

## 2

## Look Back, Not Ahead? Time Use and the Value of Revisiting Past Experiences

*Ed O'Brien*

How should you spend your time if your goal is to enjoy yourself? Or to expand your knowledge? Or to find meaning and purpose? People face countless decisions in everyday life regarding what kinds of activities to pursue in order to achieve a particular goal. Regardless of one's goal, however, these kinds of activities might be categorized as falling into one of two general categories. On the one hand, people can return to the past and choose to repeat something that they have already experienced; we could re-watch our favorite movie, re-read a classic book, or stroll our familiar way home. On the other hand, people can venture into the future and choose to try something new; we could see the newest blockbuster, finally read the next classic on our list, or take the scenic route.

The goal of this chapter is to highlight the unforeseen value of the former choice: to revisit old experiences that live in our pasts over pursuing novel experiences that live in our futures. This value is unforeseen because various popular literatures on time use tend to emphasize the value of the latter; after all, 'variety is the spice of life,' and particularly so for outcomes like enjoyment and learning. Likewise, research on temporal orientation tends to paint future-focus ('What would my future self do?') as a universal strategy for helping us make wiser choices and achieve our goals. In recent years, I argue that various lines of research have begun to qualify these claims, all converging around the benefits of the past ('What would my past self do?'). In some cases, these benefits even outweigh those of the future. This chapter organizes and highlights such discoveries.

First, I summarize popular perspectives that emphasize the value of the future (i.e. pursuing novelty and variety in order to maximize one's time use). Second, I summarize recent discoveries that instead highlight the value of the past (i.e. pursuing old and familiar experiences in order to maximize one's time use). I organize these discoveries around three primary benefits: Mastery, Mood, and Meaning. Repeating past experiences involves a great deal of (i) learning and rediscovery, thus promoting mastery; (ii) pleasure and positive emotion, thus promoting mood; and (iii) connection to others and to other points in time, thus promoting

meaning. Finally, I discuss open questions for research. Moving forward in studies of time and tense effects, more research is needed for understanding the benefits of the past rather than simply studying the future in isolation.

## 1. Look Ahead: Popular Emphases on Benefits of The Future

A long history across psychology and philosophy has postulated whether human behavior is driven more by learned associations from past experiences versus expected calculations of future experiences (for a review, see Seligman, Railton, Baumeister, and Sripada, 2013). The models put forth from this approach tend to be descriptive in nature, attempting to explain how people actually behave.

Rather than focusing on these basic descriptive models per se, this chapter focuses more specifically on prescriptive models of how to actively live well and maximize one's time use. Many popular models put forth from this approach have emphasized the particular value of the *future* for boosting the present. Support for this claim is found in research on novelty and variety seeking, and in research on temporal orientation more generally.

*Novelty and variety seeking.* Many studies on hedonic preferences document a strong preference for novel options: When people seek to maximize enjoyment, they tend to choose something new rather than something they have already experienced (Kahn and Ratner, 2005; McAlister and Pessemier, 1982; O'Brien and Smith, 2019; Ratner, Kahn, and Kahneman, 1999; Read and Loewenstein, 1995; Simonson, 1990). Indeed, 'variety is the spice of life': Experiencing activities we have yet to experience really does slow hedonic adaptation and foster enjoyable discovery of new information (Lyubomirsky, Sheldon, and Schkade, 2005; Quoidbach and Dunn, 2013; Sheldon, Boehm, and Lyubomirsky, 2012), suggesting people's intuitive preferences are not necessarily mistaken in isolation. A central tenet of Berlyne's (1970) classic model of reward value prescribes people to pursue novelty within sets of simple stimuli in order to avoid 'tedium.' Suggestive of these benefits, participants in one experiment (Quoidbach and Dunn, 2013) were randomly assigned into one of two conditions: to eat the same chocolate repeatedly throughout the testing period (i.e. the chocolate grows relatively less novel) or to only eat this chocolate at the very end of the testing period (i.e. the chocolate is relatively novel). These latter participants reported greater chocolate enjoyment, suggesting that the novel context itself (beyond the actual thing being consumed) can causally enhance people's consumption experience. Being stuck without any novelty to consume (e.g. being left alone to enjoy one's thoughts) creates frustration and other negative feelings, with people even choosing aversive novelty (e.g. receiving an unknown electric shock) over pleasurable repetition (e.g. simply re-consuming a pleasant memory: Hsee and Ruan, 2016; Wilson et al., 2014).

One could also consider such findings as a function of opportunity costs. For any given choice, people can ultimately consume only one option at a time (and

sometimes just one option altogether). Time spent repeating something old and familiar means time not spent on limitless other novel (and thus potentially valuable) possibilities. From this perspective, venturing into the future (i.e. choosing to pursue a new experience rather than repeat experiences from one's past) is the generally superior choice, while returning to the past is assumed to incur too great an opportunity cost. Echoing this idea is March's (1991) influential model of 'exploration' versus 'exploitation' in organizational settings. This model posits that, in the long run, organizations should consider spending more time testing new ideas and practices rather than sticking to the status quo, due to maximizing chances of creative insights. Still other research suggests a similar idea, highlighting the many learning-based benefits that the pursuit of novel activities can bring, such as adding to one's 'experiential CV,' expanding one's breadth of knowledge, and helping people match preferences (Hoeffler, Ariely, West, and Duclos, 2013; Keinan and Kivetz, 2011; Maddux and Galinsky, 2009; O'Brien and Smith, 2019; Ritter et al., 2012). Across all of this research is an underlying assumption that pursuing novel future experiences is the dominant strategy for maximizing such outcomes, rather than revisiting past experiences.

*Temporal orientation.* Likewise, research on temporal orientation more generally, such as perceptions of the temporal self, highlights various benefits of feeling connected to the future. Feeling close and connected to the future, and to one's future self, has been widely touted as an effective means of enhancing positive outcomes in the present. For example, people who are strongly future oriented, as compared to people who are less strongly future oriented, tend to save more money (Hershfield et al., 2011); are less likely to exhibit present bias in temporal discounting tasks (Bartels and Rips, 2010; Bartels and Urminsky, 2011; Ernsner-Hershfield, Wimmer, and Knutson, 2009); are less likely to engage in risky, delinquent, and unethical behavior (Hershfield, Cohen, and Thompson, 2012; van Gelder, Hershfield, and Nordgren, 2013); and enjoy better present health (Rutchick, Slepian, Reyes, Pleskus, and Hershfield, 2018). Likewise, randomly assigning people to spend a moment reflecting on their futures and future selves, as compared to no-reflection control conditions, can increase saving behavior (Hershfield et al., 2011) and prosocial behavior like environmental action (Zaval, Markowitz, and Weber, 2015). Underlying this research appears to be a strong prescription toward a future orientation: People should seek to be future oriented ('What would my future self do?') if they want to better achieve their goals and improve their experiences in the present.

This sentiment is echoed by theorizing throughout the psychological literature on motivated perceptions of self and identity over time. Albert's (1977) influential temporal comparison theory laid the groundwork for understanding how people dynamically evaluate their present states relative to their pasts and futures. In general, people tend to endorse beliefs that the trajectory of their lives is defined by growth and progress rather than stagnation or decline: People generally believe

they have grown from the past (McAdams, 2013) and that they are approaching even better versions of themselves in the future (Markus and Ruvolo, 1989; Taylor and Brown, 1988). Perceptions of continual future improvement are so pervasive that people sometimes actively denigrate their past selves so as to appear improved and on this positive trajectory (Wilson and Ross, 2001, 2003) and selectively ignore feedback suggesting otherwise (Green and Sedikides, 2004; O'Brien, 2013). These ideas prescriptively support a general pull toward focusing on ongoing and future improvement.

## 2. Look Back: Emerging Emphasis on Benefits of the Past

While being drawn to the future clearly has many benefits, this popular approach is not without qualification. One issue is that a number of these studies lack the full range of temporal comparisons—meaning, randomly assigning participants to a future-focus condition, a past-focus condition, or a present-focus condition, all within the same study context—that would allow for a fuller understanding of their relative potential benefits. For example, instructing participants to focus on their future selves in greater detail, to perceive their futures more positively, or to feel connected to the future selves may indeed lead them to exhibit wiser decisions in the present as compared to no-reflection control conditions (a common methodology: e.g. showing participants simulated images of their future selves so as to induce connection: Hershfield et al., 2011)—but this alone does not preclude the possibility that reflecting on one's *past* self may also show similar benefits, or perhaps unique benefits.

A separate line of research on 'tense effects'—which involves taking the same target of judgment (e.g. a vacation) and instructing participants to construe this target at an equidistant point in the past (e.g. 'Imagine this trip occurred one year ago') or future (e.g. 'Imagine this trip occurs in one year')—confirms that not all temporal distance is created equal, showing unique differences in how people form judgments across tense (Caruso, Gilbert, and Wilson, 2008; Kristal, O'Brien, and Caruso, 2019; Van Boven and Ashworth, 2007; Weingarten and Berger, 2017). Similar paradigms have been used in terms of randomly assigning participants to engage in episodic memory reflection versus episodic future thinking (of otherwise similar episodes: e.g. Schacter and Addis, 2007). Alas, even within studies of tense effects and related research, researchers typically compare a past condition to a future condition but without a present control condition (e.g. Caruso et al., 2008), thus obscuring potential benefits of the past even if the future provides relatively more benefit (and likewise obscures potentially unique benefits in each tense).

Another issue is that there are a number of documented exceptions to 'future = better' as a universal axiom. For example, Monroe, Ainsworth, Vohs, and Baumeister (2017) found that instructing participants to focus on their future

selves led them to be overly conservative in taking high-payoff gambles and overly distrusting of others' sharing behavior in economic games. O'Brien (2015a, 2015b) found that instructing participants to use their future selves as a role model for current behavior led them to be less likely to savor enjoyable experiences. More generally, competing streams of research highlight pitfalls of constructs like optimism (e.g. in undermining the accuracy of self-assessments: Dunning, 2005; Kardas and O'Brien, 2018), and the pitfalls of constructs like variety seeking (e.g. choosing variety for sake of variety, even if those options are not preferred: Ratner et al., 1999; Simonson, 1990). Such findings suggest that other kinds of psychological strategies—such as focusing on one's past self or re-consuming past experiences—may be warranted.

I review emerging lines of research supporting this case. I highlight some unique benefits of the *past* for maximizing time use and pursuing goals—and in some contexts, the past provides *superior* benefits when directly compared to the future. Sometimes, the bigger opportunity cost may be in overlooking old experiences over pursuing experiences that seem novel merely on the surface. Sometimes, 'What would my *past* self do?' might be a wiser guide. I categorize such benefits as promoting one of three kinds of positive outcomes: Connecting to the past is especially linked to Mastery, Mood, and Meaning.

## 2.1 Mastery

By re-experiencing activities and other stimuli that we have already consumed in the past, our perspectives on those entities can change. Often, we might discover that we actually know much less about the entity in question that we had initially assumed. For example, we might notice new details or missed nuances, see the entity in a different light today than we had seen it originally, or simply learn something new about ourselves by virtue of repeated experience. One might think of these benefits as building experiential *depth*, as opposed to the kind of experiential breadth that we gain from pursuing variable and novel activities—and only with experiential depth come unique forms of mastery.

*Positive habituation.* Berlyne's (1970) aforementioned model of reward value prescribes people to pursue novelty within sets of simple stimuli in order to avoid 'tedium.' However, a second proposition concerns complex stimuli. According to the model, people should try to *avoid* novelty and variety within sets of complex stimuli, and instead should repeatedly consume the same complex stimulus in order to build 'positive habituation'—to gain sufficient exposure to a stimulus in order to shed initial uncertainty and understand it at a deeper level. Simplicity and complexity are not precisely defined in the model, but studies testing the model typically assess exposure to familiar words and symbols (i.e. simple) versus unfamiliar words and symbols (i.e. complex). Suppose you are flipping through a

dictionary. The ‘simple words’ chapter contains words that you immediately understand by virtue of experience: house, dog, orange, and so forth. In this case, novelty and variety reign supreme; our ‘reward value’ will be higher if each word is shown without replacement. In contrast, the ‘complex words’ chapter contains words that require time and thought to decipher: What does halcyon mean again? Why is my boss acting with such parvanimity? In this case, familiarity and repetition reign supreme; getting sustained exposure to any one single word, rather than quick exposure to each new word without replacement, helps us turn something indecipherable into something cogent and understandable (e.g. by giving us time to dust off memories of Latin class).

Extrapolating beyond literal exposure to words, Berlyne’s (1970)’s model is a useful guide for thinking about the value of re-consuming the past. Many activities in life would likely benefit from a dose of positive habituation—doing something again to gain a clearer understanding of what it actually offers, which may not be intuitively obvious from just a single exposure (and in particular for more complex activities, like visiting a sprawling city for a mere weekend).

*New discovery.* Attention is limited. Beyond being exposed to an entity and not quite getting what it is at first pass (therefore warranting a dose of positive habituation), oftentimes we simply miss information at first pass. Not only does a sprawling city feel overwhelming the first time we visit it, but we likely only experience an extremely small portion of everything that it has to offer. In turn, repeated exposure to the same identity can allow people to discover entirely new details about it, which would go undiscovered if people universally pursued novelty and variety (e.g. always visiting new cities rather than returning to last year’s conference site, which likely still has a great deal of novelty left to experience the second, third, and *n*th time around).

O’Brien (2019) directly tested these ideas in the context of re-consuming past experiences. In one experiment, participants viewed a collage of photographs. One type of collage contained little information to notice and process (e.g. a collage of simple blue dots, which is entirely understood after just a single exposure); another type contained a lot of information to notice and process (e.g. a collage of many different kinds of animals, requiring time to notice them all). Participants repeatedly viewed one of these collages over and over again. The effect of repeated exposure on hedonic reactions like interest and enjoyment was indeed moderated by collage type: Despite highly enjoying both kinds of collages at Time 1, interest and enjoyment remained higher across repeated exposure when there was a lot of new information left to discover at each pass. In another experiment, all participants played the same ‘art creation’ video game, involving digitally painting a blank canvas by choosing from a wide variety of colors and brushes. The canvas then reset and participants re-played the game from scratch. This process repeated for a total of five consecutive exposures. The effect of repetition on outcomes like interest and enjoyment was mediated by the amount of information about the

game that participants learned at each pass; as participants gained more exposure, they noticed missed details to be experienced within the game (e.g. new color combinations, new tool types), which sustained their hedonic reactions despite repeatedly playing the same game.

Repeat experiences often involve learning new things about those experiences that we simply may have missed upon just one initial exposure. By revisiting past experiences, we can come away with fuller knowledge about the experience beyond the surface.

*Rediscovery.* Just as our attention is limited in the moment of experiencing an activity, so too is our memory of that experience afterwards. Especially in cases when long periods of time have passed in between consumption episodes, people likely have forgotten various things about past experiences—things that they can remember if and only if they re-experience those past activities instead of turning to ever-newer activities.

Zhang, Kim, Brooks, Gino, and Norton (2014) documented such dynamics of rediscovery. For example, participants in a 'time capsule' study recorded various current events in their lives, ranging from the mundane (e.g. a song they recently listened to; a question from a recent exam) to relatively richer episodes (e.g. descriptions of a recent social gathering). Then, the experimenter stored away their notes. Upon getting to revisit their notes after three months had passed, participants reported forgetting much of what happened back during that window of their lives, and in turn reported much more surprise, interest, and other positive reactions than they had anticipated. In everyday life, there may be many opportunities for rediscovery that simply require us to spend a few moments reflecting backward. People do not remember to enjoy their memories as often as these findings suggest they should (Tully and Meyvis, 2017). Merely pursuing ever-newer activities cannot reap these particular benefits. Beyond the hedonic domain, too, rediscovery has many such benefits for appreciating the depth of our experiences; Zhang (2015) found that instructing expert guitarists to flip their guitars around and play with their non-dominant hands led them to better remember what it was like to play for the very first time and thus subsequently gave more effective advice to first-time players.

Another way to think about rediscovering the past is in terms of experiencing an old object of consumption via a new *method* of consumption—in a sense, to repeat the same old activity through a novel psychological lens. This idea was concretely tested by O'Brien and Smith (2019). In one study, some participants repeatedly ate the same old popcorn by picking each kernel up with their hands (i.e. the usual, traditional method of popcorn consumption), and reported decreased enjoyment the more popcorn that they repeatedly ate. Other participants, however, were instructed to complete these exact same procedures eating the same popcorn, except by using chopsticks (i.e. a novel *method* of consumption)—and, in turn, they reported similarly high enjoyment across repetition.

*Calibrating intuitions.* Despite these aforementioned facts that both attention and memory are inherently limited—thus leaving great value on the table in re-experiencing past activities—there is also a more general issue to consider: People tend not to *realize* that their perceptions are limited. Kahneman (2011) captured such findings with his WYSIATI principle: What You See Is All There Is. People tend to underappreciate how experiences can change from their mental models, from underappreciating the emergence of emotions and drive states (Campbell, O'Brien, Van Boven, Schwarz, and Ubel, 2014; Kardas and O'Brien, 2018; O'Brien and Ellsworth, 2012a; Van Boven, Loewenstein, Welch, and Dunning, 2012) to underappreciating the emergence of mundane but engrossing life events (O'Brien, Kristal, Ellsworth, and Schwarz, 2018; O'Brien and Roney, 2017; Wilson and Gilbert, 2005). That is, after experiencing an activity just once, people tend to come away with an inflated sense that they have already 'seen the whole thing,' without fully appreciating how that same experience will be somewhat different (either in small or big ways) the next time they experience it. People cannot step into the same river twice, but our static imaginations make us feel like we will. Gist models of memory similarly posit that rich low-level experiential details are displaced over time by highly stripped-down mental representations (Reyna and Brainerd, 1995).

For these reasons, re-experiencing the past has clear benefits for calibrating the accuracy of our intuitions about those things we have already experienced. Miscalibrated intuitions likely lead us to underestimate the full richness and complexity that real-time re-experience would entail, which would therefore leave us more informed about the reality of the stimulus than we would be in the absence of re-exposure. For example, the so-called Illusion of Explanatory Depth (Rozenblit and Keil, 2002) describes the phenomenon of people appreciating the ins and outs of complex entities (e.g. how a helicopter actually works) *only after* they are pressed to explain them (e.g. being asked to write a paragraph about how a helicopter actually works); by default, without such pressing, people assume they generally 'get it' to a greater degree than often warranted. Relatedly, the 'knowledge illusion' (Sloman and Fernbach, 2017) refers to people's tendency to overestimate their knowledge of causes of effects, typically resulting in people simplifying what is actually a more complex chain of events.

O'Brien (2019) directly tested this role of repeating past experiences for helping people calibrate our static mental representations. As described earlier, participants in one study experienced sustained interest in repeatedly examining the exact same collage of photographs, especially when that collage of photographs contained a lot of new details to notice at each pass; another study replicated this effect in the context of repeatedly playing the same video game. As it turns out, participants in both of these studies *failed to predict* these effects of re-experience. After viewing the complex collage just once, and after playing the game just once, participants predicted that repeat exposures would quickly grow dull and be a waste of their time; they felt like they had 'seen all there is to see' after their initial

exposure. This was mistaken: Revisiting those activities revealed to participants that they actually had missed much information the first time, rendering their repeat exposures much more valuable than they had anticipated. Only by returning to past experiences can we come to a more complete—and more accurate—understanding of all of the complexities entailed.

*Self-perception.* Finally, revisiting the past promotes mastery also in terms of self-perceptions, a process that has been broadly referred to as people experiencing 'self-level' novelty (O'Brien, 2021a). Pursuing external variety and novelty may lead people to feel like they possess more exciting personalities (Ratner and Kahn, 2002), but does not necessarily signal an internal sense of commitment to or a deeper understanding of any one entity in particular. To the extent that gains in perceived mastery via repeated exposure correspond to objective gains in such knowledge (which is not always the case: Alba and Hutchinson, 2000; Kardas and O'Brien, 2018; Sanchez and Dunning, 2018), these self-perceptions of mastery facilitate efficacy in goal achievement and commitment to even further learning (Bandura, 1977). Re-framing past experiences as opportunities to build such qualities (e.g. commitment) leads people to favor repetition and thus reap these benefits (Fishbach, Ratner, and Zhang, 2011; Ratner and Kahn, 2002).

## 2.2 Mood

Re-experiencing activities and other stimuli that we have already consumed in the past also provides a host of *affective* benefits—not only through the act of discovering new opportunities for learning and mastery but also when we discover nothing new at all, with strict repetition itself providing its own source of pleasure.

It is easy to appreciate the affective value of the future; consider the natural excitement that we feel in experiencing a brand new hobby, or the intense happiness that we feel in achieving a long-looming milestone. By comparison, it is tempting to view the past as fundamentally less thrilling. Indeed, research on tense effects shows that merely construing an event as being about to take place elicits more intense arousal in the present moment than when construing that same event as having already taken place (Kristal et al., 2019; Van Boven and Ashworth, 2007). 'The Past is dead and has no resurrection,' wrote Melville (1850/1923), 'but the Future is endowed with such a life, that it lives to us even in anticipation' (at 143; as quoted in Caruso et al., 2008: 796). Growing lines of research hint at qualifications to this assumption: Revisiting our pasts can provide rich emotional boosts to our presents.

*Enjoying what is (re)discovered.* As reviewed in the Mastery section, repeating past experiences often proves to be 'newer' than people anticipate; in the moment of repeat experiences, people often discover new details in the stimulus and

update their construals and interpretations. Thus, via the same psychology that can lead entirely novel stimuli to be appetitive and disrupt hedonic adaptation (Berlyne, 1970; Lyubomirsky et al., 2005; Quoidbach and Dunn, 2013; Sheldon et al., 2012), revisiting the past can be highly pleasurable in and of itself—much more enjoyable than people imagine. O'Brien (2019) documented these benefits, plus people's tendency to overlook them. Participants in one study were instructed to go through a museum exhibit at their own leisure; they could visit whatever they wanted to visit in the exhibit, on their own, so long as they returned to the experimenter upon completion to rate their experience. Upon completion, they were instructed to go through that exact same exhibit for a second time in a row, again visiting whatever they wanted to visit at their leisure. Despite enjoying their initial experience, participants *predicted* their second time through would be significantly less enjoyable; *in reality*, return trips were just as enjoyable as first trips. This finding echoes Zhang et al. (2014)'s time capsule study, in which participants underestimated how positively they would react upon revisiting reports of their everyday past lives.

O'Brien's (2019) Studies 6–7 are especially informative, as they directly compare the hedonic value of a repeat option to that of a novel option. Choosing to re-experience a past activity risks opportunity costs by missing out on novel activities; if a novel option would have been even more enjoyable, then an underappreciation for repetition seems perfectly rational. In Studies 6–7, participants first experienced an enjoyable stimulus in full (e.g. watching an enjoyable city tour from start to finish), and then were given the opportunity to re-experience that stimulus versus experiencing a brand new stimulus that, in reality and unbeknownst to participants, would prove less enjoyable (e.g. toying with their phones). Participants were given descriptions of each option so as not to simply deceive them about the novel option (e.g. they were explicitly informed that they could re-watch the video or toy with their phones). In both studies, most participants chose the novel, yet less enjoyable, option—despite indicating that they made their choice precisely to maximize enjoyment and not satisfy other goals (e.g. curiosity). Revisiting the past can be highly enjoyable, but people do not easily appreciate this beforehand.

Other research highlights a conceptually similar effect: Feeling connected to one's *past* self, rather than one's *future* self, promotes outcomes like savoring. O'Brien (2015a, 2015b) posits a theory that blends people's tendency to perceive self-improvement over time with the existence of cultural values that assume 'rational = good' and 'emotional = bad.' Putting these ideas together, his research finds that people tend to view their past selves as emotional (but not very rational) but their future selves as rational (but not very emotional). Accordingly, when people have the goal to maximize experiential outcomes and other hedonic experiences (O'Brien and Ellsworth, 2012b; O'Brien and Hagen, 2013), this theory proposes that feeling connected to one's past self rather than future self might

be optimal; one's past self seems like a person who is able to maximally enjoy their experiences whereas one's future self seems like a person who maximizes agency, self-control, and other rational pursuits. Indeed, instructing participants to focus on their past selves and to use their past selves as a 'role model' for current behavior (versus future selves) led them to report greater savoring and enjoyment for experiential tasks, such as watching fun videos and enjoying 'silly' but rewarding tasks (which their rational future selves would not do). Thus, taking a past focus, rather than future focus, can enhance goal achievement *depending on the goal*. Taking a future focus led to better self-control on agentic tasks in these studies, such as those involving combating distractions and exerting concentration; critically, however, when people have experiential goals rather than agentic goals (e.g. to savor a fun moment), a future orientation may backfire.

*The pleasures of strict repetition.* Even when people do not discover anything new at repeat exposures, they may still enjoy other emotional boosts. By definition, repeated exposure to the exact same activity or stimulus can provide something that novelty or variety itself cannot provide: pleasurable feelings of familiarity. These pleasurable feelings can come in the form of actual exposure knowledge and also be elicited by lower-level processes. In terms of actual exposure knowledge, consider the first time you visit a new sprawling city; it may feel overwhelming, chaotic, or just generally confusing. During a return visit, however, chances are much higher that you will feel more oriented toward where things are and what things are available as compared to your first visit, and this state of 'knowing' can reduce frustration, especially as compared to a disorienting first experience. Knowing what to expect, and then experiencing it exactly as expected, can simply feel good. In terms of lower-level processes, this pleasurable sense of familiarity is undergirded by mere exposure effects (Bornstein, 1989; Zajonc, 2001) and processing fluency (O'Brien, 2013; Reber, Schwarz, and Winkielman, 2004). Studies on mere exposure suggest that stimuli that are relatively neutral at first exposure tend to grow more positive and are liked more the more that people are repeatedly exposed to them, and initial uncertainties diminish. At a general level, mere exposure is thought to reflect an adaptive evolutionary process, following the logic that if a person has experienced some stimulus in the past—and the person has lived to tell about it—that stimulus is apparently not harmful and thus can be approached (Zajonc, 2001). In a similar vein, studies on processing fluency find that stimuli that *feel* easy to process—from reading clearly printed fonts to using memory aids that bring experiences quickly to mind—also tend to be evaluated more positively (e.g. more liked, more enjoyable), rooted in overgeneralized attribution (Alter and Oppenheimer, 2009; Reber et al., 2004). Only when we return to old past experiences rather than seek out new future experiences can we reap these benefits of familiarity.

Recall the aforementioned collage study (O'Brien, 2019): Participants repeatedly viewed a collage of photographs that contained either a lot of information to

miss at first glance (i.e. many complex animal images) or a collage that contained no information to miss at first glance (i.e. simple blue dots). As described, participants mispredicted their enjoyment for repetition, because they overestimated the extent to which they had ‘seen all there is to see’ in the complex collage. Interestingly, another finding emerged in this study: Participants *also* showed this same effect in their exposure to the simple collage, albeit more weakly: Repeatedly viewing a simple collage of identical blue dots *also* proved more enjoyable in real time than participants imagined beforehand. This finding cannot be explained by a discovery account, because there was nothing to left to discover in the image (at least objectively)—highlighting the likely role of mere exposure and fluency in sustaining positive affect. Even when there is little opportunity to learn new information by returning to the past, we may still enjoy other pleasures of familiarity.

A final point of emphasis here is the possibility of a ‘curation’ model of repeat experiences, which (to my knowledge) has not yet been tested but likely represents an additional source of pleasure from strict repetition. One reason why repeat experiences provide enjoyment is because people can immediately turn to their favorite parts of the experience by virtue of learning from their initial exposure. At one’s return visit to a vacation destination, for example, one can immediately return to one’s favorite hidden gems without the experience being diluted by trial-and-error exploration.

*Happiness and life satisfaction.* As another example of the pleasures of strict repetition (i.e. not requiring the discovery of new information), people who reflect back on their pasts can also experience positive boosts in their happiness and life satisfaction in the present, under certain conditions (O’Brien, Ellsworth, and Schwarz, 2012). O’Brien and Kardas (2016) documented an intuitive association between the concept of ‘change’ (in the absence of any operational definition for what ‘change’ was supposed to mean) and patently positive reactions within that moment of reflection, such as improved mood, happiness, and life satisfaction (see also O’Brien, 2021b). In one study, participants were instructed to reflect on how they had ‘changed’ over the past year, with no specific reference for what they should focus on regarding this change. These participants left the laboratory in a more positive mood and feeling more positively about their lives as compared to participants who reflected on how they had ‘stayed the same’ over the past year. This effect was driven by corresponding differences in the extent to which participants in the ‘change’ condition spontaneously brought to mind ways they had *improved* over the past year as compared to participants in the ‘same’ condition. Klein and O’Brien (2017) showed a similar effect in terms of how people judge *others* who have changed from their pasts (for full discussion of valence asymmetries in tracking improvement versus decline, see also Klein and O’Brien, 2016, 2018; O’Brien, 2020; O’Brien and Klein, 2017).

*Reflection and regulation.* By choosing to fill one's time by re-experiencing past activities, people are also able to uniquely experience emotional states like nostalgia, which come with pleasurable and positive affective components. Nostalgia is necessarily past-oriented: It refers to sentimental feelings for the past elicited by reflecting on a past experience or re-encountering an object from the past (Wildschut, Sedikides, Arndt, and Routledge, 2006; van Tilburg, Sedikides, Wildschut, and Vingerhoets, 2019; Vess, Arndt, Routledge, Sedikides, and Wildschut, 2010). Despite relatively negative stereotypes that one might have about nostalgia, the empirical reality appears quite different; nostalgia, as it turns out, is largely positive. As summarized by Sedikides, Wildschut, Arndt, and Routledge (2008) in reviewing the empirical evidence: 'Instead, we argue that nostalgia is a predominantly positive, self-relevant, and social emotion serving key psychological functions...nostalgia generates positive affect, increases self-esteem, fosters social connectedness, and alleviates existential threat' (304). These benefits are varied, and some better fit the Meaning section. Most relevant here is the simple point that re-experiencing the past can oftentimes be a pleasurable activity in and of itself, involving warmly re-appreciating and re-enjoying things with which people have emotional ties. People often closely guard especially positive past experiences, such as by avoiding information that may taint their impressions, in order to allow those past experiences to continue eliciting positive feelings upon reflection (Zauberman, Ratner, and Kim, 2009).

Re-experiencing the past through reflection or re-consumption also serves as an explicit strategy for managing negative emotions and maintaining positive mood. Numerous studies involve instructing participants to draw on past positive memories in order to help regulate their current emotional state, and indeed, people subsequently feel happier—even when compared to the effect of drawing on anticipated future experiences (Bryant, Smart, and King, 2005; Lyubomirsky, Sousa, and Dickerhoof, 2006; Mitchell, Thompson, Peterson, and Cronk, 1997; Speer, Bhanji, and Delgado, 2014; Strack, Schwarz, and Gschneidinger, 1985). As Quoidbach, Mikolajczak, and Gross (2015) note: 'Positive autobiographical recall is one of the most widely used emotion induction techniques, and has been successfully used to boost positive emotions in participants tested individually or in group settings' (21). Spending time reminiscing and re-enjoying favorite experiences from one's past makes an effective tool for emotion regulation and mood management, in ways that a future focus cannot as easily duplicate.

Finally, a related literature on autobiographical memory (e.g. Nelson, 1993) and joint reminiscence (e.g. Hoerl and McCormack, 2005) highlights the social and emotional boosts that people experience from the mere act of reflecting on past events with others. As we discuss and savor shared memories with those involved, it is likely the case that those experiences of exchange are themselves a source of enjoyment and pleasure—both in terms of different parties

remembering different details of the past event and thus helping others (re)discover new information about it, and also in terms of strict repetition such that reflecting on warm experiences exactly as they were can itself be pleasurable.

### 2.3 Meaning

Beyond momentary hedonic benefits such as boosting pleasure and enjoyment, the past also satisfies more eudaimonic goals like instilling purpose and reaffirming meaning in life. Indeed, feelings are fleeting; as people navigate their lives, they spend a lot of time *thinking about* good and bad moments rather than experiencing them *per se*. ‘When we are asked “how good was the vacation”’, observe Kahneman and Riis (2005), ‘it is not an experiencing self that answers, but a remembering and evaluating self, the self that keeps score and maintains records’ (285–6). When people re-consume experiences of the past, oftentimes they are simultaneously participating in a rich meaning-making process that promotes positive functioning in the present—one that is not necessarily as involved as when we instead pursue novel, future-focused activities.

*Sense making.* Reflecting on and re-consuming past experiences allows people to make sense of them: to attribute reasons for why those experiences happened, to reframe the impact of those experiences, and to make connections between those experiences and other aspects of their lives. These benefits can emerge from the literal act of taking time to mentally simulate past experiences: There appears to be a direct relationship between engaging in mental simulation and felt meaning in life (Baumeister, Vohs, Aaker, and Garbinsky, 2013; Waytz, Hershfield, and Tamir, 2015). Likewise, nostalgic retrospection and other kinds of reminiscence are positively associated with felt meaning (Routledge, Wildschut, Sedikides, Juhl, and Arndt, 2012; Sedikides et al., 2008). Considering alternate causes and consequences of past experiences—traditionally studied under the umbrella of counterfactual thinking—is associated with similar boosts, leading people to feel more strongly that their current circumstances have purpose (Burrus and Roese, 2006; Epstude and Roese, 2008; Koo, Algoe, Wilson, and Gilbert, 2008).

These benefits are especially useful when people reflect on past events that are highly personally relevant. O’Brien and Kardas (2016) found that instructing people to reflect on how one has changed as a person over time over time led them to focus on various ways they had improved, and in turn, they reported increased meaning in life in the present. This effect emerged upon reflecting on change over relatively distant time frames (e.g. how one has changed over the past decade), but also over relatively recent time frames (e.g. how one has changed over the past year). In addition, reflecting on past *negative* life experiences also serves meaningful goals. Although people can get stuck in the past and end up ruminating even more (Holman and Silver, 1998), reflecting on past experiences

via a distanced 'third person' perspective (e.g. imagining a past negative experience from a bird's eye view and engaging in internal dialogue in third person) is especially effective for reducing ruminative thought, facilitating recovery, and increasing perceived meaning of those events (Kross and Ayduk, 2011; Orvell, Kross, and Gelman, 2017). A constant focus on the future would miss out on these critical opportunities for self-assessment and sense making that are provided by re-engaging with past experiences.

*Rituals and traditions.* The past also promotes meaning in the form of rituals and traditions. Emerging research in social and cognitive psychology has begun to measure downstream effects of ritualistic consumption on outcomes like perceived meaning in life (Hobson, Schroeder, Risen, Xygalatas, and Inzlicht, 2018; Rossano, 2012; Sezer, Norton, Gino, and Vohs, 2016; Vohs, Wang, Gino, and Norton, 2013). Ritualistic consumption involves returning to a past way of doing things rather than trying something new. By engaging in rituals and traditions, mental representations of our pasts become more vivid and more fluently accessible, leading us to feel more connected to our pasts and in turn to feel like our presents are more meaningful (Hobson et al., 2018). Traditions also serve coordination functions by demarcating temporal landmarks that 'chunk' our experiences in psychologically manageable parts (Dai, Milkman, and Riis, 2014; Peetz and Wilson, 2013; Shum, 1998). When reflecting back upon and re-experiencing past activities, being able to view predictable, recurring connections between these activities and our presents is an exercise on appreciating purpose and meaning. While people can also imbue their futures with these same temporal landmarks, the fact that future rituals and traditions have not yet been realized likely serves as a weaker signal. Repeat consumption, such as returning to a familiar ritual, serves to reaffirm the meaning connecting our pasts to our presents (Winet and O'Brien, under review). Other research provides converging support for these ideas by showing that people imbue special experiences with meaning by honoring the occasion with concrete material goods like rings and other tangible memorabilia that can stand the test of time (Baumeister et al., 2013; Goodman, Malkoc, and Stephenson, 2016)—thus enabling them 'to be transported back to their positive emotions experienced at the time of the event' (Goodman et al., 2016: 497).

These ideas again highlight the dual nature of how repeat experiences might be surprisingly pleasurable: Not only does repetition allow people to (re)discover new information about the experience (and people are attracted to novelty), but people can also derive utility from the strict act of repetition without learning anything new. In fact, some experiences may *require* strict repetition in order to provide their utility (i.e. such that deviating into new territory would undermine our experience). Many experiences in the domain of rituals and traditions likely fall into such a category (e.g. exact regular repetition of the same prayer or spiritual practice as opposed to performing it differently each time), with the goal of connecting us to our broader past heritage. Here too might research on 'strategic

memory protection' be relevant, such that people purposefully avoid revisiting a cherished marker from their pasts at the risk of discovering that it is not exactly the way they remember it (e.g. Zauberman et al., 2009).

*Perspective taking.* When people re-consume past experiences, doing so is often a naturalistic form of perspective taking, allowing us to reap the many benefits of stepping outside the psychological here-and-now. The past contains a wealth of information to help people see things from different points of view, promoting perceived meaning. The aforementioned 'third person' self-distancing research (e.g. Kross and Ayduk, 2011) is designed around the idea of getting people to use past experiences as a way to discern more meaningful (and healthier) interpretations of life events. More generally, people experience awe, wonder, admiration, and other profound feelings when they reach back in time and reflect on the longevity of an entity from the past to the present, thus putting their own present circumstances in perspective (Keltner and Haidt, 2003; Shiota, Keltner, and Mossman, 2007). One reason why an individual may feel so committed to a religious movement may be due to its connection with the past, and knowing that followers today read the same texts that followers had read thousands of years ago. One reason why we may find it so special to stand where dinosaurs once roamed is because it connects us to life millions of years prior. One reason why exposure to nature has such a profound psychological impact (Berman, Jonides, and Kaplan, 2008) may be because it reminds us of things that have existed for generations. And so on. Interestingly, such benefits might be more likely to emerge for past reflection, even though in principle one could consider converse exercises for future reflection (e.g. imagining all the generations still to come). Entities that truly exist and events that have truly happened tend to be evaluated more positively than hypothetical future counterparts (Eidelman, Crandall, and Pattershall, 2009), and this is especially true the longer that an entity has existed for (the so-called 'longevity bias': Eidelman, Pattershall, and Crandall, 2010). One explanation for such effects is that people tend to process past events in richer, more vivid detail than equivalent future events, which are processed rather generically (Kane, Van Boven, and McGraw, 2012). Reaching back into the past invites various opportunities for deeper reflection and perspective.

*Social connection.* One domain that especially benefits from familiarity and repetition is the social domain. Indeed, the aforementioned benefits of rituals and traditions could instead be seen as social benefits, as rituals and traditions are largely social enterprises that involve re-consuming past experiences and memories that are shared between group members (Hobson et al., 2018). More directly to this point, consider the effects of repeat social encounters: In general, the more that the same two people interact, the more they learn about each other, the more comfortable they feel around each other, and the more they like each other (Aron, Melinat, Aron, Vallone, and Bator, 1997; Collins and Miller, 1994; Reis and Shaver, 1988). In other words, the same old social relationship tends to grow more

meaningful as we continue to revisit it. In fact, repeatedly socializing with the same person via one long conversation is often just as enjoyable and meaningful, if not more so, than rotating through different conversations with different individuals (Kardas, Schroeder, and O'Brien, 2021). When we re-connect with those we already know, we build richer relationships. These benefits are not possible by ever-expanding one's social network by pursuing newer (but shallower) ties.

O'Brien and Kassirer (2019) extended this idea into another kind of interpersonal domain: repeated *prosocial* behavior. They hypothesized that the warm glow might be slow to dissipate: Repeatedly helping the same target in the same way may make helpers feel just as happy the *n*th time in a row as they felt the very first time, without changing anything about the experience from exposure to exposure. And indeed, in a series of spending studies in which participants gave money to others or earned money for others, each act of spending or earning elicited similarly high happiness, and did so for a much longer time than equivalent spending or earning for themselves. By repeatedly helping the same target in the same way, people derive utility from the signal that this sends to themselves and others that they are useful, committed members of the community, and the deeper bonds that this forms with that one repeated target. These findings join others that similarly suggest that people derive high value from revisiting social stimuli, such as being repeatedly exposed to stimuli with high sentimental value (e.g. revisiting the past via flipping through one's wedding photographs continues to elicit high enjoyment and meaning over time: Yang and Galak, 2015). Likewise, people tend to adapt less quickly to experiential purchases, which often involve others (Nicolao, Irwin, and Goodman, 2009).

The aforementioned benefits of shared autobiographical memory (e.g. Nelson, 1993) and joint reminiscence (e.g. Hoerl and McCormack) further highlight the unique connection between the past and social connection. Presumably, people feel more connected to one another after reflecting back on a shared enjoyable experience as compared to jointly imagining what a shared future experience might be like.

*Self-continuity.* Finally, revisiting the past has signaling benefits from promoting self-continuity. Just as people value feeling close and connected to their future selves, they likely derive similar value from feeling close and connected to their past selves. People are motivated to perceive themselves as improving over time, and sometimes even actively disavow a past identity (Libby and Eibach, 2002)—but in general, they do not view themselves as growing into fundamentally different kinds of people. People tend to perceive stability in core traits and values (Ross, 1989; Strohminger, Knobe, and Newman, 2017), are motivated to seek out experiences that verify these core traits and values (e.g. self-verification theory: Swann, 2012), and feel especially good about themselves when they consume things that reflect 'who they are' (e.g. the 'extended self': Belk, 1988). From this perspective, revisiting past experiences is a meaningful signal for re-affirming the

preferences that define us. The real-life story of Agustin Alanis—who so enjoyed the movie *Avengers: Endgame* that he set a record by seeing it in theaters a whopping 202 times (Koehler, 2019)—could be seen as a function of such a signaling process: At each repeat exposure, Alanis reaffirms that he is indeed the world's biggest fan. If he pursued novelty and variety in his movie choices, this signaling power is lost (note also that novel experiences are also riskier than simply pursuing old favorites). In turn, returning to old favorites and re-consuming past experiences indeed helps to signal one's identity, which slows hedonic adaptation (Chugani, Irwin, and Redden, 2015). Research on the power of gratitude (Emmons and McCullough, 2003) might also be seen through this lens: One reason that expressing thanks for past experiences has been shown to promote meaning may be because it signals a sense of connection between one's past and one's present.

### 3. Concluding Thoughts

How should you spend your time: Revisiting your past or adventuring into your future? The goal of this chapter was to review emerging lines of research all highlighting the many benefits of the past (e.g. of feeling connected to one's past self; of revisiting and repeating past activities; of reflecting on one's past experiences). Popular research in this area has highlighted the many benefits of the future (e.g. of feeling connected to one's future self; of pursuing new activities on one's bucket list; of focusing on one's future plans). Upon glancing at studies adopting this popular approach, it is tempting to assume a universal prescription toward expressing a future orientation: People should seek to be future oriented ('What would my future self do?') in order to achieve their goals and improve their experiences in the present. This chapter urges qualifications to this assumption. Drawing on research from a variety of perspectives, I sought to highlight when feeling connected to the future can backfire and instead when feeling connected to the past serves the superior strategy ('What would my past self do?'). Moving forward in psychological research on time and change, more theorizing and experimenting is needed to bridge these perspectives. To conclude, I detail three especially promising directions.

First, more research should directly compare the causal effects of taking a past perspective versus taking a present perspective versus taking a future perspective all within the same experimental context. Existing studies often pick and choose just one or two of these three temporal modes, or measure all three but within correlational contexts. By evaluating the full set of perspectives, research can begin to map out all the possible directions of causality: when taking a past perspective is helpful (and harmful) compared to the present; when taking a future perspective is helpful (and harmful) compared to the present; and when taking a

past perspective is superior (and inferior) to taking a future perspective. The findings of O'Brien (2015a, 2015b) suggest one such starting point by manipulating the type of goal: These results suggest that taking a past perspective is best for maximizing experiential goals (e.g. enjoyment, savoring), whereas taking a future perspective is best for maximizing agentic goals (e.g. planning, exerting self control).

Second, more research should further unpack downstream behavior and practical implications of the presently documented benefits of taking a past perspective. Cultural differences in time perspective (e.g. Sirvoca et al., 2014) may prove to be informative on this front. Citizens of countries that are more strongly future-oriented, for example, may be less likely to experience benefits from repeat experiences and taking past perspectives (and may also be less likely to naturally pursue these experiences to begin with). Other cultural differences may provide other clues. For example, citizens of countries that express stronger empathy (e.g. Chopik, O'Brien, and Konrath, 2017) may be generally more likely to keep themselves focused on past events and be less inclined to pursue ever-newer futures. Likewise, across cultures, there may be generational differences in perspective-taking abilities that make similar predictions; one study suggests that such abilities are declining over time (Konrath, O'Brien, and Hsing, 2011), suggesting that today's younger generations may indeed be more open to revisiting past experiences as compared to their past-generation counterparts.

Among people who are explicitly more past oriented, however, the currently documented boosts on self-report measures suggest that these populations should also experience corresponding boosts in more objective outcomes such as those observed via physiological measures, neuropsychological measures, and longer-term behavior change. To the extent that certain categories of experiences are relatively immune to hedonic adaptation 'on their own' and help to build commitment toward other kinds of goals (e.g. prosocial behavior and identity signaling), interventions instructing people to invest more time into these experiences should lead to sustained gains in well-being. Indeed, the state of the literature on hedonic adaptation might generally be too grim; more research is needed to taxonomize the experiences that decline with repetition (and thus we are wise to pursue novelty) versus the experiences that might actually benefit from repetition (and thus we are wise to revisit them). Relatedly, to the extent that there are indeed categories of experiences that get better with repetition, these experiences might be harnessed as strategies for reducing consumption waste and the over-pursuit of novelty and variety. Mechanisms underlying why revisiting past experiences proves to be enjoyable and have other positive experiential qualities should be further mapped out (e.g. mapping out the relative roles of novel discovery versus curation and strict repetition). There are timely implications for understanding how to get people to repeatedly use and consume the same goods and services, especially to the extent that repeat consumption comes with various psychological benefits as well.

Finally, more research should unpack people's intuitions of the aforementioned processes, and how to best calibrate people's intuitions in order to improve everyday decision making. As documented by O'Brien (2019), people may not easily intuit the benefits of repeat exposure; in many cases, revisiting the same old experience that we have already consumed (e.g. returning to the exact same museum exhibit for a second time in a row rather than checking out a new exhibit) proves to be much more pleasurable than people think, because they are too quick to assume that they have 'seen all there is to see' after just one initial exposure. Despite the presently documenting benefits of experiential depth versus experiential breadth, people may underutilize such opportunities due to miscalibrated intuitions about their relative value. Adventuring into your future is indeed the spice of life, but complementary flavors might be found in revisiting your past.

## References

- Alba, J. W., and Hutchinson, J. W. (2000). Knowledge calibration: What consumers know and what they think they know. *Journal of Consumer Research*, 27, 123–56.
- Albert, S. (1977). Temporal comparison theory. *Psychological Review*, 84, 485–503.
- Alter, A. L., and Oppenheimer, D. M. (2009). Uniting the tribes of fluency to form a metacognitive nation. *Personality and Social Psychology Review*, 13, 219–35.
- Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., and Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, 23, 363–77.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bartels, D. M., and Rips, L. J. (2010). Psychological connectedness and intertemporal choice. *Journal of Experimental Psychology: General*, 139, 49–69.
- Bartels, D. M., and Urminsky, O. (2011). On intertemporal selfishness: How the perceived instability of identity underlies impatient consumption. *Journal of Consumer Research*, 38, 182–98.
- Baumeister, R. F., Vohs, K. D., Aaker, J. L., and Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *The Journal of Positive Psychology*, 8, 505–16.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15, 139–68.
- Berlyne, D. E. (1970). Novelty, complexity, and hedonic value. *Perception & Psychophysics*, 8, 279–86.
- Berman, M. G., Jonides, J., and Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science*, 19, 1207–12.

- Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968–1987. *Psychological Bulletin*, *106*, 265–89.
- Bryant, F. B., Smart, and C. M., King, S. P. (2005). Using the past to enhance the present: Boosting happiness through positive reminiscence. *Journal of Happiness Studies*, *6*, 227–60.
- Burrus, J. B., and Roese, N. J. (2006). Long ago it was meant to be: The interplay between time, construal, and fate beliefs. *Personality and Social Psychology Bulletin*, *32*, 1050–8.
- Campbell, T., O'Brien, E., Van Boven, L., Schwarz, N., and Ubel, P. A. (2014). Too much experience: A desensitization bias in emotional perspective taking. *Journal of Personality and Social Psychology*, *106*, 272–85.
- Caruso, E. M., Gilbert, D. T., and Wilson, T. D. (2008). A wrinkle in time: Asymmetric valuation of past and future events. *Psychological Science*, *19*, 796–801.
- Chopik, W. J., O'Brien, E., and Konrath, S. (2017). Differences in empathy and perspective taking across 63 countries. *Journal of Cross-Cultural Psychology*, *48*, 23–38.
- Chugani, S. K., Irwin, J. R., and Redden, J. P. (2015). Happily ever after: The effect of identity-consistency on product satiation. *Journal of Consumer Research*, *42*, 564–77.
- Collins, N. L., and Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, *116*, 457–75.
- Dai, H., Milkman, K. L., and Riis, J. (2014). The fresh start effect: Temporal landmarks motivate aspirational behavior. *Management Science*, *60*, 2563–82.
- Dunning, D. (2005). *Self-insight: Roadblocks and Detours on the Path to Knowing Thyself*. New York: Psychology Press.
- Eidelman, S., Crandall, C. S., and Pattershall, J. (2009). The existence bias. *Journal of Personality and Social Psychology*, *97*, 765–75.
- Eidelman, S., Pattershall, J., and Crandall, C. S. (2010). Longer is better. *Journal of Experimental Social Psychology*, *46*, 993–8.
- Emmons, R. A., and McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, *84*, 377–89.
- Epstude, K., and Roese, N. J. (2008). The functional theory of counterfactual thinking. *Personality and Social Psychology Review*, *12*, 168–92.
- Ersner-Hersfield, H., Wimmer, G. E., and Knutson, B. (2009). Saving for the future self: Neural measures of future self-continuity predict temporal discounting. *Social Cognitive and Affective Neuroscience*, *4*, 85–92.
- Fishbach, A., Ratner, R. K., and Zhang, Y. (2011). Inherently loyal or easily bored?: Nonconscious activation of consistency versus variety-seeking behaviour. *Journal of Consumer Psychology*, *21*, 38–48.
- Goodman, J. K., Malkoc, S. A., and Stephenson, B. L. (2016). Celebrate or commemorate? A material purchase advantage when honouring special life events. *Journal of the Association for Consumer Research*, *1*, 497–508.

- Green, J. D., and Sedikides, C. (2004). Retrieval selectivity in the processing of self-referent information: Testing the boundaries of self-protection. *Self and Identity*, 3, 69–80.
- Hershfield, H. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L., Carstensen, L. L., and Bailenson, J. N. (2011). Increasing saving behavior through age progressed renderings of the future self. *Journal of Marketing Research*, 48, S23–37.
- Hershfield, H. E., Cohen, T. R., and Thompson, L. (2012). Short horizons and tempting situations: Lack of continuity to our future selves leads to unethical decision making and behavior. *Organizational Behavior and Human Decision Processes*, 117, 298–310.
- Hobson, N. M., Schroeder, J., Risen, J. L., Xygalatas, D., and Inzlicht, M. (2018). The psychology of rituals: An integrative review and process-based framework. *Personality and Social Psychology Review*, 22, 260–84.
- Hoeffler, S., Ariely, D., West, P., and Duclos, R. (2013). Preference exploration and learning: The role of intensiveness and extensiveness of experience. *Journal of Consumer Psychology*, 23, 330–40.
- Hoerl, C., and McCormack, T. (2005). Joint reminiscing as joint attention to the past. In N. Eilan, C. Hoerl, T. McCormack, and J. Roessler (Eds.), *Joint Attention: Communication and Other Minds* (pp. 260–86). Oxford: Oxford University Press.
- Holman, E. A., and Silver, R. C. (1998). Getting ‘stuck’ in the past: Temporal orientation and coping with trauma. *Journal of Personality and Social Psychology*, 74, 1146–63.
- Hsee, C. K., and Ruan, B. (2016). The Pandora effect: The power and peril of curiosity. *Psychological Science*, 27, 659–66.
- Kahn, B. E., and Ratner, R. K. (2005). Variety for the sake of variety? Diversification motives in consumer choice. In S. Ratneshwar and D. G. Mick (Eds.), *Inside Consumption: Consumer Motives, Goals, and Desires* (pp. 102–21). Hove: Routledge.
- Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.
- Kahneman, D., and Riis, J. (2005). Living and thinking about it: Two perspectives on life. In F. A. Huppert, B. Kaverne, and N. Baylis (Eds.), *The Science of Well-being* (pp. 284–304). London: Oxford University Press.
- Kane, J., Van Boven, L., and McGraw, P. A. (2012). Prototypical prospection: Future events are more prototypically represented and simulated than past events. *European Journal of Social Psychology*, 42, 354–62.
- Kardas, M., and O’Brien, E. (2018). Easier seen than done: Merely watching others perform can foster an illusion of skill acquisition. *Psychological Science*, 29, 521–36.
- Kardas, M., Schroeder, J., and O’Brien, E. (2021). Keep talking: Misunderstanding the hedonic trajectory of conversation. *Journal of Personality and Social Psychology*, in press.
- Keinan, A., and Kivetz, R. (2011). Productivity orientation and the consumption of collectable experiences. *Journal of Consumer Research*, 37, 935–50.

- Keltner, D., and Haidt, J. (2003). Approaching awe, a moral, spiritual, and aesthetic emotion. *Cognition and Emotion*, 17, 297–314.
- Klein, N., and O'Brien, E. (2016). The tipping point of moral change: When do good and bad acts make good and bad actors? *Social Cognition*, 34, 149–66.
- Klein, N., and O'Brien, E. (2017). The power and limits of personal change: When a bad past does (and does not) inspire in the present. *Journal of Personality and Social Psychology*, 113, 210–29.
- Klein, N., and O'Brien, E. (2018). People use less information than they think to make up their minds. *Proceedings of the National Academy of Sciences*, 115, 13222–7.
- Koehler, D. (2019). An interview with the superfan who watched 'Avengers: Endgame' 202 times in theaters (August 1). Retrieved from: <https://atomtickets.com/movie-news/marvel-superfan-agustin-alanis-interview-avengers-endgame-guinness-world-record/>
- Konrath, S., O'Brien, E., & Hsing, C. (2011). Changes in dispositional empathy in American college students over time: A meta-analysis. *Personality and Social Psychology Review*, 15, 180–198.
- Koo, M., Algoe, S. B., Wilson, T. D., and Gilbert, D. T. (2008). It's a wonderful life: Mentally subtracting positive events improves people's affective states, contrary to their affective forecasts. *Journal of Personality and Social Psychology*, 95, 1217–24.
- Kristal, A. C., O'Brien, E., and Caruso, E. M. (2019). Yesterday's news: A temporal discontinuity in the sting of inferiority. *Psychological Science*, 30, 643–56.
- Kross, E., and Ayduk, O. (2011). Making meaning out of negative experiences by self-distancing. *Current Directions in Psychological Science*, 20, 187–91.
- Libby, L. K., and Eibach, R. P. (2002). Looking back in time: Self-concept change affects visual perspective in autobiographical memory. *Journal of Personality and Social Psychology*, 82, 167–79.
- Lyubomirsky, S., Sheldon, K. M., and Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9, 111–31.
- Lyubomirsky, S., Sousa, L., and Dickerhoof, R. (2006). The costs and benefits of writing, talking, and thinking about life's triumphs and defeats. *Journal of Personality and Social Psychology*, 90, 692–708.
- Maddux, W. W., and Galinsky, A. D. (2009). Cultural borders and mental barriers: The relationship between living abroad and creativity. *Journal of Personality and Social Psychology*, 96, 1047–61.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2, 71–87.
- Markus, H., and Ruvolo, A. (1989). Possible selves: Personalized representations of goals. In L. A. Pervin (Ed.), *Goal Concepts in Personality and Social Psychology* (pp. 211–41). Hillsdale: Erlbaum.
- McAdams, D. P. (2013). *The Redemptive Self: Stories Americans Live By* (rev. and expanded ed.). New York: Oxford University Press.

- McAlister, L., and Pessemier, E. (1982). Variety seeking behavior: An interdisciplinary review. *Journal of Consumer Research*, 9, 311–22.
- Melville, H. (1923). *White Jacket, or the World in a Man-of-War*. Boston: Simonds. (Original work published 1850.)
- Mitchell, T. R., Thompson, L., Peterson, E., and Cronk, R. (1997). Temporal adjustments in the evaluation of events: The ‘rosy view.’ *Journal of Experimental Social Psychology*, 33, 421–48.
- Monroe, A. E., Ainsworth, S. E., Vohs, K D., and Baumeister, R. F. (2017). Fearing the future? Future-oriented thought produces aversion to risky investments, trust, and immorality. *Social Cognition*, 35, 66–78.
- Nelson, K. (1993). The psychological and social origins of autobiographical memory. *Psychological Science*, 4, 7–14.
- Nicolao, L., Irwin, J. R., and Goodman, J. K. (2009). Happiness for sale: Do experiential purchases make consumers happier than material purchases? *Journal of Consumer Research*, 36, 188–98.
- O’Brien, E. (2013). Easy to retrieve but hard to believe: Metacognitive discounting of the unpleasantly possible. *Psychological Science*, 24, 844–51.
- O’Brien, E. (2015a). Mapping out past and future minds: The perceived trajectory of emotionality versus rationality over time. *Journal of Experimental Psychology: General*, 144, 624–38.
- O’Brien, E. (2015b). Feeling connected to younger versus older selves: The asymmetric impact of life stage orientation. *Cognition and Emotion*, 29, 678–86.
- O’Brien, E. (2019). Enjoy it again: Repeat experiences are less repetitive than people think. *Journal of Personality and Social Psychology*, 116, 519–40.
- O’Brien, E. (2020). When small signs of change add up: The psychology of tipping points. *Current Directions in Psychological Science*, 29, 55–62.
- O’Brien, E. (2021a). A mind stretched: The psychology of repeat consumption. *Consumer Psychology Review*, 4, 42–58.
- O’Brien, E. (2021b). The ‘next’ effect: When a better future worsens the present. *Social Psychological and Personality Science*, in press.
- O’Brien, E., and Ellsworth, P. C. (2012a). More than skin deep: Visceral states are not projected onto dissimilar others. *Psychological Science*, 23, 391–6.
- O’Brien, E., and Ellsworth, P. C. (2012b). Saving the last for best: A positivity bias for end experiences. *Psychological Science*, 23, 163–5.
- O’Brien, E., Ellsworth, P. C., and Schwarz, N. (2012). Today’s misery and yesterday’s happiness: Differential effects of current life-events on perceptions of past wellbeing. *Journal of Experimental Social Psychology*, 48, 968–72.
- O’Brien, E., and Hagen, A. L. (2013). The thrill of (absolute) victory: Success among many enhances emotional payoffs. *Emotion*, 13, 366–74.
- O’Brien, E., and Kardas, M. (2016). The implicit meaning of (my) change. *Journal of Personality and Social Psychology*, 111, 882–94.

- O'Brien, E., and Kassirer, S. (2019). People are slow to adapt to the warm glow of giving. *Psychological Science*, 30, 193–204.
- O'Brien, E., and Klein, N. (2017). The tipping point of perceived change: Asymmetric thresholds in diagnosing improvement versus decline. *Journal of Personality and Social Psychology*, 112, 161–85.
- O'Brien, E., Kristal, A. C., Ellsworth, P. C., and Schwarz, N. (2018). (Mis)imagining the good life and the bad life: Envy and pity as a function of the focusing illusion. *Journal of Experimental Social Psychology*, 75, 41–53.
- O'Brien, E., and Roney, E. (2017). Worth the wait? Leisure can be just as enjoyable with work left undone. *Psychological Science*, 28, 1000–15.
- O'Brien, E., and Smith, R. W. (2019). Unconventional consumption methods and enjoying things consumed: Recapturing the 'first time' experience. *Personality and Social Psychology Bulletin*, 45, 67–80.
- Orvell, A., Kross, E., and Gelman, S. A. (2017). How 'you' makes meaning. *Science*, 355, 1299–302.
- Peetz, J., and Wilson, A. E. (2013). The post-birthday world: Consequences of temporal landmarks for temporal self-appraisal and motivation. *Journal of Personality and Social Psychology*, 104, 249–66.
- Quoidbach, J., and Dunn, E. W. (2013). Give it up: A strategy for combating hedonic adaptation. *Social Psychological & Personality Science*, 4, 563–8.
- Quoidbach, J., Mikolajczak, M., and Gross, J. J. (2015). Positive interventions: An emotion regulation perspective. *Psychological Bulletin*, 141, 655–93.
- Ratner, R. K., and Kahn, B. E. (2002). The impact of private versus public consumption on variety-seeking behavior. *Journal of Consumer Research*, 29, 246–57.
- Ratner, R. K., Kahn, B. E., and Kahneman, D. (1999). Choosing less-preferred experiences for the sake of variety. *Journal of Consumer Research*, 26, 1–15.
- Read, D., and Loewenstein, G. (1995). Diversification bias: Explaining the discrepancy in variety seeking between combined and separated choices. *Journal of Experimental Psychology: Applied*, 1, 34–49.
- Reber, R., Schwarz, N., and Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, 8, 364–82.
- Reis, H. T., and Shaver, P. (1988). Intimacy as an interpersonal process. *Handbook of Personal Relationships*, 24, 367–89.
- Reyna, V. F., and Brainerd, C. J. (1995). Fuzzy-trace theory: An interim synthesis. *Learning and Individual Differences*, 7, 1–75.
- Ritter, S. M., Damian, R. I., Simonton, D. K., van Baaren, R. B., Strick, M., Derks, J., and Dijksterhuis, A. (2012). Diversifying experiences enhance cognitive flexibility. *Journal of Experimental Social Psychology*, 48, 961–4.
- Ross, M. (1989). Relation of implicit theories to the construction of personal histories. *Psychological Review*, 96, 341–57.

- Rossano, M. J. (2012). The essential role of ritual in the transmission and reinforcement of social norms. *Psychological Bulletin*, *138*, 529–49.
- Routledge, C., Wildschut, T., Sedikides, C., Juhl, J., and Arndt, J. (2012). The power of the past: Nostalgia as a meaning-making resource. *Memory*, *20*, 452–60.
- Rozenblit, L., and Keil, F. (2002). The misunderstood limits of folk science: An illusion of explanatory depth. *Cognitive Science*, *26*, 521–62.
- Rutchick, A. M., Slepian, M. L., Reyes, M. O., Pleskus, L. N., and Hershfield, H. E. (2018). Future self-continuity is associated with improved health and increases exercise behavior. *Journal of Experimental Psychology: Applied*, *24*, 72–80.
- Sanchez, C., and Dunning, D. (2018). Overconfidence among beginners: Is a little learning a dangerous thing? *Journal of Personality and Social Psychology*, *114*, 10–28.
- Schacter, D. L., and Addis, D. R. (2007). The cognitive neuroscience of constructive memory: Remembering the past and imagining the future. *Philosophical Transactions of the Royal Society*, *362*, 773–86.
- Sedikides, C., Wildschut, T., Arndt, J., and Routledge, C. (2008). Nostalgia: Past, present, and future. *Current Directions in Psychological Science*, *17*, 304–7.
- Seligman, M. E. P., Railton, P., Baumeister, R. F., and Sripada, C. (2013). Navigating into the future or driven by the past. *Perspectives on Psychological Science*, *8*, 119–41.
- Sezer, O., Norton, M. I., Gino, F., and Vohs, K. D. (2016). Family rituals improve the holidays. *Journal of the Association for Consumer Research*, *1*, 509–26.
- Sheldon, K. M., Boehm, J. K., and Lyubomirsky, S. (2012). Variety is the spice of happiness: The hedonic adaptation prevention (HAP) model. In S. David, I. Bonnywell, and A. C. Ayers (Eds.), *Oxford Handbook of Happiness* (pp. 901–14). Oxford, UK: Oxford University Press.
- Shiota, M. N., Keltner, D., and Mossman, A. (2007). The nature of awe: Elicitors, appraisals, and effects on self-concept. *Cognition and Emotion*, *21*, 944–63.
- Shum, M. S. (1998). The role of temporal landmarks in autobiographical memory processes. *Psychological Bulletin*, *124*, 423–42.
- Simonson, I. (1990). The effect of purchase quantity and timing on variety-seeking behavior. *Journal of Marketing Research*, *27*, 150–62.
- Sircova, A., van de Vijver, F. J., Osin, E., Milfont, T. L., Fieulaine, N., Kislali-Erginbilgic, A., et al. (2014). A global look at time a 24-country study of the equivalence of the Zimbardo time perspective inventory. *Sage Open*, *4*, 1–12.
- Sloman, S., and Fernbach, P. (2017). *The Knowledge Illusion: Why We Never Think Alone*. New York: Penguin.
- Speer, M. E., Bhanji, J. P., and Delgado, M. R. (2014). Savoring the past: Positive memories evoke value representations in the striatum. *Neuron*, *84*, 847–56.
- Strack, F., Schwarz, N., and Gschneidinger, E. (1985). Happiness and reminiscing: The role of time perspective, affect, and mode of thinking. *Journal of Personality and Social Psychology*, *49*, 1460–9.

- Strohminger, N., Knobe, J., and Newman, G. (2017). The true self: A psychological concept distinct from the self. *Perspectives on Psychological Science*, 12, 551–60.
- Swann, W. B. (2012). Self-verification theory. In P. Van Lang, A. Kruglanski, and E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology* (pp. 23–42). London: Sage.
- Taylor, S. E., and Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.
- Tully, S. M., and Meyvis, T. (2017). Forgetting to remember our experiences: People overestimate how much they will retrospect about personal events. *Journal of Personality and Social Psychology*, 113, 878–91.
- Van Boven, L., and Ashworth, L. (2007). Looking forward, looking back: Anticipation is more evocative than retrospection. *Journal of Experimental Psychology: General*, 136, 289–300.
- Van Boven, L., Loewenstein, G., Welch, N., and Dunning, D. (2012). The illusion of courage in self-predictions: Mispredicting one's own behavior in embarrassing situations. *Journal of Behavioral Decision Making*, 25, 1–12.
- van Gelder, J. L., Hershfield, H. E., and Nordgren, L. F. (2013). Vividness of the future self predicts delinquency. *Psychological Science*, 24, 974–80.
- van Tilburg, W. A. P., Sedikides, C., Wildschut, T., and Vingerhoets, A. J. J. M. (2019). How nostalgia infuses life with meaning: From social connectedness to self-continuity. *European Journal of Social Psychology*, 49, 521–32.
- Vess, M., Arndt, J., Routledge, C., Sedikides, C., and Wildschut, T. (2010). Nostalgia as a resource for the self. *Self and Identity*, 11, 273–84.
- Vohs, K. D., Wang, Y., Gino, F., and Norton, M. I. (2013). Rituals enhance consumption. *Psychological Science*, 24, 1714–21.
- Waytz, A., Hershfield, H. E., and Tamir, D. I. (2015). Mental simulation and meaning in life. *Journal of Personality and Social Psychology*, 108, 336–55.
- Weingarten, E., and Berger, J. (2017). Fired up for the future: How time shapes sharing. *Journal of Consumer Research*, 44, 432–47.
- Wildschut, T., Sedikides, C., Arndt, J., and Routledge, C.D. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology*, 91, 975–93.
- Wilson, T. D., and Gilbert, D. T. (2005). Affecting forecasting: Knowing what to want. *Current Directions in Psychological Science*, 14, 131–4.
- Wilson, A. E., and Ross, M. (2001). From chump to champ: People's appraisals of their earlier and present selves. *Journal of Personality and Social Psychology*, 80, 572–84.
- Wilson, A. E., and Ross, M. (2003). The identity function of autobiographical memory: Time is on our side. *Memory*, 11, 137–49.
- Wilson, T. D., Reinhard, D. A., Westgate, E. C., Gilbert, D. T., Ellerbeck, N., Hahn, C., Brown, C. L., and Shaked, A. (2014). Just think: The challenges of the disengaged mind. *Science*, 345, 75–7.

- Winet, Y., and O'Brien, E. (under review). Ending on a familiar note: Last chances motivate repeat consumption.
- Yang, Y., and Galak, J. (2015). Sentimental value and its influence on hedonic adaptation. *Journal of Personality and Social Psychology*, *109*, 767–90.
- Zajonc, R. B. (2001). Mere exposure: A gateway to the subliminal. *Current Directions in Psychological Science*, *10*, 224–8.
- Zauberman, G., Ratner, R. K., and Kim, B. K. (2009). Memories as assets: Strategic memory protection in choice over time. *Journal of Consumer Research*, *35*, 715–28.
- Zaval, L., Markowitz, E. M., and Weber, E. U. (2015). How will I be remembered? Conserving the environment for the sake of one's legacy. *Psychological Science*, *26*, 231–6.
- Zhang, T. (2015). *The personal and interpersonal benefits of rediscovery* (unpublished doctoral thesis). Harvard University, Cambridge, MA. Retrieved from <http://nrs.harvard.edu/urn-3:HUL.InstRepos:17467290>
- Zhang, T., Kim, T., Brooks, A. W., Gino, F., and Norton, M. I. (2014). A 'present' for the future: The unexpected value of rediscovery. *Psychological Science*, *25*, 1851–60.