability purposes, we examined the prospective relation of nostalgia not only with ritual engagement intentions but also with ritual engagement—both perceived and reported (i.e., self-reported attendance of the Spring Festival). Third, we began testing the relation of nostalgia-related ritual engagement with meaning in life, anticipating that nostalgia would predict greater meaning in life via ritual engagement.

### Method

**Participants.** We aimed for a minimum  $N = 250$ , but, hedging against attrition, we recruited 350 participants through Credamo. They completed the first part of the study 10 days before the Spring Festival (Time 1 or T1). They completed the second part of the study 2 weeks later, on the fifth day of the festival (T2). In all, 285 participants filled out questionnaires at both time points, for 1 CNY (US\$0.15) at each time point. We excluded 13 for reporting a different gender between time points, 17 for reporting inconsistent age between time points (inconsistent gender and age reporting might suggest that the two waves were not completed by the same participant),<sup>4</sup> and 3 for failing an attention check. The final sample comprised 252 participants (166 women, 86 men;  $M_{\text{age}} = 30.56$  years,  $SD_{\text{age}} = 6.78$  years). As per a sensitivity power analysis, this sample allows detection of an effect size of  $r = .20$  with 90% power ( $\alpha = .05$ , two-tailed).

**Materials and Procedure.** At T1, we assessed nostalgia, ritual engagement intentions, and meaning in life. At T2, we assessed nostalgia, ritual engagement intentions, ritual engagement, and meaning in life (Table 1).

**Nostalgia.** Given that the two nostalgia scales (SNS and NPS) yielded similar results in Study 1, we assessed nostalgia with the SNS only. We averaged responses to form indices at both time points (T1:  $M = 5.13$ ,  $SD = 0.98$ ,  $\alpha = .91$ ; T2:  $M = 5.17$ ,  $SD = 0.88$ ,  $\alpha = .88$ ).

**Ritual Engagement Intentions.** We assessed this construct with four items that we constructed: "I am willing to participate in rituals during traditional festivals," "I will try my best

**Table 1.** Descriptive Statistics and Correlations in Study 4.

Variable	M	SD	1	2	3	4	5	6	7
1. Nostalgia T1	5.13	0.98	—						
2. Nostalgia T2	5.17	0.88	.80	—					
3. Ritual engagement intentions T1	7.52	1.11	.57	.52	—				
4. Ritual engagement intentions T2	7.53	1.06	.51	.61	.66	—			
5. Perceived ritual engagement T2	5.72	0.95	.47	.59	.51	.70	—		
6. Reported ritual engagement T2	9.91	3.16	.24	.28	.31	.40	.48	—	
7. Meaning in Life T1	5.20	0.52	.36	.33	.50	.44	.36	.28	—
8. Meaning in Life T2	5.21	0.52	.37	.44	.47	.62	.51	.32	.68

Note. For all correlations,  $p < .001$ .

to participate in rituals during traditional festivals,” “Engaging in rituals during traditional festivals is important for me,” “I feel motivated to engage in rituals during traditional festivals” (1 = *strongly disagree*, 9 = *strongly agree*). We averaged responses (T1:  $M = 7.52$ ,  $SD = 1.11$ ,  $\alpha = .88$ ; T2:  $M = 7.53$ ,  $SD = 1.06$ ,  $\alpha = .88$ ).

**Ritual Engagement.** We operationalized this construct as perceived ritual engagement and reported ritual engagement during the Spring Festival. We created corresponding measures. Specifically, we assessed *perceived ritual engagement* with two items (e.g., “How often did you engage in rituals during the Spring Festival”; 1 = *very rarely*, 7 = *very frequently*). We averaged responses,  $M = 5.72$ ,  $SD = 0.95$ ;  $r(252) = .64$ . To assess *reported ritual engagement*, we listed 16 common rituals during the Spring Festival (e.g., pasting couplets) and asked participants to identify the rituals in which they had participated. We computed the total number of such rituals ( $M = 9.91$ ,  $SD = 3.16$ ).

**Meaning in Life.** We assessed meaning in life with the four-item Meaning in Life subscale of the Nostalgia Functions Scale (Hepper et al., 2012; e.g., “I feel life is meaningful”; 1 = *strongly disagree*, 6 = *strongly agree*). We averaged responses to form a meaning in life index (T1:  $M = 5.20$ ,  $SD = 0.52$ ,  $\alpha = .64$ ; T2:  $M = 5.21$ ,  $SD = 0.52$ ,  $\alpha = .63$ ).

## Results and Discussion

**Nostalgia and Ritual Engagement Intentions.** As hypothesized, nostalgia at T1 was positively related to ritual engagement intentions at T1,  $r(252) = .57$ , 95% CI = [0.48, 0.65],  $p < .001$ . Nostalgia at T2 was also positively related to ritual engagement intentions at T2,  $r(252) = .61$ , 95% CI = [0.53, 0.69],  $p < .001$  (Table 1).

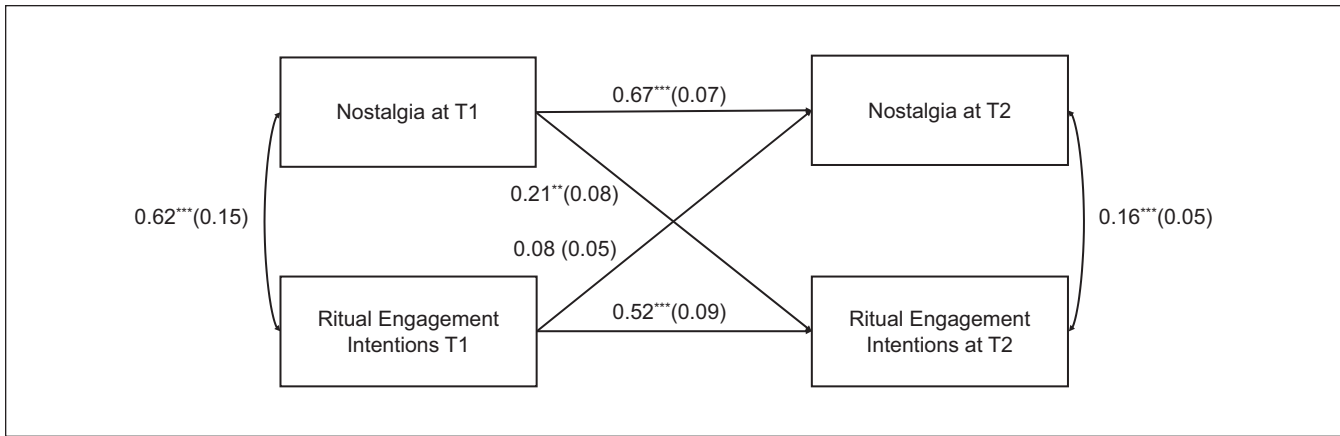
Next, we conducted a cross-lagged analysis with lavaan in R (Rosseel, 2012), examining the prospective effect of nostalgia on ritual engagement intentions. We entered T1 and T2 nostalgia and ritual engagement intentions into the cross-lagged model, and regressed each of the T2 measures on T1

nostalgia and ritual engagement intentions.<sup>5</sup> We also incorporated cross-sectional correlations in the model (Figure 1). Given that the model was saturated (i.e., degrees of freedom equaled zero), we do not report standard fit indices used in structural equation modeling. The autoregressions were significant for both nostalgia ( $b = 0.67$ ,  $SE = 0.07$ ,  $b^* = 0.74$ ,  $p < .001$ , 95% CI = [0.54, 0.80]) and ritual engagement intentions ( $b = 0.52$ ,  $SE = 0.09$ ,  $b^* = 0.55$ ,  $p < .001$ , 95% CI = [0.34, 0.71]). In addition, T1 nostalgia had a lagged effect on T2 ritual engagement intentions,  $b = 0.21$ ,  $SE = 0.08$ ,  $b^* = 0.19$ ,  $p = .009$ , 95% CI = [0.05, 0.37], whereas T1 ritual engagement intentions did not have a lagged effect on T2 nostalgia,  $b = 0.08$ ,  $SE = 0.05$ ,  $b^* = 0.10$ ,  $p = .121$ , 95% CI = [-0.02, 0.19]. Thus, by controlling for autoregressive effects and cross-sectional correlations, the results of the cross-lagged analysis showed that nostalgia prospectively predicted ritual engagement intentions, but not vice-versa.

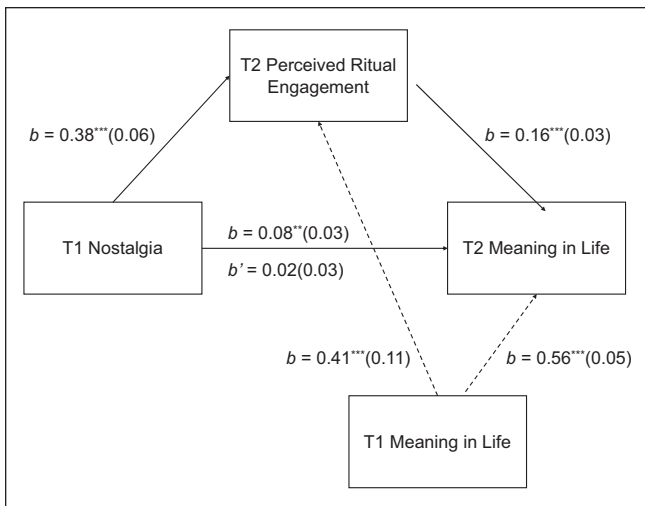
**Nostalgia and Ritual Engagement.** As hypothesized, nostalgia at T1 prospectively predicted ritual engagement during the Spring Festival at T2: for perceived ritual engagement,  $b = 0.46$ ,  $SE = 0.05$ ,  $t = 8.41$ ,  $p < .001$ ; for reported ritual engagement,  $b = 0.79$ ,  $SE = 0.20$ ,  $t = 3.96$ ,  $p < .001$ .

**Nostalgia, Perceived and Reported Engagement, and Meaning in Life.** We next examined downstream consequences of nostalgia-related perceived and reported ritual engagement on meaning in life. Nostalgia at T1 was positively associated with meaning in life at T2,  $r(250) = .37$ , 95% CI = [0.26, 0.47],  $p < .001$ . In addition, both perceived,  $r(250) = .51$ , 95% CI = [0.41, 0.59],  $p < .001$ , and reported,  $r(250) = .32$ , 95% CI = [0.21, 0.43],  $p < .001$ , ritual engagement were positively associated with meaning in life. We thus proceeded to test whether ritual engagement mediated the relation between nostalgia and meaning in life.

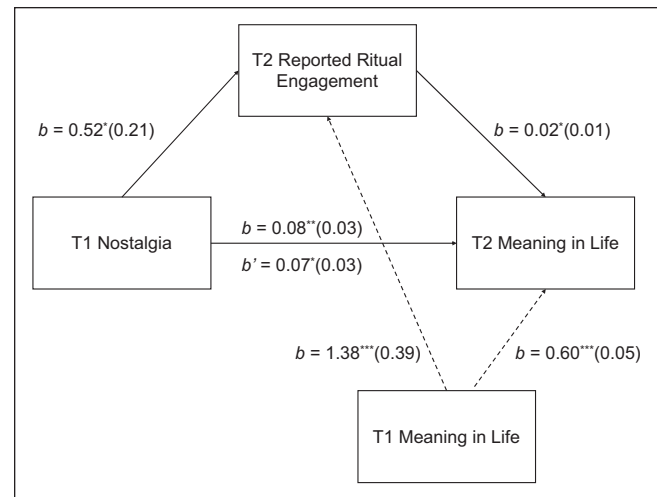
We focused first on *perceived ritual engagement*.<sup>6</sup> We entered T1 nostalgia as independent variable, T2 perceived ritual engagement as mediator, T2 meaning in life as dependent variable, and T1 meaning in life as covariate (PROCESS Model 4, 5,000 iterations; Hayes, 2017; Figure 2). The direct



**Figure 1.** Cross-Lagged Model in Study 4.  
 Note. Unstandardized coefficients and standard errors (in parentheses) are reported.  
 \*\* $p < .01$ . \*\*\* $p < .001$ .



**Figure 2.** Perceived Ritual Engagement at T2 Mediates the Association Between Nostalgia at T1 and Meaning in Life at T2 in Study 4  
 Note. Unstandardized coefficient and (SE) are displayed. Covariate paths are indicated with a dashed line.  
 \*\* $p < .01$ . \*\*\* $p < .001$ .



**Figure 3.** Reported Ritual Engagement at T2 Mediates the Association Between Nostalgia at T1 and Meaning in Life at T2 in Study 4.  
 Note. Unstandardized coefficient and (SE) are displayed. Covariate paths are indicated with a dashed line.  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

effect was not significant,  $b = 0.02$ ,  $SE = 0.03$ , 95% CI = [-0.04, 0.07]. The indirect effect was significant,  $b = 0.06$ ,  $SE = 0.02$ , 95% CI = [0.02, 0.11]. Perceived ritual engagement mediated the relation between nostalgia and meaning in life. (We found no support for the reverse mediation model; Online Supplement.)

We then turned to *reported ritual engagement*. We entered T1 nostalgia as independent variable, T2 reported ritual engagement as mediator, T2 meaning in life as dependent variable, and T1 meaning in life as covariate (Figure 3). The direct effect was significant,  $b = 0.07$ ,  $SE = 0.03$ , 95% CI = [0.01, 0.12]. The indirect effect was also significant,

$b = 0.01$ ,  $SE = 0.01$ , 95% CI = [0.001, 0.03]. Reported ritual engagement mediated the link between nostalgia and meaning in life. (We obtained no support for the reverse mediation model; Online Supplement.)

**Summary.** Nostalgia prospectively predicted ritual engagement intentions (but not vice versa), providing further support for the direction from nostalgia to ritual engagement. Importantly, nostalgia prospectively predicted specific (both perceived and reported) ritual engagement during the Spring Festival, which in turn predicted meaning in life, supporting the hypothesized downstream consequence on meaning in life.

## Study 5

In Study 4, ritual engagement mediated the positive association between nostalgia and meaning in life. Following an experimental causal chain approach (Spencer et al., 2005), our next step was to manipulate the mediator (e.g., ritual engagement) and assess its impact on meaning in life. We did so in Study 5.

### Method

**Participants.** Given that rituals had a medium-to-large effect in previous experiments (Brooks et al., 2016; Vohs et al., 2013), we sought to detect a medium-to-large effect of  $d = 0.55$  with 90% power at a .05 two-tailed alpha level. A power analysis (G\*Power v 3.1; Faul et al., 2007) suggested a minimum sample size of 142. We recruited 170 participants via Credamo, reimbursing them with 1 CNY (US\$0.30). We excluded four for failing the attention check. The final sample comprised 166 participants (98 women, 68 men;  $M_{\text{age}} = 29.37$  years,  $SD_{\text{age}} = 8.43$  years, one undisclosed), whom we randomly assigned to the ritual engagement ( $n = 84$ ) or control ( $n = 82$ ) condition. According to sensitivity power analysis, this sample allows for detection of an effect size of  $d = 0.51$  with 90% power ( $\alpha = .05$ , two-tailed).

### Materials and Procedure

**Ritual Engagement Manipulation.** We manipulated ritual engagement in the context of the Chinese National Day Holiday, which commemorates the country's establishment. The holiday is celebrated from October 1 to 7. We focused on the first day of the holiday, known as the National Day.

To arrive at the manipulation, we ran a focus group ( $N = 25$  university students; 15 women, 10 men;  $M_{\text{age}} = 24.28$  years,  $SD_{\text{age}} = 3.67$  years), which mirrored Credamo's demographic characteristics in terms of ethnicity distribution, gender distribution, age, and educational background. The interviewees indicated that their rituals included writing a few words at the beginning of a new month, symbolizing a fresh start. These words were wishes, resolutions, and goals for the new month, as well as a goodbye to the old month. We proceeded to design our manipulation.

We carried out the experiment on October 1, 2022. For participants in the ritual engagement condition, we framed the National Day as the first day of a new month and the first day of the last quarter of the year, thus ascribing it the symbolism of *a new beginning*. We instructed participants in this condition to write a paragraph that would signal the opening of the new month. For participants in the control condition, we framed the National Day in such a way as to cue rest and relaxation, thus weakening its symbolism. We instructed participants in this condition to write a paragraph describing the first day of their holiday. Then, to validate the manipulation, we defined rituals giving an example (as before) and asked participants: "To what extent do you regard your writing task

as a ritual?" (1 = *not at all*, 9 = *very much*;  $M = 6.58$ ,  $SD = 1.96$ ).

**Meaning in Life.** We assessed meaning in life in two ways. First, we used the four-item Meaning in Life subscale of the Nostalgia Functions Scale (Hepper et al., 2012), as in Study 4 (1 = *strongly disagree*, 9 = *strongly agree*;  $M = 7.21$ ,  $SD = 1.26$ ,  $\alpha = .85$ ). Second, for generalizability, we implemented the five-item Presence of Meaning subscale of the Meaning in Life Questionnaire (Steger et al., 2006; for example, "I understand my life's meaning"; 1 = *strongly disagree*, 9 = *strongly agree*;  $M = 7.03$ ,  $SD = 1.46$ ,  $\alpha = .90$ ).

### Results and Discussion

As intended, participants in the ritual engagement condition ( $M = 6.96$ ,  $SD = 1.74$ ) were more likely to consider their writing task as a ritual than those in the control condition ( $M = 6.20$ ,  $SD = 2.10$ ),  $t(157.07) = 2.57$ ,  $p = .011$ ,  $d = 0.40$ , 95% CI = [0.09, 0.71]. The manipulation was effective.

We focused first on the Meaning in Life subscale of the Nostalgia Functions Scale. Participants in the ritual engagement condition ( $M = 7.49$ ,  $SD = 1.01$ ) reported more meaning in life than controls ( $M = 6.92$ ,  $SD = 1.42$ ),  $t(145.58) = 2.93$ ,  $p = .004$ ,  $d = 0.46$ , 95% CI = [0.15, 0.76]. The essays of participants in the ritual engagement condition ( $M = 25.01$  words,  $SD = 14.21$  words) were shorter than those of controls ( $M = 33.23$  words,  $SD = 18.70$  words),  $t(151.19) = -3.18$ ,  $p = .002$ ,  $d = -0.50$ , 95% CI = [-0.80, -0.19]. However, controlling for number of words in an analysis of covariance (ANCOVA), participants in the ritual engagement condition still reported higher meaning in life than controls,  $F(1, 163) = 10.30$ ,  $p = .002$ ,  $\eta_p^2 = .059$ , 90% CI = [0.01, 0.13].

We obtained similar results for the Presence of Meaning subscale of the Meaning in Life Questionnaire. Participants in the ritual engagement condition ( $M = 7.29$ ,  $SD = 1.17$ ) reported higher meaning in life relative to those in the control condition ( $M = 6.76$ ,  $SD = 1.66$ ),  $t(145.22) = 2.33$ ,  $p = .021$ ,  $d = 0.36$ , 95% CI = [0.06, 0.67]. Controlling for number of words in an ANCOVA, ritual engagement participants still reported higher meaning in life than their control counterparts,  $F(1, 163) = 7.59$ ,  $p = .007$ ,  $\eta_p^2 = .045$ , 90% CI = [0.01, 0.11]. (Controlling for writing duration did not change the results; Online Supplement.)

### General Discussion

Rituals help to enhance enjoyment, strengthen relationships, boost group cohesion, and downregulate negative emotions (Brooks et al., 2016; Norton & Gino, 2014; Sezer et al., 2016; Sohi et al., 2017; Vohs et al., 2013; Watson-Jones & Legare, 2016). But what precipitates or causes ritual engagement and to what effect? Viewing rituals as markers of life

events, we hypothesized that nostalgia promotes ritual engagement, which in turn augments meaning in life.

### Summary of Findings

We tested and supported this hypothesis in five methodologically diverse studies. In Study 1, the more chronically nostalgic participants were, the more willing they were to prefer, or engage in, rituals. In Study 2, nostalgia directly increased preference for, or engagement in, rituals. In Study 3, nostalgia galvanized the choice to engage in a ritual as opposed to a control activity. In Study 4, nostalgia at an earlier time point predicted both perceived and reported ritual engagement at a later time point, which in turn predicted meaning in life. Finally, in Study 5, ritual engagement directly augmented meaning in life, providing causal evidence for the downstream effect.

We also strengthened the generalizability of our findings. We assessed nostalgia and meaning in several ways. We used a broad definition of rituals, assessing a wide spectrum of them—from daily to cultural. We measured and manipulated nostalgia and ritual engagement. Finally, we showed that the findings are generally applicable to Chinese and U.S. cultures.

### Implications

Our findings have theoretical implications. To begin, they broaden the scope of the rituals literature by viewing it from the perspective of event markers. Rituals, besides their prominent roles in emotion regulation (Brooks et al., 2016; Norton & Gino, 2014) and social bonding strengthening (Sohi et al., 2017), are pivotal in imbuing meaning in life and protecting prized memories. Societally, traditional rituals serve as pillars of cultural heritage, transmitted intergenerationally, thereby fortifying collective historical consciousness through the commemoration of foundational myths and historical events. Individually, rituals underscore important life transitions, giving substance to intangible concepts of personal progress, love, and accomplishment through tangible celebrations such as weddings or graduations. The symbolic power of these rituals imbues ordinary occurrences with gravitas, accentuating the relevance of certain events and thereby safeguarding specific memories from the attrition typically wrought by time. Viewed through this lens, our research places nostalgia as a key antecedent to ritual engagement, enhancing comprehension of nostalgia-induced memory preservation behaviors and enriching understanding of the motivational dynamics that propel individuals toward ritualistic practices.

Our research also offers a deeper recognition of the dynamic role of nostalgia in boosting meaning in life. The literature indicates that nostalgia is instrumental in promoting meaning in life (Abeyta & Pillarisetty, 2023; Sedikides & Wildschut, 2018; Van Tilburg et al., 2018). However, this

literature has predominantly focused on the direct effect of nostalgia on meaning in life, that is, elevating meaning through the process of nostalgizing itself (e.g., reflecting on nostalgic events, listening to nostalgic music). In contrast, we demonstrated that nostalgia also indirectly bolsters meaning in life by promoting meaning-making behaviors, notably rituals. The findings are in accord with characterizing nostalgia as a future-oriented emotion. By nostalgizing, individuals do not merely limit themselves to their past, but are also encouraged to undertake actions fostering a meaningful future (FioRito & Routledge, 2020; Sedikides & Wildschut, 2023).

In addition, the findings are generative. First, nostalgia-related or nostalgia-induced ritual engagement might have other downstream consequences besides meaning in life. One promising candidate is global self-continuity, defined as a sense of connection among one's past, present, and future selves (Hong et al., 2021; Sedikides et al., 2023). Many rituals (e.g., Christmas tree decorations, Thanksgiving dinners) are repeated throughout one's life, and, in this way, nostalgizing about them might strengthen the interconnection of past, present, and future selves, fostering global self-continuity. Second, the findings point to the potential of anticipated nostalgia as a promoter of ritual. Anticipated nostalgia refers to looking forward to looking back (Cheung, 2023). It increases savoring of an event, thus prolonging its psychological benefits (Bryant & Veroff, 2007; Cheung et al., 2020). Anticipated nostalgia about an ongoing meaningful life event might increase eagerness to preserve memories of it, intensifying ritual engagement. Third, nostalgia can occur not only at the personal level, but also at a collective level (Wildschut et al., 2014; Wohl et al., 2023). The latter form of nostalgia refers to sentimental remembrances of a group's past. Collective nostalgia might conduce to, or trigger, group-level rituals (e.g., annual vacations organized by a group of friends), imbuing the group life with meaning. These issues could be addressed in follow-up investigations.

### Limitations

We found that nostalgia promotes ritual engagement. However, the reverse direction is also possible; that is, ritual engagement might promote nostalgia. Many rituals are aimed at enshrining pivotal moments (e.g., birth or death anniversaries). Thus, engaging in such rituals might remind ritual performers of those moments, engendering nostalgia. Also, many rituals have a repetitive character. When enacting them, the same actions or environmental cues might remind one of prior enactments, kindling nostalgia. For example, when singing birthday songs and blowing out birthday candles, one might recall their last birthday and feel nostalgic. Follow-up research could examine whether rituals or ritual engagement conduces to or increases nostalgia.

At issue is also whether the observed effects of nostalgia were specific to ritual engagement or extended to activities

that provide people with a sense of continuity, given that some rituals overlap with such activities. We used one-time rituals that do not inherently confer more continuity than nonritualistic counterparts. For instance, in Study 2, both the ritualistic consumption choice (purchasing locally and carrying the drum home) and the control choice (online purchase with home delivery) could yield a keepsake for the protagonist, negating a stronger sense of continuity in one scenario over another. Similarly, Study 3's ritual of penning a brief farewell to the day does not inherently foster a sense of continuity. This act serves as a transitional marker, delineating the end of one day and the start of another, suggesting separation rather than connection. Thus, we maintain that our findings specifically underscore nostalgia's link to ritual engagement, not merely to activities promoting continuity. Future research could include a relevant control option (i.e., nonritual activities that provide a sense of continuity) to further address this issue.

We tested the directional relation from nostalgia to ritual engagement and in turn to meaning in life via a two-wave cross-lagged design and a causal chain approach. Future studies could assess nostalgia, ritual engagement, and meaning in life at three or more time points, facilitating a more precise understanding of the lagged interplay among these variables. Also, we tested Chinese participants in four of our studies, and U.S. participants in one. Follow-up investigations would need to redress the imbalance in participant ethnicity, while sampling from an array of cultures. Moreover, future work may expand the current research's methodological repertoire (e.g., by using ecological momentary assessments) and enlarge the scope of rituals being tested. Finally, in our research, the contexts of rituals were predominantly positive (e.g., traveling, festivals). Future work could explore a wider variety of rituals, including those in somber settings like funerals or disaster memorials, to fully grasp nostalgia's influence across various emotional landscapes.

## Concluding Remarks

In acknowledging the importance and prevalence of rituals, we asked what precipitates them and to what effect. Five studies identified nostalgia as one source, and pointed to increases in meaning in life as a consequence. The emotion of nostalgia guides ritualistic preferences and behavior with beneficial implications for meaning in life.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by the Major Project Grant awarded to


Tonglin Jiang by the National Natural Science Foundation of China (Grant No. 32271127).

## Ethical Approval

All studies reported in this work have been conducted according to APA ethical standards for the treatment of human subjects.

## ORCID iDs

Yige Yin  <https://orcid.org/0000-0003-3432-7565>

Tonglin Jiang  <https://orcid.org/0000-0002-3588-3195>

## Supplemental Material

Supplemental material is available online with this article.

## Notes

1. In Studies 1 and 4, we established that nostalgia and ritual are two distinct constructs by conducting exploratory factor analyses and confirmatory factor analyses (Online Supplement, Ancillary Analyses I).
2. We conducted *t*-tests for each daily ritual item, finding that nostalgic participants showed higher engagement likelihood compared with the control group, whether for social or individual rituals. The subsequent mixed ANOVA revealed that the effect of nostalgia on enhancing ritual engagement did not significantly differ between social and individual rituals (Online Supplement, Ancillary Analyses II).
3. In Studies 2 and 3, we further analyzed the valence (negative, neutral, positive) of participants' written entries, addressing whether it moderated nostalgia's influence. The results were mixed (Online Supplement, Ancillary Analyses III).
4.  $age_{i2} - age_{i1} > 2$  or  $age_{i2} - age_{i1} < 0$ .
5. We also examined the fully cross-lagged model—including nostalgia, ritual engagement intentions, and meaning in life—and calculated the half-longitudinal indirect effects (i.e., the products of parallel cross-lagged paths). Given that we only had two waves, however, the mediation result might be biased as it assumes stationarity. We reported these results in Online Supplement, Ancillary Analyses IV.
6. We also conducted analyses using T1 ritual engagement intentions as mediator. The T1 nostalgia  $\Rightarrow$  T1 ritual engagement intentions  $\Rightarrow$  T2 perceived ritual engagement  $\Rightarrow$  T2 meaning in life serial mediation was significant, whereas the T1 nostalgia  $\Rightarrow$  T1 ritual engagement intentions  $\Rightarrow$  T2 reported ritual engagement  $\Rightarrow$  T2 meaning in life serial mediation was not significant (Online Supplement, Ancillary Analyses V).

## References

- Abeyta, A. A., & Pillarisetty, S. (2023). Nostalgia supports a meaningful life. *Current Opinion in Psychology*, *49*, 101520. <https://doi.org/10.1016/j.copsyc.2022.101520>
- Batcho, K. I. (1995). Nostalgia: A psychological perspective. *Perceptual and Motor Skills*, *80*(1), 131–143. <https://doi.org/10.2466/pms.1995.80.1.131>
- Brooks, A. W., Schroeder, J., Risen, J. L., Gino, F., Galinsky, A. D., Norton, M. I., & Schweitzer, M. E. (2016). Don't stop believing: Rituals improve performance by decreasing anxiety.

- Organizational Behavior and Human Decision Processes*, 137, 71–85. <https://doi.org/10.1016/j.obhdp.2016.07.004>
- Bryant, F. B., & Veroff, J. (2007). *Savoring: A new model of positive experience*. Erlbaum.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56(2), 81–105. <https://doi.org/10.1037/h0046016>
- Champely, S., Ekstrom, C., Dalgaard, P., Gill, J., Weibelzahl, S., Anandkumar, A., Ford, C., Volcic, R., & De Rosario, H. (2017). *pwr: Basic functions for power analysis* (Version 1.3-0). [Software]. <https://cran.r-project.org/web/packages/pwr/>
- Cheung, W.-Y. (2023). Anticipated nostalgia. *Current Opinion in Psychology*, 48, 101521. <https://doi.org/10.1016/j.copsyc.2022.101521>
- Cheung, W.-Y., Hepper, E. G., Reid, C. A., Green, J. D., Wildschut, T., & Sedikides, C. (2020). Anticipated nostalgia: Looking forward to looking back. *Cognition and Emotion*, 34(3), 511–525. <https://doi.org/10.1080/02699931.2019.1649247>
- Cheung, W.-Y., Sedikides, C., & Wildschut, T. (2017). Nostalgia proneness and reduced prejudice. *Personality and Individual Differences*, 109, 89–97. <https://doi.org/https://doi.org/10.1016/j.paid.2016.12.045>
- Crespo, C., Kielikowski, M., Pryor, J., & Jose, P. E. (2011). Family rituals in New Zealand families: Links to family cohesion and adolescents' well-being. *Journal of Family Psychology*, 25(2), 184–193. <https://doi.org/10.1037/a0023113>
- Evans, N. D., Reyes, J., Wildschut, T., Sedikides, C., & Fetterman, A. K. (2021). Mental transportation mediates nostalgia's psychological benefits. *Cognition and Emotion*, 35(1), 84–95. <https://doi.org/10.1080/02699931.2020.1806788>
- Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fiese, B. H., & Kline, C. A. (1993). Development of the Family Ritual Questionnaire: Initial reliability and validation studies. *Journal of Family Psychology*, 6(3), 290–299. <https://doi.org/10.1037/0893-3200.6.3.290>
- Fiorito, T. A., & Routledge, C. (2020). Is nostalgia a past or future-oriented experience? Affective, behavioral, social cognitive, and neuroscientific evidence. *Frontiers in Psychology*, 11, Article 1133. <https://doi.org/10.3389/fpsyg.2020.01133>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hepper, E. G., Ritchie, T. D., Sedikides, C., & Wildschut, T. (2012). Odyssey's end: Lay conceptions of nostalgia reflect its original homeric meaning. *Emotion*, 12(1), 102–119. <https://doi.org/10.1037/a0025167>
- Hepper, E. G., Sedikides, C., Wildschut, T., Cheung, W.-Y., Abakoumkin, G., Arian, G., Aveyard, M., Baldrusson, E. B., Bialobrzeska, O., Bouamama, S., Bouzaouech, I., Brambilla, M., Burger, A. M., Chen, S. X., Cisek, S., Nunes de Souza Neto, E., Demassosso, D., Gutiérrez, R. G., Gu, L., . . . Zengel, B. (2024). Pancultural nostalgia in action: Prevalence, triggers, and psychological functions of nostalgia across cultures. *Journal of Experimental Psychology: General*, 153(3), 754–778. <https://doi.org/10.1037/xge0001521>
- Hepper, E. G., Wildschut, T., Sedikides, C., Ritchie, T. D., Yung, Y.-F., Hansen, N., Abakoumkin, G., Arian, G., Cisek, S. Z., Demassosso, D. B., Gebauer, J. E., Gerber, J. P., González, R., Kusumi, T., Misra, G., Rusu, M., Ryan, O., Stephan, E., Vingerhoets, A. J. J. M., & Zhou, X. (2014). Pancultural nostalgia: Prototypical conceptions across cultures. *Emotion*, 14(4), 733–747. <https://doi.org/10.1037/a0036790>
- Hepper, E. G., Wildschut, T., Sedikides, C., Robertson, S., & Routledge, C. D. (2021). Time capsule: Nostalgia shields psychological wellbeing from limited time horizons. *Emotion*, 21(3), 644–664. <https://doi.org/10.1037/emo0000728>
- Hobson, N. M., Schroeder, J., Risen, J. L., Xygalatas, D., & Inzlicht, M. (2018). The psychology of rituals: An integrative review and process-based framework. *Personality and Social Psychology Review*, 22(3), 260–284. <https://doi.org/10.1177/1088868317734944>
- Hong, E. K., Sedikides, C., & Wildschut, T. (2021). Nostalgia strengthens global self-continuity through holistic thinking. *Cognition and Emotion*, 35(4), 730–737. <https://doi.org/10.1080/02699931.2020.1862064>
- Imber-Black, E. (2020). Rituals in the time of COVID-19: Imagination, responsiveness, and the human spirit. *Family Process*, 59(3), 912–921. <https://doi.org/10.1111/famp.12581>
- Juhl, J., Wildschut, T., Sedikides, C., Diebel, T., Cheung, W. Y., & Vingerhoets, A. J. J. M. (2020). Nostalgia proneness and empathy: Generality, underlying mechanism, and implications for prosocial behavior. *Journal of Personality*, 88(3), 485–500. <https://doi.org/10.1111/jopy.12505>
- Kazak, A. E. (2018). Editorial: Journal article reporting standards. *American Psychologist*, 73(1), 1–2. <https://doi.org/10.1037/amp0000263>
- Kelley, N. J., Davis, W. E., Dang, J., Liu, L., Wildschut, T., & Sedikides, C. (2022). Nostalgia confers psychological wellbeing by increasing authenticity. *Journal of Experimental Social Psychology*, 102, 1–12. <https://doi.org/10.1016/j.jesp.2022.104379>
- Kim, T., Sezer, O., Schroeder, J., Risen, J., Gino, F., & Norton, M. I. (2021). Work group rituals enhance the meaning of work. *Organizational Behavior and Human Decision Processes*, 165, 197–212. <https://doi.org/10.1016/j.obhdp.2021.05.005>
- Kobler, K., Limbo, R., & Kavanaugh, K. (2007). Meaningful moments: The use of ritual in perinatal and pediatric death. *MCN: The American Journal of Maternal/Child Nursing*, 32(5), 288–295. <https://doi.org/10.1097/01.nmc.0000287998.80005.79>
- Lang, M., Krátký, J., Shaver, J., Jerotijević, D., & Xygalatas, D. (2015). Effects of anxiety on spontaneous ritualized behavior. *Current Biology*, 25(14), 1892–1897. <https://doi.org/10.1016/j.cub.2015.05.049>
- Lang, M., Krátký, J., & Xygalatas, D. (2022). Effects of predictable behavioral patterns on anxiety dynamics. *Scientific Reports*, 12, Article 19240. <https://doi.org/10.1038/s41598-022-23885-4>
- Leonard, H. L., Goldberger, E. L., Rapoport, J. L., Cheslow, D. L., & Swedo, S. E. (1990). Childhood rituals: Normal development or obsessive-compulsive symptoms? *Journal of the American Academy of Child & Adolescent Psychiatry*, 29(1), 17–23. <https://doi.org/10.1097/00004583-199001000-00004>
- Leunissen, J. M. (2023). Diamonds and rust: The affective ambivalence of nostalgia. *Current Opinion in Psychology*, 49, 101541. <https://doi.org/10.1016/j.copsyc.2022.101541>

- Leunissen, J. M., Wildschut, T., Sedikides, C., & Routledge, C. (2021). The hedonic character of nostalgia: An integrative data analysis. *Emotion Review*, *13*(2), 139–156. <https://doi.org/10.1177/1754073920950455>
- Liberman, Z., Kinzler, K. D., & Woodward, A. L. (2018). The early social significance of shared ritual actions. *Cognition*, *171*, 42–51. <https://doi.org/10.1016/j.cognition.2017.10.018>
- Loewenthal, K. M., & Dein, S. (2016). Religious ritual and wellbeing. In M. Ben-Avie, Y. Ives, & K. Loewenthal (Eds.), *Applied Jewish values in social sciences and psychology* (1st ed., pp. 151–163). Springer. [https://doi.org/10.1007/978-3-319-21933-2\\_8](https://doi.org/10.1007/978-3-319-21933-2_8)
- Michaels, A. (2021). Ritual and meaning. In J. Kreinath, J. A. M. Snoek, & M. Stausberg (Eds.), *Theorizing rituals: Issues, topics, approaches, concepts* (Vol. 1, pp. 247–261). Brill.
- Newman, D. B., Sachs, M. E., Stone, A. A., & Schwarz, N. (2020). Nostalgia and well-being in daily life: An ecological validity perspective. *Journal of Personality and Social Psychology*, *118*(2), 325–347. <https://doi.org/10.1037/pspp0000236>
- Norton, M. I., & Gino, F. (2014). Rituals alleviate grieving for loved ones, lovers, and lotteries. *Journal of Experimental Psychology: General*, *143*(1), 266–272. <https://doi.org/10.1037/a0031772>
- Pitsillides, S., & Wallace, J. (2021). Physically distant but socially connected: Streaming funerals, memorials and ritual design during COVID-19. In P. Pentaris (Ed.), *Death, grief and loss in the context of COVID-19* (1st ed., pp. 1–17). Routledge.
- Romanoff, B. D., & Thompson, B. F. (2006). Meaning construction in palliative care: The use of narrative, ritual, and the expressive arts. *American Journal of Hospice & Palliative Medicine*, *23*(4), 309–316. <https://doi.org/10.1177/1049909106290246>
- Rook, D. W. (1985). The ritual dimension of consumer behavior. *Journal of Consumer Research*, *12*(3), 251. <https://doi.org/10.1086/208514>
- Rossano, M. J. (2012). The essential role of ritual in the transmission and reinforcement of social norms. *Psychological Bulletin*, *138*(3), 529–549. <https://doi.org/10.1037/a0027038>
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modelling and more. *Journal of Statistical Software*, *48*(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Routledge, C. (2023, November 20). *Nostalgia in America: The power of looking back to move forward*. Human Flourishing Lab. <https://humanflourishinglab.org/nostalgia-in-america/>
- Saint-Exupéry, A. (1943). *The little prince* (K. Woods, Trans.). Harcourt, Brace & World.
- Schnell, T., & Pali, S. (2013). Pilgrimage today: The meaning-making potential of ritual. *Mental Health, Religion & Culture*, *16*(9), 887–902. <https://doi.org/10.1080/13674676.2013.766449>
- Schönbrodt, F. D., & Perugini, M. (2013). At what sample size do correlations stabilize? *Journal of Research in Personality*, *47*, 609–612. <https://doi.org/10.1016/j.jrp.2013.05.009>
- Scott, S. A. (2022). Networked solidarity: Online rituals of mourning following public death events. In J. Gordon-Lennox (Eds.), *Coping rituals in fearful times: An unexplored resource for healing trauma* (pp. 137–147). Springer Cham.
- Sedikides, C., Hong, E., & Wildschut, T. (2023). Self-continuity. *Annual Review of Psychology*, *74*, 333–361. <https://doi.org/10.1146/annurev-psych-032420-032236>
- Sedikides, C., & Wildschut, T. (2016a). Nostalgia: A bittersweet emotion that confers psychological health benefits. In A. M. Wood & J. Johnson (Eds.), *Wiley handbook of positive clinical psychology* (pp. 25–36). Wiley Blackwell.
- Sedikides, C., & Wildschut, T. (2016b). Past forward: Nostalgia as a motivational force. *Trends in Cognitive Sciences*, *20*(5), 319–321. <https://doi.org/10.1016/j.tics.2016.01.008>
- Sedikides, C., & Wildschut, T. (2018). Finding meaning in nostalgia. *Review of General Psychology*, *22*(1), 48–61. <https://doi.org/10.1037/gpr0000109>
- Sedikides, C., & Wildschut, T. (2020). The motivational potency of nostalgia: The future is called yesterday. *Advances in Motivation Science*, *7*, 75–111. <https://doi.org/10.1016/bs.adms.2019.05.001>
- Sedikides, C., & Wildschut, T. (2022). Nostalgia across cultures. *Journal of Pacific Rim Psychology*, *16*, 1–16. <https://doi.org/10.1177/18344909221091649>
- Sedikides, C., & Wildschut, T. (2023). Nostalgia as motivation. *Current Opinion in Psychology*, *49*, Article 101537. <https://doi.org/10.1016/j.copsyc.2022.101537>
- Sedikides, C., Wildschut, T., Routledge, C., Arndt, J., Hepper, E. G., & Zhou, X. (2015). To nostalgize: Mixing memory with affect and desire. *Advances in Experimental Social Psychology*, *51*, 189–273. <https://doi.org/10.1016/bs.aesp.2014.10.001>
- Sezer, O., Norton, M. I., Gino, F., & Vohs, K. D. (2016). Family rituals improve the holidays. *Journal of the Association for Consumer Research*, *1*(4), 509–526. <https://doi.org/10.1086/688495>
- Shimp, T. A. (1981). Attitude toward the ad as a mediator of consumer brand choice. *Journal of Advertising*, *10*(2), 9–15. <https://doi.org/10.1080/00913367.1981.10672756>
- Sohi, K. K., Singh, P., & Bopanna, K. (2017). Ritual participation, sense of community, and social well-being: A study of Seva in the Sikh community. *Journal of Religion and Health*, *57*(6), 2066–2078. <https://doi.org/10.1007/s10943-017-0424-y>
- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, *89*(6), 845–851. <https://doi.org/10.1037/0022-3514.89.6.845>
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, *53*(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>
- Turner, J. R., & Stanley, J. T. (2021). Holding on to pieces of the past: Daily reports of nostalgia in a life-span sample. *Emotion*, *21*(5), 951–961. <https://doi.org/10.1037/emo0000980>
- Van Dijke, M., Leunissen, J. M., Wildschut, T., & Sedikides, C. (2019). Nostalgia promotes intrinsic motivation and effort in the presence of low interaction justice. *Organizational Behavior and Human Decision Processes*, *150*, 46–61. <https://doi.org/10.1016/j.obhdp.2018.12.003>
- Van Tilburg, W. A. P., Bruder, M., Wildschut, T., Sedikides, C., & Göritz, A. S. (2019). An appraisal profile of nostalgia. *Emotion*, *19*(1), 21–36. <https://doi.org/10.1037/emo0000417>
- Van Tilburg, W. A. P., Sedikides, C., Sedikides, C., & Vingerhoets, A. (2018). How nostalgia infuses life with meaning: From social connectedness to self-continuity. *European Journal of Social Psychology*, *49*(3), 521–532. <https://doi.org/10.1002/ejsp.2519>
- Vohs, K. D., Wang, Y., Gino, F., & Norton, M. I. (2013). Rituals enhance consumption. *Psychological Science*, *24*(9), 1714–1721. <https://doi.org/10.1177/0956797613478949>

- Watson-Jones, R. E., & Legare, C. H. (2016). The social functions of group rituals. *Current Directions in Psychological Science*, 25(1), 42–46. <https://doi.org/10.1177/0963721415618486>
- Whitehouse, H., & Lanman, J. A. (2014). The ties that bind us. *Current Anthropology*, 55(6), 674–695. <https://doi.org/10.1086/678698>
- Wildschut, T., Bruder, M., Robertson, S., Van Tilburg, A. P. W., & Sedikides, C. (2014). Collective nostalgia: A group-level emotion that confers unique benefits on the group. *Journal of Personality and Social Psychology*, 107(5), 844–863. <https://doi.org/10.1037/a0037760>
- Wildschut, T., & Sedikides, C. (2022). Measuring nostalgia. In W. Ruch, A. B. Bakker, L. Tay, & F. Gander (Eds.), *Handbook of positive psychology assessment* (pp. 443–475). Hogrefe.
- Wildschut, T., & Sedikides, C. (2023). Benefits of nostalgia in vulnerable populations. *European Review of Social Psychology*, 34(1), 44–91. <https://doi.org/10.1080/10463283.2022.2036005>
- Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology*, 91(5), 975–993. <https://doi.org/10.1037/0022-3514.91.5.975>
- Wildschut, T., Sedikides, C., & Kelley, N. J. (2023). Trait nostalgia: Four scales and a recommendation. *Current Opinion in Psychology*, 49, Article 101608. <https://doi.org/10.1016/j.copsyc.2023.101608>
- Włodarczyk, A., Zumeta, L., Basabe, N., Rimé, B., & Páez, D. (2021). Religious and secular collective gatherings, perceived emotional synchrony and self-transcendent emotions: Two longitudinal studies. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 42, 4754–4771. <https://doi.org/10.1007/s12144-021-01826-0>
- Wohl, M. J. A., Stefaniak, A., & Smeekes, A. (2023). Collective nostalgia as a balm for the distressed social identity. *Current Opinion in Psychology*, 49, Article 101542. <https://doi.org/10.1016/j.copsyc.2022.101542>
- Youn, S., & Jin, S. V. (2017). Reconnecting with the past in social media: The moderating role of social influence in nostalgia marketing on Pinterest. *Journal of Consumer Behaviour*, 16(6), 565–576. <https://doi.org/10.1002/cb.1655>
- Zauberman, G., Ratner, R. K., & Kim, B. K. (2009). Memories as assets: Strategic memory protection in choice over time. *Journal of Consumer Research*, 35(5), 715–728. <https://doi.org/10.1086/592943>