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What Good is Organizational Nostalgia in the Time of Pandemic? Unpacking a Pathway from COVID-Related Stress to Authenticity at Work

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ABSTRACT

We propose that COVID-related stress undermines felt authenticity, but also triggers nostalgia. In turn, nostalgia conduces to felt authenticity, thereby counteracting the deleterious impact of COVID-related stress. We tested this regulatory model of nostalgia in two studies. Study 1 was an online cross-sectional study during the pandemic, in which we assessed COVID-related stress, nostalgia, and authenticity. In Study 2, we followed a group of working adults in a daily diary study across five workdays. We assessed COVID-related stress each morning, organizational nostalgia at midday, and authenticity at the end of the workday. The results of both studies were consistent with the palliative role of nostalgia in support of the regulatory model.

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COVID-19; nostalgia; stress; authenticity; emotions

Introduction

The COVID-19 pandemic has generated moderate to severe stress levels in large swathes of the global population (Qiu et al., 2020; Taylor et al., 2020; Wang et al., 2020). Even among the lucky ones who have kept their jobs or experienced relatively less disruption, stress has been high and morale low (Rettie & Daniels, 2021; Trougakos et al., 2020; Vaziri et al., 2020). Nevertheless, people have reacted by “fighting back.” Indeed, positive emotions constitute a signature response in stressful times, as they can provide respite from distress and promote more effective coping behaviors (Folkman & Moskowitz, 2000; Fredrickson & Joiner, 2002; Taquet et al., 2020). Hence, we examined whether nostalgia – a predominantly positive emotion (Sedikides & Wildschut, 2016; Turner & Stanley, 2021; Van Tilburg et al., 2019) – serves a palliative function in response to COVID-related stress. Specifically, we propose that, by countering stress, nostalgia provides a mechanism for people to maintain felt authenticity during the pandemic.

State Authenticity

Recent years have witnessed burgeoning scholarly attention to the experience of state (i.e., transient or in-the-moment) authenticity (Chen, 2019; Schmader & Sedikides, 2018;

Sedikides et al., 2019) and its significance in work contexts (Gino & Kouchaki, 2020; Hewlin et al., 2020). State authenticity, defined as “the sense that one is currently in alignment with one’s true or real self” (Sedikides et al., 2017, p. 521), confers psychological benefits. For example, it boosts subjective vitality (i.e., being alive and energetic) and well-being (Thomaes et al., 2017), and enhances meaning in life (i.e., purpose and significance of one’s life; Schlegel et al., 2009). Conversely, state inauthenticity conduces to subjective immorality and impurity (Gino et al., 2015) and increases dishonest behavior (Gino et al., 2010). Similarly, feeling authentic at work is associated with higher levels of work engagement and job satisfaction (Metin et al., 2016), as well as stronger self-determination and autonomous motivation (relative to controlled motivation and amotivation; Van den Bosch & Taris, 2018). Conversely, feeling inauthentic at work is linked with higher levels of burnout (Van den Bosch & Taris, 2014) and boredom (Van den Bosch et al., 2019). This evidence underscores the importance of identifying how people can maintain felt authenticity, and avoid the pitfalls of inauthenticity, when faced with adversity during the pandemic. We propose that nostalgia is an arrow in their quiver.

Nostalgia During the Pandemic

Nostalgia is “a sentimental longing or wistful affection for the past” (p. 1266, *The New Oxford Dictionary of English*, 1998). Nostalgia is a self-relevant (Hong et al., 2022; Van Tilburg, Wildschut, Sedikides et al., 2018), mostly positive (Frankenbach et al., 2021; Leunissen et al., 2021), social (Green et al., 2021; Sedikides & Wildschut, 2019), and past-oriented (Hepper et al., 2012, 2014) emotion. According to the regulatory model of nostalgia (Sedikides, Wildschut, Routledge, Arndt et al., 2015; Wildschut & Sedikides, 2022a), aversive experiences and states not only conduce to negative psychological outcomes but also elevate nostalgia. Nostalgia, in turn, counters the negative outcomes and restores homeostasis. We draw on this model to postulate a process through which nostalgia might be associated with the ebb and flow of felt authenticity during a stressful period. We present this model in [Figure 1](#) and elaborate on it next.

Focusing on positive emotions in the middle of a pandemic may seem unorthodox. However, positive emotions co-occur with negative ones during stressful situations (Folkman & Moskowitz, 2000). We will review two illustrative lines of evidence. First, positive emotions (e.g., grateful/thankful, alert/curious, content/serene) were common among college students 12 days after the September 11th attacks, and these emotions

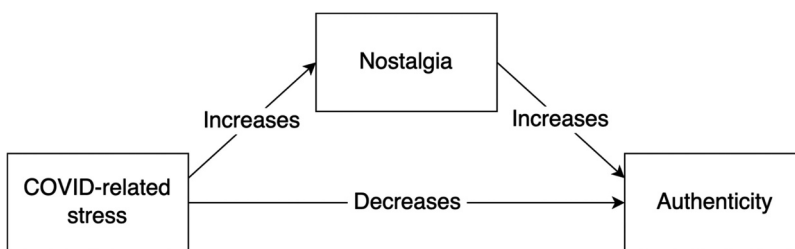


Figure 1. The Regulatory Model: Nostalgia Counteracts the Deleterious Relation Between COVID-Related Stress and Authenticity.

predicted fewer depressive symptoms and higher life satisfaction, optimism, and tranquility (Fredrickson et al., 2003). Second, positive emotions – including nostalgia – are common among bereaved individuals, and those who experience more positive emotions are more likely to report declines in distress and develop long-term plans and goals, which predict greater well-being 12 months post bereavement (Reid et al., 2021; Stein et al., 1997). In this regard, the COVID-19 pandemic reflects features of the September 11th attacks in its shock and disruptiveness, as well as bereavement in its persistence and long-term impact. Positive emotions, then, will also likely be present, if not prevalent, during the COVID-19 pandemic, and so they deserve empirical scrutiny.

The research aims to make two key contributions. First, we articulate a regulatory model of nostalgia during the pandemic. We posit that COVID-related stress undermines authenticity, but also conduces to nostalgia. In turn, greater nostalgia fuels authenticity, thereby counteracting the negative impact of COVID-related stress. Second, we seek to establish the presence of positive emotions during the COVID-19 pandemic. Although some studies have explored the role of resilience (PeConga et al., 2020) and optimism (Arslan et al., 2021), the bulk of the psychological research on COVID-19 has focused on the negative repercussions of the pandemic, and understandably so. Here, we examine the palliative role of nostalgia.

Hypotheses

The point of departure is the expectation that COVID-related stress would reduce felt authenticity. Based on prior theory and evidence, we propose that felt authenticity depends on the development and maintenance of a coherent identity that is perceived as stable or continuous across time (Harter, 2015; Sedikides et al., 2019). Indeed, authenticity – including daily authenticity – co-occurs with experiences that fosters identity coherence, such as returning to familiar people and places, spending time with close others, helping others, having fun, and being creative; conversely, inauthenticity – including daily authenticity – arises when responding to difficult situations, committing social faux-pas, feeling socially isolated, and feeling unwell (Lenton, Bruder et al., 2013; Lenton et al., 2016). The upheaval wrought by the COVID-19 pandemic has arguably changed the typical, pre-pandemic, environment from one that fosters authenticity, by offering a familiar environment, to one that undermines authenticity, by requiring unfamiliar, awkward, and socially-distanced ways of living and working which are incongruent with established routines (Van den Bosch & Taris, 2014). On this basis, we hypothesize that COVID-related stress undermines felt authenticity.

Hypothesis 1: COVID-related stress is negatively associated with felt authenticity.

The second hypothesis focuses on the association between COVID-related stress (an aversive state) and nostalgia. In this regard, prior findings indicate that aversive experiences trigger nostalgia. For example, loneliness is positively associated with, and increases, nostalgia (Zhou et al., 2008, 2022; see also, Abeyta et al., 2020). In the same vein, negative events that disrupt the connection between one's past and present self (i.e., self-discontinuity) are positively associated with, and increase, nostalgia (Sedikides, Wildschut, Routledge, Arndt et al., 2015; Wildschut & Sedikides, 2022a,b; Wohl et al.,

2018). In light of these findings, the COVID-19 pandemic is a “perfect storm,” as it has precipitated both social isolation and jarring disruptions to established daily routines. We hypothesize, then, that the more people experience COVID-related stress during the pandemic, the more they will experience nostalgia.

Hypothesis 2: COVID-related stress is positively associated with nostalgia.

But what are the downstream implications of stress-induced nostalgia? The model proposes that nostalgia will predict subsequent increases in felt authenticity, thereby counteracting the negative impact of COVID-related stress. Diverse theoretical perspectives implicate nostalgia in developing and maintaining a coherent identity and ensuing feelings of authenticity. Motivated identity construction theory posits that individuals have a fundamental need to experience the self as continuous across time (Vignoles, 2011), a need that nostalgia may fulfill by emphasizing connections between one’s past and present self (Hong et al., 2021; Sedikides et al., 2016, 2008). Narrative approaches to identity (Hammack, 2008; McAdams, 2006; McLean et al., 2007) see nostalgic memories as salient landmarks in one’s life story. These life stories engender a sense of identity coherence and continuity (Davis, 1979), which are prerequisites for felt authenticity (Harter, 2015). Empirical evidence supports the postulated beneficial effect of nostalgia on authenticity. Participants who were randomly assigned to reflect on a personally nostalgic (vs. ordinary) experience reported greater felt authenticity (i.e., “the person you truly are”; Stephan et al., 2012) and offered more elaborate answers when asked to describe “who you really are” (Baldwin et al., 2015). Accordingly, we propose that reflecting nostalgically on past events in, and aspects of, one’s life contributes to an integrated, coherent self that forms the basis for felt authenticity. We hypothesize that nostalgia will predict higher levels of felt authenticity, and that it should do so above and beyond (i.e., when controlling for) COVID-related stress.

Hypothesis 3: Nostalgia is associated with higher felt authenticity, above and beyond COVID-related stress.

Jointly, the three preceding hypotheses imply that the indirect effect of COVID-related stress on felt authenticity via nostalgia would be positive and, hence, directionally opposite to the negative direct effect of COVID-related stress on felt authenticity. Such a results pattern amounts to inconsistent mediation or suppression (MacKinnon et al., 2002). These situations can be described in terms of an implicit causal model involving an initial predictor (i.e., COVID-related stress), an intervening variable (i.e., nostalgia), and an outcome (i.e., felt authenticity; Figure 1). Suppression occurs when the direct effect of the initial predictor is directionally opposite to its indirect effect via the intervening variable. Although statistical suppression has been viewed with skepticism, partly because of its alleged elusiveness (Wiggins, 1973), such patterns are common and often of considerable theoretical import (Paulhus et al., 2004). This reasoning leads to the fourth hypothesis.

Hypothesis 4: Whereas the direct association between COVID-related stress and felt authenticity is negative, their indirect association via nostalgia is positive.

Study 1

We tested the hypotheses in an online study among U.K. residents during Spring 2021, when COVID-19 restrictions were in effect. The study was advertised via Prolific Academic and the School of Psychology's participant pool management system, eFolio (at the University of Southampton). The study protocol was reviewed and approved by the second and third authors' university ethics committee.

Method

Participants

We aimed to achieve power $(1-\beta) = .80$ to detect a small-to-medium effect size ($r = .15$; two-tailed $\alpha = .05$).¹ This required a target sample size of at least 346, which we exceeded to hedge against attrition. We recruited 120 members of the U.K. general public via Prolific (for £7.50 or \$10.35) and 247 University of Southampton undergraduate students via eFolio (for course credit). The total sample size was 367 (245 women, 107 men, 4 other, 11 unreported). Participants ranged in age from 17 to 70 years ($M = 24.03$, $SD = 9.22$). Of them, 56% identified as Welsh/English/Scottish/Northern Irish/British, 20% as any other White background, 4% as African, and 4% as Indian. No other ethnicity made up more than 4% of the sample.

Measures

COVID-Stress. To measure COVID-19 related stress, we used three dimensions from the COVID Stress Scale (Taylor et al., 2020, pp. 1 = not at all, 5 = extremely): Danger (e.g., "I am worried about catching the virus"; $M = 2.41$, $SD = 0.98$, $\alpha = .91$), Xenophobia (e.g., "I am worried that foreigners are spreading the virus in my country"; $M = 1.55$, $SD = 0.86$, $\alpha = .95$), and Contamination (e.g., "I am worried about taking change in cash transactions"; $M = 2.27$, $SD = 1.00$, $\alpha = .94$). The three dimensions were highly correlated ($r_s > .42$, $p_s < .001$), and we therefore combined them to create a composite index of COVID-related stress ($M = 2.08$, $SD = 0.80$, $\alpha = .95$). Higher scores represent more stress. We did not administer the Socioeconomic Consequences, Traumatic Stress, and Compulsive Checking dimensions of the COVID Stress Scale, because they assess more extreme responses and would likely have limited variance in the present sample of U. K. undergraduate students.

Nostalgia. We assessed nostalgia with the 7-item Southampton Nostalgia Scale (Barrett et al., 2010; Sedikides, Wildschut, Routledge, Arndt et al., 2015). Participants first read a dictionary definition of nostalgia ("A sentimental longing or wistful affection for the past;" *The New Oxford Dictionary of English*, 1998) and then responded to the items. Two of the items concern the propensity to nostalgize (e.g., "How prone are you to feeling nostalgic?"; 1 = *not at all*, 7 = *very much*), two the frequency of nostalgizing (e.g., "Generally speaking, how often do you bring to mind nostalgic experiences?"; 1 = *very rarely*, 7 = *very frequently*), and three the personal relevance of nostalgia (e.g., "How important is nostalgia for you?"; 1 = *not at all*, 7 = *very much*; $M = 4.33$, $SD = 1.07$, $\alpha = .92$). For validation information, see: Biskas et al. (2022), Kelley et al. (2022), and Wildschut and Sedikides (2022b). Higher scores reflect greater nostalgia.

Authenticity. Participants rated their felt authenticity on the 4-item Southampton Authenticity Scale, which has been adapted from Fleeson and Wilt (2010) and Sedikides et al. (2017). The items are: “I am feeling authentic,” “I feel true to myself,” “I feel like the real me,” “I feel genuine” (1 = *strongly disagree*, 7 = *strongly agree*; $M = 5.32$, $SD = 1.18$, $\alpha = .92$). The scale has been validated by Kelley et al. (2022).²

Positive Affect and Negative Affect. As control variables, we assessed positive affect (PA; e.g., “happy,” “pleased”) and negative affect (NA; e.g., “sad,” “distressed”) with six items each (1 = *not at all*, 5 = *very much*; Feldman Barrett & Russell, 1998). We averaged the respective items to create indices of PA ($M = 2.70$, $SD = 0.99$, $\alpha = .92$) and NA ($M = 2.01$, $SD = 0.92$, $\alpha = .92$).

Results and Discussion. Table 1 presents correlations among the study variables. Supporting Hypothesis 1, COVID-related stress was negatively associated with authenticity. Consistent with Hypothesis 2 COVID-related stress was positively associated with nostalgia. To test Hypothesis 3, we regressed authenticity on COVID-related stress and nostalgia. Supporting the hypothesis, nostalgia was positively associated with authenticity when controlling for COVID-related stress, $b = 0.15$, $SE = 0.06$, $t(354) = 2.68$, $p = .008$, 95% CI = [0.04, 0.27], $b^* = .14$. COVID-related stress was negatively associated with authenticity when controlling for nostalgia, $b = -0.19$, $SE = 0.08$, $t(354) = -2.49$, $p = .013$, 95% CI = [-0.34, -0.04], $b^* = -.13$. We then used the PROCESS 4.1 macro (Hayes, 2022, model 4, 10,000 bootstrap samples) to test the indirect effect (denoted as ab) of COVID-related stress on authenticity via nostalgia. Consistent with Hypothesis 4, the indirect effect of COVID-related stress via nostalgia on authenticity was positive and significant, $ab = 0.022$, $SE = 0.013$, 95% CI [0.003, 0.056], $ab_{\text{completely standardized}} = .015$.

We assessed the robustness of the indirect effect and its constituent components by introducing control variables as covariates. We controlled simultaneously for age, gender (female vs. other), ethnicity (Welsh/English/Scottish/Northern Irish/British vs. other), and PA and NA. We first examined the separate components of the indirect effect. The positive association between COVID-related stress and nostalgia remained significant when we introduced the control variables, $b = 0.17$, $SE = 0.08$, $t(348) = 2.23$, $p = .027$, 95% CI = [0.02, 0.32], $b^* = .13$, as did the positive association between nostalgia and authenticity, $b = 0.14$, $SE = 0.05$, $t(347) = 2.64$, $p = .009$, 95% CI = [0.04, 0.25], $b^* = .13$. Importantly, the indirect effect of COVID-related stress on authenticity via organizational nostalgia also remained significant, $ab = 0.024$, $SE = 0.015$, 95% CI [0.004, 0.064], $ab_{\text{completely standardized}} = .016$. The residual negative association between COVID-related stress and authenticity was no longer significant after we included the control variables, $b = -0.12$, $SE = 0.08$, $t(347) = -1.55$, $p = .122$, 95% CI = [-0.27, 0.03], $b^* = -.08$.³ In summary, Study 1 provided

Table 1. Correlations Among Study Variables in Study 1.

	1	2	3	4	5
1. COVID-related stress	–	.11*	–.11*	–.09	.30***
2. Nostalgia		–	.12*	.05	.02
3. Authenticity			–	.29***	–.35***
4. Positive Affect				–	–.30***
5. Negative Affect					–

Notes: Number of observations varies from 357 to 365 due to missing values. * $p < .05$, ** $p < .01$, *** $p < .001$.

initial support for the hypotheses: nostalgia counteracted the negative link between COVID-related stress and authenticity.

Study 2

We sought to extend the findings from Study 1 in two ways. First, we took a domain-specific approach to test the hypotheses by examining organizational nostalgia among a sample of working adults. Organizational nostalgia is defined as “a sentimental longing or wistful affection for past events in, and aspects of, one’s organizational life” (Leunissen et al., 2018, p. 44). Qualitative studies suggest that the emotion is “a pervasive one, dominating the outlook of numerous organizational members” (Gabriel, 1993, p. 119). When prompted, employees readily provide nostalgic recollections that refer to organizational objects, such as colleagues, work challenges, or buildings, and these recollections are generally positive (Leunissen et al., 2018). Following relocation of the premises, coffee shop employees fondly remember their close-knit community (Milligan, 2003). After a hospital merger, nurses exalt their prior warm and fulfilling, albeit demanding, work environment (Gabriel, 1993). As universities become more centralized and managerial, academics recall affectionately the former collegial and autonomous atmosphere (Ylijoki, 2005). However, quantitative research on organizational nostalgia is scarce. In a pioneering series of studies, Leunissen et al. (2018) demonstrated that an experimental induction of organizational nostalgia, based on vivid autobiographical recall of a nostalgic (vs. ordinary) event experienced in one’s organization, elevates work meaning and, by so doing, lowers turnover intentions. Thus, generalizing the hypotheses to the workplace, we examine whether organizational nostalgia is a critical mediator in a positive pathway from COVID-related stress to felt authenticity at work.

Second, we test the model using a daily diary study design that covers five workdays. We measured COVID-related stress at the beginning (9:00 a.m.) of each workday, organizational nostalgia at midday (12:00 noon), and authenticity at the end of the workday (5:00 p.m.). In this design, we measure the independent variable, mediator, and outcome variable, at three time-points to reduce shared response biases. Further, the diary study design enabled us to test the model at the within-person level across five days, in addition to testing between-person level associations. The study protocol was reviewed and approved by the first author’s University Institutional Review Board.

Method

Participants and Procedure

As in Study 1, we estimated a small-to-medium effect size ($r = .15$) and aimed for a minimum of 346 participants to achieve power ($1-\beta$) = .80 at two-tailed $\alpha = .05$. We exceeded this target to hedge against attrition over the 5-day study period, recruiting 495 participants via Prolific Academic, remunerating each with £6 (\$8.28 – but see below). We launched the study on October 7th, 2020 when COVID-19 restrictions were in effect and cases were rising. Participants were full-time employees living and working on a 9:00 a.m. to 5:00 p.m. schedule in the U.K. Seventeen participants failed an attention check on the recruitment survey and were excluded from taking part in the daily diary study. We distributed the daily diary study on October 12th, 2020, the following Monday, to the

478 participants who completed the recruitment survey and passed the attention check. We administered three daily surveys on five consecutive workdays (i.e., Monday to Friday). We informed participants that they would receive further payments at an hourly rate of £10 (\$13.80), if they completed successfully all three surveys on a single day. We sent out the first survey at 9:00 a.m., assessing participants' COVID-related stress. We sent out the second survey at 12:00 noon, assessing their organizational nostalgia. We sent out the last survey at 5:00 p.m., assessing their felt authenticity.

We excluded a further 37 participants who did not complete any of the three key measures (i.e., COVID-stress, organizational nostalgia, and authenticity) during the daily diary study. The final sample comprised 441 participants (276 women, 161 men, 3 other, 1 unreported). Participants ranged in age from 20 to 67 ($M = 35.96$, $SD = 10.11$ years). Of them, 82.77% identified as European/Caucasian, 2.95% as African, 4.31% as Asian, and 9.97% as Others/Mixed race. Participants' average tenure with their current organization was 6.14 years ($SD = 6.14$). Participants originated from diverse sectors, including education and training (14.29%), healthcare (11.11%), financial services (7.71%), and services (6.80%). In addition, 15.23% of them lived alone, 65.53% were married/cohabiting, 34.24% had children, and 8.39% had an elderly or other dependent. Finally, 3.17% of participants reported that they had been diagnosed with COVID-19, 9.30% had a family member diagnosed, 15.19% had a close friend diagnosed, and 17.23% had a colleague diagnosed. In total then, approximately 45% of participants had been immediately affected by the virus. The number of participants who completed all three key measures on the same day was 319 on Monday, 137 on Tuesday, 405 on Wednesday, 388 on Thursday, and 402 on Friday.⁴

Measures

Recruitment Survey. In the recruitment survey, we explained the purpose of the study and obtained informed consent. We also administered an attention check and assessed demographic, work-related (i.e., tenure duration, work sector, work schedule), and COVID-related (i.e., own diagnosis, diagnosis of friends, family, and colleagues) information.

Daily Surveys. In the Time 1 survey, administered at 9:00 a.m., participants rated their COVID-related stress on three items that we created for this study (1 = *not at all*, 5 = *very much*): "This morning, I felt a great deal of stress because of the COVID situation," "This morning, I found the COVID situation extremely stressful," "This morning, I felt stressed at work due to the COVID situation." For each day, we averaged the items to create an index of daily COVID-related stress ($M = 2.58$, $SD_{between} = 1.08$, $SD_{within} = 0.41$, $\alpha = .91$).

In the Time 2 survey, administered at 12:00 noon, participants rated how nostalgic they felt (1 = *not at all nostalgic*, 7 = *very nostalgic*) about eight aspects of their organizational life: "my co-workers," "my team," "my friends at work," "the fun I had," "the camaraderie," "banter with colleagues," "meal times," "office parties." We selected these aspects by drawing on common organizational nostalgia themes (Gabriel, 1993; Leunissen et al., 2018). We defined organizational nostalgia for participants as "a sentimental longing or wistful affection for past events in, and aspects of, one's organizational life." For each day, we averaged the items to form an index of daily organizational nostalgia ($M = 3.57$, $SD_{between} = 1.44$, $SD_{within} = 0.64$, $\alpha = .95$).

In the Time 3 survey, administered at 5:00 p. m., participants rated their felt authenticity on the Southampton Authenticity Scale: "Right now, I am feeling authentic," "Right now, I feel true to myself," "Right now, I feel like the real me," "Right now, I feel genuine" (1 = *strongly disagree*, 6 = *strongly agree*).⁵ We created a daily index of felt authenticity by averaging these items ($M = 4.49$, $SD_{between} = 0.92$, $SD_{within} = 0.62$, $\alpha = .93$). In each of the three daily surveys, we randomized the items within each scale separately for each participant.⁶

The between-person standard deviations for daily measures of COVID-related stress, organizational nostalgia, and authenticity were noticeably larger than their within-person standard deviations. We tested unconditional-means models to estimate what proportion of the total variance in these variables occurs between persons and within persons, respectively (Singer, 1998). The proportion of total variance that occurred within persons (i.e., between days) was modest for COVID-related stress (17%) and organizational nostalgia (21%), and was moderate for felt authenticity (40%). For all three variables, most of the variance occurred between persons. These findings show that there is considerable amount of clustering of daily ratings within participants and underline the need to take into account the multilevel nature of the daily diary data.

Results and Discussion. We used SAS Proc Mixed to test a series of multilevel models, with days (level-1 units) nested within participants (level-2 units). All analyses treated the intercept as a random effect and included random slopes for level-1 predictors (i.e., daily COVID-related stress and daily organizational nostalgia). We centered level-1 predictors within participants to test within-person level effects. We treated the group mean of the level-1 predictors (i.e., average of daily scores for each participant) as a level-2 predictor to test between-person level effects. We grand-mean centered these level-2 predictors. Thus, we simultaneously tested the within- and between-person level effects in each model. We used the Satterthwaite method to calculate denominator degrees of freedom. The number of observations varied between analyses due to missing values.

First, supporting Hypothesis 1 at the between-person level, participants' mean level of COVID-related stress across the 5-day period was negatively associated with felt authenticity, $b = -0.17$, $SE = 0.04$, $t(426) = -4.09$, $p < .001$, 95% CI $[-0.25, -0.09]$. Further, supporting Hypothesis 1 at the within-person level, on days when participants experienced higher levels of COVID-related stress at the start of the workday (relative to their mean level of COVID-related stress) they felt less authentic at the end of the workday, $b = -0.12$, $SE = 0.05$, $t(142) = -2.66$, $p = .009$, 95% CI $[-0.21, -0.03]$. Thus, Hypothesis 1 was buttressed at both between-person and within-person levels.

Second, supporting Hypothesis 2 at the between-person level, participants' mean level of COVID-related stress across the 5-day period was positively associated with organizational nostalgia, $b = 0.13$, $SE = 0.06$, $t(430) = 1.99$, $p = .048$, 95% CI $[0.001, 0.25]$. However, Hypothesis 2 was not supported at the within-person level. Participants did not report significantly stronger organizational nostalgia on days when they experienced higher levels of COVID-related stress (relative to their mean stress level), $b = 0.07$, $SE = 0.05$, $t(167) = 1.40$, $p = .164$, 95% CI $[-0.03, 0.16]$. Hypothesis 2 was buttressed at the between-person level, but not at the within-person level (although the within-person association was in the predicted direction).

Next, we tested whether organizational nostalgia would predict higher felt authenticity, over and above COVID-related stress (Hypothesis 3). The hypothesis was supported at the between-person level: participants' mean level of organizational nostalgia across the 5-day period was prognostic of higher felt authenticity, $b = 0.10$, $SE = 0.03$, $t(497) = 3.09$, $p = .002$, 95% CI [0.04, 0.16]. The residual negative association between participants' mean level of COVID-related stress and authenticity was also significant, $b = -0.18$, $SE = 0.04$, $t(497) = -4.42$, $p < .001$, 95% CI [-0.27, -0.10]. Hypothesis 3 was not supported at the within-person level, however: participants did not report significantly higher authenticity on days when they experienced more organizational nostalgia (relative to their mean nostalgia level), $b = 0.03$, $SE = 0.03$, $t(380) = 1.07$, $p = .287$, 95% CI [-0.03, 0.09]. The residual negative association between daily COVID-related stress and authenticity was significant; participants reported less authenticity on days when they experienced more COVID-related stress (relative to their mean stress level), $b = -0.13$, $SE = 0.05$, $t(348) = -2.73$, $p = .007$, 95% CI [-0.22, -0.04].

Jointly, the three preceding hypotheses implied a fourth one, namely that the indirect effect of COVID-related stress on felt authenticity via organizational nostalgia would be positive and, hence, directionally opposite to the negative direct effect of COVID-related stress on authenticity. In statistical parlance, such a results pattern amounts to inconsistent mediation or suppression (Paulhus et al., 2004). Hypotheses 2 and 3 were supported at the between-person level only. Accordingly, we tested Hypothesis 4 at the between-person level, using the PROCESS 4.1 macro (Hayes, 2022, model 4, 10,000 bootstrap samples) to test the indirect effect (denoted as ab) of COVID-related stress on authenticity via organizational nostalgia (using participants' mean ratings across the 5-day period). Supporting Hypothesis 4, the indirect effect of COVID-related stress via organizational nostalgia on felt authenticity was positive and significant, $ab = 0.011$, $SE = 0.007$, 95% CI [0.007, 0.024], $ab_{\text{completely standardized}} = .012$.

Next, we included control variables as covariates to assess the robustness of the indirect effect and its constituent components at the between-person level. Specifically, we controlled simultaneously for age, gender (female vs. other), ethnicity (White vs. other), organizational tenure, and whether participants had previously been diagnosed with COVID-19. All control variables were level-2 predictors. We first examined the separate components of the indirect effect. The positive association between COVID-related stress and organizational nostalgia remained significant, $b = 0.14$, $SE = 0.07$, $t(419) = 2.04$, $p = .042$, 95% CI = [0.01, 0.27], $b^* = .10$, as did the positive association between organizational nostalgia and authenticity, $b = 0.08$, $SE = 0.03$, $t(418) = 2.66$, $p = .008$, 95% CI = [0.02, 0.14], $b^* = .13$. Importantly, the indirect effect of COVID-related stress on authenticity via organizational nostalgia also remained significant, $ab = 0.011$, $SE = 0.007$, 95% CI [0.009, 0.031], $ab_{\text{completely standardized}} = .013$. Finally, the residual negative association between COVID-related stress and authenticity remained significant as well, $b = -0.18$, $SE = 0.04$, $t(418) = -4.40$, $p < .001$, 95% CI = [-0.27, -0.10], $b^* = -.21$.⁷

In summary, at the between-person level, Study 2 conceptually replicated Study 1, further supporting the regulatory model of nostalgia. Participants who reported a higher level of COVID-related stress over the course of the 5-day study period felt less authentic, but also experienced more organizational nostalgia. Organizational nostalgia, in turn, predicted increased authenticity, thereby weakening the link between COVID-related stress and reduced authenticity. At the within-person level, we found support for

Hypothesis 1 only. COVID-related stress, organizational nostalgia, and authenticity all varied considerably less at the within-person level than at the between-person level. We suspect, then, that the weaker findings at the within-person (relative to between-person) level are due to the restriction of range; the key variables showed relatively limited day-to-day variation, leaving little room for associations at the within-person level.

General Discussion

We proposed that COVID-related stress undermines authenticity, but also conduces to nostalgia. We further hypothesized that nostalgia increases felt authenticity, thereby counteracting the deleterious effect of COVID-related stress. The results of Studies 1–2 supported this regulatory model of nostalgia (Sedikides, Wildschut, Routledge, Arndt et al., 2015; Wildschut & Sedikides, 2022a). COVID-related stress was negatively associated with authenticity (Hypothesis 1) but predicted higher levels of nostalgia (Hypothesis 2). In turn, nostalgia was prognostic of greater authenticity, when controlling for COVID-related stress (Hypothesis 3). This pattern of results amounted to suppression or inconsistent mediation; the positive indirect effect of COVID-related stress on authenticity via nostalgia was directionally opposite to the negative direct effect of COVID-related stress on authenticity (Hypothesis 4). These findings highlight the importance of recognizing not only the pandemic's negative consequences, but also people's adaptive responses.

Theoretical and Practical Implications

In the context of the COVID-19 pandemic, nostalgia counteracts the negative psychological consequences of COVID-related stress. By identifying nostalgia as a homeostatic corrective, the regulatory model redresses an imbalance in the literature. Previous perspectives on the restorative function of positive emotions induced positive affect (for example, through meditation or comic movie clips) and then showed that such exogenous manipulations facilitate coping, such as increasing ego-resilience (Fredrickson et al., 2008) or task persistence (Tice et al., 2007). In contrast to these approaches, we conceptualized nostalgia as a critical part of the homeostat – an intrinsic component of the regulatory feedback loop. Further, researchers have emphasized the importance of reducing (or decoupling) the inverse association between negative and positive affective states to maintain psychological well-being (Reich et al., 2003). The current findings go beyond this decoupling approach by demonstrating that a negative state (i.e., COVID-related stress) can, over time, even conduce to a positive one (i.e., felt authenticity), by triggering the countervailing mechanism of nostalgia.

The findings contribute to the growing body of research on authenticity (Hewlin et al., 2020). For example, past research has shown that participants felt more authentic when in a relatively good than bad mood (Lenton et al., 2016; Lenton, Slabu et al., 2013). Discrete positive emotions – such as contentment, relaxation, and enthusiasm – are related to authenticity, whereas negative emotions – such as anxiety, sadness, and disappointment – are related to inauthenticity (Lenton, Slabu et al., 2013). Over and beyond these earlier findings, we examined the association between affect and state authenticity at both the between-person and within-person levels. Specifically, individuals who experienced more COVID-related stress reported feeling less authentic (Studies 1 and 2). Further, on days

when individuals experienced more than usual COVID-related stress in the morning, they felt less authentic at the end of the day (Study 2). Importantly, the negative affective trigger of inauthenticity (i.e., COVID-related stress) was positively associated with nostalgia, which restored authenticity.

The findings also contributed to the organizational nostalgia literature in two ways. First, this emotion has been controversial. Some authors criticized its role, suggesting that it subserves the status quo and creates organizational inertia (Natali, 2004; Rosaldo, 1989; Strangleman, 1999). Following this line of reasoning, one might argue that the higher organizational nostalgia due to COVID-19 related stress will engender a contrast with a brighter past, aggravating stress and reducing felt authenticity. The results supported an alternative perspective (Humphreys & Brown, 2002; Leunissen et al., 2018; Milligan, 2003) that highlights the assimilative character of organizational nostalgia, its restorative function, and its workplace benefits. Second, Study 2 is the first empirical effort to test antecedents and consequences of organizational nostalgia simultaneously. In particular, previous work has rarely examined the affective antecedents of organizational nostalgia. The current findings fill this knowledge gap by illustrating that COVID-related stress was linked with elevations in organizational nostalgia and ensuring authenticity.

Moreover, this research underlines the importance for communities and organizations to continue investing in relationships among community members and organizational employees, as well as various cultural artifacts during and after a crisis. The findings indicate that, in a crisis, people lean on nostalgic recollections of their past life. For example, in Study 2, we operationalized organizational nostalgia in terms of specific events and aspects of organizational life, ranging from buildings or meal time through colleagues and friends to challenge and camaraderie. These items formed an internally consistent scale, suggesting that organizations or community leaders should not ignore elements such as social events and physical buildings, even when social-distancing policies are in effect. The clear implication is that, particularly in turbulent times, we should continue to invest in cultural artifacts, such as organizing social events, sending birthday cards to organizational members, and coordinating shared happy hour via online platforms. Such investments can build people's bank of nostalgic memories and thereby foster their psychological adjustment. Admittedly, the effect sizes in these two studies were relatively small, but small effects can accumulate over time and become consequential in the medium to long run (Funder & Ozer, 2019; Götz et al., 2022).

Limitations and Future Directions

As these studies are correlational, we are unable to establish causality. Nevertheless, testing the regulatory model in the context of a cross-sectional study (Study 1) and daily diary study (Study 2) was informative, because it placed the proposed (causal) theory at risk (Fiedler et al., 2011). Both studies supported the regulatory model at the between-person level. Yet, in Study 2, we did not find support for the hypotheses at the within-person level. Several factors might contribute to this lack of support. First, COVID-related stress, organizational nostalgia, and authenticity all showed greater between-person than within-person variance, which likely contributed to the lack support for the hypotheses at the within-person level (i.e., due to restriction of range). Related to this, certain times during the workday may offer fewer (or more)

opportunities to experience COVID-related stress, organizational nostalgia, or authenticity. If so, we may have inadvertently assessed one or more of these variables at an inopportune time, thereby constraining within-person variance. Second, it is possible that the time interval between the 9:00 a.m., 12:00 noon, and 5:00 p.m. assessments was too wide to capture dynamic within-person emotional processes, which tend to unfold on a shorter time scale (Verduyn et al., 2009).

These limitations generate two key recommendations for future research. First, experimental replications of these findings are needed to corroborate the postulated causal flow (Spencer et al., 2005). In this regard, Kelley et al. (2022) recently took the first step by demonstrating that an experimental nostalgia induction increased authenticity. Second, future experience-sampling studies could more flexibly engage participants by using dedicated mobile app platforms. This would afford more precise control on when and where participants complete the survey and allow researchers to more intensively sample time points across the entire workday. Such studies should ideally measure all three variables (i.e., stress, nostalgia, and authenticity) at each time point to test alternative causal pathways and models. For example, nostalgia need not occur after a stressor to be helpful; a prior nostalgic episode may enable one to cope more effectively with subsequent stress (Routledge et al., 2011; Zhou et al., 2022). Alternatively, nostalgia might create stress by reminding one of a better past (Beiser & Wickrama, 2004).

We attempted to identify a positive pathway through which nostalgia maintains psychological adjustment during COVID-19. In so doing, we did not intend to downplay the negative impact that this pandemic has had. Indeed, the zero-order relation between COVID-related stress and authenticity was negative (rather than null) in both studies, indicating that nostalgia did not fully offset its deleterious impact. To address this issue, future research could examine cognitive appraisals of disruption due to COVID-19. Although some people experience disruption as a threat, some others might perceive it as a challenge (Lazarus & Folkman, 1984). For example, some employees might regard workplace disruption as a window to push for digitalization. Examining cognitive appraisals also allows for the simultaneous consideration of negative and positive consequences of the pandemic.

Follow-up investigations could also explore how individual differences shape the palliative role of nostalgia. For example, trait resilience can moderate responses to stress (Mitchell et al., 2019; Tugade & Fredrickson, 2004). High-resilience (compared to low-resilience) individuals are more likely to recruit nostalgia to counteract loneliness (Zhou et al., 2008) and reap its psychological benefits (Wildschut et al., 2019). Resilience may strengthen the association between various stressors and nostalgia, as well as the beneficial downstream implications of nostalgia.

Conclusion

In two methodologically diverse studies, we examined the regulatory function of nostalgia during the COVID-19 pandemic. Study 1 tested the regulatory model at the between-person level and Study 2 tested it at both the between- and within-person levels. Results of both studies supported the model at the between-person level: Individuals who experienced more COVID-related stress also reported more nostalgia. Those who experienced more nostalgia, in

turn, reported feeling more authentic. In Study 2, the model was not supported at the within-person level. We proposed two explanations for these null findings: limited within-person variance in daily assessments producing restriction of range, and wide time intervals between daily assessments limiting our capacity to capture short-term within-person emotional processes. To address these limitations as well as examine alternative causal models, we encourage the implementation of experimental and intensive longitudinal designs.

Notes

1. We based this approximate effect size on the correlations between loneliness and nostalgia reported in two studies by Zhou et al. (2008, Studies 1 and 4). These correlations were $r(758) = .14$ and $r(193) = .27$, respectively. We weighted the smaller correlation more heavily, because it was based on a larger sample. We selected the correlation between loneliness and nostalgia as benchmark, because social isolation and ensuing loneliness are aspects of COVID-19 related stress.
2. Participants completed a number of additional measures that were unrelated to our present research objectives. The purpose of these additional measures was to examine the role of nostalgia in transition to university. Items assessed: nostalgia for home community (1 item), identity continuity (2 items), perceived academic obstacles (3 items), and life satisfaction (5 items). These items were administered together in a separate section of the survey, following our focal study variables.
3. These analyses produced a number of additional findings. Female (vs. other) participants reported higher nostalgia, $b = 0.30$, $SE = 0.13$, $t(348) = 2.39$, $p = .018$, 95% CI [0.05, 0.54], $b^* = .13$. Also, age, $b = 0.02$, $SE = 0.01$, $t(347) = 3.40$, $p < .001$, 95% CI [0.01, 0.03], $b^* = .17$, and PA, $b = 0.25$, $SE = 0.06$, $t(347) = 4.13$, $p < .001$, 95% CI [0.13, 0.37], $b^* = .21$, were positively associated with authenticity, whereas NA was negatively associated with it, $b = -0.32$, $SE = 0.07$, $t(347) = -4.67$, $p < .001$, 95% CI [-0.46, -0.19], $b^* = -.25$.
4. The Tuesday response rate was low, as we initially used the same morning survey link from the previous day. Many participants did not recognize that they needed to refresh the screen, or else the link would indicate that they had finished the survey. We fixed the problem as soon as we became aware of it, by creating a new survey link every day.
5. The state version of the Southampton Authenticity Scale has also been validated by Kelley et al. (2022).
6. We included a number of additional measures that were unrelated to the current research objectives. These measures focused on examining the role of organizational nostalgia in the context of the job demands-resources model of burnout (Demerouti et al., 2001). Items assessed job demands (5 items), job resources (6 items), burnout (15 items), and job satisfaction (5 items).
7. These analyses yielded one additional association. As in Study 1, older (compared to younger) participants reported significantly higher levels of authenticity, $b = 0.02$, $SE = 0.01$, $t(418) = 3.09$, $p = .002$, 95% CI [0.01, 0.03], $b^* = .17$.

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

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