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The Temporally Extended Self: The Relation of Past and Future Selves to Current Identity, Motivation, and Goal Pursuit

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Abstract

People's current identity is constructed not only in the present moment but also by looking back to past selves and forward to future selves. In this article, we review research on the temporally extended self, with a focus on recent work informed by temporal self-appraisal theory. People often recall the past and imagine the future in ways that contribute to a favorable current identity. Subjective temporal distance (how near or distant a point in time *feels*) plays a powerful role in determining temporal self-appraisals. In turn, people's judgments of subjective distance can shift when considering temporal selves with good or bad implications for current identity. We will describe research exploring the complex interconnections between past, present, and future identity. In addition, we consider some of the unique implications that people's constructions of future selves might have for their plans and goals, and how predicted selves might influence goal-pursuit motivation and behavior.

Despite all of their differences, most individuals share at least one common interest: themselves. People often talk and think about themselves. They appraise, evaluate, flatter, and criticize themselves. But when people think about their 'current self', they rarely limit this experienced self to the present moment in time. That 'present' self, in a temporal vacuum, is devoid of the depth and nuance afforded by the layers of one's autobiographical experience and the flavor of one's future directions and dreams. Indeed, the 'present self' that people experience is a composite of selves extending into both temporal directions. As James (1890/1950) described it, the present is ... 'no knife-edge, but a saddle-back, with a certain breadth of its own on which we sit perched, and from which we look in two directions into time' (p. 605).

Temporal self-appraisal theory (Ross & Wilson, 2000; Wilson & Ross, 2003) construes past and future selves as connected to the present self along a dimension of relative temporal proximity. Past experiences and future goals – the person one was and the person one will be – contribute

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to one's current identity in systematic ways. The psychological experience of temporal closeness to, or distance from, a past or future self (regardless of the actual passage of calendar time) is important because people's appraisals of these extended selves can influence their present self-appraisal. Psychologically, proximal selves are likely to have a larger impact on current self-view than more subjectively remote selves in either temporal direction. Temporal self-appraisal theory suggests that people can shift their appraisals of former and future selves, and can alter their subjective perception of time, in an effort to maintain and enhance positive self-regard. In this paper, we briefly review temporal self-appraisal research examining people's evaluations of their past selves. We then go on to review more recent research that extends temporal self-appraisal theory to individuals' views of future selves. Despite many parallels between how people remember their past and how they think about the future, future and past differ markedly in at least one respect: Because the future has not yet happened, people's decisions and actions can alter future outcomes. The final part of this paper explores how people's future self-predictions and the subjective distance of their future goals may affect present motivation to achieve their anticipated and hoped-for future selves.

Two Important Assumptions of Temporal Self-appraisal Theory

Subjective versus calendar time

Ross and Wilson (2002) make an explicit distinction between the actual passage of calendar or clock time and the subjective feeling of time. These two aspects of time are often associated: In general, events that happened last week feel closer than events that happened last year. However, the relation between psychological and clock or calendar time is far from perfect and estimates often diverge markedly (Block, 1989; Brown, Rips, & Shevell, 1985; Ross & Wilson, 2002; Vohs & Schmeichel, 2003). A university professor might recall her successful doctoral defense as if it were yesterday, but might view a more recent manuscript rejection as though it were ancient history. In short, psychological closeness is reasonably malleable and can be shifted quite readily (Pennington & Roese, 2003; Sanna, Chang, Carter, & Small, 2006; Wilson & Ross, 2003). Temporal self-appraisal theory focuses on the psychological feeling of temporal distance, rather than calendar time.

The temporal self as a series of interconnected individuals

We propose that people's concept of their current self includes some components of their past experiences and future aspirations. A university student might think of her past as cheerleader or her future as business

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executive when trying to answer the question 'Who am I?' Just as intimate others can be included in a self-concept through self-expansion (Aron & Aron, 1996), so too might close past and future selves be included in present identity. The extent to which temporally extended selves are incorporated into the present self is expected to vary with their subjective distance to the present. A subjectively proximal self almost belongs to the present self by association, while a subjectively remote self may be more detached from the present (Albert, 1977), and could even be contrasted instead. Perunovic and Wilson (2008) have demonstrated that people identify more with subjectively close future selves (they report greater connection with and more similarity to that self and indicate that thinking about these close selves feels like thinking of the self of today), whereas they report disconnection from subjectively remote future selves (indicating that thinking of that future self feels more like thinking about another person). People may experience past selves in similar ways (Albert, 1977). For instance, Parfit (1971) describes how an individual might say of an earlier shameful act: 'I admit that I behaved in that way. But the "I" who so behaved seems to me a stranger' (p. 684).

Past Selves

Betraying one's past for the better of one's present

People tend to perceive themselves as steadily improving on many domains over the course of their life (Fleeson & Heckhausen, 1997; Ryff, 1991). People's perceptions of improvement may sometimes be correct, but often are exaggerated or even illusory. The illusion of an upward trajectory can be produced in part by the tendency to criticize past selves in retrospect (McFarland & Alvaro, 2000; Wilson & Ross, 2001). Although people are quite convinced that they are currently remarkable individuals – indeed, better than most of their peers (Baumeister, 1998; Taylor & Brown, 1988) – people are less dazzled by their past selves. Young adults, in particular, rate their present selves as more accomplished, happier, and better socially adjusted than their past selves (Brickman, Coates, & Janoff-Bulman, 1978; Ryff, 1991; Wilson & Ross, 2001; Woodruff & Birren, 1972). Retrospective criticism of former selves tends to exaggerate any actual improvement by recalling the past as worse than it was (Wilson & Ross, 2001; Woodruff & Birren, 1972). For example, Wilson and Ross (2001) asked university students to evaluate themselves on a number of attributes at the beginning of the term, then 2 months later, they again evaluated their current selves, and retrospectively assessed their former selves from the start of the term. Students rated their current self at both time periods quite favorably, but when looking back to the beginning of the term, their retrospective ratings of that former self were less positive than they had been originally. Thus, even though there was no evidence of *actual* improvement over 2

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months, people revised their past selves downward, contributing to an *illusion* of improvement over time. This perceived improvement does not extend to a general developmental optimism: People regarded their *own* current self as superior to their past self, but perceived no such change in other people (i.e., their siblings or acquaintances).

On the surface, the derogation of past selves is surprising because it is inconsistent with the well-documented drive to protect and enhance positive self-regard (Baumeister, 1998; Dodgson & Wood, 1998; Higgins, 1996, Sedikides, 1993; Steele, Spencer, & Lynch, 1993). Why do the same people, who are usually preoccupied with praising themselves and exaggerating their virtues, show considerably more disdain for their past selves?

Temporal self-appraisal theory offers an explanation for people's derisions of their earlier selves: Recalling one's historical foibles might make the present self appear better by comparison. Thus, people can enhance their present selves by criticizing their earlier selves. Using downward temporal comparisons could be especially effective when describing oneself publicly: It may be socially more acceptable to contrast the present self with an inferior past self than with an inferior acquaintance or colleague (Wilson & Ross, 2000). Indeed, the notions of 'rising above adversity' and 'personal growth from humble beginnings' are so ingrained in Western cultural scripts (e.g., 'the American Dream', Wuthnow, 2006) that highlighting one's lesser past self may publicly enhance one's character and credibility. Supporting this contention, Wilson and Ross (2000) found that temporal past comparisons were almost twice as frequent as social comparisons, when students were asked to describe themselves in their own words. This preference for comparing with one's personal past rather than with other people was also highly evident in celebrities' autobiographical quotations (coded from magazine interviews), perhaps because of the self-presentational constraints of such public self-portrayals. The proportion of downward past comparisons also increased when students were instructed to represent themselves in the best possible light, compared with those students instructed to represent themselves as accurately as possible.

The role of temporal distance. People do not invariably denounce their former selves: In some cases, earlier selves are praised. Wilson and Ross (2001) demonstrated that subjective distance from former selves helps to determine how it will be evaluated. Recent successes belong to the present self by association, so current identity stands to benefit when these selves are praised. On the other hand, distant achievements should not flatter, nor distant failures taint, present self-view. It is more likely that a temporally distant earlier self would affect present identity by contrast, and most individuals would prefer to lay out evidence for a continuous upward trajectory than to allow a glorious distant past to cause the present to pale in comparison. Consistent with this reasoning, Wilson and Ross (2001) demonstrated that people evaluated the same point in the past more

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negatively when that time was portrayed as remote rather than when it was described as recent. Specifically, when participants were instructed to remember a 'recent' self of only 2 months ago, they appraised their earlier qualities just as positively as their current ones. On the other hand, when participants were asked to think 'all the way back' to their past self of 2 months ago, they viewed their earlier attributes as significantly inferior to their present state.

Other areas of research have likewise demonstrated that temporal distance matters for people's perceptions and attitudes toward temporally extended events (see Liberman, Trope, & Stephan, 2007, for a review). For instance, construal level theory posits that temporally close events are construed in more concrete and low-level representations while temporally distant events are construed more abstractly and represented in broader categories (e.g., Liberman, Sagristano, & Trope, 2002). Similar to temporal self-appraisal theory, construal level theory suggests that people's appraisal of events depends on their temporal distance from the point of reference. For instance, people will make decisions about close future events (e.g., whether to attend a lecture tomorrow) based on concrete details (such as convenience of the time and location), whereas their judgments about distant events (e.g., whether to attend a lecture in one year) are more often based on abstract considerations (such as the interest value of the lecture topic, Liberman & Trope, 1998). People also recall distant memories in more abstract terms and recent memories more concretely (Semin & Smith, 1999).

In addition, research on temporal discounting (e.g., Mischel, Grusec, & Masters, 1969) demonstrates that temporal distance affects reward appraisal and decision making. People value temporally close rewards more than distant rewards, even when the distant prize is higher. For example, earning $100 tomorrow can appear more attractive than earning $200 in a year (for a review, see Frederick, Loewenstein, & O'Donoghue, 2003). Consistent with temporal discounting theory, we argue that people often value close selves and outcomes more than distant ones. We suggest that they do so because they have direct implications for current identity.

Subjective distancing

> *'Sometimes it feels like yesterday, sometimes like a lifetime'*
> Martina Hingis, on winning the US Open a decade earlier

Methodologically, researchers have demonstrated that subjective temporal distance is relatively malleable (Pennington & Roese, 2003; Sanna et al., 2006; Wilson & Ross, 2001, 2003). By describing the same point in time as close or far-off, or by systematically adjusting where an event or date falls spatially on a timeline, participants can be induced to see a point in time in the future or past as near or remote. However, it doesn't take a clever experimental trick to alter time. People readily and regularly experience

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past events as feeling closer – or further – than they actually are. Indeed, people seem to systematically adjust their perceived distance to past events in ways that contribute to a favorable current identity. Presuming that distant selves are less associated with the present self, it stands to reason that people might prefer to perceive unsuccessful past selves as relatively remote to ward off negative associations. In contrast, people should prefer to perceive past selves that could have favorable implications as subjectively recent. Again, these predictions concern subjective time rather than calendar time. A student who failed an exam might know very well that the test took place only 2 weeks ago. However, that student might relegate the test to ancient history whereas a successful student might be happy to recall the test day more like yesterday. Supporting the contention that subjective time perception is often motivated by self-enhancement goals, Ross and Wilson (2002) demonstrated that people do indeed view personal successes as more recent than failures but show no such bias when recalling others' successes and failures. Consistent with a self-enhancement perspective, one might theorize that events for which one holds responsibility have greater implications for identity than those which can be attributed to external causes. Haddock (2004) demonstrated that people felt subjectively closer to past successes when they made internal attributions for the outcome than when they made situational attributions.

Some people are more adept at enhancing their self-regard than others. Specifically, people with high self-esteem are better able to deflect threats to their self-regard than people with low self-esteem (Baumeister, 1998; Blaine & Crocker, 1993; Mussweiler, Gabriel, & Bodenhausen, 2000). For example, people with high self-esteem tend to dwell on their strengths rather than their weaknesses after experiencing a failure (Dodgson & Wood, 1998; Steele et al., 1993) and are more likely to dissociate themselves from comparison individuals if they perceive the comparison to be unfavorable (Mussweiler et al., 2000). Similarly, people with high self-esteem might be better able than people with low self-esteem to preserve their positive self-regard by separating their present self from past failures, while continuing to credit themselves for equally distant past accomplishments. Supporting this hypothesis, Ross and Wilson (2002) demonstrated that people with high self-esteem exhibited considerably greater biases in distancing than people with low self-esteem. By adjusting subjective time in a self-serving manner, high self-esteem individuals were able to reap the benefits of former glories while severing ties to earlier shortcomings, which likely helped to contribute to their continuing positive self-regard.

These studies show that people shift the psychological time of things past, arguably to protect or enhance current self-view. The pattern of self-esteem differences on the distancing bias, as well as the demonstrated self-other asymmetry, provide some evidence for the motivational nature of this phenomenon. In addition, Wilson and Ross (2003) report that people appraise their current attributes more favorably after being induced to feel

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far from failure or close to success than when successes are pushed away or failures pulled up close. In short, there is evidence that proximal selves, whether positive or negative, color current identity more than remote ones, and that people appear to manage current identity by regulating which temporal components to include.

Future Selves

Just as reconstructions of earlier selves have implications for current identity, so too do imagined future selves. Not only do future selves affect current self-regard, but they also play a role in determining goal-pursuit motivation and behaviors (Karniol & Ross, 1996; Markus & Nurius, 1986; Oettingen & Mayer, 2002; Oyserman, Terry, & Bybee, 2002; Peetz, Wilson, & Strahan, forthcoming; Wilson, Buehler, Lawford, & Schmidt, forthcoming). In addition, past work suggests that it is not simply *whether* people consider their future selves, but also *the way* they think about these selves that matters for predicting their effect (e.g., Oettingen & Mayer, 2002; Oyserman et al., 2002). For instance, how people think about their future selves – imagining expected versus fantasized future selves – can change the relation between present and future identities and affect goal attainment (Oettingen & Mayer, 2002).

Mental trips in either temporal direction share a number of parallels. Similar to past selves, future selves may be subject to fewer reality constraints than the present (Newby-Clark & Ross, 2003; Robinson & Ryff, 1999). Both temporal extensions of self share the element of flexibility. Additionally, neuropsychological work demonstrates overlap in patterns of brain activation when people recall the past and imagine the future (Tulving, 2005), and work with amnesics suggests that deficits in autobiographical memory may be linked to an inability to plan and predict (Klein, Loftus, & Kihlstrom, 2002). Potentially, then, just as subjective temporal proximity plays a role in how people remember past selves, it may also influence people's appraisals of future selves. Indeed, temporal self-appraisal theory makes predictions that suggest parallels between how people appraise their past and envision their future. Because people construct both past and future in the *present*, their current identity, beliefs, and motives should help to determine these constructions (Johnson & Sherman, 1990).

According to temporal self-appraisal theory, then, subjectively close future selves should be more likely to be included in current identity than subjectively remote future selves (Wilson et al., forthcoming). If so, then just as people recalled psychologically proximal past selves more favorably than distant ones, they might likewise be more apt to flatter the subjectively near than far future. Additionally, just as people distanced former failures relative to past successes, they might adjust the psychological imminence of anticipated future selves in equally systematic ways.

Despite the arguments in favor of past–future parallels, there are also some ways that the future may differ from the past. Unlike the past, people

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anticipate *becoming* whatever they forecast for the future. Hence, although people are quite content to heap criticism on their more distant past selves, it is unlikely that people would want to disparage even remote future selves. Any benefit they might reap by contrasting a dim future with a better present would be offset by the unhappy prospect of someday becoming that lesser self. Instead, people may simply be motivated to exaggerate the glories of psychologically proximal future selves *more* than those of distant future selves. For example, if a student imagines her graduation day, she might feel more successful and accomplished now if she views it as psychologically close. In contrast, if her graduation seems still far off in the future, thinking about it may be less likely to offer immediate rewards for current self-appraisal. This does not imply she no longer wishes for a successful graduation when it feels remote. It may still be pleasant to anticipate a successful, though far-off, future (Loewenstein & Schkade, 1999); but her enthusiasm may be tempered if a future glory makes the present pale in comparison (Strack, Schwarz, & Nebel, 1987). Rather, when it feels close, her enthusiastic appraisal of her future self not only gives her something to look forward to, but may also provide some immediate gratification.

Praising one's future for the better of one's present

Wilson et al. (forthcoming) tested the hypothesis that people should be motivated to praise subjectively near future selves more enthusiastically than subjectively far selves in several studies. They tested the causal role of subjective distance to future selves by changing the spatial representation of the future on a time line. Participants were either induced to place '2 months' close to today (on a constricted time line) or far from today (on a stretched time line). This manipulation made participants feel psychologically closer to or more distant from their future self. Participants then appraised their anticipated future attributes (i.e., socially skilled, self-confident) or their expected future test performance. In both cases, participants who had been led to view an upcoming self as psychologically imminent reported more favorable expectations than those who viewed the future as further in the distance. Notably, no one heaped scorn on the future. Even distant selves were evaluated as kindly as current selves. However, as expected, those in the close condition envisioned a future even better than the (already-good) present presumably because these selves offered some immediate reward to current identity.

If people praise subjectively close future selves because of implications for current identity, then this pattern should only occur for personal predictions. Indeed, Wilson et al. (forthcoming) found that only self-attributes, and not the attributes of an acquaintance, were enhanced in the subjectively imminent future. In addition, Wilson et al. tested the contention that subjectively close future selves have more implications for current

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identity than distant selves by inducing people to feel psychologically close or far from an anticipated future success. Those who were led to pull this future achievement close subsequently reported more positive *current* self-views than did people who were induced to view the upcoming glory as still remote.

Other research investigating future self-predictions

The finding that subjectively close future selves are praised more enthusiastically than subjectively distant future selves (Wilson et al., forthcoming) stands in contrast to some other work examining future predictions. First, research suggests that people expect and prefer a continuous upward trajectory: The present is better than the past, and the future will get better and better (Newby-Clark & Ross, 2003; Robinson & Ryff, 1999). This trajectory implies that futures that are more remote in actual time should be rated more highly than proximal ones, whereas Wilson et al. (forthcoming) demonstrate the reverse pattern for subjectively close and distant future selves. To understand this apparent paradox, it is important to keep in mind that in Wilson et al.'s studies, when people judged a point in subjective time, calendar time was always held constant. That is, the same point in calendar time was made to feel close or far, but people were not asked to make multiple judgments across time. These findings are reminiscent of Loewenstein and Prelec (1993)'s observation that when people make an isolated future judgment, they typically value imminent rewards more highly than distant ones (temporal discounting), but when a sequence or trajectory of outcomes is clearly laid out (e.g., one's salary over the next 3 years), people prefer to save better outcomes for later in the sequence. In other words, people may be eager for future rewards to occur sooner, but when they take the 'longer view', they prefer to plan for continually improving outcomes to allow an upward trajectory. When people consider a single point in the future, the subjective closeness of that time can determine individuals' appraisal of that point without placing it in the context of a temporal sequence across time.

Another line of work examines the optimism of people's predictions for outcomes which are near or far in actual (calendar) time. This work suggests that people are more optimistic about their outcomes in the far future than the imminent future (e.g., Gilovich, Kerr, & Medvec, 1993; Sanna, 1999; Shepperd, Ouellette, & Fernandez, 1996): For instance, people predict better scores on a test they expect to take in 2 months than on a test scheduled later today. There are a number of reasons why people might expect better outcomes in the further future. There is more actual time for improvement, and fewer reality constraints limiting predictions of the distant future. Relative to a distant task, people feel more accountable for and more anxious about imminent tasks, focus more on reasons for possible failure than success, and generate more upward counterfactuals. In turn,

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these cognitions tend to produce greater optimism about outcomes that are still a long way off in real time than about outcomes that are imminent (e.g., Gilovich et al., 1993; Sanna, 1999; Shepperd et al., 1996). However, we suggest that a person's *psychological* distance to a future self may not evoke all of the same cognitions, emotions, and beliefs as does real time, but rather produce its effects by altering the psychological implications that the future holds for the present independent of other factors associated with real time. Future research should address the situations under which subjective and calendar time converge and when their effects diverge.

Notably, however, the previously mentioned research on temporal discounting offers indirect theoretical support for our contentions. People often value near-future rewards ($100 now) more than remote rewards ($120 in a year) even if distant gains are objectively larger (Ainslie & Haslam, 1992; Mischel, Shoda, & Rodriguez, 1989). Economists argue that these preferences run counter to utility maximization: Since both benefits belong to self, it does not make rational sense to choose the smaller over the larger overall gain. However, Frederick (2003) points out that this conclusion presupposes that future states are all considered to be equally part of self, which may be untrue. For example, Parfit (1984) argued that 'My concern for the future may correspond to the degree of connectedness between me now and myself in the future ... since connectedness is nearly always weaker over long periods, I can rationally care less about my farther future' (p. 313). By this logic, imminent rewards may be preferred if distant gains are experienced as belonging to another person. Along similar lines, we have argued that praising subjectively close future selves can be of greater *value* to current identity because of the promise of immediate gratification for current self.

Subjective distancing: feeling close to future glories

Although much of the time people have considerable poetic license when it comes to predicting their future selves, sometimes, reality constraints will lead them to acknowledge the likelihood of an undesirable outcome. Sometimes, people cannot avoid expecting that an upcoming exam will be a struggle, a trip to the dentist will be unpleasant, or a visit from in-laws won't go swimmingly. However, people appear to be quite adept at keeping past failings at arm's length by subjectively altering temporal distance: A past failed exam, for example, seems far more remote in time than an earlier academic success, controlling for calendar time (Ross & Wilson, 2002). Conceivably, people may do the same when imagining future outcomes of varying desirability. By pushing away anticipated failures (while keeping expected successes relatively close), people may deflect future threats (while reaping benefits of future boons).

Peetz et al. (forthcoming) examined whether people adjust the perceived distance to future events in a way that could allow them to feel better

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about themselves. Students were asked how they realistically expected to perform on an upcoming psychology midterm (2 weeks away). In line with temporal self-appraisal theory, students who expected to do well on the upcoming exam reported that the midterm felt more imminent than did students who expected to do poorly on the exam. This is consistent with the notion that people might shift the psychological time of good and bad expected future outcomes to protect and enhance their current self. Interestingly, Sanna et al. (2006) identified a subset of people who preferred to feel close to future imagined failures rather than to future successes: defensive pessimists. This pattern is intriguing when considering the unique self-regulation strategies of defensive pessimists: Unlike most people, they tend to feel more motivated by threats than by rewards. This suggests that personality differences in general, and possibly self-regulation tendencies in particular can moderate subjective distancing patterns. Individual differences may determine people's interest in, and efficiency at, self-enhancement, as well as their tendency to focus on self-regulatory goals other than simply feeling good.

Implications of Future Self-appraisals

Despite many parallels between how people remember their past and how they think about the future, future and past differ markedly in one respect: The future has not yet happened. Therefore, unlike the past, people's expectations for the future and their psychological connection to those goals not only have implications for current identity but might also be closely tied to people's goal-pursuit motivation and behavior.

The power of immediacy

Often, achieving future goals requires making sacrifices in the present. For example, physical exercising has long-term health benefits, such as longer life, but also imposes immediate costs, such as giving up a comfortable evening at home. In general, people realize that the benefits outweigh the costs of health behaviors; yet, they often forego long-term benefits because of short-term costs (Hall & Fong, 2007). The imminence of the costs might inflate their importance compared with the more remote benefits of an activity, even though the benefits are objectively larger than the costs. This over-valuing of imminent costs parallels past findings in the temporal discounting literature (e.g., Frederick et al., 2003; Mischel et al., 1989) and contradicts the assumptions of utility maximization. However, it may be that people psychologically experience immediate costs as self-relevant, whereas the delayed reward are viewed as benefiting a near 'stranger'. This perception would cause immediate consequences to outweigh remote consequences in importance and can lead to seemingly irrational choices.

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The power of immediate consequences is relevant to a wide variety of domains. People have to evaluate short-term costs over long-term benefits when considering healthy eating (taste compromises vs. reduced risk of obesity and disease), exercising (effort and inconvenience vs. cardiovascular health), or academic goals (sacrificing parties and free time vs. successful graduation) to name a just few domains.

Health goals. Perunovic and Wilson (2008) considered the role of psychological distance to future selves in students' motivation to engage in physical activity. Given the increased relevance of psychologically close future selves to the current self, Perunovic and Wilson expected that people would be more influenced by the thought of health benefits to their future self when that self felt close, rather than distant. Students were reminded of the long-term consequences of regular exercise, specifically how their 35-year-old self would profit from current regular exercise. As expected, the closer students felt to their 35-year-old selves the more they identified with that future self, and the more motivated they were to engage in regular physical activity now. The same pattern emerged in another study where students were reminded of the short-term costs and the long-term benefits of healthy eating. Although this evidence is only correlational, it suggests that feeling temporally close to a future self may allow people to view that individual as part of the self rather than as a stranger, which in turn may promote a willingness to take on short-term costs for long-term benefits.

Academic goals. Academic pursuits are another domain in which students regularly must forgo desirable short-term impulses to ensure their long-term success. Subjective distance to academic goals might affect people's motivation to work hard now for future academic rewards. Peetz et al. (forthcoming) examined the relevance of subjective temporal distance for academic motivation and goal-pursuit. In one study, students were invited to take an academic aptitude test in 2 weeks' time, then were asked how close or far the test felt to them and how motivated they were to prepare and to do well. They were given the opportunity to practice for the test online, and goal-directed behavior was assessed by tracking students' activity on the online test tutorial over the 2-week period. Students who reported that the test felt imminent were more motivated to prepare and to do well than students who reported that the test still seemed far away. In turn, those students who were more motivated spent more time practicing for the aptitude test. In another study, Peetz et al. demonstrated the causal role of psychological distance for motivation. Students who had been induced to feel close to their university graduation (using a timeline manipulation) subsequently reported more motivation to work hard in their classes *now* and to avoid distraction from their studying goals than students who had been induced to feel like their graduation was still far off in the distance.

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Similarly, Sanna et al. (2006) showed that subjective distance matters for achieving success in academic tasks. For example, feeling close to a potential future failure led to enhanced performance among defensive pessimists, relative to those who felt far from the same potential outcome.

Notably, there may be an unintended interplay between people's perceptions of distance in the service of self-enhancement and its consequences for goal-pursuit motivation and behavior. To protect current identity, people might be motivated to psychologically push away dreaded future outcomes. An upcoming exam may seem still a long way off to someone who expects failure, and a smoker might relegate the possibility of lung cancer to such a remote distance that the individual at risk feels more like a stranger than a future self. By reducing the psychological connection to these undesired future selves, people may protect current identity from threat, but at the same time may reduce their motivation to pursue related goals. For example, if an exam seems remote, a student might continue to put off studying another day, which could ultimately contribute to the negative outcome the student feared. Likewise, a vision of an older self suffering from disease might be pushed so far into the remote future that current motivation to engage in a healthier lifestyle is dampened in favor of more immediate concerns.

Conclusions

To answer the question 'Who am I?', people often look to their autobiographical memory and to their anticipated future. How people regard these temporally extended selves appears to have implications not only for their current self-views (Ross & Wilson, 2002; Wilson et al., forthcoming) but can even motivate people to achieve hoped-for selves (Peetz et al., forthcoming; Perunovic & Wilson, 2008).

People are motivated to protect and enhance their positive self-view (Baumeister, 1998; Dodgson & Wood, 1998; Higgins, 1996, Sedikides, 1993; Steele et al., 1993). Regulation of subjective distance from temporally extended selves may be considered a tool for self-enhancement: People keep unfavorable past or future selves at bay, while taking credit for past or anticipated successes.

Wilson et al. found a number of parallels between how people reconstruct the past and how they construct the future. For both past and future selves, the importance of temporally extended selves appears to wane with increasing distance from the current self. The psychological relevance of extended selves appears to systematically determine which selves are enhanced or critiqued. Although numerous parallels are apparent between past and future when it comes to maintaining a positive current identity, future selves may be unique in their consequences for goal-pursuit motivation and action.

While the reviewed research has shown consistent evidence for the propositions of temporal self-appraisal theory, there is much room for

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future investigation. Temporal self-appraisal theory focuses on subjective experiences of temporal distance. Future research may more systematically examine the differences (and convergences) in the psychological impact of subjective versus calendar time. Furthermore, in addition to the distinction between different concepts of time, different kinds of psychological distance (e.g., temporal vs. spatial) may give insight in people's self-enhancing strategies. It may be that both temporal and spatial distance lead individuals to construe more extended selves as abstract rather than concrete. Construal level might have implications for the importance and influence of a particular self (Liberman & Trope, 1998; Vasquez & Buehler, 2007).

Wilson et al.'s temporal self-appraisal research is consistent with research examining related constructs, such as temporal orientation or consideration of future consequences (Hall & Fong, 2007; Zimbardo & Boyd, 1999). For example, people who show a trait-like orientation towards the future rather than the present or past are more likely to endure short-term costs so as to later enjoy long-term benefits. Thus, it may be important to examine the role of time orientation and other individual differences in the context of temporal self-appraisal theory. As findings by Sanna et al. (2006) suggest, distancing patterns of extended selves may differ depending on individual differences in personality and self-regulation tendencies.

In sum, the psychological time of a future or past self has been shown to affect current identity, motivation, and goal-directed behavior. It is not just *what* past or future self one envisions, but *how* one envisions it. Our histories and our futures can deflate or flatter us, and people are quite adept at shifting around elements of their life stories – past, present, and future chapters in ways that help them conclude what they want. These conclusions may affect self-regulation and behavior in a myriad of ways, only a few of which have already been examined.

Short Biographies

Anne Wilson received her PhD at University of Waterloo in 2000 and is currently Associate Professor and a Tier II Canada Research Chair in Social Psychology at Wilfrid Laurier University in Ontario, Canada. Her research interests include identity over time, autobiographical memory and self-prediction, comparison processes, the psychology of time perception, collective memory, and sociocultural influences on the self. Her work is supported by the Social Sciences and Humanities Research Council of Canada and the Natural Sciences and Engineering Research Council of Canada and has appeared in journals such as *Journal of Personality and Social Psychology* and *Personality and Social Psychology Bulletin*.

Johanna Peetz is a PhD student at Wilfrid Laurier University. She is interested in people's thoughts about themselves through time and how

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these reflect on current actions. Her current research focuses on predictions about time and money investments in future projects and their effect on project-relevant behaviors.

Footnote

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