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Short horizons and tempting situations: Lack of continuity to our future selves leads to unethical decision making and behavior

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ABSTRACT

People who feel continuity with their future selves are more likely to behave in ethically responsible ways as compared to people who lack continuity with their future selves. We find that individual differences in perceived similarity to one's future self predicts tolerance of unethical business decisions (Studies 1a and 1b), and that the consideration of future consequences mediates the extent to which people regard inappropriate negotiation strategies as unethical (Study 2). We reveal that low future self-continuity predicts unethical behavior in the form of lies, false promises, and cheating (Studies 3 and 4), and that these relationships hold when controlling for general personality dimensions and trait levels of self-control (Study 4). Finally, we establish a causal relationship between future self-continuity and ethical judgments by showing that when people are prompted to focus on their future self (as opposed to the future), they express more disapproval of unethical behavior (Study 5).

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Introduction

Analyzing the 1988 Savings and Loan Crisis, Comptroller of the Currency Clarke quipped, “You only find out who is swimming naked when the economic tide goes out” (Day, 1988). Although in Clarke's terms the phrase referred to under-prepared and overly risky investors, it has as of late been invoked to describe the numerous white-collar criminals whose crimes were unknown until the financial crisis of 2008. Madoff's Ponzi scheme and Allen Stanford's false bookkeeping were only discovered once the dust from the economy's collapse had settled. But aside from these two highly public cases, the number of white-collar crimes committed per year has more than tripled since the FBI starting keeping such statistics in 1940 (F.B.I., 2009). Identifying causes and prevention strategies for unethical behavior, whether in high-stakes business interactions or low-stakes interpersonal dealings, has never been so important.

Although there are many determinants of unethical behavior, some pundits have argued that “short-term” thinking is a key cause of corporate scandal. For example: “Wall Street's myopic focus on quarterly financial results cultivates financial fraud and other wasteful, if not illegal, behavior throughout corporate America. Accounting fraud, in particular, is oftentimes borne of

the ever-present desire to meet the Street's expectations” (Siben, 2010). The idea that short-term thinking is associated with unethical behavior can also be found in Dickens' classic tale *A Christmas Carol* (Dickens, 1844). In the story, Ebenezer Scrooge is a ruthless, selfish man, who overworks his employees and acts in ethically questionable ways, at least with regard to respecting workers' human rights. It is not until the ghost of Christmas future becomes imminently visible in Scrooge's consciousness that he feels compelled to change his egregious behavior.

In this article, we empirically link short-term thinking about oneself with unethical behavior. Specifically, we suggest that one underlying cause of unethical conduct is a fundamental inability to project one's self into the future. Furthermore, we disentangle future thinking about one's *self* from future thinking *in general*, and differentiate future self-continuity from other individual differences related to the self and ethical behavior (e.g., self-discrepancies, self-control). Our thesis is that feeling disconnected from one's future self is intimately linked to unethical decision making.

What is “Unethical” decision making?

Theorists and researchers have grappled with definitions of unethical decision making (cf. Jones, 1991; Kish-Gephart, Harrison, & Trevino, 2010; Lewicki & Robinson, 1998; Robinson, Lewicki, & Donahue, 2000; Tenbrunsel & Smith-Crowe, 2008; Trevino, Weaver, & Reynolds, 2006). In this manuscript, we use the succinct

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and intuitively compelling description offered by Jones (1991, p. 367):

An ethical decision is a decision that is both legally and morally acceptable to the larger community. Conversely, an unethical decision is a decision that is either illegal or morally unacceptable to the larger community.

Consistent with this definition, we examine the degree to which participants are either comfortable with or actually engage in morally unacceptable behaviors. The panoply of unethical behavior is broad. In the current investigation, we focus on lies, bribes, false promises, and cheating because prior research has found that the vast majority of people judge these behaviors as inappropriate (e.g., Cohen, 2010; Lewicki & Robinson, 1998; Lewicki, Saunders, & Barry, 2007; Robinson et al., 2000).

Causes of unethical behavior

Ethical judgments and behavior have both dispositional and situational determinants (for reviews, see Kish-Gephart et al., 2010 and Tenbrunsel & Smith-Crowe, 2008). For example, personality traits such as honesty–humility (Ashton & Lee, 2008; Lee, Ashton, Morrison, Corderly, & Dunlop, 2008) and guilt proneness (Cohen, Wolf, Panter, & Insko, 2011) have been linked to ethical decision making and moral behavior, as have individual differences in cognitive moral development (Kish-Gephart et al., 2010). Although some studies have found that gender, age, education, and other demographic characteristics predict unethical intentions and behavior, meta-analytic evidence suggests that these relationships are weak and often disappear when controlling for other dispositional and situational factors (Kish-Gephart et al., 2010).

With respect to situational triggers, various aspects of the decision making context affect unethical intentions and behavior. Tenbrunsel, Smith-Crowe, and Umphress (2003) posit that this “ethical infrastructure” comprises organizational climates, informal communication systems, and formal communication systems (such as surveillance and sanctioning). People are more likely to behave unethically in contexts in which the “pressure to do wrong” is salient (Hegarty & Sims, 1978; Tenbrunsel, 1998). Likewise, fewer unethical decisions are made when there is an ethical organizational culture (Kish-Gephart et al., 2010).

In terms of the decision itself, Jones (1991) theorized that the moral intensity of an issue – measured in terms of magnitude of consequences, concentration of effect, probability of effect, temporal immediacy, social consensus, and proximity – should be positively related to ethical decision making. These relationships have generally been supported by empirical research (see Kish-Gephart et al., 2010 for meta-analytic evidence); however, it is important to recognize that studies of moral intensity have all focused on unethical intentions rather than actual behavior.

Self-control – an individual difference that varies temporally and across situations – also promotes ethical behavior. When people’s self-regulatory resources are depleted they are more likely to give in to temptations to lie and cheat for monetary gain (Barnes, Schaubroeck, Huth, & Ghumman, 2011; Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). One reason why self-control might inhibit unethical behavior could be because such behavior often has the potential for short-term gains and individuals need self-regulatory resources to forgo these gains. Indeed, an individual is more likely to behave in a way that deviates from what would normally be considered ethical if the short-term rewards for doing so are particularly high (Gneezy, 2005). Many (but not all) decisions that carry with them the possibility of unethical behavior can thus be framed as *inter-temporal choices*, or choices that have consequences at different

points in time (i.e., both the present and the future). Both Madoff and Stanford, for instance, received continual short-term rewards for actions that ultimately failed to benefit them in the long-term.

Psychologists as well as economists and philosophers have noted that the potential for short-term gains can often be influential motivators because people fail to fully appreciate the future consequences of decisions that are made in the present. This model of intertemporal choice failures holds that people often act as if they are under the influence of multiple selves (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998; Parfit, 1971; Schelling, 1983). Below, we briefly review multiple-self models of intertemporal decision making, and then highlight the ways in which such models may account for unethical decision making and behavior.

Multiple-self models of intertemporal decision making

The literature on multiple-self models can be divided into three broad topical, sub-areas: (1) intertemporal choice—with the idea being that people often do not save enough for their future (retired) self (e.g., Thaler & Shefrin, 1981); (2) mood states and chronic subjective well-being—with the idea being that people falsely project their immediate feelings about an event to their future feelings and fail to account for adaptation (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Gilbert & Wilson, 2007; Loewenstein, O’Donoghue, & Rabin, 2003); and (3) making commitments—with the idea being that people often commit to engaging in future activities that they do not really want to do, such as authoring chapters (e.g., Zauberman & Lynch, 2005). The research on multiple selves and intertemporal choice is most relevant to our discussion of short-term thinking and unethical behavior, and thus, we expand on it below.

Future self-continuity and intertemporal choice

Theoretical models: is the self continuous over time?

Strotz (1956) is widely recognized as the first theorist to appreciate the problem of temporally inconsistent behaviors, and to create the foundation for what have come to be known as multiple-self models. According to Strotz, people do not possess a continuous self over time. Rather, a person is best conceived as an infinity of multiple selves who are present and then absent with each successive unit of time. Drawing upon Strotz’s writings, Ainslie (1975), Elster (1977), and Schelling (1982, 1984) noted that when problems with intertemporal choice arise, it often seems as if two selves are alternately in command. Schelling makes it clear that he is not referring to simple shifts in an individual’s mood: “The fact that my interest in dinner is at a nadir after breakfast does not mean that, asked what I want for dinner, I shall give a negligent answer” (Schelling, 1982, p. 5). On the contrary, the cases of intertemporal choice that cause conflict for an individual are all cases in which an individual expresses values or preferences that are alternating and incompatible. In such cases, it seems as if there is a succession of “impermanent selves”, all of whom want something different.

Parfit (1971) took a more extreme approach to the present versus future self-continuity question and posited that the identities of humans are not continuous over time. What truly matters, in Parfit’s terms, is how *connected* we feel to past or future versions of our selves. According to Parfit, psychological connectedness varies as a function of how much time has passed between different selves. For example, one might feel more connection to a temporally close self than a temporally distant self. By this rationale, it is logical that an individual might care less about a self who is further in the future or put another way, an individual might care

less about a self with whom he or she has less of a connection (Parfit, 1971). At the extreme, with a total lack of psychological connectedness, one's future self may be thought of as another person altogether, or as Butler (1736) first pointed out, "...if the self or person of today, and that of tomorrow, are not the same, but only [similar] persons, the person of today is really no more interested in what will befall the person of tomorrow, than in what will befall any other person" (p. 102).

Empirical examinations of future self-continuity

Recent empirical evidence supports Butler's (1736) and Parfit's (1971) assertions. People actually tend to think about their future selves as if they are different people, and ascribe trait inferences to future selves as they might to other people (Pronin & Ross, 2006; Wakslak, Nussbaum, Liberman, & Trope, 2008). Such differences have even been detected on a neural level, as Ersner-Hershfield, Wimmer, and Knutson (2009b) showed that neural activation for thoughts about the future self is similar to neural activation that occurs when individuals simply think about another person. Moreover, this tendency to see the future self as another person can have important behavioral implications. Namely, individual differences in the extent to which people feel connected and similar to their future selves predicts financial assets that have been accrued over time (Ersner-Hershfield, Garton, Ballard, Samanez-Larkin, & Knutson, 2009a), and efforts to increase connection to the future self can lead to more patient behavior (Bartels & Rips, 2010). Importantly, the concept of continuity with one's future self is empirically distinct from other factors that have been associated with time preference in previous research (e.g., uncertainty about the future or about one's future preferences, present-bias, or differences in the affective appraisal of future outcomes (Bartels & Urminsky, 2011)).

Predicting when alternate selves will act

But when and under what circumstances will these alternate decision making selves emerge? Bazerman et al. (1998) attempted to clarify this issue by noting that conflicts between selves over time are often the result of a push-pull between what people want to do versus what people think they should do. Thus, an individual may want to act unethically in an ambiguous situation so as to maximize short-term gain, but may think that they should act ethically. Similarly, Thaler and Shefrin (1981) posit that an individual is comprised of two distinct selves; a "planner" and a "doer". The present-focused doers are myopic and only care about selfish, immediate gratification, while the more rational planners have the foresight of future planning. This does not always have to mean that a person will indulge in some pleasurable activity that results in a negative future consequence (e.g., overeating); it can also mean that an individual will fail to partake in an activity that might have a high cost in the present, but a delayed reward in the future (e.g., an unpleasant task like cleaning the house) (O'Donoghue & Rabin, 2000). Selves with alternating preferences surface as a function of what is most desirable at a given point in time (Thaler & Shefrin, 1981). This tension presents a dilemma: the doer may want to act in the immediate, short-term financial interests of the self but the planner self would prefer to behave responsibly and ethically so as to maintain a positive self-concept (Mazar, Amir, & Ariely, 2008). In the absence of temptation, the "planner" self will be able to take control; in its presence, however, an individual runs the risk of having one of his or her many "doers" act impulsively. In terms of ethical behavior, the planner may want to act ethically in a way that benefits him in the future, but the doer might be tempted by ethically questionable situations that benefit him in the present.

Not giving in: the role of vividness of the future self

The preceding models are descriptive, and thus do not prescribe ways to help the current self act more in line with the wishes and desires of the future self. Under what circumstances, then, can people avoid rewards or situations that tempt the current self? Markus and Nurius (1986) theorized that a strong motivator of behavior is the image of one's future self in some desired or undesired end-state. That is, imagining what one would like to become (or not become) in the future can induce behavior that is more in service of the future self. Tversky and Kahneman (1973) suggested another way in which vividness can aid decision making: The more vivid an event is in an individual's mind, the more the subjective probability of it occurring will be exaggerated. Importantly, for Parfit (1971) and Tversky and Kahneman (1973), it is not the vividness of the future *per se* that can affect decision making. Rather, to avoid decisions that asymmetrically benefit the current self, the vividness of the future self and the emotions that he or she feels must be made more salient.

Along these lines, Loewenstein (1996) noted that a more vivid impression of ourselves engaging in some action in the future might intensify the emotions that are linked to thinking about that scenario. These intensified emotions might, in turn, allow an individual to be better informed regarding the future consequences of a current decision. Indeed, Parfit (1971) argued that discounting the future and focusing too readily on the present might be "caused by some failure of imagination, or some false belief. It is claimed, for example, that when we imagine pains in the further future, we imagine them less vividly, or believe confusedly that they will somehow be less real, or less painful" (p. 161). Just as a sense of shared connection with another person can lead to shared emotional and physiological states (Cwir, Carr, Walton, & Spencer, 2011), feeling continuity with the future self may provide better access to that future self's feelings. If I am about to act in a potentially unethical way, but I can access the feelings that my future self will feel (e.g., guilty, ashamed) – *because I maintain a sense of continuity with that self* – I will recognize that I will be better off in the long run if I do not act in such a way. On the contrary, if my future self feels like a stranger to me – if I lack continuity with it and I do not have a good sense of how my self will feel in the future – then I might be more tempted to act in an unethical way in the present.

Overview of research

We hypothesize that a lack of continuity with one's future self will increase unethical behavior when such behavior can lead to rewards or gains in the present (i.e., for the "present self"). We do not suggest that simply thinking about the future *per se* is enough to stave off unethical behavior. Rather, to act ethically in tempting situations – that is, ones that represent intertemporal choices between short-term gains and potential long-term punishments or losses – one must be able to fully project *oneself* into the future. Doing so, as Loewenstein's (1996) work suggests, allows an individual to fully appreciate the future emotional consequences of decisions that are made in the present.

In five studies, we tested this hypothesis by exploring whether perceived continuity with one's future self is associated with unethical judgments and decision making. Studies 1a and 1b examine whether individual differences in future self-continuity predict unethical decision making in business contexts, and rule out potential alternative accounts. Study 2 extends this finding to attitudes toward inappropriate negotiation strategies and establishes the mediating role of consideration of future consequences. Study 3 extends the first two studies by showing that individual

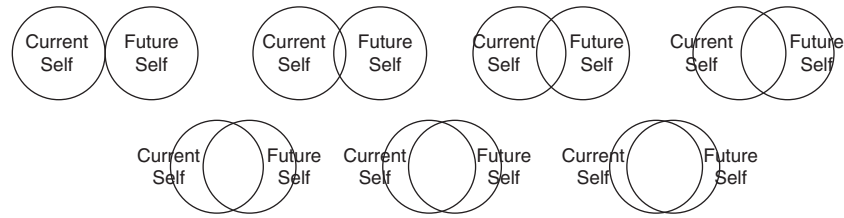


Fig. 1. Future Self-Continuity scale (Ersner-Hershfield, Garton, Ballard, Samanez-Larkin, & Knutson, 2009). Participants were instructed to “Click on the picture below that best describes how similar you feel with your future self (you in 10 years). Current self = you now. Future self = you in 10 years”.

differences in future self-continuity are related to two different types of unethical behavior: lies and false promises. Study 4 extends these findings to cheating and shows that future self-continuity predicts unethical behavior above and beyond individual differences in self-control as well as other major dimensions of personality. Finally, Study 5 experimentally tests whether prompting people to focus on their future self (as opposed to the future in general terms) decreases their willingness to engage in unethical behavior.

It is important to note that the current research extends the research on *both* unethical decision making and future self-continuity in two ways. It is the first to investigate whether an ability to project one's self into the future actually impacts unethical behavior. Earlier studies have examined the relative influence of situational and dispositional factors on unethical behavior and decision making. None, however, has studied how continuity between one's present and future selves is related to unethical decision making. Second, previous work has shown that future self-continuity can impact the welfare of one's self over time. In the present research, we move beyond benefits and punishments to the self, and examine how continuity with the future self can affect the welfare of others as well. That is, if an individual feels a heightened sense of continuity with his or her future self, the subsequent propensity to not engage in unethical behavior that arises may benefit other individuals, as well as the self.

Study 1a: future self-continuity and unethical decision making

In Study 1a, we examined the association between future self-continuity and unethical decision making. We conducted a survey in which we assessed future self-continuity and the tendency to make unethical business decisions.

Method

Participants and procedure

A total of 147 adults (117 women; Age: 19–85 years, $M = 39$ years, $SD = 14$ years) from a nationwide online subject pool participated in a 15-min survey on personality and decision making. Participants lived in 31 US states, and 1 lived in Australia, 1 lived in Canada, and 1 lived in Germany. The subject pool is administered by the Kellogg School of Management and recruits participants via popular online forums and websites, such as Craigslist. In exchange for completing the survey, participants were entered in a raffle for two \$50 gift certificates. All participants completed the Unethical Business Decisions (UBDs) scale (Ashton & Lee, 2008) and then the Future Self-Continuity Scale (Bartels & Rips, 2010; Ersner-Hershfield et al., 2009a), along with several other measures for an unrelated study.¹

¹ These data were a subset of a larger sample collected by Cohen et al. (2011, Study 2).

Future Self-Continuity Scale

The Future Self-Continuity Scale, which was based on Aron, Aron, and Smollan's (1992) Inclusion of the Other in the Self Scale, assesses the degree to which participants feel similar to their future selves. Specifically, participants pick a pair of Euler circles (out of a possible seven pairs) that best represents how similar they feel to their future selves in 10-years time (see Fig. 1 for the scale). Higher scores indicate more continuity with one's future self ($M = 4.93$, $SD = 1.94$).

The Future Self-Continuity scale has good test-retest reliability (e.g., $\alpha = .66$ over a 2-week period in Ersner-Hershfield et al., 2009a), and has been shown to tap into a construct that has discriminant validity from related concepts, including perceptions of change in general life circumstances, uncertainty about the future and about one's future preferences, present-bias, and differences in the affective appraisal of future outcomes (Bartels & Urminsky, 2011).

Unethical Business Decisions (UBD) Scale

In the UBD scale (Ashton & Lee, 2008), participants make decisions in six dilemmas that pit financial interests against ethical concerns. For example, one item asks respondents how likely it is that they would vote for their company to begin a financially lucrative but environmentally hazardous mining operation for which they could receive a large bonus. A second item asks respondents how likely it is that they would choose to market a profitable food product with known health hazards. For each dilemma, participants indicate their response with a four-point rating scale (ranging from “definitely not” to “definitely yes”), in which higher scores indicate greater unethical decision making. The dilemmas were presented in a randomized order for each participant. We averaged participants' responses to the six dilemmas to form a composite index of the tendency to make unethical business decisions ($\alpha = .74$, $M = 1.90$, $SD = .59$).

Results and discussion

In line with our prediction, there was a significant negative relationship between future self-continuity and UBD scores, $\beta = -.17$, $t(146) = -2.13$, $p = .04$. Previous research, however, has demonstrated that age is related to future self-continuity (Ersner-Hershfield et al., 2009a) and, at least weakly, to unethical decision-making (Ford & Richardson, 1994; but see Kish-Gephart et al., 2010). To assess whether this relationship held even when controlling for age, we regressed UBD scores on future self-continuity scores as well as age (in years). Results indicated that although age was also a significant negative predictor of UBD scores, $\beta = -.22$, $t(145) = -2.68$, $p = .01$, the relationship between future self-continuity scores and unethical decision making remained significant, $\beta = -.16$, $t(145) = -1.98$, $p = .05$. People who felt more similar to their future selves made fewer unethical decisions than those who felt less similar to their future selves. In addition, older respondents made fewer unethical decisions than younger respondents.

Study 1b: future self-continuity and unethical decision making

In Study 1b, we sought to replicate the finding from Study 1a and rule out possible alternative explanations. Namely, we examined whether future self-continuity has a distinct effect on unethical decision making independent of relationships other types of selves may have on unethical decision making. Higgins (1987), for example, has shown that the degree to which one's current self maps onto one's ideal self is predictive of pride and depression, and the overlap between one's current self and one's ought self is related to anxiety levels. More broadly, Donahue, Robins, Roberts, and John (1993) demonstrated that individuals with higher levels of self-concept differentiation (i.e., the tendency to see oneself as having different personality characteristics in different roles) showed lower levels of emotional adjustment. Finally, Wilson and Ross (2001) and Hart, Fegley, and Brengleman (1993) have shown that people maintain high levels of positive self-regard by disparaging their distant past selves. Although the outcome measures from the studies above are only peripherally related to unethical decision making, their findings and overall theoretical framework raise an important question: Is the inhibition of unethical decision making specific to the proximity between one's current self and future self, or can one's relationships with other types of selves also impact unethical decision making? To address this question, we conducted a survey in which we assessed the tendency to make unethical business decisions, future self-continuity, past self-continuity, ideal-actual self-discrepancy, and ought-actual self-discrepancy.

Method

Participants and procedure

A total of 214 adults (157 women; age: 18–72 years, $M = 38.60$ years, $SD = 13.90$ years) from a university-administered nationwide online subject pool participated in a 15-min survey on personality and decision making. As in Study 1a, in exchange for completing the survey, participants were entered in a raffle for two \$50 gift certificates.

All participants completed the Future Self-Continuity Scale (Bartels & Rips, 2010; Ersner-Hershfield et al., 2009a)², the Unethical Business Decisions (UBD) scale (Ashton & Lee, 2008), and Higgins, Klein, and Strauman's (1985) measure of self-discrepancy. We also included a measure of Past Self-Continuity. This scale was identical to the Future Self-Continuity Scale, but instead instructed participants to choose the circle that "best describes how similar you feel to your past self (from 10 years ago)" ($M = 3.80$, $SD = 1.78$). Participants completed the Future Self-Continuity Scale, the UBD, the Past Self-Continuity Scale, and the measure of self-discrepancy³.

² Study 1b was conducted after Studies 1a, 2, 3, and 4 were completed, and as such, an updated version of the Future Self-Continuity scale was used. Namely, in Study 1b, we employed Bartels and Rips (2010) additional instructions that instructed participants to judge similarity to their future selves in terms of "personality, temperament, major likes and dislikes, beliefs, values, ambitions, life goals, and ideals". In Studies 1a, 2, 3, and 4, however, we used the original, less specific version of the scale created by Ersner-Hershfield et al. (2009a) that simply asked participants to "choose the overlapping group of circles that represents how similar you feel to your future self". The major finding from Study 1a, the negative relationship between future self-continuity and unethical business decision making was replicated in Study 1b. Thus, the Ersner-Hershfield et al. (2009a) scale provides similar results to the Bartels and Rips (2010) scale, albeit with slightly weaker results ($r = -.17$ in Study 1a versus $-.23$ in Study 1b).

³ The survey began with either the Future Self-Continuity Scale or the UBD scale (counterbalanced). The Past Self-Continuity Scale was administered after the Future Self-Continuity Scale, and the self-discrepancy questionnaire was administered last (prior to a section assessing demographic information). The order in which the measures were administered did not influence the results.

In the self-discrepancy questionnaire (Higgins et al., 1985), participants list the attributes of the type of person that they would ideally like to be (the type of person "you wish, desire, or hope to be") and the person that they feel that they ought to be (the type of person "you believe it is your duty, obligation or responsibility to be"). For the ideal self, participants list up to five attributes and then rate, using a 1–5 scale (ranging from slightly to extremely), the extent to which they would ideally like to possess those attributes. Using the same scale, participants then rate the extent to which they actually possess those attributes. An identical procedure is used for conceptions of the ought self. To calculate the ideal-actual self-discrepancy score, we computed the average absolute difference between the ideal and actual ratings of each attribute ($M = 1.26$, $SD = 0.60$). We used the same procedure to calculate the ought-actual self discrepancy ($M = 1.21$, $SD = .63$).

Results and discussion

Table 1 presents the correlations among all the measures included in Study 1b. To examine whether future self-continuity predicts unethical decision making, we first regressed UBD scores on future self-continuity scores. In line with our hypothesis, and replicating the finding from Study 1a, there was a significant negative relationship between future self-continuity and UBD scores, $\beta = -.23$, $t(212) = -3.46$, $p < .001$. Again, people who felt more similar to their future selves made fewer unethical decisions than those who felt less similar to their future selves.

Next, to determine whether this relationship persisted when controlling for other potentially related variables, we entered age (in years), past self-continuity scores, ideal-actual self-discrepancy scores, and ought-actual self-discrepancy scores into the regression model. Future self-continuity score remained a significant negative predictor of unethical decision making, $\beta = -.22$, $t(208) = -2.91$, $p = .004$, and age was also a significant negative predictor of UBD scores, $\beta = -.32$, $t(208) = -4.73$, $p < .001$. Importantly, neither self-discrepancy measure was significantly associated with UBD scores, ($ts < .50$, $ps > .60$). Although past self-continuity showed a trend toward being a positive predictor of UBD scores, $\beta = .13$, $t(208) = 1.72$, $p = .09$, the zero-order correlation between past-self continuity and UBD scores was non-significant ($r(212) = .00$, $p = .98$). Nonetheless, future research should further explore whether there is a relationship between past self-continuity and unethical judgments.

In conjunction with the findings from Study 1a, these results offer clear support for our proposal that future self-continuity is a distinct aspect of one's self-concept that deters unethical decision making.

Study 2

In Study 2, we sought to extend the results of Studies 1a and 1b in several ways. First, we employed a different measure of unethicality—the Self-reported Inappropriate Negotiation Strategies Scale II (SINS II; Lewicki et al., 2007). Rather than asking people about the likelihood that they would make unethical business decisions (as in Studies 1a and 1b), the SINS II scale assesses people's moral judgments by asking them to indicate whether they endorse lies, bribes, and other unethical negotiation tactics as appropriate techniques. We reasoned that people who believe unethical behaviors are appropriate have less integrity compared to people who believe unethical tactics to be inappropriate.

Second, we examined a mechanism underlying the relationship between future self-continuity and ethicality. As noted earlier, Loewenstein (1996) suggests that one way to avoid tempting visceral rewards is recognizing the (potentially) negative emotions one

Table 1
Zero-order correlations among measures from Study 1b.

Measure	UBDS	Future self-continuity	Past self-continuity	Ideal-actual self discrepancy	Ought-actual self discrepancy
UBDS		-.231**	.002	.031	.000
Future self-continuity			.465**	-.049	-.042
Past self-continuity				-.108	-.173*
Ideal-actual self discrepancy					.506**

* $p < .05$.

** $p < .01$.

would feel in the future if such rewards were consumed. Consistent with this reasoning, we hypothesized that individuals high in future self-continuity would better recognize the future consequences of decisions made in the present. We tested this hypothesis in Study 2 by examining whether consideration of future consequences mediated the effect of future self-continuity on moral judgments.

Method

Participants and procedure

A total of 145 adults (107 women; Age: 18–69 years, $M = 37$ years, $SD = 12$ years) participated via an online survey. As in the previous studies, each participant was entered in a raffle for two \$50 gift certificates.

Participants completed the future self-continuity scale (Ersner-Hershfield et al., 2009a), the Consideration of Future Consequences Scale (CFC; Strathman, Gleicher, Boninger, & Edwards, 1994), and the SINS II scale (Lewicki et al., 2007), in that order.

Consideration of future consequences scale

The CFC (Strathman et al., 1994) contains 12 statements that reflect an individual's tendency to consider the immediate versus future consequences of his or her behavior (e.g., "I consider how things might be in the future, and try to influence those things with my day-to-day behavior"). Respondents rate the extent to which each of the 12 statements are characteristic of their behavior on a 5-point scale ($\alpha = .84$, $M = 3.60$, $SD = .61$). Scores on the CFC influence a variety of behaviors, including practicing safe sex, deciding to be screened for the HIV virus, and choosing to recycle (Joireman, Strathman, & Balliet, 2006).

Self-reported inappropriate negotiation strategies scale II

The SINS II Scale (Lewicki et al., 2007) contains 25 items that can be partitioned into seven subscales: competitive bargaining (e.g., extreme opening offers); attacking an opponent's network (e.g., attempting to get your opponent fired); false promises (e.g., promising concessions that you will not provide); misrepresentation (e.g., misrepresenting information to your opponent); inappropriate information gathering (e.g., bribing people to get information about your opponent); strategic manipulation of positive emotion (e.g., feigning liking); and strategic manipulation of negative emotions (e.g., feigning anger). Respondents indicate the extent to which they find each tactic appropriate or inappropriate (1 = very inappropriate, 2 = inappropriate, 3 = slightly inappropriate, 4 = neutral, 5 = slightly appropriate, 6 = appropriate, 7 = very appropriate).

Of the seven SINS II subscales, attacking an opponent's network, false promises, misrepresentation, and inappropriate information gathering are generally regarded as inappropriate, whereas competitive bargaining and strategic manipulation of positive and negative emotions tend to be judged as neutral or slightly appropriate (Cohen, 2010; Cohen et al., 2011; Lewicki et al., 2007). Indeed, in our sample, participants deemed attacking an opponent's network ($M = 2.39$, $SD = 1.37$), making false promises ($M = 2.41$, $SD = 1.37$),

inappropriate information gathering ($M = 2.62$, $SD = 1.43$), and misrepresentation ($M = 2.81$, $SD = 1.34$) inappropriate, whereas they judged strategic misrepresentation of negative emotion ($M = 3.50$, $SD = 1.34$), strategic misrepresentation of positive emotion ($M = 3.78$, $SD = 1.57$), and competitive bargaining ($M = 4.32$, $SD = 1.39$) relatively more acceptable (less inappropriate). Because our focus was on endorsement of unethical behavior, we limited our analyses to the four subscales determined to be inappropriate by both our sample and prior research with the SINS II (Cohen, 2010; Cohen et al., 2011; Lewicki et al., 2007). We thus examined endorsement of unethical behavior with a composite variable created by averaging the 13 items in the four SINS II subscales with the lowest endorsement rates (attacking an opponent's network, false promises, misrepresentation, and inappropriate information gathering): $\alpha = .93$, $M = 2.56$, $SD = 1.25$.

Results and discussion

First, consistent with our hypothesis that future self-continuity is associated with less endorsement of unethical behavior, adults with high levels of future self-continuity were significantly more disapproving of unethical negotiation tactics than adults with low levels of future self-continuity, $\beta = -.17$, $t(143) = -2.12$, $p = .04$. Second, consistent with our prediction that those higher in future self-continuity would be more likely to consider future consequences of their decisions, future self-continuity predicted higher CFC scores, $\beta = .16$, $t = 1.97$, $p = .05$. Third, consistent with our mediation hypothesis, when the unethical negotiation scale was simultaneously regressed on both future self-continuity and CFC, only CFC was significant, $\beta = -.33$, $t(142) = -4.17$, $p < .001$; future self-continuity was no longer significant, $\beta = -.12$, $t(142) = -1.53$, $p = .13$. Preacher and Hayes' (2008) bootstrapping procedures established that this mediation was indeed significant—the bias-corrected confidence interval (CI) of the bootstrapping mediation test did not include zero ($CI_{95\%} = -.0932, -.0002$; $N = 145$; 30,000 re-samples). This pattern of results remained significant when age was also entered as a predictor. These findings extend the results of Studies 1a and 1b to another form of unethical decision making: disapproval of unethical negotiation strategies. The results are consistent with the possibility that consideration of future consequences mediates the relationship between future self-continuity and disapproval of unethical negotiation strategies.

Study 3

In the prior studies, we examined unethical decision making with self-report measures. It is possible, of course, that when presented with tempting situations, there could be a difference between the way people say they will act and the way they actually act. That is, ethical intentions might not correspond to ethical behavior. Although plausible, we find this possibility somewhat unlikely because a meta-analysis comparing unethical intentions versus unethical behaviors found strikingly similar results between unethical intentions and behavior—the correlations were all in the

same direction (Kish-Gephart et al., 2010). Moreover, many antecedents of unethicality correlated more strongly with behavior than intentions (Kish-Gephart et al., 2010). Nonetheless, in Study 3, we addressed this issue by studying the relationship between future self-continuity and two different unethical behaviors. Specifically, we examined the effect of future self-continuity on lying and making false promises.

Study 3 was a two-part study. In the first phase, we administered the future self-continuity scale. In the second phase, we invited participants who scored in the upper and lower quartile of the future self-continuity scale to attend a lab session in which we directly examined the relationship between future self-continuity and lying. We administered Cohen, Gunia, Kim-Jun, and Murnighan's (2009) modified version of Gneezy's (2005) deception game—a “sender–receiver” decision making task in which participants have a monetary incentive to lie (see also Cohen et al., 2011). We hypothesized that participants high in future self-continuity would be less likely to lie than participants low in future self-continuity.

Our study design also allowed us to assess the relationship between future self-continuity and the propensity to make false promises. By signing up for the voluntary lab session, participants were, in effect, making a promise to attend it. Given that almost no research study has perfect attendance rates, we were able to determine whether participants high in future self-continuity were more likely to attend the lab session, and thus, uphold a promise they had made.

Method

Research participants

One hundred and seventy-six students from Northwestern University (106 women; Age: 18–28, $M = 19.22$ years, $SD = 1.51$ years) completed a pre-test survey that contained the future self-continuity scale. From this pre-test, we recruited participants who fell in the upper and lower quartiles of the future self-continuity distribution for a lab study. A total of 85 participants signed up for the lab study: 40 low in future self-continuity ($M = 2.60$, $SD = .63$, Range 1–3) and 45 high in future self-continuity ($M = 6.16$, $SD = .37$, Range 6–7). Of the 85 participants who signed up for the lab study, 53 attended. Thirty of these participants were randomly selected to complete the deception game study (the remaining participants completed a different experiment). Thus, our final sample for the deception game study was 30 undergraduates from Northwestern University; each received \$5 in compensation plus additional money based on their decision in the deception game.

Procedure

In the deception game study, individuals sat in separate cubicles in a large room and were informed that they would be anonymously paired with another participant in the room in a “decision making task.” The task required one party (“the sender”) to send either a truthful or a deceptive message to another party (“the receiver”) to earn money. All participants in the study were assigned to be senders in the task (there were no receivers).

As senders, participants learned of two payment options: Option A gave the sender \$5 and the receiver \$15; Option B gave the sender \$15 and the receiver \$5. If the sender got to choose a payment option, the game would not be interesting—participants would most likely choose the option that favored them (Option B). However, what makes the deception game interesting is that the receiver (not the sender) gets to choose a payment option, *but the receiver does not know which payment option favors the sender and which favors the receiver.*

After learning about the payment options, the senders were informed that they would have to make a decision about which of two messages to send to their counterpart. Message 1 was clearly true and Message 2 was clearly a lie:

Message 1. Option A will earn you (the RECEIVER) more money than Option B.

Message 2. Option B will earn you (the RECEIVER) more money than Option A.

After receiving the message, the receiver would ostensibly choose one of the two payment options based on the sender's message.

We employed Cohen et al.'s (2009, 2011) “certainty” procedure to eliminate the possibility that uncertainty about the receiver's response would alter the sender's message choice. This procedure allowed us to eliminate strategic honesty, in which a sender tells the truth based on a belief that the receiver will not believe the message. We informed participants that their message was guaranteed to be followed with the following instructions:

In some conditions of this study, the sender sends a message BEFORE the receiver makes a binding decision about whether to follow the recommendation provided in the message. In other conditions of this study, the sender sends a message AFTER the receiver makes a binding decision about whether to follow the recommendation provided in the message. You have been randomly assigned to send a message AFTER the receiver chooses whether to follow your recommendation. At this time, please click “Continue” to find out whether the receiver has decided to follow the recommendation provided in your message.

On the following screen, this message appeared:

The receiver has decided to follow the recommendations you provided in your message. The receiver's decision is final and binding. Now, please consider which message you would like to send. After you have made your decision, select your choice.

Thus, all participants knew that their counterpart would choose the option that they identified as giving the receivers more money. These instructions made it clear that sending the deceptive message would earn the participant more money than sending the truthful message.

After reading the instructions, participants selected either Message 1 (the true message) or Message 2 (the lie). After the message was ostensibly transmitted to the other party, participants responded to an open-ended question asking them to “explain why you chose this message.” So as to not reward deceptive behavior and punish honesty, all participants were paid \$15 and then debriefed.

Results and discussion

False promises

Making a commitment to attend a study and failing to show up is a false promise (Lewicki & Robinson, 1998; Robinson et al., 2000). As shown in Fig. 2, we found that participants low in future self-continuity were significantly less likely to follow through on their promise to attend the lab session (50% attendance rate) than participants high in future self-continuity (73% attendance rate), $\chi^2(1, N = 85) = 4.91, p = .03$. This finding provides strong support for our hypothesis that individuals high in future self-continuity behave more ethically than those low in future self-continuity—the former are less likely than the latter to make false promises.

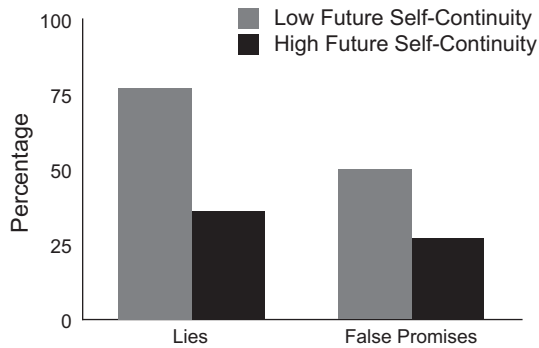


Fig. 2. Proportion of participants low and high in future self-continuity who lied and made false promises (Study 3).

Misrepresentation

Because the procedure for the deception game was somewhat complex, we first read participants' responses to the open-ended question about their reasons for their message choice. We sought to verify that all participants understood the procedure and chose the message that they intended. Responses from three participants indicated confusion or suspicion about the procedure (e.g., they did not believe that there was a receiver or they did not understand that their counterpart had already made a binding decision to follow their message). As in other research with the deception game (Cohen et al., 2009, 2011), we excluded the confused and suspicious participants from the analyses because our interest was in predicting the deliberate choice to lie. This left us with a final sample of 27 participants who completed the deception game.

Consistent with our prediction, participants low in future self-continuity were significantly more likely to lie than participants high in future self-continuity, $\chi^2(1, N = 27) = 4.64, p = .03$. As shown in Fig. 2, 77% of participants low in future-self-continuity lied, whereas only 36% of participants high in future self-continuity lied. This finding shows that people who feel similar to their future selves are less likely to lie for monetary gain.

Finally, although there was relatively little variation in age since Study 3 employed a university sample, the future self-continuity results for both false promises and misrepresentation remained significant when controlling for age.

Study 4

In Study 4, we sought to replicate and extend the results of Study 3. First, we employed a different behavioral measure of unethical behavior: cheating. Second, although in Study 1b we ruled out one set of alternative explanations for our finding (i.e., different types of relationships between selves), in Study 4 we wanted to control for another alternative explanation. Namely, it is possible the unethical intentions and behaviors we observed in Studies 1–3 were not necessarily a function of continuity with the future self *per se*, but rather, were a result of a general lack of self-control. Indeed, recent research has shown that individuals whose self-control resources are depleted are more likely to engage in unethical behavior (Barnes et al., 2011; Gino et al., 2011; Mead et al., 2009). To what extent, then, are future self-continuity and self-control distinct constructs, and to what extent does each of these constructs independently explain unethical behavior? To address these questions, in Study 4 we assessed the relationships among self-control, future self-continuity, and the propensity to cheat on a laboratory task.

Furthermore, in Study 4, we set out to address one additional issue. Until now, the distinctiveness of future self-continuity from the six general dimensions of personality—the HEXACO factors

(Ashton & Lee, 2007, 2008, 2009)—has not yet been examined. It is possible that other dimensions of personality (e.g., honesty–humility, conscientiousness) could account for the effects of future self-continuity on unethical behavior. Thus, to verify that the construct of future self-continuity is distinct from the six general dimensions of personality, we also examined the correlations between future self-continuity (as assessed by the Future Self-Continuity Scale) and the six dimensions of personality assessed by the 60-item HEXACO Personality Inventory-Revised (HEXACO-PI-R; Ashton & Lee, 2008, 2009): Honesty–Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience.

Method

Participants and procedure

One hundred and seventeen students from Northwestern University (72 women; Age 18–27⁴, $M = 20.91$ years, $SD = 1.50$ years) participated for \$8.

Participants were told that we were interested in how different people solve word problems, and that we would first be collecting some basic information from them regarding their personalities. Participants then completed a trait-level measurement of self-control (the Total Self-Control Scale; Tangney, Baumeister, & Boone, 2004), the HEXACO-60 PI-R (Ashton & Lee, 2008), and the Future Self-Continuity Scale (Ersner-Hershfield et al., 2009a), in that order. Finally, participants completed an anagram task that assesses the propensity to cheat (Cameron & Miller, 2009), and were paid and debriefed.

Total self-control scale (brief version)

The Self-Control Scale is a 12-item scale that assesses individual differences in self-control and shows good internal consistency ($\alpha = .76$ in the current sample) and retest reliability ($\alpha = .87$, as assessed by Tangney et al., 2004). Sample items include “I am good at resisting temptation” and “I refuse things that are bad for me”.

HEXACO-60 PI-R

The HEXACO is a comprehensive personality assessment that measures six major dimensions of personality: (H) Honesty–Humility (i.e., sincerity, fairness, greed avoidance, modesty), (E) Emotionality (i.e., fearfulness, anxiety, dependence, sentimentality), (X) eXtraversion (i.e., social self-esteem, social boldness, sociability, liveliness), (A) Agreeableness (i.e., forgiveness, gentleness, flexibility, patience), (C) Conscientiousness (i.e., organization, diligence, perfectionism, prudence), and (O) Openness to Experience (i.e., aesthetic appreciation, inquisitiveness, creativity, unconventionality). The biggest conceptual difference between the HEXACO and Big Five factor models is the addition of the honesty–humility factor (Ashton & Lee, 2007, 2008, 2009). Participants completed 60 items in which they indicated their agreement on a series of items that described themselves, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Each of the six HEXACO scales had acceptable internal reliability (H: $\alpha = .82$; E: $\alpha = .75$; X: $\alpha = .78$; A: $\alpha = .78$; C: $\alpha = .80$; O: $\alpha = .66$).

Cheating task

In the cheating task, adapted from Cameron and Miller (2009), participants were asked to solve eight anagrams (scrambled groupings of letters that must be unscrambled to form English words), and were told that they would start out with \$4.00 (which is located in an envelope on the desk in front of them), and that for each anagram that they failed to solve, they would lose \$0.50.

⁴ Four students did not report their age or gender.

Importantly, participants were told that they must complete the anagrams *in order*. Thus, they could not move onto the second anagram until they had solved the first anagram, and so forth. The specific anagrams that they were given were as follows (presented without solutions): EFLORW (flower), ADELMN (menald), ELLOWY (yellow), DEINNR (dinner), AEHMMR (hammer), BMOOTT (bottom), ACCIPR (capric), CEEHHS (cheese), and ADDENS (sadden). Anagrams 2 and 7 were intended to be unsolvable given that their solutions were extremely uncommon words. Indeed, in the original Cameron and Miller (2009) study, not a single participant was familiar with the words “menald” and “capric” during a pilot test.

Participants were given 15 min to complete the anagrams. After 15 min had elapsed, participants were instructed to input (via a computer screen) the number of anagrams that they were able to solve in order, and then to take the appropriate amount of money that they earned from the envelope. As in other cheating paradigms (Mazar et al., 2008), anonymity was assured so that participants would be encouraged to behave in a way that aligned with their true preferences. Namely, participants never provided any identifying information, and their responses were recorded via a computer using anonymous identification codes.

We operationalized cheating behavior by counting the number of times participants misrepresented their performance on the task. Participants could not earn more than \$0.50 without cheating, as the second anagram was essentially unsolvable and they had to solve the anagrams in order. To earn \$3.50 or more, participants would have had to claim that they solved the unsolvable seventh anagram as well, and thus cheated twice. Accordingly, cheating behavior was coded on a three-point scale: “0” if the participant reported solving zero or one anagrams in order; “1” if the participant claimed to have solved two to six anagrams in order, and “2” if the participant claimed to have solved seven or more anagrams in order.⁵ On average, participants cheated .76 times.

Results and discussion

We first examined the relationship between future self-continuity, self-control, and the personality dimensions assessed by the HEXACO scale. As shown in Table 2, future self-continuity was significantly correlated with self-control, Honesty–Humility, and Agreeableness, although these correlations were small in magnitude ($r_s = .19-.26$).

The correlations with the other four HEXACO scales were nonsignificant and close to zero. Based on the magnitude of these correlations, these findings add further evidence that the Future Self-Continuity Scale assesses a distinct facet of personality rather than a more general trait captured by the Self-Control Scale or the HEXACO Personality Inventory. Moreover, it is interesting (and consistent with our hypotheses) that future self-continuity was positively correlated with Honesty–Humility, as this personality dimension is indicative of character and predicts responses on integrity tests (Ashton & Lee, 2008; Lee et al., 2008; Marcus, Lee, & Ashton, 2007).

Next, we regressed cheating behavior on future self-continuity, self-control, and the HEXACO scales (see Table 3). In line with our prediction, future self-continuity was negatively associated with cheating behavior (Step 1). Furthermore, this relationship held when controlling for self-control (Step 2) and the HEXACO scales (Step 3). As shown in Tables 2 and 3, the Honesty–Humility factor of the HEXACO was also negatively associated with cheating behavior, which is consistent with prior research showing that this

trait predicts ethical decision making (Ashton & Lee, 2008; Lee et al., 2008; Marcus et al., 2007).

Finally, although there was relatively little variation in age since Study 4 employed a university sample, the future self-continuity results nonetheless remained significant when controlling for age.

Study 5

Results from Studies 1 through 4 demonstrate a robust significant relationship between low future self-continuity and unethical choices, even when controlling for a host of potentially relevant personality variables. These studies, however, rely on correlational evidence and thus, cannot necessarily speak to the causal relationship between low future self-continuity and unethical behavior. Thus, in Study 5, we examined whether a direct experimental manipulation of future self-continuity would affect subsequent endorsement of unethical behavior (measured by the SINS II scale, as in Study 2). In the experimental condition, we instructed participants to write about how they would remain similar over time—specifically, in 10 years’ time. We compared their behavior to those in a control condition in which participants wrote about what the world would be like in 10 years. Given that both the experimental and control condition involved thinking about the future, this comparison is a stringent test of our hypothesis that feeling similar to one’s *future self*, rather than just the future *per se*, leads to disapproval of unethical behavior⁶.

Method

Participants

Eighty-six adults (66 women; Age: 18–66 years, $M = 36$ years, $SD = 12$ years) participated via an online survey. As in the previous studies, each participant was entered into a lottery for a chance to win a \$50 gift certificate. Participants were randomly assigned to one of two conditions: experimental ($n = 46$) or control ($n = 40$).

Procedure

In the experimental condition, participants first read:

“In many important ways, people remain the same over time. Recent research in psychology has found that at the core, people are very similar from one period of time to another”. Participants were then given the following instructions: “Please think about what you will be like in 10 years and list all of the ways in which you think you will be *similar* to how you are now.”

In contrast, participants in the control condition were prompted to think about “what the world will be like in 10 years” and to list their ideas.

Upon completion of this writing task, all participants completed the future self-continuity measure and then the SINS II scale. As in Study 2, we created a composite variable that was composed of the four negotiation strategies deemed most unacceptable (attacking an opponent’s network, false promises, misrepresentation, and inappropriate information gathering), $\alpha = .92$.

⁶ We had initially planned to have our control condition be one in which research participants thought about the ways that they were *dissimilar* to their future selves, but a consultation of recent empirical work and a pilot study suggested that such a manipulation would not have proven fruitful. Todd, Hanks, Galinsky, and Mussweiler (2011), for example, demonstrated that when individuals are asked to think about differences that they share with some target person, they end up actually generating similarities to that person (in order to judge differences, people must first think about similarities, and then find ways to distinguish among people based on those similarities). Thus, we felt that the most appropriate test of our hypothesis was to have research participants think either about their future selves or the future in general.

⁵ We also operationalized cheating behavior by counting the amount of money that participants took after completing the anagram task. Using this measure, we replicated the results from our main analysis (which used the number of anagrams that participants claimed they solved).

Table 2
Zero-order correlations among measures from Study 4.

Measure	Cheating behavior	Future self-continuity	Self-control	Humility–honesty	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to new experiences
Cheating behavior	–	–.329**	–.185*	–.351**	.134	–.011	–.241**	–.010	–.161†
Future self-continuity		–	.229*	.263**	–.134	–.070	.187*	.016	–.090
Self-control			–	.310**	.084	.143	.162†	.608**	.003
Humility–honesty				–	–.103	–.042	.410**	.074	.162†
Emotionality					–	.190*	–.236*	.261**	.035
Extraversion						–	.022	.138	.335**
Agreeableness							–	.065	.113
Conscientiousness								–	.160†
Openness to experience									–

† $p < .10$.

* $p < .05$.

** $p < .01$.

Results and discussion

As a manipulation check, we first tested whether participants in the experimental condition had higher future self-continuity scores than those in the control condition. The manipulation was somewhat successful—those who wrote about ways in which they would be similar to their future selves scored marginally higher on the future self-continuity scale ($M = 5.52$, $SD = 1.21$) than participants in the control condition ($M = 4.93$, $SD = 1.94$), $t(84) = -1.74$, $p = .08$.⁷

In line with our main hypothesis, participants in the experimental condition were significantly less likely to advocate inappropriate negotiation strategies ($M = 2.61$, $SD = 1.22$) than were participants in the control condition ($M = 3.19$, $SD = 1.43$), $t(84) = 2.03$, $p = .046$. This pattern of results remained significant when age was entered as a covariate. This finding demonstrates that thinking about one's self in the future increases disapproval of unethical behavior relative to simply thinking about the future in general terms. Given that we experimentally manipulated future self-continuity, this finding shows that future self-continuity causes people to disapprove of unethical behavior.

It is possible, however, that the experimental manipulation does not just affect unethical judgment and decision making, but rather affects behavior in a more general sense, and that there is nothing special about its effect on unethical behavior. To rule out this possibility, we examined whether the manipulation from Study 5 also affected scores on the three subscales of the SINS-II scale that are generally deemed to be neutral if not acceptable negotiation behaviors (competitive bargaining, strategic misrepresentation of positive emotion, and strategic misrepresentation of negative emotion). To do so, we first created a composite score of these three subscales ($\alpha = .89$). In line with our hypothesis, results indicated that scores on the composite index of acceptable negotiation behaviors did not differ between conditions, $t(84) = .95$, $p = .34$. Thus, the future self-continuity manipulation *only* affected judgments of unethical behaviors and not all judgments.

Another alternative explanation for the Study 5 results is that writing about oneself in the future produces a more elaborate way of thinking than does writing about the future in general, and this increased elaboration gives rise to lower scores on the unethical negotiation scale. To test this explanation, we counted the number of words that participants wrote in response to the

writing manipulation. Results indicated that participants in the control condition wrote just as much ($M = 62.82$ words, $SD = 34.48$ words) as participants in the experimental condition did ($M = 58.50$ words, $SD = 35.57$ words), $t(84) = .57$, $p = .57$. Further, participants in the experimental condition were still less likely to advocate inappropriate negotiation strategies even when controlling for word count, $F(1, 83) = 5.17$, $p = .03$.

General discussion

The current research demonstrates that low future self-continuity leads to unethical choices. Across five different studies with diverse methods and research participants, people who felt more disconnected from their future selves were more unethical, in terms of their decision making, judgments, and behavior. Compared to people who are high in future self-continuity, those who are low in future self-continuity are more likely to make unethical business decisions, endorse inappropriate negotiation strategies (e.g., lies, bribes), make false promises, lie for monetary gain, and cheat to earn money. It is worth noting here that the relationships we found held for both moral judgments (as assessed by the SINS II Scale) as well as actual unethical behaviors. Importantly, we found that unethical decision making was inhibited by the perceived proximity of one's current self to the future self and not by the proximity of one's current self to other types of selves (e.g., one's ought self or ideal self). Perhaps our most striking finding is that students who were low in future self-continuity were less likely to actually show up for a study in which they promised to participate!

Overview of findings and future directions

Future self-continuity is different from simply thinking about the future in general. Indeed, in Dickens' tale, Scrooge's transformation could never have taken place had Scrooge not come into direct contact with a future version of *himself*. In Study 5, we manipulated whether participants thought about the future world or their future selves and found that projecting the *self* into the future is a critical deterrent of unethical judgments. Thus, our findings have an important practical implication: interventions that boost future self-continuity should lower the likelihood of unethical behavior.

In addition to demonstrating the importance of future self-continuity for promoting ethical choices, we also shed light on an underlying mechanism. We argued that people who feel similar to their future selves are *less* likely to think about immediate

⁷ The manipulation check was only marginal, suggesting future self-continuity may not be a very malleable construct or that the manipulation we employed was not particularly strong (possibly because of the similarity between the experimental and control conditions). We will return to this issue in the General discussion.

Table 3
Regression analysis of cheating behavior in Study 4.

	<i>B</i>	<i>SE B</i>	β	<i>p</i>
<i>Step 1 (R² = .11)</i>				
Future self-continuity	-.20	.05	-.33	<.001
<i>Step 2 (R² = .12)</i>				
Future self-continuity	-.18	.05	-.30	.001
Self-control	-.17	.12	-.13	.150
<i>Step 3 (R² = .24)</i>				
Future self-continuity	-.15	.05	-.25	.008
Self-control	-.18	.15	-.14	.230
Humility-honesty	-.21	.10	-.21	.042
Emotionality	.06	.11	.05	.586
Extraversion	-.01	.12	-.01	.934
Agreeableness	-.08	.11	-.06	.509
Conscientiousness	.13	.14	.11	.352
Openness to experience	-.22	.12	-.18	.057

short-term gains and *more* likely to think about the long-term negative consequences of their current actions. This argument suggests that for these people, the future looms larger than the present. Consistent with this argument, in Study 2, the tendency to consider the future consequences of one's decisions mediated the relationship between low future self-continuity and unethical judgments.

While Study 2 provided preliminary evidence regarding the process by which future self-continuity leads to ethical choices, the finding is by no means conclusive, nor does it preclude other mechanisms. We only assessed the consideration of future consequences in one correlational study. Future research should further explore the mediating role of this construct, as well as other mechanisms by which future self-continuity promotes ethical behavior.

One potential mechanism that we did not explore in this research is that people who are high on future self-continuity are more skilled at understanding the emotions of others. Indeed, both lies and false promises have direct consequences on other people—a characteristic true of most unethical behavior. If as Parfit (1971) posits, a person views his future self as if it is another person altogether, then they may have a similar difficulty understanding how this future self will feel as a consequence of unethical decisions made in the present. Such an explanation, however, is not necessarily at odds with our findings. An individual may feel distant from his or her future self *because* they cannot empathize with or take the perspective of this future self. This lack of empathic understanding may lead them to feel as if this future self is a different person altogether, and thus the emotional consequences of unethical decision making do not matter. Future research should examine whether empathic understanding or perspective-taking abilities also contribute to the relationship between future self-continuity and unethical behavior.

It is also possible that the prevention of unethical behavior is guided by self-concept maintenance. Mazar et al. (2008), for example, found that people often wish to act in ethical ways so as to maintain a positive perception of themselves. It may be the case then, that unethical behavior would actually undermine continuity with the future self, and those who are high in continuity would wish to avoid behaving in such a way. Across our behavioral studies, it is possible that if people perceived more continuity between their present and future selves, they may have abstained from unethical behaviors (e.g., lying, cheating) in order to not doom their future self to an unethical identity. Future research should attempt to measure the desire for self-concept maintenance alongside future self-continuity.

Similarly, it may be also worthwhile to examine whether other socio-cognitive factors might predispose some people to be more future-cognizant than others. For example, powerful people are

less attuned to their environment and the norms of the situation, and engage in less inhibited behavior (Galinsky, Magee, Inesi, & Gruenfeld, 2006). We might conjecture, then, that powerful people may be cognitively less inclined to envision themselves in the future as compared to powerless people.

Measuring and manipulating future self-continuity

We used a measure of future self-continuity developed independently by Ersner-Hershfield et al. (2009a) and Bartels and Rips (2010). Although this measure has been well validated and has generated robust results in other domains (e.g., Bartels & Urminsky, 2011), it nonetheless relies on self-report and a single-item. Future research should thus assess the relationship between future self-continuity and unethical behavior using alternative measures of continuity and ethical behaviors.

Further, our measure of future self-continuity asked participants to assess the degree to which they felt similar to their future selves in 10 years' time. Although this is the exact time period that has been employed in previous research (Ersner-Hershfield et al., 2009a, 2009b), the timescale of the future self-continuity scale differs from the timescale of the outcomes we investigated in our studies. That is, whereas we asked participants to indicate the similarity that they felt with their future self in 10 years, the unethical decisions made in the study had immediate consequences. Methodological constraints make it difficult to match these timescales, as a future self-continuity scale that queried participants about their future selves in a matter of minutes would most likely suffer from ceiling effects. And, participants might understandably find it difficult to assess whether they would behave ethically in 10 years (plus, in the absence of a well-planned longitudinal study, it would be difficult to assess the veracity of their claims).

Although Bartels and Rips (2010) have found that future self-continuity decreases with longer time intervals (i.e., I feel less similar to my future self of 20 years than I feel to my future self of 10 years), there are still large individual differences in mean levels of future self-continuity. Put another way, although a person may feel very similar to his future self of 10 years (e.g., as indicated by choosing the most overlapping set of circles on the future self-continuity scale) and somewhat similar to his future self of 20 years (e.g., as indicated by choosing the second most overlapping set of circles on the future self-continuity scale), his mean level of future self-continuity across these time periods might still be potentially higher than another person's (i.e., the mean levels change but the rank-ordering of individuals remains relatively constant). Future research should examine the relative time invariance of future self-continuity and its association with the propensity to act unethically.

Our manipulation of future self-continuity in Study 5 was subtle in nature, and held an admittedly modest effect on assessed future self-continuity scores. The relatively small effect size we obtained (a mean difference of approximately half a point on the future self-continuity scale), however, was exactly on par with other future self-continuity manipulations that have been reported previously (e.g., Bartels & Urminsky, 2011). These findings suggest that, although it is possible to manipulate future self-continuity, it is nonetheless a relatively robust individual difference that is fairly difficult to change with short-term interventions. Stronger manipulations should be examined in future work in order to develop practical applications for deterring unethical behavior via perceived continuity with one's future self.

Boundary conditions

We found consistent results between future self-continuity and a constellation of unethical choices, including unethical business

decisions, disapproval of inappropriate negotiation strategies, outright lying in interpersonal interactions, making false promises, and cheating for monetary gain. A key question concerns the boundaries on such behavior. It could be that future self-continuity effects are most likely to emerge when the behaviors in question are on the “boundary” of ethicality, or ethically questionable rather than unambiguously immoral or criminal. Mason, Mason, and Cullen (1995) refer to such borderline situations as “moments of truth” in which barriers, problems, and temptations routinely cross the paths of people. Accordingly, it might be important to distinguish tempting unethical behaviors (e.g., lying) from planful anti-social and criminal activity. Indeed the unethical acts that we tested in Study 3 were false promises (in the form of not attending a lab session one promised to attend) and lying for a gain of \$10. Had we instead examined much more consequential false promises or misrepresentations, it is unclear whether future self-continuity would have emerged as a predictor. For such behaviors, it is possible that strong situational pressures (e.g., the temptations of extreme rewards, or public pressure to act normatively) would overwhelm future self-continuity.

Moreover, it may be the case that under certain rare contexts, low levels of future self-continuity might actually promote ethical behavior. Namely, Parfit (1971) raises the interesting argument that when there is a lack of certainty about one’s future interests, abilities, and status within society, people may be more interested in spreading wealth and allowing others to have access to common goods, because individuals in such situations place less importance on the consumption of material goods in the here and now. In the reverse case, increased certainty about and connectedness to one’s future self could lead one to hoard common resources for one’s future self. Presumably, for such situations to occur, individuals must be part of highly collective societies (in the former example) and highly individualistic societies (in the latter example) (Markus & Kitayama, 1991). These scenarios raise the possibility that social context can impact the relationship between future self-continuity and unethical behavior. As such, future research should attempt to uncover the boundaries on when future self-continuity affects unethical behavior and when it does not.

In the laboratory studies (Studies 3 and 4), there was potential to act unethically for short-term monetary gain, but there was no risk (or minimal risk) of punishment. Thus, our results preliminarily suggest that future self-continuity reduces unethical behavior even when there is no immediate risk of punishment. Potentially, the knowledge that one will have to live with one’s self and one’s guilt in the future deters those who feel a high degree of overlap with their future selves from acting unethically. Presumably, such a relationship would hold even when punishments are made explicit, and future research should examine this possibility.

A related open question concerns the generalizability of the future self-continuity effect across time and circumstance. For example, if a business person had just been prompted by a child or spouse to think about their future self, would that then extend into a business meeting during the next hour at a conference center? Are children who have a hard time seeing themselves as grown up more likely to cheat on exams? Are organizations that compose 10-year plans be more honorable than those that do not? These and other questions could potentially be answered by research examining future self-continuity in the domain of behavioral ethics.

Another open question for future research is whether most people, left to their own cognitive devices, think about themselves in the future. Perhaps it is the case that most people project themselves into the future, but only a small minority does not. If this is the case, then we might expect the base-rate

incidence of unethical behavior due to failure to think about the future self to be quite low. Conversely, perhaps most people do not think beyond a day, in which case base-rate estimates might give us cause for alarm. Our individual difference scale partially addresses this issue – we found wide individual variation in terms of the extent to which people naturally project themselves into the future, with most people scoring slightly above the midpoint of the scale. Further, in previous research Ersner-Hershfield et al. (2009a) and Bartels and Rips (2010) have found that future self-continuity is normally distributed in the population, with mean levels falling at an intermediate level. Thus, to the extent that there is room for many people to increase the connection that they feel to their future selves, one practical implication of the current set of studies is that there is a benefit to prodding managers, executives, and other consequential decision makers to think about their future selves. Certainly, some leadership training involves posing questions that concern the legacy that a leader wishes to leave. Whether such training exercises reduce incidents of unethical behavior remains to be explored.

In some of our studies, we employed the SINS scale to assess unethical judgments. We take these judgments to be indicative of a given person’s integrity: if someone judges an unethical act as appropriate, it stands to reason that he may actually be more comfortable *acting* this way in the future. Just the same, recent work has shown that there can be discrepancies between attitudes and behaviors in the domain of ethics. How much a given person says he or she cares about a company’s ethical behaviors, for example, can often be anomalous with his or her decision to actually patronize that company (Ehrlich & Irwin, 2005). Yet, willingness to consume or not consume products created by unethical companies may represent a fundamentally different process from the tendency to make unethical judgments and then behave in such a way. Indeed, we have reason to believe that there is a mapping between unethical judgments and unethical behavior: some of the very same acts that were judged to be appropriate on the SINS scale were also negatively associated with future self-continuity when we actually examined these behaviors (i.e., cheating, lying, and making false promises). Future work should nonetheless more clearly assess the link between unethical judgments and unethical behavior.

Finally, the extent to which future self-continuity can predict unethical behavior above and beyond other previously established individual difference variables is currently unknown. Clearly, unethical decision making and behavior is multiply determined with a range of situational and dispositional variables playing a role in a given individual’s decision to act unethically. We view future self-continuity as one important dispositional variable whose relationship to ethicality has until now remained unexplored. The present studies suggest that possessing the ability to project one’s self into the future – and feeling a sense of continuity with that self – is a critical deterrent of unethical behavior.

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