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Psychology and Nostalgia: Towards a Functional Approach

Early psychological treatises equated nostalgia with homesickness. Nostalgia, distinct from homesickness, only became the subject of systematic psychological research by the turn of the 21th century. Since then, empirical efforts have clarified its characteristics, triggers, and functions. This chapter organises the wealth of contemporary findings by proposing a regulatory model, in which nostalgia serves as a homeostatic corrective (or balancing feedback mechanism) that counteracts the negative effects of psychological perturbations and adverse environmental conditions. We review evidence that discomforting, aversive states trigger nostalgia. We then show how, in turn, nostalgia boosts a number of key psychological functions. We come full circle with an overview of studies that tested the complete regulatory model and demonstrated the positive downstream consequences of adversity-induced nostalgia. After considering alternative theoretical perspectives, we conclude the chapter by surveying future challenges and opportunities, and evaluate the potential utility of our model for understanding collective nostalgia.

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Chapter 5

Psychology and nostalgia

- Toward a functional approach

Tim Wildschut and Constantine Sedikides

Introduction

The word 'nostalgia' was coined by the Swiss physician Johannes Hofer (1688/1934). For Hofer, nostalgia was synonymous with homesickness, and he equated the two in the title of his dissertation, 'Nostalgia, oder heimwehe' ('Nostalgia, or homesickness'). For centuries, nostalgia denoted homesickness. As recently as 1943, Willis McCann conducted what, in his words, was the first 'systematic and controlled investigation' of nostalgia by comparing 'one hundred college students who were or who recently had been homesick ... with 100 college students who never had been homesick while away from home' (McCann 1943:97). Yet, current dictionary definitions reveal that nostalgia and homesickness have acquired distinct meanings. Before we can embark on a journey through the psychological literature, then, we have to identify when nostalgia and homesickness went their separate ways. It appears that their path forked during the post-war years, as by 1954 nostalgia had become a subject of psychological theorizing in its own right, with its now familiar positive connotations. The psychoanalyst Alexander Martin (1954) proposed that nostalgia plays an essential role during recuperation and consolidation phases of development:

I ... would rather think of nostalgia as a diastolic phase of the growth rhythm, which is true not only of man, but of nature as a whole. ... Always after a phase of rapid development, whether it be scholastic, athletic, artistic, there is what has been referred to as a slump ... On this natural return to strength, if not rejected, the individual surges forward to a still higher point of development (Martin 1954:103).

By conceptualizing nostalgia as a springboard for growth, Martin foreshadowed recent evidence, to be reviewed later in this chapter, that the emotion is a source of approach-oriented processes, including creativity, inspiration, risk-taking, and goal pursuit (Sedikides and Wildschut 2016, 2020). In the same year, the social and personality psychologist Gordon Allport (1954) published his influential *The Nature of Prejudice*. He proposed that nostalgia could play a role in reducing prejudice and forming bonds between individuals from different social groups:

The plan ... brings together people of diverse ethnic backgrounds in a 'neighborhood festival.' The leader may start discussion by asking some members to tell about his memories of autumn, of holidays, or of food he enjoyed as a child. The report reminds other participants of equally nostalgic memories, and soon the group is animatedly comparing notes concerning regional and ethnic customs. The distance of the memories, their warmth and frequent humor, lead to a vivid sense of commonality (Allport 1954:454).

Remarkably, in his positive description of nostalgia, Allport appeared unconcerned by its historical association with homesickness, and assumed that his audience was familiar with, and shared, his understanding of the emotion. It is tempting to speculate that the relatively sudden separation of homesickness and nostalgia was accelerated by the diasporas sparked by World War II and the longing many would have experienced, not just for a former home, but for loved ones, communities, and entire ways of life. Over the following years the view of nostalgia as a fundamental, universal, and adaptive human emotion distinct from homesickness gained traction in the social sciences. The sociologist Fred Davis (1977) wrote:

... no matter how one later comes to revaluate that piece of past which is the object of nostalgia—or for that matter, irrespective of how one may later choose to interpret the meaning of the nostalgic experience itself—the nostalgic feeling is infused with sentiments of past beauty, pleasure, joy, satisfaction, goodness, happiness, love, etc.; in sum, any or several of the positive affects of being. Nostalgic feeling is almost never anchored in those sentiments commonly thought of as negative--for example, pain, unhappiness, frustration, despair, hate, abuse, etc. (Davis 1977:418).

Still, this emerging "new look" on nostalgia had to contend with the dominant psychodynamic approach, which emphasized maladaptive aspects of the emotion. Psychoanalysts stressed "the importance of the preoedipal mother in the emotional developments of nostalgics" (Kleiner 1977:17), and viewed nostalgia as "a regressive manifestation closely related to the issue of loss, grief, incomplete mourning, and, finally, depression" (Castelnuovo-Tedesco 1980:110). And so, from the point of departure in the 1950s, nearly five decades would pass before nostalgia finally became the subject of systematic psychological research around the turn of the 20th century. Since then, empirical findings have clarified the characteristics of nostalgia, identified its triggers, and documented its functionality. We (Sedikides, Wildschut, Routledge, Arndt et al. 2015; Sedikides and Wildschut 2019; Sedikides and Wildschut 2020) have organized these findings using the framework of a regulatory model, which proposes that nostalgia serves as a homeostatic corrective: negative states trigger nostalgia, which, in turn, restores

balance by counteracting these negative states. In this chapter, we present the regulatory model by means of illustrative studies, passing a magnifying glass over findings within the social domain. We review evidence that discomforting, adverse states trigger nostalgia. We then show how, in turn, nostalgia boosts a number of key psychological functions. We come full circle with an overview of studies that tested the full model, demonstrating the positive downstream effects of adversity-induced nostalgia. In concluding the chapter, we consider future challenges and opportunities, and move from the personal to the collective level of analysis discussing the utility of the regulatory model for understanding collective nostalgia. We begin by addressing the basic question of how laypersons view nostalgia.

What is nostalgia?

It is one thing to show that contemporary dictionary definitions of nostalgia and homesickness diverge, it is another to demonstrate that the way people think about nostalgia and its characteristics dovetails with this lexicographic knowledge. Erica Hepper and colleagues (2012) carried out a systematic investigation of lay conceptions of nostalgia among UK and US participants. The results of their prototype analyses, in which lay persons were asked to identify which features they considered most characteristic (or prototypical) of the construct 'nostalgia,' revealed that participants conceptualized nostalgia as a predominantly positive, social, and pastoriented emotion. In nostalgic reverie, one brings to mind a fond and personally meaningful event, typically involving one's childhood or a close relationship. The person often sees the event through rose-colored glasses, misses that time or relationship, and may even long to return to the past. As a result, they feel sentimental, typically happy but with a hint of sadness. These results demonstrate that lay conceptions of nostalgia align with formal dictionary definitions, as do the findings of content analyses (Abeyta et al. 2015; Wildschut et al. 2006) and automated text analyses (Wildschut, Sedikides and Robertson 2018) of written accounts of nostalgic experiences. This prototypic view of nostalgia is endorsed by people of all ages (Hepper et al. 2020; Madoglou et al. 2017) and cuts across cultural boundaries (Hepper et al. 2014).

Additional research, using diverse methodological approaches, has delineated nostalgia by contrasting it with other emotions and alternative ways of reflecting on the past. Nostalgia's unique appraisal profile indicates that it is the only emotion elicited by events which are unique, feel temporally or psychologically distant, and are predominantly pleasant but irretrievable (Van Tilburg et al. 2019). Multidimensional scaling analyses comparing and contrasting 11 self-conscious emotions revealed that nostalgia is characterized by high pleasantness and low arousal. In this regard, it is most similar to pride, self-compassion, and gratitude, and least similar to shame, guilt, and embarrassment (Van Tilburg, Wildschut and Sedikides 2018). Lastly,

canonical correlation analyses documented that nostalgia serves different autobiographical memory functions than do other modes of past-oriented reflection, such as rumination and counterfactual thinking. In particular, nostalgia emphasizes intimacy maintenance (i.e., relying on memories to establish and maintain closeness to loved ones), but de-emphasizes bitterness revival (i.e., using memories to revive resentment and grievances; Cheung, Wildschut and Sedikides 2018).

Triggers of nostalgia

Nostalgia is elicited both by external or environmental triggers and by internal or subjective triggers. External triggers include music (Barrett et al. 2010), song lyrics (Cheung et al. 2013), smells (Reid et al. 2014), tastes (Supski, 2013), objects and events experienced in childhood (Holbrook and Schindler 1996), and adverse climatic conditions (Van Tilburg, Sedikides and Wildschut 2018; Zhou, Wildschut, Sedikides, Chen and Vingerhoets 2012). Internal triggers are discomforting states. They include negative mood (Wildschut et al. 2006), life meaning-lessness (Routledge et al. 2011), existential angst (Routledge et al. 2008), discontinuity between one's past and one's present (Sedikides , Wildschut, Routledge and Arndt 2015), and boredom (Van Tilburg, Igou and Sedikides 2013). They also consist of loneliness, anticipated social exclusion, and relationship pessimism, which we now place under the microscope to illustrate how psychologists have studied nostalgia's triggers.

Loneliness is a potent social threat marked by perceived lack of social support and by having fewer and less satisfying relationships than desired (Cacioppo and Cacioppo 2012). With Jamie Arndt and Clay Routledge, we tested whether nostalgia arises in response to loneliness (Wildschut et al. 2006). To begin, we asked British undergraduates to write about the circumstances under which they become nostalgic. Instructions read: 'When do you bring to mind nostalgic experiences? What seems to trigger your memory of the nostalgic experiences?' Content analysis of participants' answers to this question revealed that negative affect was the most frequently mentioned trigger of nostalgia (e.g., 'Generally I think about nostalgic experiences when things are not going very well—lonely or depressed.'). The negative-affect category comprised discrete negative affective states (e.g., lonely, scared) and generalized affective states typically referred to as negative mood (e.g., sad, depressed). These two sub-categories were not mutually exclusive. For example, some participants mentioned both discrete and generalized negative affective states (e.g., 'If I ever feel lonely or sad, I tend to think of my friends or family whom I haven't seen for a long time'). Among participants who described discrete negative affective states, nearly two-thirds referred to loneliness. This made loneliness the most common discrete affective trigger of nostalgia. In a follow-up study, we then asked whether experimentally induced loneliness could increase in-the-moment feelings of nostalgia. We induced loneliness via false feedback. British undergraduates completed a questionnaire labeled 'Southampton Loneliness Scale,' which comprised 15 statements from the UCLA Loneliness Scale (Russell 1996). In the high-loneliness condition, these items were designed to elicit agreement by prefacing them with the words 'I sometimes' (e.g., 'I sometimes feel isolated from others.'). In the low-loneliness condition, the items were designed to elicit disagreement by prefacing them with the words 'I always' (e.g., 'I always feel isolated from others.'). As intended, participants in the high-loneliness (compared to low-loneliness) condition agreed with a greater number of statements. We then informed participants in the high-loneliness condition that they fell in the 62nd percentile of the loneliness distribution and therefore were 'above average on loneliness.' We told participants in the low-loneliness condition that they fell in the 12th percentile and therefore were 'very low on loneliness.' Participants then generated reasons for their ostensible loneliness score and completed a (successful) manipulation check. To assess nostalgia, we next administered the Nostalgia Inventory (NI; Batcho 1995), which instructed participants to rate how much they miss 18 aspects of their past (e.g., 'my family,' 'not having to worry, 'music,' 'having someone to depend on,' 'holidays I went on,' 'my family house'). We averaged the 18 responses to create a nostalgia index. As hypothesized, participants in the high-loneliness (compared to low-loneliness) condition were more nostalgic; loneliness increased nostalgia.

One does not have to experience loneliness for it to be aversive. The mere anticipation of social exclusion is highly discomforting (Twenge 2007). As the French philosopher Michel de Montaigne (1580/1993, Screech trans.) observed: 'He who fears he will suffer, already suffers what he fears' ('Qui craint de souffrir, il souffre déjà ce qu'il craint'). Johnny Seehusen and colleagues (2013) tested the impact of anticipated social exclusion on nostalgia in two experimental studies. In their first experiment, they contrasted a future-alone with a future-belonging condition. In the future-alone condition, participants received a bogus personality profile indicating that they would end up alone later in life and would not have lasting friendships, relationships, or marriages. In the future belonging condition, participants learned that they were the type of person who would have rewarding friendships and relationships throughout life and would have a stable, enduring marriage. Next, participants completed a 3-item measure assessing in-the-moment nostalgia (e.g., 'Right now, I am feeling quite nostalgic'). As predicted, those in the future-alone (compared to future-belonging) condition were more nostalgic. A second experiment addressed the possibility that anticipated social exclusion (as induced in the future-alone condition) does not increase nostalgia but, rather, that social reassurance (as of-

fered in the future-together condition) reduces it. The researchers tested this alternative explanation by comparing the future-alone condition with a neutral control condition. They proposed that, if anticipated social exclusion activates nostalgia, participants in the future-alone condition should evince higher nostalgia than those in the neutral control condition. Results supported this prediction.

Continuing this theme, Andrew Abeyta, Clay Routledge, and Jacob Juhl (2015) examined the effect of relationship pessimism on nostalgia. They assigned participants to a relationship-pessimism condition or a pessimism-control condition. Participants in the relationship-pessimism condition read a text arguing that there is little reason for people to be optimistic about finding fulfilling relationships. Following this, they were instructed to take the writer's perspective and generate five reasons why people should feel pessimistic about their future relationships. Participants in the pessimism-control condition read a similar passage about future technology and generated five reasons why people should feel pessimistic about future technology. Next, all participants completed a brief measure of momentary nostalgia. Relationship pessimism (compared to control) increased nostalgia.

Evidence abounds, then, that discomforting states, including loneliness, anticipated social exclusion, and relationship pessimism, trigger nostalgia. They key question we turn to next is, for what purpose?

Functions of nostalgia

By and large, psychologists have studied the functions of nostalgia in controlled laboratory settings. Although a number of studies have successfully induced nostalgia through music, song lyrics, or scents, most have relied on the Event Reflection Task (ERT). In this task, participants are randomly assigned to recall either a personally-experienced nostalgic event (nostalgia condition) or an ordinary (e.g., everyday, regular) event (control condition). In some experiments, participants in the control condition have been instructed to recall a positive or anticipated (i.e., future) positive event. After bringing the relevant event to mind, participants list keywords capturing its essence and typically provide a brief (i.e., 5-minute) written account. Following a manipulation check, they then complete the relevant outcome measures, which typically pertain to one or more of the postulated psychological functions of nostalgia. These functions fall into four general domains: self-oriented, existential, future-oriented, and social (Wildschut and Sedikides 2020). With regard to its self-oriented function, nostalgia builds, maintains, and enhances self-positivity. Specifically, it heightens the accessibility of positive attributes and boosts self-esteem (Vess et al. 2012). Turning to its existential function, nostalgia is a source of meaning in life (Routledge et al. 2011) and fosters a sense of continuity between one's past

and present self (Sedikides et al. 2016). As for its future-oriented function, nostalgia raises optimism (Cheung et al. 2013), inspiration (Stephan et al. 2015), and creativity (Van Tilburg, Sedikides and Wildschut 2015). The most comprehensive findings, however, relate to nostalgia's functionality within the social domain (Sedikides and Wildschut 2019). We zoom in on this body of research next.

In our earlier work with Arndt and Routledge (Wildschut et al. 2006), we instructed participants to list as many desirable and undesirable features of nostalgia as possible. We proceeded to create groups of synonyms, and then distilled five categories of desirable features and five categories of undesirable features by assembling related groups of synonyms. Next, we examined which desirable and undesirable features of nostalgia participants mentioned most frequently. The category 'social bonds' (e.g., 'feeling loved') was second in the list of desirable nostalgia features ('positive affect' was first). To test more rigorously the beneficial effect of nostalgia on social bonds, we then experimentally manipulated nostalgia in series of three ERT experiments. In the first, nostalgia increased feelings of being 'loved' and 'protected.' In the second experiment, nostalgia decreased attachment anxiety (e.g., 'I worry that romantic partners won't care about me as much as I care about them') and attachment avoidance (e.g., 'I am very uncomfortable with being close to romantic partners'), as measured with a state version of the Experiences in Close Relationship—Revised scale (Fraley, Waller and Brennan 2000). In the third experiment, nostalgia increased self-reported interpersonal competence in relation to initiation of social interactions (e.g., 'Going to parties or gathering where you don't know people well in order to start up new relationships'), self-disclosure of personal information (e.g., 'Telling a close companion how much you appreciate and care for him or her'), and the provision of emotional support to others (e.g., 'Helping a close companion get to the heart of a problem he or she is experiencing').

But is nostalgia merely a fleeting surrogate for real interpersonal closeness or can it provide more than a temporary increase in perceived social connectedness? There is reason to be optimistic. In social relationships, social connectedness and intimacy are inextricably linked with providing support to others (Hazan and Shaver 1987). Accordingly, mental representations of social bonds, which form the building blocks of nostalgia, reflect both one's access to social support and one's ability to provide social support (Kunce and Shaver 1994). For instance, nostalgic memories of vacations with friends will foster a sense of mutual social support. When people feel efficacious and competent to provide social support and navigate complex interpersonal situations, they are more successful at forming and maintaining social relationships

throughout life (Buhrmester et al. 1988). Numerous studies have demonstrated beneficial effects of nostalgia on interpersonal efficacy, social goal strivings, socially-oriented action tendencies, and prosocial behavior.

A research team led by Andrew Abeyta asked if, by virtue of its capacity to increase selfefficacy in social settings, nostalgia provides the basis for social goal strivings (Abeyta, Routledge and Juhl 2015). Self-efficacy is a key antecedent of approach motivation (Bandura 1982), and perceived self-efficacy in navigating complex social situations (e.g., disclosing intimate information about oneself to a new companion) predicts increased social-goal striving and attainment (Buhrmester et al. 1988). To test their prediction that nostalgia increases social self-efficacy and ensuing social goal strivings, the team instructed participants in the nostalgia condition to search YouTube for a song that made them feel nostalgic. Participants listened to the song and then wrote about how the song made them feel. In the control condition, participants searched YouTube for a song that they liked and recently discovered, and wrote about how the song made them feel. After this (successful) nostalgia induction, participants completed a 6-item measure of social self-efficacy (e.g., 'Rate your confidence in your ability to establish successful social relationships'). Finally, they listed a social goal and rated the strength of their intentions to pursue that goal on three items (e.g., 'How motivated are you to pursue this goal?'). Nearly all (97%) of the listed social goals were approach-oriented ('One social goal I would like to accomplish is to catch up with my childhood friends'). Participants in the nostalgic (compared to control) condition reported higher levels of social self-efficacy and stronger intentions to pursue their stated social goal. Consistent with these findings, other studies have demonstrated that ERT-induced nostalgia strengthens intentions to strive for one's most important goals, and that these life goals typically reference social relations (Sedikides et al. 2018; Stephan et al. 2015).

Still, action tendencies and goal strivings may not always be strongly linked to actual behavior (Fazio and Towles-Schwen 1999). There are several reasons for this, a principal one being that actual behaviors are more constrained by situational factors than are global action tendencies and goals. This raises the question of whether nostalgia facilitates actual prosocial behavior. Xinyue Zhou and colleagues first addressed this question by examining charitable giving (Zhou, Wildschut, Sedikides, Shi and Feng 2012). They presented Chinese participants with printed charity appeals in aid of child victims of the 2008 Wenchuan earthquake. In the nostalgia condition, the appeal contained nostalgic cues, such as the headline 'Those Were the Days: Restoring the Past for Children in Wenchuan.' In the control condition, the appeal contained references to the future, such as the headline 'Now is the time: Build the Future for Children in Wenchuan.' Before the nostalgia induction, participants had earned a small sum of

money (7 renminbi) by completing a series of laboratory tasks. Following the nostalgia induction, the researchers gave participants the opportunity to donate to charity as much or as little of these earnings as they wished. The donated amount served as an index of prosocial behavior. Participants who had read the nostalgic charity appeal donated more money than those in the control condition. More recently, Jacob Juhl and colleagues generalized this finding to the level of personality traits (Juhl, Wildschut, Sedikides, Diebel et al. 2020). They first administered two questionnaires to measure individual differences in dispositional nostalgia: the Southampton Nostalgia Scale (SNS; Barrett et al. 2010) and the NI (Batcho 1995). The 7-item SNS assesses frequency and personal relevance of nostalgic engagement (e.g., 'How often do you experience nostalgia?', 'How valuable is nostalgia for you?'). The NI assesses how nostalgic participants feel about various objects from their past (as described earlier in this chapter). Given that the two scales were highly correlated, the researchers combined them to form a composite index of trait-level nostalgia. Next, they introduced a task to measure charitable donations. For this purpose, the researchers informed participants that they had the opportunity to donate a portion of their earnings to the (fictitious) American Volunteer Association, ostensibly a nonprofit organization that recruits volunteers for several charitable causes. The higher participants scored on the index of trait-level nostalgia, the more likely they were to donate to charity.

Efforts guided by Elena Stephan examined the effect of nostalgia on two other behavioral indices of prosociality: proximity and helping (Stephan et al. 2014). The researchers induced nostalgia with the ERT and then informed participants that they would have a conversation with another person waiting in an adjoining room. To prepare for this interaction, participants were instructed to arrange two chairs (one for themselves, one for the other person) within the meeting room. The proximity of the two chairs served as a behavioral index of prosociality. Participants in the nostalgia condition (compared to control) chose to sit closer to the interaction partner. In a subsequent experiment, the ERT induction was followed by a staged mishap. An experimenter entered the laboratory with a box of pencils and a folder of papers. She then clumsily spilled the pencils on the floor, near to where the participant was seated. The number of pencils that participants picked up served as an index of prosocial behavior. Nostalgic participants picked up more pencils for the ostensibly butterfingered experimenter than did controls.

A team led by Jacob Juhl added an interesting twist (Juhl, Wildschut, Sedikides, Xiong and Zhou 2020). Individuals are generally reluctant to seek help from others, because it may expose vulnerabilities or inadequacies, and cause embarrassment or risk rejection (Bohns and Flynn 2010; Downey and Feldman 1996). Might nostalgia increase not only helping but also help seeking? Social connectedness is associated with positive representations of others (Baldwin 1992) and with perceiving others as dependable in times of need (Collins and Read 1990).

On this basis, Juhl's team hypothesized that nostalgia, via its social character, should promote help seeking. To test this, the researchers induced nostalgia with the ERT and then instructed participants to solve an (unsolvable) insight problem, in which they had to trace each line of a geometric figure only once, without lifting the pencil and without retracing any existing lines. Participants were told to contact the experimenter by pushing a red button on an intercom system, if they wanted help solving the problem. Participants in the nostalgia condition (compared to control) sought help sooner.

Nostalgia is more than just a sticking-plaster for social injury. It promotes a sense of social self-efficacy, which provides the scaffolding for social goals and action tendencies. Most importantly, it translates to actual prosocial behavior, as indexed by charity, proximity, helping, and help seeking.

The full regulatory model: Nostalgia as a balancing feedback mechanism

So far, we have presented evidence for discrete pathways in the regulatory model, with an emphasis on the social domain. The first pathway links discomforting states, such as loneliness, anticipated social exclusion, and relationship pessimism, to increased nostalgia. The second pathway links nostalgia to vital psychological functions, including social connectedness, social self-efficacy, social goal strivings, and prosocial behavior. We now come full circle to consider studies that tested the full regulatory model by examining simultaneously these pathways. Generic support for the full model stems from an experiment by Elena Stephan and colleagues (2014), who induced avoidance motivation (i.e., a discomforting concern with preventing, escaping, or rectifying negative situations) and then assessed its effect on nostalgia and ensuing approach motivation (i.e., promoting, maintaining, and sustaining positive situations). Avoidance motivation (relative to control) led to higher nostalgia, which, in turn, predicted stronger approach motivation. Domain-specific evidence was obtained in educational settings (Bialobrzeska et al. 2019). Students who appraised their class as a threat (e.g., 'I view this class as a threat') reported greater nostalgia over time. Nostalgia, in turn, was prognostic of higher intrinsic motivation (e.g., 'I'm glad I took this class'). With Wijnand van Tilburg, we diversified this evidence base by including discomforting environmental triggers (Van Tilburg, Sedikides and Wildschut 2018). Participants who listened to audio recordings of adverse weather conditions, such as wind and thunder, reported higher nostalgia (compared to control). In turn, nostalgizing in response to weather-induced distress was positively associated with social connectedness, meaning, self-continuity, self-esteem, positive affect, and optimism. The model has also garnered support within the social domain and, in keeping with the theme of this chapter, we now turn to the relevant findings for closer inspection.

With Xinyue Zhou and Ding-Guo Gao, we examined simultaneously the relations among loneliness, nostalgia, and perceived social support (Zhou et al. 2008). The regulatory model entails that loneliness affects social support in two distinct ways. The direct effect of loneliness is negative: Loneliness undermines feeling socially supported. Yet, the indirect effect of loneliness via nostalgia is positive: Loneliness increases nostalgia, which, in turn, boosts perceptions of social support. In this configuration, nostalgia functions as a balancing (or negative) feedback mechanism that maintains psychological homeostasis by preventing a downward spiral of loneliness. In statistical terms, the pattern amounts to suppression, which occurs when the direct effect of a predictor (here, loneliness) is directionally opposite to its indirect effect via a countervailing intervening variable (nostalgia). When, in statistical analyses, the balancing influence of the intervening variable is removed, the opposing direct effect of the predictor is enhanced.

In a correlational study with Chinese migrant children and teenagers, we assessed individual differences in dispositional loneliness (UCLA Loneliness Scale; Russell 1996; e.g., 'How often do you feel completely alone?'), nostalgia (SNS; Barrett et al. 2010), and social support (Multidimensional Scale of Perceived Social Support or MSPSS; Zimet et al. 1988; e.g., 'I can count on my friends when things go wrong'). Lonely participants perceived little social support, but they were also more nostalgic. In turn, nostalgia strengthened their perceptions of social support, thereby offsetting the negative impact of loneliness. When we removed the influence of nostalgia, the negative relation between loneliness and perceived social support was strengthened. In a subsequent experiment, we induced loneliness in a sample of Chinese university students and then assessed momentary feelings of nostalgia and perceived social support (with state versions of the SNS and MSPSS, respectively). We manipulated loneliness by giving participants false feedback regarding questionnaire scores (as described earlier in this chapter). Participants in the high-loneliness (compared to low-loneliness) condition perceived less social support, but they also felt more nostalgic. Nostalgia, in turn, strengthened their perceptions of social support. Removing statistically this balancing influence of nostalgia accentuated the negative effect of loneliness on perceived social support.

In all, a diverse body of empirical evidence supports the full regulatory model across different domains. Nostalgia, as a balancing feedback mechanism, offsets distress and maintains psychological homeostasis.

Conclusion

Over the past two decades, nostalgia has stepped from the shadows into the spotlight of psychological science and is now recognized as being a common and universally shared emotion.

Indeed, so rapid has been its expansion that this literature is past the point of fitting within a single theoretical framework or taxonomy. Nonetheless, we have attempted to demonstrate the utility of a regulatory model for organizing the preponderance of empirical evidence pertaining to the triggers and functions of nostalgia. Granted, the functional approach that we have outlined in this chapter is not endorsed unanimously. Based on his research among Southeast Asian refugees who were resettled in Canada, Morton Beiser (2004) proposed that nostalgia can be dysfunctional when it highlights a contrast between favourable past circumstances and present challenges. Refugees who indicated that the past was more important than the future, and at least as important as the present, were at increased risk of developing depressive disorder. On this basis, Beiser concluded that disproportionate emphasis on a life that has been left behind can create a painful contrast between one's present predicaments and a more felicitous past. In the same vein, Bas Verplanken (2012) proposed that nostalgia can be dysfunctional for individuals who habitually worry, because nostalgic memories of a carefree and pleasant past may create a salient contrast with the habitual worrier's current anxious state. Aarti Iyer and Jolanda Jetten (2011) advanced an alternative version of essentially the same idea. They proposed that nostalgia is dysfunctional when the connection between one's past and present self has been severed (but functional when it has been kept intact). In support, they found that nostalgia was detrimental to first-year students who felt that moving to university had created discontinuity between their past and present self (i.e., they had lost touch with their home community), but beneficial to students who perceived continuity between their past and present self (i.e., they maintained strong ties to their home community) (but see Sedikides et al. 2016, Experiment 6). David Newman and colleagues (2020) added additional fuel to this "functionality debate" by proposing that, whereas deliberately recalling nostalgic memories may enhance wellbeing, involuntarily experiencing nostalgia may have the opposite effect.

Going forward, new research objectives are on the horizon. Although most attention has focused on personal nostalgia, recent efforts have encompassed collective (often, national) nostalgia (Smeekes, Wildschut and Sedikides in press). When individuals become part of group, that group, its members, and events or objects related to it acquire emotional significance. Collective nostalgia, then, is contingent on thinking of oneself in terms of a particular group membership, and pertains to the people, experiences, and objects associated with this ingroup (Wildschut et al. 2014). Initial findings support the viability of our regulatory model at this collective level of analysis. A recent cross-cultural study (Smeekes et al. 2018) demonstrated that collective angst (e.g., 'I am concerned that the future vitality of [country] is in jeopardy') predicted higher levels of national nostalgia (e.g., 'I get nostalgic when I think back of [country] in the past'). Collective nostalgia, in turn, was related to higher levels of ingroup-continuity

(e.g., 'Shared values, beliefs and attitudes of [country's] people have endured across time') and in-group belonging (e.g., 'I am proud to be [national]'), but also to stronger opposition to immigration (e.g., 'Immigrants take resources and employment opportunities away from [countrymen].' Identifying how to harvest the beneficial effects of collective nostalgia, and attenuate its association with anti-immigrant sentiment, is high priority for future research.

Another urgent question pertains to the potential therapeutic benefits of nostalgia. Recent studies have revealed that nostalgia's benefits accrue not only to the university-age samples studied in most prior research, but also to vulnerable populations, including people living with dementia (Ismail et al. 2018), people living with addiction (Wohl et al. 2018), refugees (Wildschut, Sedikides and Alowidy 2019), employees experiencing burnout (Leunissen et al. 2018), low procedural justice (Van Dijke et al. 2015), or low interactional justice (Van Dijke et al. 2019) at work, highly neurotic individuals (Frankenbach et al. 2020), bereaved individuals (Reid et al. 2020), and those confronting limited time horizons (Hepper et al., 2020). We propose that there is now sufficient evidence for the safety and efficacy of laboratory-based nostalgia inductions to warrant the development of therapeutic interventions that can be implemented in everyday life, and have recently completed the first promising steps in this direction (Layous et al., 2020).

Despite its rich intellectual history, psychological theory and research on nostalgia is still in its infancy. We hope that the questions posed by this enigmatic emotion will continue to attract and challenge (and taunt) scholars for many generations to come.

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