

Times, they are a changin': An examination of congruent temporal appraisals for self and the
romantic partner

by

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Abstract

As time passes, people change. Change can affect relationships in many ways. I explored trajectories of expected change through time for people evaluating themselves or their romantic partner. Individuals perceive and predict change for their partners in similar ways as for themselves, expecting improvement from the present to the future (Study 1 and 2). I next explored how expected change for the self and for the partner *in relation to one another* affect relationships. Two partners might change congruently or change at different rates, in different ways. Predicting discrepant change was linked to lower relationship quality and less personal happiness compared to predicting no change or congruent change, both in correlational (Study 3 and 4) and primed designs (Study 5). Across studies, change expectations seemed most linked to outcomes when examined generally rather than in specific domains (Study 3-5). Growth can benefit relationships when it occurs congruently with one's partner.

Keywords: romantic relationships, temporal appraisals, change, relationship quality, personal well-being

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Times, they are a changin': An examination of congruent temporal appraisals for self and the romantic partner

People can change. Indeed, as time ensues, individuals may be shaped by their experiences. Perceiving change in the self may be motivated by the human need to feel growth, progression or personal development. Whether or not an individual is *truly* changing can be subjective, but the perception of changing through time appears to be universal. The motivation to see one's self as changing or adapting can impact various life outcomes (McLean, Breen, & Fournier, 2010) including motivation and goal attainment (Oettingen & Wadden, 1991), self-appraisals (Peetz, & Wilson, 2008), and relationships (according to the research presented here).

Self-perceptions of change through time are manifested in humans' unique ability to appraise themselves at different temporal points. That is, people have the cognitive capability to re-experience past states (Botzung, Denkova, & Manning, 2008) and picture themselves in future situations (Suddendorf & Corballis, 2007b). Popularly coined *mental time travel*, research has demonstrated not only that such mental transportation occurs often and regularly (D'Argembeau, Renaud, & Van der Linden, 2011) but that it can be an involuntary experience (Bernsten & Jacobsen, 2008). Seeing one's self through time allows individuals to make temporal self-evaluations which can affect current self-perceptions. In an attempt to understand how individuals perceive the self through time, researchers have tested a theory of temporal self-appraisal (Ross, 1989; Ross & Wilson, 2000; Wilson & Ross, 2001).

Temporal self-appraisal theory functions under the notion that individuals have the capacity to mentally self-transport through time, and *evaluate* themselves at these various time points. These self-assessments can function as a form of temporal comparison to one's self, at different points, which can influence goal attainment (Oettingen & Wadden, 1991) and current

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self-views (Peetz & Wilson, 2008). Ultimately, individuals make evaluations of their current selves based on *and in comparison to* their past and future (imagined) selves.

People, however, also live in a social world. Individuals' actions have important outcomes not only for the self, but also for close others. Someone changing through time, or even just perceiving someone as changing through time, can influence social relationships. Moreover, individuals not only appraise themselves through time, but different aspects of their lives such as the people who exist as part of their world. One particularly meaningful relationship that can be affected by the (perception of the) changing self is with one's romantic relationship partner. Indeed, the actions and cognitions of one partner in a relationship can ultimately influence the actions and cognitions of the other (Aron, Paris, & Aron, 1995; Drigotas, Rusbult, Wieselquist, & Whitton, 1999). That is, partners appraise one another within their relationship (Sacco & Phares, 2001), which in turn can lead to relationship evaluations such as: Are my partner and I compatible? Am I satisfied in this relationship? Am I happy?

Suggesting that relationships can change, transform, grow and expand through time is not a novel idea within the study of romantic relationships (Aron et al., 1995; Sprecher, 1999; Sprecher & Metts, 1999). However, making appraisals of one's self and one's partner, based on comparisons at other (past and future) time points, remains uncharted territory. Do individuals see themselves (or even their partners) differently through time? How do these changes affect current relationship evaluations?

Considering research on contingent self-esteem suggests that individuals well-being may depend on one's romantic relationship partner (Knee, Canevello, Bush, & Cook, 2008) – it is important to consider the outcomes beyond the possibility of these relationship appraisals. What happens when one partner perceives him or herself as changing, but not his or her partner? Or

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perhaps the other way around – what effect does perceiving one's partner as changing through time have on the partner who feels as though they have stayed relatively the same? Finally, what effect does appraising discrepant change (e.g., “She gets promoted, I get fired”; “I get fit, he gains weight”) with one's partner have on various relationship outcomes?

The current line of research attempts to respond to these questions. It is important to gain a better understanding of how appraisals through time can influence personal well-being as well as relationship quality, for several reasons. First and foremost, subjective well-being and holding a positive self-concept is essential for achieving mental and physical health (Baumeister, 1993). Moreover, having successful and positive romantic relationships fills the human need to belong (Baumeister & Leary, 1995) as well as contributes to better psychological (Dush & Amato, 2005) and physical (Braithwaite, Delevi, & Fincham, 2010) health.

In addition, these questions bridge two fields of research that have been examined mainly separately: temporal person appraisals and romantic relationships. Although existing research has examined romantic relationships through time (e.g., Franiuk, Cohen, & Pomerantz, 2002; Ruvolo & Fabian, 1999; Ruvolo & Rotondo, 1998; Sprecher & Metts, 1989; Sprecher, 1999), this research is limited to examining relationship perceptions in general (e.g., how relationship satisfaction changes through time), and does not examine self or partner appraisals through time. Thus, the current line of research rectifies this gap in the literature by utilizing temporal self-appraisal theory (Ross & Wilson, 2001; Wilson & Ross, 2000) as a means of assessing how individuals appraise aspects of their current relationships as a function of time.

Defining Change

Change in the context of this thesis is conceptualized as representing a difference in circumstances, from one time to another. Change is examined (with the exception of Study 1) as

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a difference between the present and a future time. The term change was selected given its all-encompassing valence – that is, it can be both a negative or positive experience for an individual. Change is thus relatively neutral as a term, as compared to more positive (e.g., improvement, growth) or negative (e.g., worsening) terms. Although considering the direction (positive or negative) of change is an interesting research direction, the purpose of the current study was to examine how similar anticipated differences over two time points were for two romantically involved individuals. In other words, we focus on whether there are differences not the valence of these differences. In light of this, change is used as a term that represents self-perceived differences between two time points.

Perception of Changing Self through Time

Individuals are introspective beings. People frequently self-reflect and self-evaluate (Heavey & Hurlburt, 2008). Thoughts of oneself include inner speech (thinking of yourself in your own voice), inner seeing (imagining possibilities), unsymbolized thinking (thinking a definite thought without conscious awareness), feelings (affective, emotional experiences) and sensory awareness (paying attention to your context or environment; Heavey & Hurlburt, 2008). These thoughts, however, are not limited to the present time. Indeed, time travel is possible - perhaps even unavoidable (e.g., regret and nostalgia). The human mind is capable of travelling to different periods in time by simply remembering past experiences or formulating novel predicted possibilities. Individuals thus have the capacity to picture themselves and evaluate themselves at distinct temporal points, outside of the present moment. Indeed, past or future self-thought occur often (D'Argembeau et al., 2011) with future thought taking up to 38% of an individual's time during the day, and past thoughts taking up to 21% of a person's time thinking (Jason, Schade, Furo, Reichler, & Brickman, 1989).

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Considering the magnitude of time individuals spend thinking about themselves at different points in time, it is unsurprising researchers have explored the impact of temporal thought in various domains (e.g., Klinger & Cox, 1987; Suddendorf & Corballis, 2007b; Szpunar, Watson, & McDermott, 2007). Mental time travel has been explored within a variety of disciplines including cognitive psychology (e.g., exploring the role of emotions in mental time travel, MacLeod & Byrne, 1996), developmental psychology (e.g., investigating the development of episodic memory in children, Nelson & Fivush, 2004; also see Atance & O'Neill, 2001), comparative psychology (e.g., examining why non-human animals do not have the ability to engage in past and future thought, Suddendorf & Busby, 2003), evolutionary psychology (e.g., researching when mental time travel first emerged in the genus *Homo*, Suddendorf & Corballis 1997b) and social psychology (for a review see Suddendorf & Corballis, 2007a).

Although the research within all fields of study has contributed to the global understanding of mental time travel, I focus my review on the social psychological aspects. Research investigating mental time travel within the field of social psychology includes topics such as the social impact of temporal thinking on behaviour, self-perception and social interaction. For example, some investigated topics include: the role of temporal self-appraisals on current self-views (Ross & Wilson, 2001; Wilson & Ross, 2000), and the differences in perception between past and future thoughts (Caruso, Gilbert, & Wilson, 2008), among other topics.

Temporal self-appraisal theory. Temporal self-appraisal theory (Ross & Wilson, 2003) suggests that individuals appraise their current self in relation to their past and future selves. As is evidenced in research by Wilson and Ross (2000, 2001, 2003), people appraise themselves differently at various time points. Just as individuals make social comparisons to others as a way to evaluate themselves (Markus & Wurf, 1987; Morse & Gergen, 1970), individuals also make

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temporal self-comparisons. Research within this area has explored how individuals maintain a positive current self-image in relation to other temporal points (e.g., Ross & Wilson, 2003), how people cognitively manipulate distance in time to maintain a positive self-image (e.g., Wilson & Ross, 2001), and how temporal self-appraisals influence motivation and future goal pursuit (e.g., Oettingen, Pak, & Schnetter, 2001).

Individuals tend to evaluate their current selves in relation to their past and future selves. People predict that their distant future selves will be a better version of their current self, just as their current self is a better version of their past self (Strahan & Wilson, 2006; Wilson, Buehler, Lawford, Schmidt, & Yong, 2012). People have a desire for self-improvement, which can be attained by both elevating the imagined future self (for a review, see Leary, 2007) or by derogating one's past self, in an attempt to show their current self as grown and improved (Wilson & Ross, 2001). In general, when predicting self-change through time, people tend to see themselves on an upwards trajectory, that is, evolving and improving for the better (Ross & Wilson, 2003).

Consider an example. In a series of studies conducted by Wilson and Ross (2001), participants were instructed to appraise themselves on a number of traits for their past selves (e.g., at age 16) and their current selves (e.g., first year university, approximately 19 years of age). Participants consistently rated their current selves as more favourable than their past selves. Notably, participants also made these evaluations for their peers – but the pattern found in self-appraisals did not replicate for peer-appraisals. That is, participants saw their peers (Study 1), acquaintances (Study 4) and siblings (Study 5) as stable through time, but saw themselves as improving. This finding was consistent for various age groups (Study 2). In this same line of research, Wilson and Ross also conducted longitudinal research designs in which they compared

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university students' evaluations of themselves at the start of the school year compared to recollections of their 'beginning of the term selves' obtained two months later. Results showed that people viewed their current selves as more favourable than their past (two months ago) selves even when there was no *actual* improvement. These results suggest individuals are motivated to see their current selves as more favourable than past selves as it secures a positive self-image.

One mechanism by which people maintain these positive self-images is through *subjective distancing*. Subjective distancing suggests that the distance of an event in time is subjectively malleable (Pennington & Roese, 2003; Wilson & Ross, 2001, 2003). Researchers have manipulated participants to feel as though a point in time feels closer or further away for experimental purposes (Peetz, Wilson, & Strahan, 2009). However, individuals implicitly engage in subjective distancing without instruction to do so. People adjust their perceived closeness or distance to past events in ways that contribute to a more favorable current identity. That is, individuals have the tendency to view negative past events as farther away, and less associated with their present self, than more favourable past events (Ross & Wilson, 2002). People also vary the distance of past events based on their favourability (Alicke & Sedikides, 2009). People feel subjectively closer to, and identify better with favourable events (Haddock, 2004). For example, an individual may feel as though a poor work performance happened a long time ago as compared to a great first date that feels *just like yesterday* – even if both events took place one week ago. Finally, research has shown that some people are more skilled at engaging in this cognitive self-enhancing process (i.e., people with high self-esteem, Mussweiler, Gabriel, & Bodenhausen, 2000). In sum, individuals tend to engage in a form of self-enhancement and self-protection by distancing undesired past selves, and pulling desired selves closer in time.

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Another large focus of research within the area of temporal self-appraisals has explored the influence of these temporal self-comparisons on current behaviour. Specifically, researchers have investigated how temporal self-appraisal can influence future oriented thinking on achieving goals (e.g., weight loss; Oettingen & Wadden, 1991; Peetz & Wilson, 2008; 2009). Specifically, Oettingen has studied the effects of fantasizing (making positive future oriented self-thought and evaluations) and expectations on goal-attainment (Oettingen, et al., 2001). Oettingen and Mayer (2002) argue that there are two forms of thinking about the future: positive expectations (judging a desired future self as likely) versus positive fantasies (experiencing thoughts and mental images about a desired future positively). Results across various domains and studies (e.g., job hunting, dating, exam preparation, weight loss, making plans) have found that holding positive expectations predicts higher effort and success in goal attainment than does fantasizing about a desired future self. Thus, results suggest that the different ways in which individuals predict future selves can have significant impacts on self-regulation and goal-setting/achievement (Oettingen, Mayer, Thorpe, Janetzke, & Lorenz, 2005).

Differences in thoughts about the past and the future. Considering the effects of past and future thinking on current self-views and behaviour, it is also important to explore whether the past and future differ in *how* they influence current perceptions. Research has suggested that there are many parallels and commonalities when investigating past and future thought. For example, the Janus hypothesis (Dudai & Carruthers 2005; Suddendorf & Busby 2003; 2005; Suddendorf & Corballis 1997) suggests that there are fundamental links between mental time travel into the past and the future, such that they both use episodic memory. In addition, the Components hypothesis (Suddendorf & Corballis 1997) suggests that both backward and forward thinking draw on the same cognitive resources.

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Although these cognitive commonalities exist, research by Caruso (2010) suggests that past and future thoughts may be processed differently from a psycho-social perspective. For example, Caruso and colleagues (2008) found through a series of studies that people tend to value future events more than past events. In addition, future events are perceived to be psychologically closer as compared to their past counterparts (Caruso, Van Boven, Chin, & Ward, 2013). Research has also demonstrated that people's intuitions about the underlying causes of past and future actions might not be the same (Burns, Caruso, & Bartels, 2012; Caruso, 2010). That is, people tend to see predicted future behaviours as more intentional and elicit more emotional responses compared to past performed behaviours. Burns and colleagues (2012) showed that people find the same transgressions as more deserving of severe punishment in the future as compared to the past. Judgments of moral behavior may be more extreme in prospect than in retrospect (Caruso, 2010). It is possible, then, that predictions of future events may impact current appraisals more greatly than past experiences. Given these findings, it is important to consider how past and future evaluations may differ in my current studies when making various temporal relationship appraisals.

Research examining mental time travel and temporal appraisals has largely focused on the self. Results across studies have found supportive evidence that individuals bias their past and future self-evaluations to better serve their current self-views. People also vary how far an event feels based on the positivity or negativity of that event. This cognitive process has implications for goal pursuit. Finally, the ways in which temporal thinking affects current behaviour and cognitions differs based on past and future thinking. Although this research is informative for the self, it is important to consider the self within a social realm.

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Individuals do not live in an isolated world. People's self-views are not solely based on their own behaviours and actions, but rather in relation to others. Individuals imagine themselves within their various dyads, groups and social networks. They characterize themselves based on the different identities they hold within their relationships (i.e., social identity theory, Tajfel, 1974). It is important therefore, to study self-appraisal within the context of these relationships. An individual's *romantic relationship* can be particularly meaningful and impact many, if not all, aspects of one's personal life (Naue & Kroll, 2009). In turn, it is important to question whether these self-serving biases in temporal self-appraisals occur within an individual's romantic relationship appraisals as well. In addition, exploring whether temporal appraisal biases occur *on behalf of* one's partner can provide further insight on the effects of temporal appraisals on romantic relationships.

Relationships through Time

The importance of studying romantic relationships. It is important to begin with why romantic relationships are so fundamental. People have a need to form and maintain strong, stable interpersonal relationships with others, to satisfy their need to belong (Baumeister & Leary, 1995). Aron and Aron (1986) suggested that people are motivated to form intimate relationships because they provide novel opportunities to expand the self, share resources (e.g., friends, money, pleasure) and acquire new perspectives.

Several studies have explored the benefits of romantic relationships on well-being and life satisfaction (for a review, see Clark & Reis, 1988; Newman & Roberts, 2013) with evidence that involvement in romantic relationships can benefit partners socially (Ozer & Benet-Martinez, 2006), psychologically (Coombs, 1991) and physically (Markey, Markey, & Heather, 2007). These benefits can also promote satisfaction in other life domains such as within the workplace

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(Lent et al., 2005). The benefits of healthy romantic relationships are a robust finding and have been replicated across cultures (Castañeda, 1993; Eyre, Flythe, Hoffman, & Fraser, 2012; Zhao, et. al., 2011) and age groups (Braithwaite et al., 2010; La Greca, & Harrison, 2005).

In fact, one's partner can be so incorporated in the self, that an individual may form a distinct joint identity with their partner. Shared couple identity ('us' identity; Davies, 2011) has been described as the combination of *me* and *you* as *one* (Lewis, 1973). Identity can be maintained, modified, or reshaped by relationships (Naue & Kroll, 2009) through interactions between relational partners and by constructing a shared social and natural environment (Felmee & Sprecher, 2000). By incorporating one's self into the self-concept of another individual, the ability to better understand (and perhaps evaluate) that individual is enabled.

Indeed, having one's identity linked to another individual can influence self-appraisal. For example, relational partners can experience the same emotional highs based on their partner's well-being (e.g., contingent self-esteem; Knee et al., 2008), as well as *feel the pain* of their partner's failures or losses (Singer, Seymour, O'Doherty, Kaube, Dolan, & Frith, 2004). It is then possible that partners may self-evaluate based on their partner's life experiences. Romantic relationships present an interesting paradigm, however. People are motivated to self-evaluate based on social comparisons – yet, the partner may be an extension of the self. This can result in a situation where partners rejoice in each other's successes, or experience jealousy (e.g., men tend to be more jealous of female partner's success; Ratliff & Oishi, 2013). It thus remains unclear how changes (improvements, declines) in one's partner affects well-being, relationship quality, and ultimately, relationship appraisal.

Appraising relationships through time. Although there is limited research that explores appraisals of one's partner through time, research has examined more general relationship

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appraisals. In fact, research in the field of romantic relationships essentially *always* involves some level of appraising one's relationship – with the temporal aspects of such appraisals, being (albeit rarely) investigated. Research that investigates aspects of temporal relationship appraisal include: exploring the dynamic development and evolution of romantic relationships, past thoughts of one's relationship, and making predictions of future states of one's relationship.

One well-investigated area of research within the relationship appraisal literature explores the dynamic development and evolution of romantic relationships. Researched topics include the differences between age groups in relationship styles (Bryant & Conger, 2002; Miller & Benson, 1999), the experience of milestones in relationships (Simpson & Rholes, 2010), different relational outcomes due to how the relationship developed (e.g., relationship jealousy, Knobloch, Solomon, & Cruz, 2001), the role of outside sources in relationship development (e.g., how social networking sites such as Facebook influence relationship development, Fox & Warber, 2013), among others. Although this area of research examines relationships through time (from beginning to end), it is generally limited to retrospective procedures. Moreover, research in the development of relationships does not directly tap into an individuals' self or partner current appraisal (in relation to past and future time), but rather explores relationship related outcomes (e.g., satisfaction) more generally.

Another area of relationship research tangentially related to temporal aspects is the reflection on past relationship events. Reflecting on one's relationship by remembering past experiences is a common tool used in romantic relationship research (e.g., Cate, Koval, Llyod, & Wilson, 1995). Beyond the procedural use of these memories (to fulfill other research goals), research has investigated past relationship thoughts to induce feelings of positivity towards one's relationship. For example, research has demonstrated that reminiscing about positive shared

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couple experiences and events have positive emotional benefits (Bryant, Smart, & King, 2005). Furthermore, researchers have asked people to simply remember everyday situations with their romantic partner as a procedural effort to reassure individual well-being (Borae & Pena, 2010; Fitzsimons & Shah, 2008). Bazzini, Stack, Martincin and Davis (2007) found that couples who reminisce about events involving shared laughter reported higher relationship satisfaction, compared to reminiscing about other shared positive experiences with one's partner or another friend. Fitzsimons and Shah (2008) found that when thinking about currently active personal goals, thoughts of significant others who were instrumental in those goals were brought to mind more readily, evaluated more positively, approached more quickly, and avoided more slowly. As such, individuals can evaluate their current relationship feelings based on memories or past experiences of their relationship.

In addition, some research has investigated *future* relationship outcomes: predicting relationship dissolution based on current relationship appraisals (Gottman & Levenson, 1992; Le, Dove, Agnew, Korn, & Mutso, 2010), assessing how one's implicit theory of relationships contributes to relationship satisfaction (Franiuk, et al., 2002; Knee, 1998), assessing how idealization of one's partner contributes to poorer predictions in relationship longevity (Buehler, et al., 1995), assessing how friends of a couple can predict the future of their relationship (Agnew, Loving, & Drigotas, 2001) and assessing how subjective group norms contribute to making predictions in relationships (Etcheverry & Agnew, 2004). Although these research studies shed light on the ability and regularity of making future relationship predictions, they do not directly assess the impact of these future appraisals on *current* relationship evaluations. In addition, they tend to investigate appraisals about the relationship as a whole rather than appraisals about the self or the partner in the relationship.

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Finally very few studies have investigated the progression of relationships through time (from past to present to future). However, a longitudinal study by Sprecher (1999) explored people's perceived changes in love, commitment, and satisfaction over several years. Throughout the study, participants who were still in committed relationships perceived their love to have increased compared to past appraisals, even though their actual scores from these previous time points would indicate that they were experiencing the same amount of love. This finding parallels research in the self-appraisal literature that shows despite any real change, people perceive themselves as improved versions of their past selves (Wilson & Ross, 2001). Participants who experienced a breakup on the other hand, reported a retrospective decrease in their positive affect in the months prior to the breakup. Although this research is a good first step in examining how relationships may change through time, it is limited to one study. Moreover, Sprecher (1999) examined the change of relationship satisfaction through time, rather than the perception of personally (or one's partner personally) changing through time and the impact this change *has* on relationship satisfaction. In contrast, my interest lies in whether the perceptions of one's self through time (based on past, present and future appraisals) can affect relationship outcomes such as satisfaction and personal outcomes such as happiness.

Relationships and change. Another important aspect to relationships is *change*. When involved in a committed relationship, change not only affects the individual experiencing circumstantial adjustments, but their partner as well. Research examining the change within romantic relationships is limited. Some research has suggested that the natural occurrence of change contradicts the need for stability and consistency in relationship maintenance (Montgomery, 1993). Montgomery proposes that the difficulty of adjusting to not only self change but the inability to control partner change should be *accepted* in order to maintain a

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positive romantic relationship. Although Montgomery's theoretical paper about relationship change and maintenance is informative, no empirical research was conducted to confirm the potential issues posed on relationships when the perception of change occurs.

Some research examining change and romantic relationships has focused on romantic relationship beliefs. For example, research by Sprecher and Metts (1999) investigated how romantic beliefs are related to positive feelings in the relationship (e.g., love), relationship stability, and how romantic beliefs change with the passage of time and with relationship transitions. Results from longitudinal data showed that romantic beliefs do not seem to contribute to a change in romantic feelings over time. However, relationship outcomes (engagement versus a breakup) changed people's endorsement of romantic beliefs from before. Results from this study suggest that individuals can appraise their romantic relationship at different time points (past and future), and patterns of change can be seen and tested. Other research that has examined romantic relationships and change have explored the role of partners contributing to personal growth (e.g., Fitzsimons & Shah, 2008; Overall, Fletcher, & Simpson, 2000) and general perceptions of change in romantic satisfaction over time (Levenson & Gottman, 1985).

One related area of research has explored accuracy in partner evaluations through time (e.g., MacDonald & Ross, 1999). Research has found that individuals in novel relationships predict that their relationship will last longer than it actually does (Buehler, Griffin, & Ross, 1995). This optimism is not limited to individuals in new dating relationships. Despite awareness of high divorce rates, individuals predict their own marriages will not end (Baker & Emery, 1993; Brehm, 1988) as people are generally motivated to believe that desirable events will occur to them (i.e., motivated reasoning; Kunda, 1987). Change in relationships might also be

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idealized. That is, couples may be motivated to see changes in their partners or themselves as improvements rather than as a threat to the stability of their relationship.

Surprisingly, little research has explored the effects of personal change on romantic relationship maintenance or dissolution. That is, changes in relationships have been explored, but personal or partner change and *their effects* on the relationship remain uninvestigated. In light of this research gap, I explore relationship change in two ways: by exploring whether or not individuals can perceive themselves (and their partner) within their relationships as changing through time *and* whether change (congruence or discrepancy with one's partner) influences relationship (e.g., satisfaction) and personal (e.g., happiness) outcomes.

Rationale and Hypotheses

At this point, two large areas of research have been reviewed: mental time travel (specifically temporal self-appraisal theory) and relationships through time. There is however very little research combining both areas. The current thesis presents the first steps in bridging these two fields of study and examining a 'temporal relationship appraisal theory'. I aimed to better understand two overarching questions.

First, do individuals in romantic relationships evaluate themselves *within* their relationship, as well as their partner, as improving through time (similarly to the trajectories seen in temporal self-appraisal research; Peetz & Wilson, 2008; Ross & Wilson, 2003)? This question contributes to the literature in two ways. One, I examined temporal self-appraisals *within* one's romantic relationship, thereby focusing the appraisal on a specific domain. Thus far, research has explored self-appraisal in a more global sense, or within other domains (e.g., weight loss; Oettingen & Wadden, 1991). I predicted that making self-evaluations of one's self within their relationship will show a similar pattern of 'constantly improving' as found in more global self-

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appraisal research (Wilson & Ross, 2001). Two, I examined temporal appraisals for another person (i.e., their romantic partner). Although past research has found evidence that individuals do not perceive upward trajectories of others (e.g., peers and siblings) to the same extent that they see themselves as constantly improving (Ross & Wilson, 2003; Wilson & Ross, 2001), I predicted that making these temporal appraisals for one's romantic partner will show similar upward trajectories as for self-appraisals. This may be so because the partner acts as an extension of the self (Aron, Paris, & Aron, 1995). People may fall prey to similar self-serving biases, one of which (perceiving improvement through time) is responsible for the upwards trajectory in temporal appraisals. This bias (or ability) may thereby affect relationship outcomes. If individuals see themselves and their partners as improving, they may feel as though this shared success relates to relationship success. However, individual differences may lead to alternative outcomes. If relationship partners see only self-improvement through time, this may lead to more negative relationship evaluations, as their partners may be seen as being left behind.

In light of this speculation, my second overarching research question asked: how does predicting change in oneself and one's partner *in relation to* one another affect relationship and personal outcomes? In addition to exploring a "temporal relationship appraisal theory", it is important to consider the implications of perceiving one's self and/or one's partner as changing through time. Consider the following scenarios. Sarah sees herself as changing through time (e.g., feels she is a better version of herself than last year and thinks she is likely going to continue to improve); however she perceives and predicts her partner will stay relatively the same through time. Or, Tom perceives his partner as changing through time, whereas he sees himself as staying relatively the same. Finally, Nick perceives himself *and* his partner as changing through time. All these possible scenarios represent realities over time for two

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individuals in a relationship – and these realities can impact relationship outcomes. Just as individuals may grow together, they may also grow apart. I predicted that partners who have more *congruent* trajectories may experience greater relationship benefits such as higher satisfaction, greater feelings of stability, and increased partner closeness. Congruent futures may also relay personal benefits, such as feelings of happiness or self-expansion via one's partner's shared growth. Alternatively, predicting discrepant change may have the opposite effect, and lead to less favourable personal and relational outcomes (such as decreased happiness and lower relationship quality overall). Thus, the second focus of the current research was to investigate the congruence or discrepancy of predicted change for partners through time.

Across five studies, I examined temporal appraisals of one's self and one's partner, as well as the effects of change in relation to each other on relationship outcomes. Study 1 and 2 established that individuals perceive upwards trajectories for themselves *and* for their partner when appraising the person *in the relationship* from past to present and from present to future. In the next set of studies, I examined perceived change (i.e., temporal appraisals for the present and the future) of self and partner in relation to each other. Study 3 examined relative self-change and partner-change through time, and the effect of relative change on happiness and relationship satisfaction. Study 4 extended on this by examining relative self and partner change in six different domains: personality, health, social life, work/school, affect, appearance. Finally, Study 5 manipulated change congruence for perceived self and partner change to test the effects of relative change on personal outcomes (e.g., happiness) and relational outcomes (e.g., relationship satisfaction).

Study 1: Past, Present, Future Relationship, Self and Partner Appraisal

The purpose of Study 1 was to extend on the existing research on temporal self-appraisal theory by exploring perceptions of change in the self, partner and the relationship through time. As discussed, research has found that individuals form perceptions of the self in an upwards trajectory by disparaging past selves and evaluating current or future selves as more favourable (Wilson & Ross, 2001). In addition, research has suggested that seeing the self as improving can benefit current self-evaluations (Ross & Wilson, 2002). For example, if Tom thinks he is a better relationship partner than he was one year ago, he may feel happier and more satisfied than if he feels as though there has been no change. I wanted to examine whether similar trajectories occur when appraising different aspects of one's relationship at various time points. Specifically, I examine two levels of appraisal: the self within the relationship, and the partner within the relationship. Study 1 seeks to investigate the following question: when thinking of one's self within their relationship, or of one's partner, do individuals distort their appraisals in ways to make their current selves feel better?¹

In Study 1, I examine temporal appraisals of the self and the partner in the relationship. Specifically, I hypothesized the following:

¹ I also included three potential moderators: Dweck, Chiu and Hong's (1995) implicit theory scales and Knee and colleagues' (2003) growth and destiny beliefs scales. According to Dweck et al., (1995) theory, individuals are either entity theorists (who see themselves as relatively fixed and stable over time) or incremental theorists (who see themselves as having more dynamic qualities that can be changed and developed through time). I measured both incremental vs. entity belief in personality and in relationships. In addition, Knee and colleagues' (2003), growth and destiny belief scale assesses whether people tend to believe in romantic destiny (potential relationship partners are meant for each other) or whether they tend to believe in relation growth (successful relationships are cultivated and developed and thus, require time and energy investment; Knee, 1998). Both the implicit theories scales and the destiny and growth beliefs scale were included as potential moderators. I predicted that differences in self and partner appraisal may be greater for participants who identify as incremental theorists and those with a relationship growth belief style as compared to those who identify as entity theorists or have a relationship destiny belief style.

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(1) People will appraise their partner or self in the relationship in an upwards trajectory with past appraisals as less favourable than current appraisals and current appraisals less favorable than future appraisals.

(2) Individuals who appraise themselves and their partners as improving will feel happier and more satisfied in their relationships as compared to those who do not perceive or predict any relationship improvement.

Method

Participants. One-hundred and forty-two participants completed this study. Eligibility for participation required participants to be in a relationship for at least one year due to the procedure requiring participants to reflect on their relationship a year ago. Eight participants were excluded from analysis for reporting that they were in a relationship for less than one year resulting in a final sample size of 134 (59 female, 75 males; $M_{age} = 33.81$, $SD = 9.38$; $M_{relationshiplength} = 98.81$ months, $SD = 88.75$). Participants with incomplete responses to the questionnaire were maintained in the analysis, however they were deleted list-wise if they had missing data for any scale items² (resulting in different degrees of freedom for certain measures). All participants were a community sample of Americans recruited from Amazon's Mechanical Turk. Participants received \$0.50 US as compensation.

Procedure. Participants began by completing demographic questions and were then randomly assigned to one of two conditions: *self-appraisal* or *partner appraisal*³. Participants were asked to appraise either themselves within their relationship or their partner within their

² This same strategy was used in all of the following studies.

³ The initial study also included a third group of participants in which they rated their overall relationship on 10 different adjectives (e.g., satisfying, boring, etc.). This condition was included as an exploratory addition to be used in future research. Results showed no significant differences on overall relationship ratings through times and this group was thus omitted from future investigation.

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relationship on 10 adjectives at three time points (one year ago, present day and one year from now). Finally participants completed a satisfaction and happiness outcome measure, a modified personality and relationship lay theory measure (Dweck, Chiu & Hong, 1995) and a growth and destiny beliefs scale measure (Knee, Patrick, & Lonsbary, 2003). Lastly, participants were presented with the debriefing form. Details of the measures follow (see Appendix A for complete questionnaire).

Demographics. Participants completed the following information: age⁴, gender, relationship status, relationship length, cohabitation with partner and children with partner.

Appraisal adjectives. Participants saw a list of 10 adjectives that contained characteristics with both positive and negative valence. Participants were instructed to rate how much each adjective describes them at three time points on a scale from 1 (*not at all characteristic*) to 7 (*very characteristic*). Participants were initially given the following instructions:

In the following questions, we will be asking you to rate your partner at a number of time points. It's fine to repeat your ratings or to change them – I am interested in getting the most accurate picture of what you think your partner looked, looks like, and will look like, through time.

Participants appraised themselves on the same 10 adjectives for their past selves (one year ago), their present selves, and their future selves (one year from *now*). Participants in the self-appraisal condition were instructed to rate how characteristic each adjective was, is and will be of

⁴ Age significantly negatively correlated with absolute past-present difference scores, $r = -.31$, $p = .003$, suggesting that as participants get older, the less they perceive themselves or their partner have changed. In addition, age significantly negatively correlated with absolute present-future difference scores, $r = -.25$, $p = .018$, suggesting that as participants get older, the less they predict themselves or their partner will change.

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themselves *within* their relationship. Participants in the partner appraisal condition were instructed to rate how characteristic each adjective was, is and will be of their partner.

Although I included 10 adjectives, I focused on only five adjectives that would be considered more ideal or favourable characteristics (e.g., confident, talkative, intellectual, organized and playful). These items were presented in randomized order within the list of 10 adjectives. Building on past temporal self-appraisal work (Wilson & Ross, 2001), I will focus my analysis on the positive adjectives.

Relationship outcome correlates. There were two main outcome variables of interest: relationship satisfaction and personal happiness. Participants were instructed to rate relationship satisfaction ("How satisfied are you right now in your current relationship?") and happiness ("How happy are you right now, in this moment?") using a 1 (*not at all*) to 7 (*very much*) scale. Items were highly correlated, $r(134) = .615, p < .001$.⁵

Results

Upwards appraisal trajectories through time. I first predicted that people would appraise their current self or their partner's self in the relationship in an upwards trajectory, that is, past appraisals as less favourable than current, and current appraisals as less favourable than future. This is essentially a measure of improvement through time. I explored this hypothesis by first analyzing the trajectories from past to present to future for each level of appraisal (i.e., self and partner). As earlier discussed, I focused my analysis on the five positively oriented adjectives. A *positive composite profile* was computed by averaging 5 positive self-descriptors

⁵ As mentioned, participants also completed two modified versions of Dweck and colleagues' (1995) implicit theory questionnaire for their personality and relationships. Each questionnaire had 6 items which were rated on a 1 (always disagree) to 6 (always agree) scale. Low scores are indicative of incremental responses and higher scores are indicative of entity responses. In addition, participants completed growth and destiny beliefs scales. Growth and destiny are measured on two scales. Each scale consisted of 11 items and were rated on a 1 (not at all) to 7 (very much) scale. Sample items include: "potential relationship partners are either compatible or they are not" (destiny scale) and "the ideal relationship develops gradually over time" (growth scale).

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within each time level, resulting in three composite scores (one for past appraisal, one for current appraisal, one for future appraisal). Table 1 presents the means and standard deviations by appraisal level and time for each of the five adjectives as well as the means for the positive composite profile scores.

Table 1

Study 1 Means for Adjective Ratings through Time for the Self and Partner

Adjectives	Self			Partner		
	Past	Present	Future	Past	Present	Future
Confident	5.17	5.48	5.78	4.82	4.91	5.41
<i>SD</i>	1.99	1.23	.96	1.69	1.71	1.42
Talkative	4.83	5.13	5.26	4.91	4.93	4.95
<i>SD</i>	1.55	1.39	1.34	1.55	1.72	1.64
Intellectual	5.11	5.07	5.29	4.68	4.73	4.82
<i>SD</i>	1.09	1.29	1.27	1.44	1.56	1.56
Organized	4.83	5.00	5.28	4.48	4.52	4.80
<i>SD</i>	1.25	1.3	1.13	1.84	1.85	1.75
Playful	4.96	5.15	5.26	5.18	4.80	5.11
<i>SD</i>	1.25	1.35	1.12	1.32	1.72	1.69
Positive Composite Profile	4.97	5.16	5.37	4.81	4.78	5.02
<i>SD</i>	.84	.87	.85	.99	1.30	1.24

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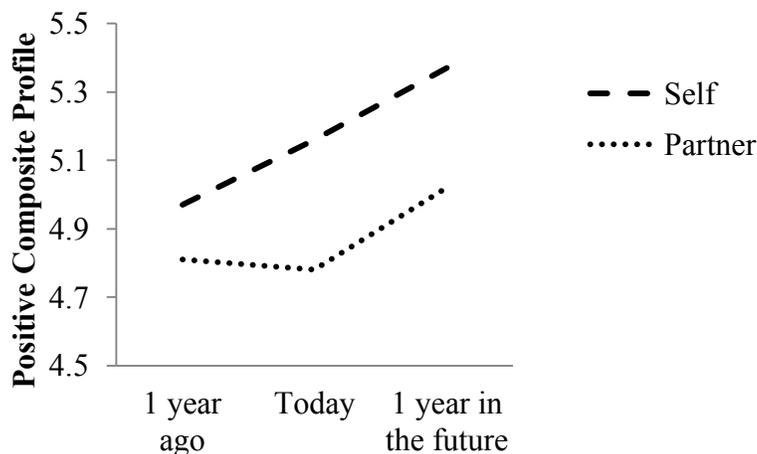


Figure 1. Positive Composite Profile Appraisals through Time

In order to assess improvement through time, I examined participants who rated themselves and participants who rated their partner separately. I then conducted a within-subject ANOVA in each of these two conditions to assess whether the items making up the positive composite profile changed through time (see Table 2). More specifically, I wanted to assess whether participants appraised either themselves within their relationship or their partners as improving on these favourable characteristics moving from past time to present and when making predictions for the future. Results from Table 2 show a significant linear trend for self-appraisal from past to present to future, $F(2, 45) = 13.18, p = .001$. That is, when appraising oneself within their relationship, participants see themselves as significantly improving through time in an upwards trajectory from past to present to future. There was, however, no significant linear trend for partner appraisal through time, $F(2, 43) = 2.38, p = .131$.

Given the differences in social cognitions between past and future thinking (Caruso et al., 2008), I also conducted three planned paired-samples t-tests to assess past-present differences in appraisal, present-future differences in appraisal and past-future differences in appraisal. Results demonstrated that self-appraisal had a greater number of paired significant differences than

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partner appraisal. That is, there was a significant increase in the positive composite profile ratings for one's current self-appraisal to their future self-appraisal, $t(45) = -2.36, p = .023$. There was also a significant increase in the positive composite profile ratings for one's past self-appraisal compared to their future-appraisal, $t(45) = -2.63, p = .001$. Finally, although not significant, there was a trending increase in the positive composite profile ratings for one's past self-appraisal to their current self-appraisal, $t(45) = -1.66, p = .104$. Although the omnibus was not significant for partner appraisals, I also ran pre-planned t-tests. Results showed that there was a significant increase in the positive composite profile ratings for one's current partner appraisal and their future partner appraisal, $t(43) = -2.65, p = .011$.

Finally, I wanted to focus my examination on present to future appraisals given both self and partner ratings suggested predicted improvements for these appraisals. I examined whether the slopes of participants' upwards appraisal trajectories from present to future differed. To test this, I conducted 2 between-subject (target: self vs. partner) by 2 within-subject (time: present vs. future) ANOVA for the positive composite profile. There was a main effect of rating time, $F(1, 88) = 12.58, p < .001$, suggesting that the upward trajectory was significant overall. Results showed no significant interaction between the target (self vs. partner) condition and time, $F(1, 88) = .07, p = .800$, suggesting that the degree of improvement over time was not different for participants in the self and participants in the partner condition.

Correlations with relationship outcomes. Our second hypothesis predicted that individuals who appraise themselves and their partners as improving will feel happier and more satisfied in their relationships as compared to those who do not perceive or predict any relationship change. To test this, I correlated all appraisal difference scores with my two outcome

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measures: relationship satisfaction and personal happiness. Table 2 presents results for relative difference scores and Table 3 presents results for absolute difference scores.

Table 2

Self and Partner Appraisal: Relative Difference Scores correlated with Satisfaction and Happiness

Appraisal Level	Difference Scores	<i>N</i>	Relationship Satisfaction	Happiness
Partner	Present-Past	44	.187	-.028
Appraisal	Future-Present	44	-.015	-.065
	Future-Past	44	.142	-.070
Self-	Present-Past	46	.446**	.251
	Future-Present	46	-.148	-.206
	Future-Past	45	.332*	.089

Note. * = $p < .05$, ** = $p < .01$

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Table 3

*Self and Partner Appraisal Absolute Difference Scores with Satisfaction and Happiness**Correlations*

Appraisal Level	Difference Scores	<i>N</i>	Relationship Satisfaction	Happiness
Partner	Present-Past	44	-.109	-.199
Appraisal	Future-Present	44	-.304*	-.355*
	Future-Past	44	-.245	-.277
Self-	Present-Past	46	-.050	-.173
Appraisal	Future-Present	46	-.418**	-.297*
	Future-Past	45	.037	-.095

Note. * = $p < .05$, ** = $p < .01$

First, consider the relative difference scores. Relative difference scores are composed of the scores from two different time points subtracted from one another (creating three sets of scores). I subtracted the more distant level of time (e.g., past) from the more 'current' level of time (e.g., present or future) to compute these values. Positive values represent an increase in evaluation of the positive composite profile (through time), whereas negative values represent a decrease in evaluation. Relative difference scores thus represent indices of *improvement* through time.

Results from Table 2 indicate that there are no significant correlations for partner appraisal difference scores with either outcome variable. Therefore, seeing one's partner as improving through time was not linked with happiness or relationship satisfaction in this sample. In addition, improvement through time is not significantly correlated to happiness. However, when considering self-appraisal, I do see significant correlations for relationship satisfaction. Past-

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present perceived improvement is significantly positively correlated to relationship satisfaction, $r(42) = .446, p < .01$. That is, when appraising themselves in their relationship, participants who view themselves as improving from the past to the present report higher levels of relationship satisfaction. Past-future difference scores are also significantly positively correlated to relationship satisfaction, $r(42) = .332, p < .05$. That is, when appraising oneself in their relationship, participants who view themselves as improving from the past to the future, report higher levels of relationship satisfaction.

In addition, I examined absolute difference scores. Absolute difference scores are essentially the relative difference scores with all negative values turned into positive values. By testing the absolute difference scores, I test predicted change in either direction, and focus my attention on magnitude of predicted change instead of direction of change. Absolute difference scores thus represent indices of *general change*. This analysis was not originally hypothesized but rather an outcome of statistical exploration. Results from Table 3 show significant correlations for both partner and self-appraisals for the absolute difference scores between present and future predictions with satisfaction and happiness. Specifically, for partner appraisals, present-future absolute different scores are significantly negatively correlated to relationship satisfaction, $r(44) = -.304, p < .05$ and personal happiness, $r(44) = -.355, p < .05$. For self-appraisals, present-future absolute different scores are also significantly negatively correlated to relationship satisfaction, $r(44) = -.418, p < .01$ and personal happiness, $r(44) = -.297, p < .05$. Negative correlations suggest that greater levels of perceived change in either

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direction are associated with diminished feelings of relationship satisfaction and personal happiness.⁶

Discussion

Study 1 was a first attempt at exploring *temporal relationship appraisal theory*. Results show that individuals do indeed perceive themselves - and their partner - as changing through time, particularly when looking towards the future. Results are consistent with work by Wilson and Ross (2001) in that individuals tend to derogate their past selves and view current and future selves as more favourable. However, I extended on this existing literature by using a simple change in wording. Rather than asking participants to rate themselves on characteristics through time, I specified that participants should consider themselves *within the context of their relationship*. This difference is important in that it specifies appraisal to the domain of relationships. Participants not only derogated their past selves (one year ago) from their current selves, but they too predicted that they would be even better versions of themselves within their relationship in the future (one year from *now*).

Study 1 presented preliminary evidence that people also tend to predict improved future selves for their partners. Some existing research (Ross & Wilson, 2003; Wilson & Ross, 2001) has provided evidence that it is less common to appraise others (e.g., peers or siblings) as improving or changing through time. Individuals are not motivated to make the same upwards

⁶ I also conducted two sets of bivariate correlations using first the relative difference scores and the absolute difference scores (for each person appraisal condition broken down by time intervals) and correlated these 12 cells with the implicit theory scales (personality and relationship) and the romantic beliefs scales (destiny and growth). Results showed no significant correlations between appraisal difference scores and any of my preselected moderators. To test for moderation in the relationship between appraisal time difference scores (at each level of person appraisal) and the outcome variables (relationship satisfaction and personal happiness), I conducted 48 interaction analyses using the implicit theory scales (personality and relationship) as moderators. I conducted an additional 48 interaction analyses using the relationship belief scales (destiny and growth) as moderators. Across these interactions, there were some significant results. There was, however, no pattern or consistency in the results that showed significance, suggesting these findings were likely due to chance rather than systematic group differences. It is unclear as to why none of these moderators were linked to differences in appraisal through time.

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trajectories for others as are seen in self-appraisals (as these appraisals induce positive affect). Perhaps then, an individual's *partner* may act as a unique individual in a person's life in which one does tend to see positive change or improvement through time. In addition, perhaps seeing this improvement is a motivated impulse to increase affect as does self-appraisals. In other words, improvement in one's partner may reflect overlap or feelings of self-improvement as well.

I then explored how perceived improvement (relative difference scores) or perceived change (absolute difference scores) were related to relationship satisfaction or personal happiness. Results showed that individuals who perceive their partner as improving through time do not feel any more or any less satisfied in their relationship, or happy in their own lives. However, perceiving the self as improving through time was correlated to relationship satisfaction. Results were mixed regarding the link between *general perceived change* and relationship satisfaction and happiness. Only change from the present to the future mattered (rather than past change) - and greater anticipated change in the self and in the partner was linked to less relationship satisfaction and less happiness. One possible explanation for this finding is that the absolute values used in this analysis measure magnitude of change in both directions of improvement and decline, and so greater change may include predicted decreases in ideal, positive traits.

In sum, this initial study suggests that individuals indeed perceive themselves within their relationship as changing through time (from past to present to future) in an upwards trajectory. In addition, participants show signs that they also predict their partner will improve from present to future. Moreover, this change - especially the anticipated change from the present to the future - appears to be related to important outcomes such as relationship satisfaction.

Study 2: Present and Future Self and Partner Appraisal with Landmarks

The purpose of Study 2 was to replicate and extend on Study 1's major findings. In this Study I included a visual representation of the time that was passing between the two appraisal time points. Study 2 focuses on self and partner current and future appraisals. I chose not to include past (one year ago) appraisals as a level of time because the change from past to present was less pronounced in Study 1 than the anticipated change from present to future, and because anticipated change was linked more strongly to relationship satisfaction and personal happiness than recalled change. As evidence in work by Caruso and colleagues (2008), future thinking may impact current behaviour and evaluations more greatly than past experience (despite past behaviour being a better predictor of future behaviour).

The visual representation of time included was operationalized through temporal landmark representation. Similarly to physical landmarks which can help structure physical representation of space, 'temporal landmarks' can structure perception of time, such that people may organize or categorize their lives into "chunks" separated by these markers (Peetz & Wilson, 2012). Past research exploring the influence of temporal landmarks on predicting future selves have found that making a landmark salient may better enable individuals to organize their time (Shum, 1998), regulate connections between temporal selves (Peetz & Wilson, 2013), and can have implications for identity and motivation (Peetz & Wilson, 2012). I thus included landmarks as an additional variable to amplify the main effect of change through time, expecting that a visual representation of temporal landmarks (or just a visual representation of the time passing between the present and an anticipated future point in time) might increase the steepness of perceived self-change or partner change over time. I chose to include pictures of calendars (with or without landmarks) in Study 2 as a possible way to amplify the appraisal differences through time.

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In light of past literature, and given the results from Study 1, hypotheses were slightly modified. I expected the following:

- (1) Replicating Study 1, participants will predict their future selves within their relationship to improve compared to their current selves and their partner's future selves to improve compared to their partner's current selves.
- (2) Individuals who are presented with the "landmark calendar" and are thus primed with temporal landmarks will perceive greater differences between present and future appraisals compared to individuals who see only a control calendar.
- (3) Individuals who predict that they or their partners will *improve* in the future will *not* experience changes in their relationship or happiness (replicating Study 1 findings).
- (4) Individuals who predict that they or their partners will *change* in the future will experience less happiness and satisfaction in their relationship (replicating Study 1 findings).

Method

Participants. One-hundred and seventy-six participants completed this study. Nine participants were excluded from analysis for incomplete data (less than 50% complete) and 12 were excluded from reporting that they were in a relationship for less than one year resulting in a final sample size of 154 (77 female, 76 males; $M_{\text{age}} = 31.82$, $SD = 10.65$; $M_{\text{relationshiplength}} = 79.98$ months, $SD = 96.87$). All participants were recruited from Amazon's Mechanical Turk and received \$0.50 US as compensation.

Procedure. Study 2 consisted of a two (landmark calendar versus control calendar) by two (self-appraisal versus partner appraisal) between subjects design. Participants made appraisals for

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two time points: present time and future time (one year from *now*), thus, the time variable was an additional within subject variable.

Participants were randomly assigned to either appraise themselves within their relationship or their partners within their relationship, as in Study 1. Participants were then randomly assigned to either view a 12 month landmark calendar or a control calendar. Upon viewing the calendar, participants appraised their future selves. Finally participants completed a satisfaction and happiness outcome measure⁷. Lastly, participants were presented with the debriefing form. Details of the measures follow (see Appendix B for a copy of the full questionnaire).

Demographics. Participants completed the following information: age⁸, gender, relationship status, relationship length, cohabitation with partner and children with partner.

Temporal appraisal adjectives. The same five adjectives that make up the *positive composite profile* (i.e., confident, talkative, intellectual, organized and playful) were once again included as part of the appraisal adjectives. These adjectives were randomized in a list of the same 10 adjectives used in Study 1. I once again computed the positive composite profile by averaging the 5 positive self-descriptors within each time level, resulting in two composite scores (one for past appraisal and one for current appraisal). Based on random assignment participants were once again instructed to appraise either themselves within their relationship or their partner using a 1 (*not at all characteristic*) to 7 (*very characteristic*) scale.

Landmarks. Two conditions were included: a landmark or a control condition. In the landmark condition, participants viewed a 12 month calendar including several important Holidays and weekends (highlighted in the image). Participants were also instructed to highlight

⁷ Once again, I included Dweck and colleagues' (1995) modified versions of entity vs incremental belief about personality and relationships scales.

⁸ Age significantly negatively correlated with absolute present-future difference scores, $r = -.24$, $p = .002$, suggesting that as participants get older, the less they predict themselves or their partner will change.

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and identify up to three important recurring days in the calendar (e.g., relationship anniversary, Birthdays, etc.). These landmarks were intended to create a segmented timeline for the future. In the control calendar condition, participants also viewed a 12 month calendar; however it did not contain any landmarks or highlighted days and, participants were not given the opportunity to add any personal landmarks to the calendar. This created a more continuous future timeline.

Outcome correlates. The same two face valid items as in Study 1 were included to assess relationship satisfaction and personal happiness. Once again, these variables were highly correlated, $r(154) = .667, p < .001$.

Results

Upwards appraisal trajectories from present to future. Our first hypothesis predicted that in replication of Study 1, participants will predict that their, or their partner's, future selves within their relationship will improve compared to current selves. I explore this hypothesis under two lenses: (1) within each level of person appraisal (i.e., self and other), and (2) in a two (self vs. other) by two (present vs. future) design.

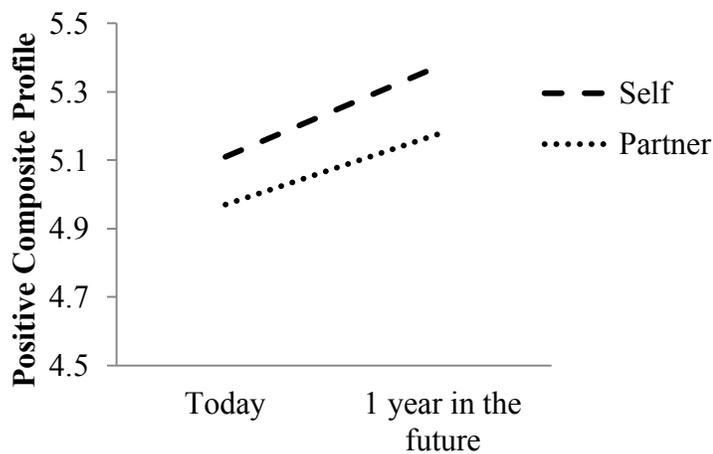
First, to examine whether participants make upwards appraisal trajectories from present to future, I conducted a dependent samples t-test for current versus future time appraisals at each level of person appraisal (self and partner). See Table 4 for descriptives and Figure 2 for a visual representation of results.

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Table 4

Descriptives for Adjective Ratings through Time for the Self and Partner

Adjectives		Self		Partner	
		Present	Future	Present	Future
Confident	<i>M</i>	5.68	5.88	5.28	5.55
	<i>SD</i>	1.11	1.24	1.15	1.04
Talkative	<i>M</i>	4.87	5.16	4.79	5.07
	<i>SD</i>	1.76	1.57	1.60	1.42
Intellectual	<i>M</i>	4.90	5.34	5.13	5.30
	<i>SD</i>	1.38	1.25	1.19	1.26
Organized	<i>M</i>	4.82	5.13	4.49	4.81
	<i>SD</i>	1.46	1.33	1.68	1.51
Playful	<i>M</i>	5.29	5.37	5.18	5.14
	<i>SD</i>	1.37	1.43	1.35	1.39
Positive Composite Profile	<i>M</i>	5.11	5.38	4.97	5.18
	<i>SD</i>	.91	.94	.77	.86

*Figure 2.* Self and Partner Positive Composite Profile Ratings through Time

Using values from the positive composite profile, results showed that when making self-appraisals, there was a significant increase from current to future ratings, $t(81) = -3.68, p < .001$. In addition, results showed that when making partner appraisals (using values from the positive composite profile), there was also a significant increase from current to future ratings, $t(69) = -3.48, p < .001$. These findings are consistent with results from Study 1, in which both self and partner ratings were more positive for future appraisals than for current appraisals.

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Second, I examined whether the slopes of participants' upwards appraisal trajectories from present to future differed. To test this, I conducted a 2 between-subject (target: self vs. partner) by 2 within-subject (time: present vs. future) ANOVA for the positive composite profile. There was a main effect of rating time, $F(1, 152) = 24.36, p < .001$, suggesting that the upward trajectory was significant overall. Results showed no significant interaction between the target and time, $F(1, 152) = .44, p = .507$, suggesting that the degree of improvement over time was not different for participants in the self and participants in the partner condition.

Temporal landmarks as amplifying upwards appraisal trajectories. Our second hypothesis predicted that individuals in the temporal landmark condition would perceive steeper differences between the current and the future appraisal than those in the control calendar condition. First, I examined whether participants make upwards appraisal trajectories from present to future within both calendar conditions regardless of the target of the appraisal (see Table 5 for Descriptives).

Table 5

Descriptives for Adjective Ratings through Time for the Control and Calendar Conditions

Adjectives		Calendar Condition		Control Condition	
		Present	Future	Present	Future
Confident	<i>M</i>	5.33	5.53	5.63	5.90
	<i>SD</i>	1.51	1.38	1.12	1.03
Talkative	<i>M</i>	4.79	5.03	4.82	5.20
	<i>SD</i>	1.74	1.55	1.69	1.45
Intellectual	<i>M</i>	4.83	5.18	5.18	5.44
	<i>SD</i>	1.34	1.27	1.25	1.23
Organized	<i>M</i>	4.40	4.76	4.91	5.20
	<i>SD</i>	1.63	1.37	1.48	1.44
Playful	<i>M</i>	5.28	5.18	5.24	5.33
	<i>SD</i>	1.38	1.38	1.34	1.44
Positive Composite Profile	<i>M</i>	4.93	5.14	5.16	5.42
	<i>SD</i>	.84	.89	.83	.90

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To test this, I conducted a paired samples t-test for current versus future time appraisals at each level of the calendar condition. Using values from the positive composite profile, results showed that when making appraisals when primed with a temporal landmark calendar, there was a significant increase from current to future ratings, $t(71) = 2.95, p < .001$. In addition, results showed that when making appraisals when primed with an unmarked calendar, there was also a significant increase from current to future ratings, $t(69) = 4.11, p < .001$. These results show evidence that future appraisals are higher regardless of the landmark condition.

Second, I examined whether the upwards appraisal trajectories from present to future differed by landmark condition. To test this, I conducted a repeated measures ANOVA in a 2 between-subject (landmark calendar vs. control calendar) by 2 within-subject (present vs. future ratings) design for the positive composite profile. Results showed no significant interaction between the landmark conditions and time, $F(1, 152) = .334, p = .564$. Thus, the anticipated upwards trajectory was similar for those viewing a control calendar and those viewing a landmark calendar.

Finally, I examined the full factorial model in a 2 between-subject (calendar condition: landmark vs. control) by 2 within-subject (rating time: present vs. future) by 2 between-subject (target: self vs. partner appraisal) design with the positive composite profile difference score as my dependent variable. A significant main effect of rating time, $F(1, 150) = 9.02, p = .003$ revealed an overall upward trajectory in ratings. There was, however, no significant effect of target condition, $F(1, 150) = .504, p = .479$, or calendar condition, $F(1, 150) = .261, p = .108$. None of the two way interactions were significant (rating time X target: $F(1, 150) = .139, p = .709$; rating time X calendar condition: $F(1, 150) = .214, p = .644$; target X calendar condition: $F(1, 150) = .363, p = .059$). Finally, the three-way interaction was not significant, $F(1, 150) =$

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.001, $p = .978$. These results suggest that regardless of whom participants appraised (self versus partner) and regardless of which calendar participants viewed, future appraisals are consistently higher than current appraisals.

Correlations with relationship outcomes. My last two hypotheses predicted that individuals who predict that they or their partners will *improve* in the future will *not* experience changes in their relationship or happiness *but* those who predict that they or their partners will *change* in the future will experience less happiness and satisfaction in their relationship. Because the type of calendar participants viewed did not affect self or partner appraisals, I collapsed across calendar condition in all further analyses. As in Study 1, I correlated both the relative and absolute difference scores with relationship satisfaction and personal happiness, at each level of person appraisal (i.e., self and partner). See Table 6 for correlation results. Absolute self-change significantly correlated with happiness, $r(69) = -.358, p < .001$, and absolute partner change correlated marginal with happiness, $r(69) = -.200, p = .095$. In other words, as in Study 1, anticipated change in the self or in the partner reduced participants' personal happiness. No other correlations were significant.⁹ Once again, predicting self or partner improvement was not associated with relationship satisfaction or happiness.

⁹ Once again, I conducted a moderation analysis of modified lay theory scales on the relationship between appraisal times. To test this, I correlated both the relative and absolute difference scores for both levels of person appraisal (self and partner) with each implicit theory (personality and relationship) and by testing interaction effects with time and the moderators on relationship satisfaction and happiness. Once again, I first focused my analysis on the person appraisal level, collapsing the landmark conditions within each level of appraisal (self and partner). Again, results showed no significant correlation between appraisal difference scores and the modified lay theory scales. Next, to test whether personality and relationship implicit theories were significant moderators in the relationship between time difference scores on the outcome variables of happiness and satisfaction I conducted eight interactions (to test both relative and absolute difference scores). Once again, there were no systematic significant moderations. In light of these results, I no longer pursue implicit theories as moderators in the relationship between differences in time appraisals and the outcome variables (happiness and satisfaction).

Table 6

Self and Partner Relative and Absolute Difference Scores correlated with Satisfaction and Happiness

Appraisal Level	Present-Future	N	Happiness	Relationship Satisfaction
Partner	Relative Difference Scores	71	.133	.166
Appraisal	Absolute Difference Scores	71	-.200 ^t	.170
Self-	Relative Difference Scores	83	-.039	.006
Appraisal	Absolute Difference Scores	83	-.358**	-.090

Note: ^t < .10, * = $p < .05$, ** = $p < .01$

Discussion

Consistent with findings from Study 1, Study 2 found that individuals predict improved versions of current selves when making future self-evaluations. The tendency to predict an improving upwards trajectory occurred for both self and partner appraisal. The visualization of time passing (i.e., the calendars) also demonstrates an upwards trajectory from present to future appraisals, even though it did not matter which type of calendar was presented.

Although past work has found that making a landmark salient through calendars may regulate connections between temporal selves (Peetz & Wilson, 2013), temporal landmarks did not show such an effect in the present study. One possible explanation for this null effect may be the research design. I implemented two conditions to either prime participants to break up future time (landmark calendar condition) or to see time as continuous and relatively 'blank' (control calendar condition). Although one calendar clearly breaks up time more than the other, perhaps the presence of the calendar by itself primed thoughts of time passing and events occurring over the next year. Calendars may symbolize dates and special occasions automatically for individuals, without the need to highlight these landmark days. In a sense then, both conditions

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had the potential to prime temporal landmarks. In sum, my original hypothesis that incorporating temporal landmarks would *amplify* the steepness of anticipated change was not supported and thus not included as a manipulation in future analysis.

Finally, I once again examined the relationship between relationship satisfaction and personal happiness with perceptions of change and perceptions of improvement. Similarly to Study 1, results were somewhat mixed, and across both studies, somewhat inconsistent. The one consistent finding across both studies was that as individuals perceive themselves or their partners as changing through time (whether it is for the better or the worse) they also experience a decrease in personal happiness. Recall that absolute difference scores represent a measure of change in either direction (improvement or worsening on the positive traits). It is then possible that the association between predicting future change and decreased happiness is due to individuals predicting they are "growing apart" as individuals, changing to be more different from their partner than they are now.

The inconsistency of the link between measures of change and happiness and satisfaction suggest that perceptions of change may benefit relationships in some situations, but not others. Whether or not the self changes or the partner changes might be only part of the story - what might matter more is how partners change *in relation* to one another. Both Study 1 and Study 2 had participants either rate their own change or their partner change. One avenue to better understand when change can encourage or discourage satisfaction and happiness might be to examine the *congruence and incongruence* in change between partners. The extent of change in the partner might be detrimental only if oneself stays the same, but perceived positively if the self changes likewise. These two different relationships could combine to show null effects of perceived partner change when assessed by itself rather than in relation to self change. The next

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set of studies examines whether self and partner change in relation to each other influence relationships.

Changing Focus: Congruence in Self and Partner Change through Time

Partners may not always change in the same ways which can impact relationship outcomes. For example, one partner may experience a self-transformation whereas the other feels as though they are still exactly the same. I thus designed the next three studies to explore the influence of congruence in self and partner change on relationship and personal outcomes. Although there is no research that specifically explores congruence or discrepancy in self or partner change on relationship outcomes, research has examined related relationship processes such as stability and growth (Knee, 1998). For example, research has examined how couples can balance both maintenance and enhancement in relationships simultaneously (Acitelli, 2001; Montgomery, 1993). That is, individuals involved in a romantic relationship have competing needs in which they seek stability from their partner, while also seeking growth and development. Several studies have considered how some types of change can lead to stability. For example, research has examined how perceptions in changing love and related affect in time contribute to feelings of stability and satisfaction (Sprecher, 1999; Sprecher & Metts, 1999).

Montgomery (1993) argues that achieving both of these relational goals (i.e., maintenance and enhancement) leads to successful, happy couples. Perhaps one such way in which couples can meet these needs is by experiencing change *together*. Rather than changing away from one another (*growing apart*) couples perhaps change in congruent ways (*growing together*) that satisfy enhancement needs as well as feelings of maintenance and stability. Alternatively, if one partner changes and the other does not, the need for maintenance may not be achieved. In addition, if both partners do not change, the need for enhancement may not be met, although

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stability may be more strongly achieved. In light of this distinction, I include measures to assess both needs (a relationship satisfaction scale and a measure of personal self-expansion, respectively).

Study 1 and 2 were limited by examining change for the self *or* the partner, in a between-subject design. To address this limitation, Study 3, 4 and 5 assess both perceived self-change and perceived partner change in a within-subject design as a means of comparing these constructs to each other. This design will allow me to assess perceptions of change congruence or change discrepancies. The purpose of Study 3 was an initial investigation into examining self and partner change in relation to one another. Study 4 further examined the effects of congruent or discrepant change by examining whether or not different domains (personality, health, work, social life, affect, and appearance) result in differences in strength of associations to outcome variables. Finally, as a last step, Study 5 manipulated congruence of change to test whether there is a causal relationship between anticipated change and relational and personal outcomes.

Study 3: General Perceptions of Congruence in Self and Partner Change through Time

Study 3 examined general perceptions of congruence or discrepancy of self-change and partner change through time. Specifically, I assessed whether anticipating incongruent change (such as higher difference scores between self and partner change) increases the likelihood of negative relationship and personal outcomes, such as dissatisfaction or feelings of unhappiness. Equally, I examined whether anticipating congruent change (such as smaller difference scores between self and partner change) increases happiness, satisfaction and relationship growth. I predicted that:

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- (1) Replicating Study 1 and 2, participants will predict their future selves within their relationship to improve compared to their current selves and their partner's future selves to improve compared to their partner's current selves.
- (2) Individuals who appraise themselves and their partners as changing congruently (i.e., in similar directions and extent) through time, will experience greater feelings of relationship satisfaction, personal happiness and self-expansion than those who predict incongruent change.
- (3) Individuals who appraise themselves and their partners as both staying the same through time, will experience greater feelings of relationship satisfaction, personal happiness and self-expansion than those who predict incongruent trends in change.

Method

Participants. One hundred and ninety-two participants completed this study. Nine participants were excluded from analysis for reporting that they were single and 20 participants were excluded for reporting that they were in a relationship for less than one year resulting in a final sample size of 163 (99 female, 63 males, one unidentified; $M_{\text{age}} = 38.62$, $SD = 12.59$; $M_{\text{relationshiplength}} = 146.62$ months, $SD = 127.15$). Approximately 70% of participants ($N = 113$) were married, 21% were dating ($N = 34$), 8% were engaged ($N = 13$) and 2% were cohabitating ($N = 3$). All participants were a community sample of North Americans recruited from CrowdFlower (a proxy for Mechanical Turk). Participants received \$0.50 US as compensation for the 10-minute study.

Procedure. Participants begun by completing demographic questions and then viewed an image of a calendar (a modified version of the calendars used in Study 2) to assist in visualizing

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the upcoming year. This image contained a year-long monthly calendar with major holidays and weekends highlighted. Participants then completed measures of current and future assessments for both themselves *and* their partner. Finally, participants completed outcome measures for relationship quality including the Relationship Assessment Scale (RAS; Hendrick, 1988); a single item for relationship satisfaction and relationship stability, and the Inclusion of Other in Self Scale (IOS; Aron, Aron, & Smollan, 1992); as well as items for personal happiness and individual growth and self-expansion (Lewandowski and Aron's (2002) Self-Expansion Questionnaire (SEQ)).

Demographics. Participants were asked basic demographic information about themselves. Items included age¹⁰, gender, relationship status, relationship length, cohabitation with partner and children with partner.

Assessment of change. Anticipated change was assessed in two ways. First, change was assessed *indirectly* via a similar procedure to Study 1 and 2. That is, participants once again completed the adjective rating task (i.e., rating *confident, talkative, intellectual, organized and playful*) for current and future (one year from now) assessments on a scale from 1 (*not at all characteristic*) to 7 (*very characteristic*). This time, however, participants completed these items for both themselves *and* their partner in a within-subjects design. Results from these items are used to test the congruency in self and partner predicted change using an *indirect* method. This method is described as an indirect approach because participants are simply rating themselves and their partner at two time points without explicitly being asked whether they think or feel they are experiencing change.

¹⁰ Age significantly negatively correlated with absolute present-future difference scores, $r = -.27, p < .001$, suggesting that as participants get older, the less they predict themselves or their partner will change. In addition, results suggest that as people get older, they are less likely to explicitly predict more change for themselves, $r = -.35, p < .001$, or for their partners, $r = -.35, p < .001$.

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Next, participants completed a *direct* measure of change testing their explicit perceptions of whether or not they predict to personally experience change in the future and whether or not they predict their partner will experience change in the future (one year from now). To measure direct change, participants responded to a 6-item scale ranging from 1 (*not at all*) to 7 (*very much*). As part of this measure, participants first rated (1) how much they think they will, in general, change as a person; (2) how much they think they will change within their relationship; and (3) how much they will change in their behaviour towards their partner, in a year from *now*. Participants then made these same change assessments for their partner. After each 'change question', participants rated the meaningfulness of this change using the same 1 (*not at all*) - 7 (*very much*) scale.

Finally, as a third direct measure of change, participants were given four choices, and asked to indicate which of the four options best represents their future. The four options included: 'both my partner and I will change'; 'I will change, but my partner will stay relatively the same'; 'my partner will change, but I will stay relatively the same'; 'both my partner and I will stay relatively the same'. I verified whether direct assessments of change correlated with the indirect assessments. A bivariate correlation showed that the direct change values (positive scores means greater predicted self change as compared to partner) significantly correlated with the indirect d-d score (with higher scores meaning greater self change), $r(162) = .152, p = .04$. In addition, the general change values (higher scores means greater predicted discrepant change from self or partner) significantly correlated with the indirect general d-d score, $r(162) = .261, p < .001$. These significant correlations suggest that, although measured differently, the IVs are measuring a similar construct.

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Outcome correlates. To assess the impact of change we included measures examining relationship outcomes and personal outcomes. For relational outcome measures, I assessed relationship quality, satisfaction, stability and closeness. Relationship quality was measured using the Relationship Assessment Scale (RAS; Hendrick, 1988). This is a 7-item scale ranging from 1 (*low*) to 5 (*high*) measuring seven aspects of relationship quality (e.g., loving feelings, relationship problems, meeting needs, etc.). The wording of this scale was modified to assess current feelings of relationship quality, rather than general perceptions (modified by adding 'right now' or 'in this moment' to the original statements).

In addition, relationship satisfaction and relationship stability were assessed as part of this measure. That is, one item from the RAS (Hendrick, 1988) measures relationship satisfaction specifically: "In general, how satisfied are you with your relationship at the moment?" I also included one additional item to the scale measuring perceptions of relationship stability: "How stable (feels consistent through time) is your relationship right now?" This item was included as a means to assess Montgomery's (1993) relationship goal of maintenance. This scale thus becomes an 8-item measure.

Relationship closeness was also assessed by using the Inclusion of Other in Self Scale (IOS; Aron et al., 1992). The IOS scale is a single-item, pictorial measure of closeness. Participants were instructed to select one of 7 images with increasingly overlapping circles (representations of the self and partner) to indicate their current feelings of connectedness and closeness with their partner. Participants were instructed to make this assessment twice: for current feelings of relationship closeness and for predicted future feelings of closeness. The IOS scale was included as it indicates perceptions of personal involvement between relational partners. The measures of relationship outcomes were included in this study as a means of

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understanding how predicting congruence or incongruence in self and partner change can ultimately affect how content partners feel within their relationship.

For personal outcome measures, I assessed happiness and perceptions of self-expansion. As a measure of personal happiness, I included the same, single item question used in Study 1 and 2 as it is a face valid measure of *in the moment* happiness. In addition, I included a measure of predicted future happiness. I also included Lewandowski and Aron's (2002) Self-Expansion Questionnaire (SEQ). The SEQ is a 14-item scale ranging from 1 (*not very much*) to 7 (*very much*) which acts as a unifactorial measure of experienced self-expansion in close relationships (sample item: How much do you see your partner as a way to expand your own capabilities?). Self-expansion research has strongly argued the value of partners continuing to grow and experience novel opportunities with one another to function against relational issues such as boredom (Aron & Aron, 1996). The SEQ was included as a measure of growth for two reasons: first as an assessment of personal development and second as a measure of Montgomery's (1993) second relational need of growth. Perhaps perceiving differential change would influence feelings of self-expansion. The personal outcome measures were included in this study as a means of understanding how predicting congruence or incongruence in self and partner change can ultimately affect personal well-being and development. All relational outcome measures were significantly related to one another, r 's $>.460$, all p 's $< .001$. Also, all personal outcome measures were significantly related to one another, r 's $>.643$, all p 's $< .001$. Finally, together, all outcome variables were significantly related to one another, r 's $>.433$, all p 's $< .001$.

Results

Replication of previous work. First, I tested whether findings from Study 1 and 2 (predicted self and partner improvement) replicated using my indirect measure of change

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(positive composite profile adjective appraisals). I once again expected participants to make upwards appraisal trajectories from present to future for both themselves and their partners. I examined whether the slopes of participants' upwards appraisal trajectories from present to future differed. To test this, I conducted a 2 (target: self vs. partner) by 2 (time: present vs. future) within-subjects ANOVA for the positive composite profile. Note that in Study 1 and 2 target condition was a between-subject variable. There was a main effect of rating time, $F(1, 161) = 11.10, p < .001$, suggesting that the upward trajectory was significant overall. Results however showed no main effect of target, $F(1, 161) = .14, p = .713$, and no significant interaction between target and time, $F(1, 161) = 2.51, p = .115$, replicating the finding that the degree of improvement over time was not different for participants in the self and participants in the partner condition.

Indirect assessments of change. Next, to address hypothesis 2 and 3, I examined whether congruency (hypothesis 2) or incongruency (hypothesis 3) in self and partner change was related to various relational and personal outcomes. I explore this first using the values from the indirect measures (positive composite profile) and second using the values from the direct measures (questionnaire and categorical responses).

Computing indicators of change. Indirect congruence in change was tested using two values. First, I computed a value that measured the relative change in the self compared to the change in the partner – with higher scores meaning greater perceived change for the self than the partner. To compute this value, I computed difference scores of the present-future difference score (d-d scores) by subtracting the absolute difference score for self-change from the absolute difference score for partner-change. The following three outcomes were possible: d-d score is zero (partners change equally), d-d score is positive (the self changes more than partner), d-d

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score is negative (the partner changes more than self). This score will be labelled as: indirect d-d score.

Second, I computed a value that measured self and partner change compared to each other with higher scores meaning greater self change *or* greater partner change – essentially representing general divergence in change. To compute this value I simply removed any directionality of the d-d score by taking the absolute value of all d-d scores, thus representing overall change differences between partners (without specifying which partner is changing more). The following two outcomes were possible: general d-d score is zero (no difference in change between partners) and general d-d score is positive (partners are changing differently, with higher values representing greater discrepant change). This score will be labelled as: indirect general d-d score¹¹.

Correlations with relational and personal outcomes. Using bivariate correlation, I tested the relationship between the indirect d-d scores as well as the indirect general d-d scores with the relationship and personal outcome measures. Please refer to Table 7 for correlations. As can be seen in the table, there is only one significant correlation – the indirect d-d scores were significantly negatively correlated to current feelings of relationship closeness, $r(151) = -.179, p = .027$. In addition, the indirect d-d scores were marginally negatively correlated to relationship satisfaction, $r(162) = -.144, p = .054$. These findings suggest that when participants rate themselves as changing more than their partner in the future, they currently feel less close to their partner and less satisfied in their relationship. All other correlations were not significant.

¹¹ I did not include relative d-d scores (which measures self and partner improvement compared to each other with higher scores indicating greater perceived self-improvement compared to partner) in this analysis as (1) results from Study 1 and 2 showed greatest effects on dependent outcomes when considering change rather than improvement, (2) interpreting these values became quite complex, and (3) results showed no relationship between these values and the outcome measures.

Table 7

Correlations of Indirect and General Indirect Difference-Difference Scores with Outcome Variables

Outcome Variables	Indirect d-d scores	Indirect general d-d scores
Relationship Quality (RAS)	-.019	-.061
Relationship Satisfaction	-.144 ^t	.025
Relationship Stability	-.073	-.012
Relationship Closeness	-.179*	-.008
Personal Happiness	-.075	.008
Personal Future Happiness	.004	-.034
Personal Self-Expansion	.019	.064

Note.^t = $p < .10$ (marginal significance), * = $p < .05$

Direct assessments of change. I next considered the direct assessment data in my analysis. The direct assessment data was made up of essentially three values: a *direct change value*, a *direct general change value*, and a self-ascribed *categorical change value*. To compute the first two values, I first computed a self-assessment score and a partner-assessment score. These assessment scores were made up of participant's ratings on general perceptions of self-change (single item from questionnaire) as well as a general perceptions of partner change score (single item from questionnaire). Using these assessment values, I computed a relative *direct change value* (computed by subtracting partner change from self change), where zero indicates equal change, a positive value indicates the self changes more than partner, and a negative value

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indicates the partner changes more than self. Or, in other words, the direct change value is the directly assessed version of the indirect d-d score (correlation with indirect d-d score, $r(162) = .152, p = .04$).

I also computed a *direct general change value* by taking the absolute value of the direct change value). Here, higher scores meaning greater perceived self *or* partner change – essentially representing greater predicted discrepant self-partner change. The direct general change value is the directly assessed version of the indirect general d-d score (correlation with indirect general d-d score, $r(162) = .261, p < .001$).

Finally, the *categorical change value* was made up of four options: both partners change, self changes, partner changes, both partners stay the same. Participants self-selected into which option they felt best fit the future of themselves and their partner (in one year from now).

Correlations with relational and personal outcomes. I conducted bivariate correlation to test the relationship between the direct change value and the direct general change values with the relationship and personal outcome measures. Please refer to Table 8 for correlations. First, consider the direct change value correlations (higher scores represent greater predicted self change than partner). As demonstrated in Table 8, direct change was significantly positively correlated to relationship quality, stability, future happiness, self-expansion, and marginally positively correlated to relationship satisfaction, $r_s > .127, p_s < .10$. These findings suggest that as participants explicitly predict greater change than their partner in the future, they experience greater relationship quality, stability, satisfaction, happiness and growth.

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Table 8

Correlations of Relational and Personal Outcomes with Direct Values

Outcome Variables	Direct Change	Direct General Change
Relationship Quality (RAS)	.160*	-.210**
Relationship Satisfaction	.127 ^t	-.279**
Relationship Stability	.149*	-.199**
Relationship Closeness	.040	-.119
Relationship Future Closeness	-.006	-.029
Personal Happiness	.115	-.217**
Personal Future Happiness	.199**	-.187*
Personal Self-Expansion	.166*	-.125 ^t

Note. ^t = $p < .10$ (marginal significance), * = $p < .05$, ** = $p < .01$

Second, I examined the direct general change correlations (higher values represent greater predicted discrepant change between partners). As demonstrated in Table 8, general change was significantly negatively correlated to relationship quality, satisfaction, stability, current and future happiness, and marginally to self-expansion, $r_s > -.125$, $p_s < .10$. These findings suggest that as participants explicitly predict greater divergent change from their partner (either they or their partner are changing at a different rate from themselves), they experience decreased relationship quality, satisfaction, stability, happiness and growth.

Finally, consider the self-selected categorical change values. Although participants were given the choice between four options for predicted future self and partner change, we aggregated the responses into three categories: self and partner change differently¹², self and partner change similarly, self and partner stay the same (see Table 9 for means by option).

¹² I created this category out of the “self will change but partner will stay the same” and “self will stay the same but partner will change” options because (1) the N s were very small for each options ($N = 17$, $N = 8$, respectively), and (2) these options did not significantly differ from one another for the correlations with the outcome variables.

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Table 9

Descriptives for Relational and Personal Outcomes by Self-Categorized Assessment of Change

Outcome Variables		Self and Partner Congruent Change <i>N</i> = 60	Self and Partner Incongruent Change <i>N</i> = 25	Self and Partner Stay the Same <i>N</i> = 77
Relationship Quality (RAS)	<i>M</i>	3.68	3.19	4.10
	<i>SD</i>	.88	.55	.69
Relationship Satisfaction	<i>M</i>	3.88	3.52	4.17
	<i>SD</i>	1.09	1.09	.83
Relationship Stability	<i>M</i>	4.08	3.64	4.46
	<i>SD</i>	1.04	1.15	.66
Relationship Closeness	<i>M</i>	5.16	3.91	5.79
	<i>SD</i>	1.86	1.67	1.27
Relationship Future Closeness	<i>M</i>	5.65	4.48	5.88
	<i>SD</i>	1.82	1.83	1.23
Personal Happiness	<i>M</i>	4.08	3.64	4.46
	<i>SD</i>	1.04	1.15	.66
Personal Future Happiness	<i>M</i>	5.37	4.60	5.73
	<i>SD</i>	1.56	1.71	1.13
Personal Self-Expansion	<i>M</i>	5.29	4.67	5.08
	<i>SD</i>	1.29	1.45	1.04

To analyze the differences between participants' chosen categorical choices, I conducted eight one-way between-subjects ANOVAs to assess whether there were significant differences between the options (see table 10 for significance testing). Results showed that all outcome variables, with the exception of self-expansion, showed between-group differences, $F_s > 5.68$, $p_s < .01$. To investigate the differences between the options, I conducted the following contrasts: (1) discrepant change versus congruent change, (2) discrepant change versus staying the same, and (3) congruent change versus staying the same. These contrasts were determined a priori. Table 10 shows results from these contrasts.

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Table 10

Self-Categorized Assessment Omnibus and Contrasts by Relational and Personal Outcomes

Outcome Variables	<i>df</i>	<i>F</i>	Contrast 1 discrepant change vs. congruent change	Contrast 2 discrepant change vs. staying the same	Contrast 3 congruent change vs. staying the same
Relationship Quality	159	15.33**	2.76**	-5.30**	-3.26**
Relationship Satisfaction	159	8.50**	.16	-2.89**	-1.70 ^t
Relationship Stability	157	15.33**	2.07*	-3.95**	-2.41*
Relationship Closeness	137	12.09**	3.12**	-4.88**	-2.17*
Relationship Future Closeness	149	7.16**	3.04**	-3.76**	-.81
Personal Happiness	159	6.20**	2.30*	-3.5**	-1.50
Personal Future Happiness	159	5.68**	3.23*	-3.02**	.43
Personal Self-Expansion	158	2.24	-	-	-

Note. * $p < .05$, ** $p < .01$

First, predicting congruent self and partner change was associated with greater relationship quality, stability, current and future closeness, and current and future happiness than predicting discrepant change, $ts > 2.07, ps < .05$. Second, predicting that the self and partner will stay the same in the upcoming year was associated with greater relationship quality, satisfaction, stability, current and future closeness, and current and future happiness than predicting discrepant change, $ts > -2.89, ps < .01$. Third, predicting that the self and partner will stay the same was associated with greater relationship quality, stability, and current closeness than predicting congruent change, $ts > -2.17, ps < .05$.

Discussion

In Study 3 I examined whether or not *congruence in predicted self and partner change* affects relationship and personal outcomes. To test this, participants rated self and partner change

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in two ways: with indirect adjective ratings and by directly responding to self-reported questionnaires. Results were largely consistent with predictions.

Consistent with Study 1 and 2, participants predicted that both they and their partners would improve in the next year. Second, I examined the outcomes of change congruency via indirect and direct measures of change. The indirect adjective ratings were least linked to outcomes. Predicting one's future self to change more than one's partner future self using these five characteristics was only related to relationship closeness and satisfaction. The adjective ratings may not have been an adequate measure of assessing congruency in self and partner change. Although these adjectives are intended to represent changes in personality, they are limited in the sense that they only measure five, specific traits. In addition, the question led participants to only consider these traits in regard to their current relationship. This becomes a very limited measure of possible self or partner change. For these reasons, future studies did not use this measure and instead use more direct measures of change.

I also examined change congruency via a more direct, explicit self-report measure. Participants were simply asked to rate how much they predict themselves to change and their partners to change. This was more linked to relationship and personal outcomes. Individuals who predicted greater self change than their partner in the future on this direct measure experienced greater relationship quality, stability, satisfaction, happiness and growth. This is interesting given these results show a different pattern from the indirect measure of adjective ratings. It is possible that the indirect adjective rating and the general change self report questions are measuring different constructs, despite being correlated. Although related to one another, one set of variables measure specific changes in five traits by comparing present and future time points, while the other measures general predicted feelings of change for future time. In addition,

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individuals who predicted that they are changing at a different rate from their partner (regardless of who is changing more) experienced decreased relationship quality, satisfaction, stability, happiness and growth. This is consistent with predictions and suggests that experiencing change may not be negative towards relationships, unless relationship partner are experiencing *discrepant* change.

Finally, I examined change congruency via a self-selected category (self and partner change differently, self and partner change similarly, self and partner stay the same). Compared to expecting discrepant change, choosing the category denoting 'similar change between one's self and one's partner' was associated with greater relationship quality, stability, current and future closeness, and current and future happiness. Compared to expecting discrepant change, choosing the category denoting that 'self and partner will stay the same' in the upcoming year was also associated with greater relationship quality, satisfaction, stability, current and future closeness, and current and future happiness. Indeed, predicting that the self and partner will stay the same was associated with greater relationship quality, stability, and current closeness than predicting congruent change. These results support hypotheses 2 and 3.

Considering the direct self-report ratings are face valid items and demonstrated more promising findings than rating personality traits, I continued using this method of direct assessment in subsequent studies. One potential limitation, however, to the direct measures is that they measures highly *general* perceptions of change. Although interesting, general perceptions of change may be, for lack of a better word, too general and unspecific. To find a middle-ground between the excessive focus of examining only five traits and the over-general assessment of unspecified global change, I next examined change within specific *domains*, that is, different areas of individuals' lives. Not only may it be easier to think of concrete ways in

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which one's self or one's partner may change within specific domains, but it may also inform researchers and the public alike as to where incongruent or congruent change matters most (i.e., produces negative (or positive) relationship outcomes).

Study 4: Incongruence in Domains of Change

While Study 3 found that perceiving the self as *generally* changing differently from one's partner leads to decreased relationship quality, Study 4 attempts to examine the effects of change within specific domains. Just as life satisfaction may be measured within different domains (e.g., work, family, friends, health, etc.; Diener Emmons, Larsen, and Griffin, 1985), so can the concept of change. Study 4 had two main goals. First, I planned to uncover which domain affects relational and personal outcomes most strongly (and where people tend to be discrepant versus congruent). Second, I aimed to build on previous studies by examining more concrete measures of change as compared to the general assessments in Study 3, but in addition, not as overly specific as the adjective assessments.

Congruence in self and partner change was examined using the following domains: personality, work/school, health, emotions, social life and appearance. These domains were selected as they were thought to potentially influence relationship outcomes. For example, personality was selected as a domain as research has examined the interplay of different personality types in association with relationship quality (e.g., Nettle & Shaver, 2006; Robins, Caspi, & Moffitt, 2000) suggesting that certain constellations of personality types or similarities in personality traits may lead to more effective relationships. Thus predicting differences (in change) in personality traits may affect relationship outcomes measures. Health was selected as a domain as research demonstrates that both physical and mental health can affect relationship adjustment (Braithwaite et al., 2010) and in turn, relationships can affect health (Berry &

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Worthington Jr, 2001). Work and school was selected as there is a large body of research examining the work-life interface and how they mutually influence the success of each other (Lewis, Gambles, & Rapoport, 2007; Watson, Buchanan, Campbell, & Briggs, 2003). Emotions were selected as a domain because an individual's affect can directly influence their relationships (Scinta, & Gable, 2007). Social life was selected as a domain as one's social network can affect the development and processes of one's romantic relationship (Sprecher & Felmlee, 1992). Finally, appearance was included as a domain. Although there is no known published literature examining the effects of changing appearance on relationship quality, there is research to indicate that initial attraction is a key element in romantic relationships (e.g., Critelli & Waid, 1980), and that changes in body image can affect personal evaluations (Larouche & Chin-Peuckert, 2006).

In general, these domains were selected as they represent influential factors in an individual's life that may directly or indirectly influence their romantic relationship. In addition, each of these domains can be affected by the passage of time. Finally, each domain allows for the possibility that one partner may experience change within said domain, whereas the other may not. This allows for testing congruence or incongruence in change. I predicted that:

- (1) In replication of Study 3, individuals who predict they themselves and their partners will experience congruent change (i.e., both changing or both staying the same) within any of the domains, will experience better relationship and personal outcomes than those who predict discrepant trends in change.
- (2) Domains will differ in the magnitude in which congruence or incongruence in change influences relationship and personal outcomes.

Method

Participants. One hundred and sixty-four participants completed this study. Two participants were excluded from analysis for reporting that they were single and 26 participants were excluded for incomplete responses (missing more than 50% of their data) resulting in a final sample size of 136 (79 female, 57 male; $M_{\text{age}} = 37.96$, $SD = 12.20$; $M_{\text{relationshiplength}} = 121.10$ months, $SD = 124.71$). Approximately 50% of participants ($N = 69$) were married, 8% were engaged ($N = 11$), 37.5% were dating ($N = 51$), and 3.7% reported other ($N = 5$; e.g., domestic partnership, living together). All participants were a community sample of North Americans recruited from CrowdFlower. Participants received \$0.50 US as compensation for the 10-minute study.

Procedure. Participants were recruited through a notice on CrowdFlower to participate in a study that examines the influence of time and events on relationship appraisal. Participants began the study by completing demographic questions and then viewed an image of a calendar (as in Study 3) to assist in visualizing the upcoming year. Participants then completed *direct* measures of change for six domains (personality, health, work/school, emotion, social life and appearance). Finally, participants completed the same outcome measures as Study 3 as well as one additional relationship outcome measure assessing couple identity (Stanley & Markman, 1992; see Appendix D for complete survey materials).

Demographics. Once again, participants were asked basic demographic information about themselves. Items included age¹³, gender, relationship status, relationship length, cohabitation with partner and children with partner.

¹³ Age did not correlate with any of the change difference scores by domain or across domain, $r_s < .08$, $p_s > .346$.

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Measurement of change. Building on the procedure used in Study 3, I tested congruence in self and partner change by further developing the face valid, self-report measures of predicted change. However, rather than measuring *general* change, participants recorded their expected change for five different domains (work/school; health; personality; emotions; appearance; social life). Participants would initially read a description of how they, or their partner, may experience change within a domain, with examples of what aspects may change in that domain. The following is an example of what participants read for the domain of social life:

Consider your own social life and your partner's social life – and how it may change or stay the same in the upcoming year. Changes in social life may include: joining new activities (clubs, team sports), gaining a new social group, changing groups of friends, losing old friends, changing hobbies, etc. Alternatively, you or your partner may not experience any change in social life. Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

Upon reading this type of description for each domain, participants rated how much they feel their and their partner's [work/school; health; personality; emotions; appearance; social life] will change between *now* and *one year from now* using a scale from 1 (*not at all*) to 7 (*very much*). They also rated the meaningfulness of this predicted change. In addition, participants once again were given four choices, and asked to choose the option best representing the future of themselves and their partner. The four options included: 'both my partner and I will change'; 'I will change, but my partner will stay relatively the same'; 'my partner will change, but I will stay relatively the same'; 'both my partner and I will stay relatively the same', as in Study 3.

Outcome variables. The same relational and personal outcome variables used in Study 3 were included in the current study. That is, relationship quality (RAS; Hendrick, 1988), current satisfaction (single item), current relationship stability (single item), current and future closeness (IOS; Aron et al., 1992), self-expansion (Lewandowski & Aron, 2002) and current and future happiness (single item each) were measured. In addition, to measure relational outcomes of congruent couple change, I included a measure of couple identity (Stanley & Markman, 1992). This six item scale assesses an "us" or couple identity (e.g., "I like to think of my partner and me more in terms of "us/we" than "me" and "him/her"") on scales from 1 (*completely disagree*) to 7 (*completely agree*). All relational outcome measures were significantly related to one another, r 's $>.367$, all p 's $<.001$. Also, all personal outcome measures were significantly related to one another, r 's $>.652$, all p 's $<.001$. Finally, together, all outcome variables were significantly related to one another, r 's $>.312$, all p 's $<.001$.

Results

I once again computed change indicators via difference scores of participants' ratings of self change and partner change. I computed *direct change values* and *direct general change values* as in Study 3, for each of the domains. Recall that direct change values suggest that participants predicted they would experience greater change in said domain than their partner in the upcoming year. Direct general change values, on the other hand, suggest that participants predict general incongruent change (with higher values meaning more discrepancy) in the upcoming year.

In bivariate correlations I tested the relationship between *direct change values* and the *direct general change values* with the relationship and personal outcome measures in each domain. Please refer to Table 11 for correlations. For ease of presentation, I will limit my

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interpretation of results to general trends and discuss these further in the discussion section of this study.

Which representation of change was most associated with changes in outcome measures? Across the correlation values seen in Table 11, it is clear that as discrepant change increases, relational and personal outcomes (quality, satisfaction, stability, closeness, identity and happiness) tend to decrease. The direct general change values were associated more strongly with outcome values than the direct change values.

Which outcome variable was most associated with discrepancies in change? A simple count of statistically significant correlations would suggest current feelings of relational closeness to be most affected by domain change. This, however, is not a valid statistical assessment but rather a visual observation. In other words, there does not appear to be a single outcome measure that is most strongly affected or influenced by discrepant relationship change.

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Table 11

Relational and Personal Outcomes with Domain Change Values Correlations

Outcome Variables	Personality		Health		Work		Social Life		Emotions		Appearance	
	SCV	GCV	SCV	GCV	SCV	GCV	SCV	GCV	SCV	GCV	SCV	GCV
Quality	-.114	-.199*	.028	.049	.002	-.026	-.158 ^t	-.164 ^t	-.046	-.077	-.058	-.040
Satisfaction	-.094	-.222**	-.021	.050	-.015	-.107	-.115	-.162 ^t	-.087	-.093	-.109	-.077
Stability	-.090	-.143 ^t	-.007	-.019	-.098	.007	-.142 ^t	-.164 ^t	-.142 ^t	-.012	-.059	.034
Current Closeness	-.162 ^t	-.169 ^t	-.111	-.166 ^t	-.070	.025	-.176 ^t	-.269**	-.008	-.040	.042	-.064
Future Closeness	-.105	-.157 ^t	.037	-.103	.017	.087	-.180*	-.207*	.030	-.024	.127	.032
Couple Identity	-.104	-.043	.026	.090	-.024	.234**	-.156 ^t	-.203*	.042	.034	.085	.070
Current Happiness	-.085	-.209*	-.002	-.004	-.015	.008	-.168 ^t	-.172*	-.059	-.111	-.072	.026
Future Happiness	-.022	-.067	.108	.077	.016	.049	-.036	-.034	.016	-.051	-.029	.099
Self-Expansion	-.099	-.039	-.111	-.063	-.038	-.001	-.063	-.023	-.046	-.063	-.114	-.005

Note.

*CV = Self Change Values (higher values represent greater predicted self change over partner)**GCV = General Change Values (higher scores represent greater predicted discrepant change)*^t = *p* < .10 (marginal significance)* = *p* < .05** = *p* < .01

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Table 12

Descriptives for Self-Categorized Change Values by Domain and Outcome Values and One-Way Between-Groups ANOVA Results

Outcome Variables	Personality				Health				Work				Social Life				Emotions				Appearance			
	IC	CC	SS	F	IC	CC	SS	F	IC	CC	SS	F	IC	CC	SS	F	IC	CC	SS	F	IC	CC	SS	F
Quality	3.71 (.95)	3.77 (.92)	3.97 (.83)	8.36 **	3.79 (.93)	3.66 (.97)	4.03 (.77)	2.3 3	3.69 (.94)	3.75 (.92)	4.01 (.78)	2.3 9	3.51 (1.10)	3.69 (.93)	4.07 (.70)	5.2 0	3.51 (1.10)	3.69 (.93)	4.07 (.70)	5.8 8	3.71 (.95)	3.77 (.92)	3.96 (.83)	1.15
Satisfaction	3.79 (1.2)	3.94 (1.22)	4.09 (.99)	10.0 2 **	3.86 (1.18)	3.79 (1.22)	4.19 (.95)	1.9 3	3.73 (1.18)	3.92 (1.20)	4.25 (.91)	2.9 3	3.46 (1.32)	3.84 (1.3)	4.25 (.79)	5.9 3 **	3.46 (1.32)	3.84 (1.3)	4.25 (.79)	4.1 3 *	3.79 (1.2)	3.94 (1.22)	4.09 (.99)	.83
Stability	4.03 (.97)	4.08 (.97)	4.02 (1.01)	2.39 t	3.83 (1.06)	4.14 (1.00)	4.09 (.92)	1.0 9	3.88 (1.08)	4.17 (1.0)	4.10 (.87)	1.0 6	3.57 (1.35)	4.05 (.97)	4.21 (.75)	4.4 7 *	3.57 (1.35)	4.05 (.97)	4.21 (.75)	2.9 1 t	4.03 (.97)	4.08 (.97)	4.02 (1.02)	.06
Current Closeness	4.67 (1.87)	4.76 (2.17)	4.93 (1.88)	3.5 9 *	4.65 (2.14)	4.65 (2.14)	5.04 (1.81)	.59 3	4.57 (2.11)	4.72 (2.12)	5.13 (1.61)	1.0 3	3.80 (2.18)	4.61 (1.2)	5.30 (1.65)	6.2 1 **	3.80 (2.18)	4.61 (2.0)	5.30 (1.65)	1.8 6	4.67 (1.87)	4.76 (2.17)	4.93 (1.88)	.22
Future Closeness	5.03 (1.79)	4.91 (2.07)	5.19 (1.86)	1.81	5.09 (1.96)	4.56 (2.09)	5.44 (1.62)	2.5 2	5.09 (1.92)	4.94 (2.08)	5.17 (1.75)	.14	4.28 (2.17)	4.89 (2.1)	5.47 (1.58)	4.0 7 *	4.28 (2.17)	4.89 (2.07)	5.47 (1.58)	1.7 1	5.03 (1.79)	4.91 (2.07)	5.19 (1.86)	.26
Couple Identity	5.26 (1.14)	5.08 (1.30)	4.95 (1.23)	1.84	5.13 (1.44)	4.98 (1.20)	5.08 (1.21)	.15	5.24 (1.31)	4.81 (1.21)	5.06 (1.22)	4.2 7 *	4.64 (1.34)	4.99 (1.14)	5.27 (1.19)	2.7 4 t	4.64 (1.34)	4.99 (1.14)	5.27 (1.19)	.83 4	5.25 (1.14)	5.08 (1.30)	4.95 (1.24)	.73
Current Happiness	5.24 (1.33)	5.36 (1.82)	5.39 (1.32)	4.96 **	5.08 (1.61)	5.43 (1.55)	5.45 (1.3)	.79	5.15 (1.56)	5.25 (1.66)	5.60 (1.92)	1.2 9	4.79 (1.97)	5.30 (1.58)	5.59 (1.08)	3.1 8 *	4.79 (1.97)	5.30 (1.58)	5.59 (1.08)	3.2 1 *	5.24 (1.33)	5.36 (1.82)	5.39 (1.32)	.13
Future Happiness	5.76 (.89)	5.86 (1.38)	5.51 (1.23)	.69	5.64 (1.27)	5.86 (1.1)	5.54 (1.23)	.84	5.58 (1.18)	5.72 (2.12)	5.13 (1.61)	.18 0	5.61 (1.34)	5.70 (1.37)	5.67 (1.05)	.05 1	5.61 (1.34)	5.70 (1.37)	5.67 (1.05)	.08	5.76 (.89)	5.86 (1.38)	5.51 (1.97)	1.17
Self-Expansion	4.74 (1.08)	5.22 (1.48)	4.89 (1.3)	.329	4.66 (1.43)	5.04 (1.34)	4.93 (1.21)	.82	4.82 (1.26)	5.10 (1.51)	4.81 (1.21)	.62 0	4.74 (1.73)	4.93 (1.33)	4.93 (1.1)	.24	4.74 (1.74)	4.93 (1.34)	4.93 (1.10)	.54 2	4.74 (1.08)	5.22 (1.48)	4.79 (1.31)	1.60

Note: Value represents mean and value in brackets represents standard deviations

IC = Incongruent Change, CC = Congruent Change, SS = Staying the same

t = $p < .10$ (marginal significance), * = $p < .05$, ** = $p < .01$

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Next I examined the *categorical change values* – as in Study 3 I aggregated the responses into three categories: self and partner change differently (incongruent change; IC), self and partner change similarly (congruent change; CC), self and partner stays the same (SS). To test the differences between domains, I conducted a 6 (domain; within-subjects) X 3 (self-categorized change; between-subjects) ANOVA on all outcome variables. This analysis was performed using the change per domain as the unit of analysis (rather than the participant). That is, the analyses are performed on a sample of $N = 816$ (136 participants x 6 domains each). Please refer to Table 12 for means of relational and personal outcomes as well as ANOVA results by category selection across all domains.

There was no significant interaction between domain and change category any of the relationship outcomes, $F_s < .96, p_s > .476$, or personal outcomes, $F_s < .56, p_s > .846$. In addition, there was no main effect of domain on any of the relationship outcomes, $F_s < .64, p_s > .669$, or personal outcomes, $F_s < .35, p_s > .881$. In other words, domains did not significantly differ from one another in the effect that changing in one domain had on relationship or personal outcomes.

However, main effects of self-assigned category of change were significant. Specifically, there was a main effect of change category on relationship quality $F(2, 731) = 23.81, p < .001$; satisfaction, $F(2, 731) = 24.19, p < .001$; stability, $F(2, 731) = 13.72, p < .000$; current closeness, $F(2, 731) = 9.94, p < .000$; future closeness, $F(2, 731) = 6.77, p = .001$; current happiness, $F(2, 731) = 13.86, p < .001$; and marginally for self-expansion, $F(2, 731) = 2.88, p = .057$. There was no main effect of category of change on couple identity or future happiness ($p = .217$ and $p = .207$, respectively)¹⁴. Please refer to Table 13 for means of relational and personal outcomes by general category selection (collapsed across all domains).

¹⁴ Because predicted change in each domain were not independent (each participants made six judgments), we also conducted a mixed model design accounting for the within-participant variation (diagonal covariance). The pattern of results was unchanged for the effect of expected change on outcomes.

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Table 13

Descriptives for General Self-Categorized Change Values

	Incongruent Change	Congruent Change	Staying the Same
Quality	3.61 (.98)	3.77 (.94)	4.11 (.74)
Satisfaction	3.64 (1.22)	3.89 (1.82)	4.26 (.86)
Stability	3.79 (1.11)	4.18 (.93)	4.09 (.94)
Current Closeness	4.43 (2.07)	4.60 (2.02)	5.12 (1.76)
Future Closeness	4.87 (1.99)	4.73 (2.05)	5.37 (1.73)
Couple Identity	5.01(1.31)	5.06 (1.18)	5.17 (1.23)
Current Happiness	4.96 (1.58)	5.31 (1.63)	5.61 (1.19)
Future Happiness	5.59 (1.06)	5.81 (1.12)	5.73 (1.06)
Self-Expansion	4.70 (1.33)	5.02 (1.50)	4.93 (1.16)

Note: Value represents mean and value in brackets represents standard deviations

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Table 14

Self-Categorized Assessment Contrasts by Relational and Personal Outcomes t-values

Outcome Variables	<i>df</i>	<i>F</i>	Contrast 1 discrepant change vs. congruent change	Contrast 2 discrepant change vs. staying the same	Contrast 3 congruent change vs. staying the same
Relationship Quality	2, 813	21.52**	.36	-5.50**	-5.23**
Satisfaction	2, 813	20.89**	1.09	-5.80**	-4.64**
Stability	2, 813	7.67**	2.86**	-3.84**	-.59
Current Closeness	2, 729	9.64**	.89	-4.04**	-2.96**
Future Closeness	2, 765	6.99**	-.65	-2.62**	-3.40**
Current Happiness	2, 813	9.94**	1.72 ^t	-4.34**	-2.42*

Note. ^t = $p < .10$ (marginal significance), * = $p < .05$, ** = $p < .01$

Finally, using the categories of change values collapsed across domains (see Table 14), I conducted a series of contrasts for each outcome variable: (1) discrepant change versus congruent change, (2) discrepant change versus staying the same, and (3) congruent change versus staying the same. These contrasts were determined a priori. First, predicting congruent self and partner change was associated with greater relationship stability, and marginally greater current happiness as compared to those who predict future discrepant change, $ts > 1.72$, $ps < .10$. Second, predicting that the self and partner will stay the same in the upcoming year was associated with greater relationship quality, satisfaction, stability, current and future closeness, and current happiness as compared to predicting discrepant change, $ts > -2.62$, $ps < .01$. Finally, predicting that the self and partner will stay the same in the upcoming year was associated with greater relationship quality, satisfaction, current and future closeness, and current happiness as compared to predicting congruent self and partner change, $ts > -2.42$, $ps < .05$.

Discussion

To extend on findings from Study 3, Study 4 examined whether the effects of discrepant change on relational and personal outcomes *differ by domains* (i.e., personality health, work, affect, social life and appearance). To test this, participants predicted the congruency of their own change and of their partner's change in the next year in six domains. The change congruency and relational outcomes link found in Study 3 for unspecified change did not replicate in all of the domains for all of the measures of change. However, it was apparent that predicting the self to change more than one's partner *or* predicting greater discrepant change from one's partner in the direct self-reported scale of change, was associated with worse outcomes in many (but not all) relational and personal outcome variables. However, these associations were not always significant for each domain, or for each outcome variable. Similarly, the categorical assessment of expected change showed that expecting incongruent change was associated with the lowest relational and personal benefits as compared to changing congruently or staying the same in almost all domains and for almost all variables.

Another purpose of Study 4 was to examine whether domains differ in the magnitude in which change congruence influences outcome variables. Although visually examining the differences between domains would suggest some domains (i.e., personality, social life, emotions) were more effective than others (i.e., work, health, appearance), an omnibus test examining the differences across domains turned up non-significant. Although I could have tested contrasts to examine the visually apparent differences between two domains (e.g., social life versus appearance), these contrasts would have been ad hoc and thus not align with common practice of further testing a non-significant omnibus. In sum, hypothesis 2 could not fully be confirmed, and I conclude that there is no specific domain in which change congruence matters particularly – however, it seems that unspecific general change (as assessed in Study 3) was most predictive of outcomes.

Study 5: Manipulating Congruence and Incongruence in Change

Up until this point, the assessment of congruence or incongruence in change, and its associations with relationship and personal outcomes has been limited to correlational research. I thus manipulate congruence in change to test whether or not there is a causal effect of change on outcomes. Rather than further exploring differences between domains of change, I return to examining *general change* (which has more consistently effective results). However, I draw on some of the domains (e.g., personality, social life) from Study 4 in providing written examples of how individuals may change differently *or* consistently with their partner as part of the instructions used in Study 5.

Study 5 extends on findings from Study 3 and 4 by *manipulating* congruence in change. Is there a causal relationship between perceiving congruent vs. discrepant change in one's relationship and relational outcomes? In this final study I manipulate perception of congruence in self and partner change and examine relationship outcomes (i.e., quality, satisfaction, stability, closeness and couple identity) as well as personal benefits (i.e., happiness). Participants were randomly assigned to one of three conditions in which they were either primed to expect discrepant change in the next year, congruent change, or no change (no difference). I predict that results will be in line with correlational findings from Study 3 and 4. Specifically, I predict that:

- 1) Participants primed to predict congruent change with their partner will have better relationship and personal outcomes than participants primed to predict discrepant change.
- 2) Participants primed to predict that they and their partner will stay the same in the upcoming year will have better relationship and personal outcomes than participants primed to predict discrepant change or congruent change.

Method

Participants. One hundred and forty-seven participants completed this study. Three participants were excluded from analysis for reporting that they were single and 19 participants were excluded for incomplete responses (missing more than 50% of their data) resulting in a final sample size of 125 (83 female, 41 male, 1 unknown; $M_{\text{age}} = 38.07$, $SD = 12.23$; $M_{\text{relationshiplength}} = 134.42$ months, $SD = 139.32$). Approximately 53% of participants ($N = 66$) were married, 10% were engaged ($N = 13$), 33% were dating ($N = 41$), and 4% reported other ($N = 5$; e.g., domestic partnership, living together). All participants were a community sample of North Americans recruited from CrowdFlower. Participants received \$0.50 US as compensation for the 10-minute study.

Procedure. Participants were recruited through a notice on CrowdFlower to participate in a study that examines the effect of future time on how future relationship scenarios are evaluated. Participants began the study by completing demographic questions and then viewed an image of a calendar (as in Study 3 and 4) to assist in visualizing the upcoming year. Participants were then randomly assigned to one of three primes: self and partner discrepant change; self and partner congruent change; *or*, self and partner stay the same.¹⁵ Finally, participants completed similar outcome measures to Study 3 and 4 including: two measures of relationship quality (modified Quality of Relationship Scale (QRS), Fletcher, Simpson, & Thomas, 2000; and the Relationship Assessment Scale (RAS), Hendrick, 1988); relationship satisfaction; relationship stability; the Inclusion of Other in Self Scale (IOS; Aron, Aron, & Smollan, 1992); and current and future personal happiness¹⁶.

¹⁵ We assessed three additional conditions that examine retrospective change in the past year. For sake of brevity, these conditions will not be discussed here.

¹⁶ In addition, I once again included the two modified versions of Dweck and colleagues' (1995) implicit theory questionnaire to assess individuals' personality and relationship lay theories (taken from Study 1 and 2). However, once again, results were not moderated by these scales, nor were they predictive of differences in relationship or personal outcomes, nor were they different as a function of prime.

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Demographics. Participants were asked basic demographic information about themselves. Items included age¹⁷, gender, relationship status, relationship length, cohabitation with partner and children with partner.

Manipulating change. Participants were randomly assigned to one of three conditions. Participants in the self and partner congruent change condition were instructed to describe or provide an example of how both they and their partner may undergo change in the upcoming year. Participants in the self and partner ‘stay the same’ condition were instructed to describe or provide an example of how both they and their partner will stay the same in the upcoming year. Finally, participants in the self and partner discrepant change condition were instructed to describe or provide an example in which either they, or their partner, will change, while the other does not, in the upcoming year. All sets of instructions provided specific examples of how individuals may change (drawing on the domains from Study 4) or stay the same – depending on condition. The following is an example of instructions that participants in the self and partner ‘stay the same’ condition read:

“Think about yourself this upcoming year. It is common for people to stay relatively consistent from one year to the next. For example, people may stay the same in emotional style (e.g., being a patient person, remaining even-tempered), stay the same in their personality (e.g., remaining an anxious person, be a home-body). People’s social lives can also remain consistent through time (e.g., remaining in the same job, with the same colleagues, keeping old friendships). Just as you may stay relatively the same and do not change, so may your partner.

¹⁷ I did not correlate age with any of the change values in Study 5 as random assignment theoretically should randomize participants’ ages in all three of the conditions.

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Now, please describe, or provide an example, in which you feel as though both you and your partner will not change (in the upcoming year).”

Upon writing the instructed example, participants completed a manipulation check asking them to select one of five options that best describes the description they just wrote. This allowed me to verify whether the manipulation was effective. The five options were:

- a. *Both my partner and I will change in similar directions.*
- b. *Both my partner and I will change in different directions.*
- c. *I will change, but my partner will stay relatively the same.*
- d. *My partner will change, but I will stay relatively the same.*
- e. *Both my partner and I will stay relatively the same.*

Outcome variables. First, relationship quality was once again assessed using the RAS (Hendrick, 1988). Second, relationship quality was assessed using a modified version of Fletcher and colleagues' (2002) Quality of Relationship Scale. This scale assesses relationship quality along six dimensions including satisfaction, commitment, intimacy, trust, passion and love. The modified version had participants rate their current and future relationship on each dimension using a 1 (*not at all*) to 7 (*extremely*) scale. Example items include: “How passionate is your relationship?” “How intimate do you feel towards your partner?”

The following items from Study 3, relationship stability, relationship closeness (IOS; Aron et al., 1992), couple identity (Stanley & Markman, 1992) and current and future happiness (single item each) were once again included. Future relationship closeness and self-expansion (Lewandowski & Aron, 2002) were removed from the current study given they were not associated with congruent/discrepant change in Study 3 and 4 (and to maintain length of the

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questionnaires as a result of added measures). All dependent variable intercorrelations were significantly related to one another at the $p < .001$, all r 's $> .387$.

Results

Manipulation check. I first wanted to examine whether my prime was effective. That is, did the instructions and writing prime participants to think about the future of their relationship differently (i.e., both partners changing, both partners staying the same, or one partner changing)? I recoded the options of the manipulation check to create three categories (to better fit the conditions). The three recoded categories consisted of: changing similarly (category 1), changing differently (category 2, 3, 4) and staying the same (category 5).

A chi-square test showed a significant relationship between condition and the three categories chosen in the manipulation check, $\chi^2(4, N = 125) = 14.47, p = .006$ (see Table 15 for percentages within condition by category). As can be seen in the cells of Table 15, the 'self and partner both changing' primed condition was most effective in having participants self-categorize as changing similarly (at 59%). The 'both partners stay the same' prime condition was also partially successful with 50% of participants correctly self-categorizing. Finally, the 'one partner changes' primed condition was less successful, with approximately only one third of participants self-categorizing as changing differently. Results examining the hypotheses should be taken with caution, as the prime only appears to be partially effective.

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Table 15

Category by Condition Chi-Square Test of Independence

Condition	Self Categorization		
	Change Similarly	Change Differently	Stay the Same
Self and Partner both Change	24 (58.8%)	8 (19.5%)	9 (14.1%)
Only One Partner Changes	15 (37.5%)	13 (32.5%)	12 (30%)
Both Partners Stay the Same	19 (43.2%)	3 (6.8%)	22 (50%)

Note. % displayed is within condition.

Link with outcome variables. I conducted several one-way between-groups ANOVAs with condition as independent variable and all relationship and personal outcome variables as dependent variables (see table 16 for descriptive analyses). The ANOVAs were followed by pre-planned contrasts comparing congruent and discrepant change (contrast 1), congruent change and no change (contrast 2), and discrepant change and no change (contrast 3).

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Table 16

Outcomes by Condition Descriptives and Contrasts

Outcome Variables	Descriptives by Condition			Between-Subjects One-way ANOVA and Contrasts			
	Discrepant Change	Congruent Change	Staying the Same	<i>F</i>	Contrast 1: Congruent vs. Discrepant Change	Contrast 2: Congruent vs. No Change	Contrast 3: Discrepant vs. No Change
RAS (Relationship Quality)	3.94 (.79)	3.76 (1.01)	3.9 (.71)	.528	-.96	-.81	-.17
Stability	4.20 (.82)	4.02 (1.04)	4.20 (.93)	50	-.85	-.89	.02
Current Closeness	5.05 (1.93)	4.84 (1.75)	5.88 (1.49)	4.02*	-.53	-2.78**	-2.67*
Couple Identity	5.28 (1.23)	5.05 (1.36)	5.31 (1.25)	.54	-.83	-.96	.11
Current Happiness	5.63 (1.28)	5.38 (1.66)	5.89 (1.19)	1.44	-.76	-1.61	.97
Future Happiness	5.78 (1.17)	5.80 (1.59)	5.89 (1.28)	.079	.08	-.29	.38
Current QRS (Relationship Quality)	5.65 (1.17)	5.64 (1.34)	6.02 (.88)	1.57	-.06	-1.55	1.49
Current Satisfaction	5.50 (1.36)	5.33 (1.46)	5.82 (1.19)	1.49	-.59	-1.69 ^t	1.09
Current Commitment	6.25 (1.08)	6.20 (1.18)	6.41 (.82)	.48	-.22	-.93	.71

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Current Intimacy	5.03 (1.73)	5.20 (1.95)	5.86 (1.27)	2.93 ^t	.42	-1.82 ^t	2.50*
Current Trust	6.15 (1.12)	5.85 (1.53)	6.44 (.83)	2.59 ^t	-1.00	-2.16*	1.34
Current Passion	5.00 (1.74)	5.05 (1.83)	5.43 (1.49)	.84	.13	-1.04	1.18
Current Love	5.98 (1.44)	6.18 (1.34)	6.16 (1.24)	.30	.67	.05	.63
Future QRS (Relationship Quality)	5.76 (1.07)	5.84 (1.35)	6.13 (1.12)	1.27	.31	1.19	1.50
Future Satisfaction	5.55 (1.34)	5.73 (1.45)	5.93 (1.20)	.87	.59	-.71	1.32
Future Commitment	6.28 (1.04)	6.33 (1.16)	6.43 (.95)	.25	.21	-.47	.68
Future Intimacy	5.25 (1.60)	5.43 (1.78)	5.98 (1.32)	2.40 ^t	.50	-1.59	2.09*
Future Trust	6.20 (1.07)	6.00 (1.43)	6.53 (.74)	2.46 ^t	-.70	-2.07*	1.65
Future Passion	5.25 (1.46)	5.33 (1.75)	5.64 (1.53)	.71	.21	-.90	1.12
Future Love	6.05 (1.36)	6.20 (1.45)	6.23 (1.24)	.21	.50	-.09	.60

Note. ^t = $p < .10$ (marginal significance), * = $p < .05$, ** = $p < .01$

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As seen in Table 16, condition significantly affected only current feelings of couple closeness, $F(2, 114) = 4.02, p = .021$, with partners primed to think about no changes in the future ($M = 5.88, SD = 1.49$) experiencing greater closeness than those primed to change with their partner ($M = 5.88, SD = 1.49$), $t(114) = -2.67, p = .009$, or differently from their partner ($M = 5.88, SD = 1.49$), $t(114) = 2.13, p = .036$. There were also four marginally significant F-tests, with condition marginally affecting current and future intimacy and current and future trust, $F_s < 2.93, p_s > .06$.

In light of this limitation, I decided to re-run the analysis using the self-categorization. While this variable was originally included as a manipulation check, it does provide useful information on what type of change participants actually anticipated in their relationships. See Table 17 for descriptive analyses.

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Table 17

Outcomes by Recoded Self-Categorized Future Change Descriptives and Contrasts

Outcome Variables	Descriptives by Category			Between-Subjects One-way ANOVA and Contrasts			
	Discrepant Change	Congruent Change	Saying the Same	<i>F</i>	Contrast 1: Congruent vs. Discrepant Change	Contrast 2: Congruent vs. No Change	Contrast 3: Discrepant vs. No Change
RAS	3.27	4.06	3.93	8.58**	4.09**	.83	3.24**
(Relationship Quality)	(.93)	(.66)	(.87)				
Stability	3.58	4.29	4.26	5.83**	3.26**	.21	2.94**
	(1.06)	(.82)	(.90)				
Current Closeness	4.32	5.56	5.41	4.25*	2.84**	.39	2.41*
	(1.81)	(1.50)	(1.77)				
Couple Identity	4.50	5.47	5.27	5.37**	3.26**	.82	2.46*
	(1.38)	(1.07)	(1.34)				
Current Happiness	4.54	6.00	5.76	11.24**	4.07**	.94	3.04**
	(1.64)	(.97)	(1.43)				
Future Happiness	4.71	6.28	5.83	13.99**	4.36**	1.86 ^t	2.79**
	(1.68)	(.81)	(1.34)				
Current QRS	4.81	6.05	5.95				
(Relationship Quality)	(1.39)	(.93)	(1.11)	12.75**	4.09**	.51	3.43**
Current Satisfaction	4.46	5.79	5.86	11.79**	4.45**	-.26	4.43**
	(1.47)	(1.02)	(1.35)				
Current Commitment	5.71	6.41	6.45	5.13**	2.93**	-.19	2.93**
	(1.40)	(.82)	(.94)				

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Current Intimacy	4.17 (1.88)	5.75 (1.30)	5.55 (1.77)	8.77**	4.10**	.64	3.39**
Current Trust	5.46 (1.69)	6.38 (.93)	6.26 (1.06)	5.55**	2.50*	.55	2.10*
Current Passion	3.83 (1.76)	5.48 (1.38)	5.50 (1.67)	10.92**	4.36**	-.06	4.18**
Current Love	5.25 (1.65)	6.48 (.88)	6.07 (1.44)	8.16**	3.46**	1.64	2.04*
Future QRS (Relationship Quality)	4.94 (1.44)	6.28 (.68)	5.98 (1.10)	15.04**	4.09**	1.59	3.05**
Future Satisfaction	4.54 (1.59)	6.14 (.89)	5.88 (1.29)	15.71**	4.64**	1.11	3.52**
Future Commitment	5.75 (1.42)	6.53 (.80)	6.43 (.99)	5.34**	3.20**	.52	2.63**
Future Intimacy	4.42 (1.91)	6.07 (1.01)	5.52 (1.71)	10.54**	4.01**	1.85 ^t	2.35*
Future Trust	5.50 (1.56)	6.53 (.81)	6.33 (.98)	8.11**	3.05**	1.04	2.36*
Future Passion	4.13 (1.70)	5.81 (1.18)	5.60 (1.64)	11.92**	4.43**	.73	3.42**
Future Love	5.29 (1.81)	6.57 (.75)	6.10 (1.45)	8.78**	3.35**	1.94 ^t	1.87 ^t

Note. ^t = $p < .10$ (marginal significance), * = $p < .05$, ** = $p < .01$

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I conducted several one-way between-subjects ANOVAs to test the differences between categorization on all outcome variables. There were significant differences for all relational and personal outcome variables (see Table 17 for F values). Following up on these omnibus tests, contrasts compared congruent and discrepant change (contrast 1), congruent change and no change (contrast 2), and discrepant change and no change (contrast 3).

Across all outcome variables, results consistently show the same pattern: predicting a congruently changing future with one's partner was linked with better current and future relationship quality, increased couple closeness and stability, and greater current and future happiness as compared to predicting a discrepantly changing future from one's partner, $t_s > 2.50$, $p_s > .05$. Similarly, predicting no change for the self and the partner was linked with better current and future relationship quality; increased couple closeness and stability; and greater current and future happiness as compared to predicting a discrepantly changing future from one's partner, $t_s > 2.04$, $p_s > .05$. Finally, congruent change or not changing at all did not differ in terms of outcomes, $t_s < 1.94$, $p_s < .10$, suggesting that it is not change per se but incongruent (i.e., discrepant) change that spells trouble for relationships.

Discussion

The current study was the first attempt at exploring whether or not there is a causal relationship between predicting congruent or discrepant change on relationship and personal outcomes. Correlational results (Study 3-4) suggested an association between predicting a congruent future with one's partner and positive relationship and personal outcomes; however, it was equally likely that currently having positive attitudes towards one's relationship and experiencing happiness causes individuals to predict more congruent futures. In Study 5, I primed participants with congruent change, discrepant change or no change, followed by the outcome variables.

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Results, however, were inconclusive. That is, examining the between-group differences for primed conditions on outcomes were, for the most part, not significant (with the exception of closeness to the partner as the single affected outcome variable). These non-significant findings may be indicative of two possibilities. First, it is possible that there is simply no causal effect of change on positive relationship and personal outcomes. Second, it is possible that my prime was not strong enough, or instructions were not clear to participants. This is perhaps more likely given the results from the manipulation check: less than half of participants followed instructions and identified a category in line with the prime. Although I could have only maintained participants who properly followed instructions and correctly identified the correct prime category, this option was not feasible given the sample size.

Thus, to examine whether participants perception of change was linked to outcome variables in a similar manner as in previous studies, I examined the self-categorization item as predictor variable. Although this re-purposing of a manipulation check may seem problematic at first, it is important to consider that participants selected a category that best represented their description of their future relationship with their partner based on the instructions they read. Thus, it is entirely possible that the self-selected category is a better indicator of the type of prime participants experienced than the previously determined conditions. This seemed to be the case given the results. Results showed that predicting a congruent future with one's partner (either both partners change in similar directions or both partners stay the same) led to improved current and future relationship appraisals (including closeness, satisfaction, stability, etc.) as well improved personal benefits such as happiness as compared to predicting discrepantly changing selves.

This finding is important for two reasons. First, these results suggest that predicting congruent change with one's partner not only is linked to future relationship benefits (as evidenced in predicting happier future selves or better quality future relationships) but *current*

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benefits as well. That is, predicting congruency leads to better current appraisals of one's relationship. Future research is needed to better prime these categories of change and to replicate current findings.

General Discussion

In Study 1, results demonstrated that individuals both see themselves, and their partners, as improving in the future, with anticipated change being associated with decreased relationship satisfaction and happiness. Study 2 replicated these findings; however predicting change was only negatively linked to happiness. Study 3 examined congruence or discrepancy in self and partner change, showing that predicting a more congruent future with one's partner (both partners staying the same or both changing) is associated with increased positive personal (happiness and self-expansion) and relationship (quality, satisfaction, stability, closeness) outcomes. Study 4 attempted to replicate Study 3 findings within specific domains; however, results were inconsistent across domains and outcome variables suggesting that general incongruence in change is more predictive of negative outcomes. Finally, Study 5 failed to manipulate congruency in change, however, correlational results once again supported Study 3 findings suggesting that predicting a congruent future with one's partner is linked to more current and anticipated relationship outcomes.

The current research project set out to assess how individuals appraise aspects of their current relationships as a function of time. Specifically, I wanted to examine whether predicting change in one's self, as well as change in one's partner, was associated with any relational or personal outcomes. In order to do this, I first drew on temporal self-appraisal theory (Ross & Wilson, 2001) to examine whether or not individuals have the tendency to perceive the same upward trajectory in appraisals for their partners as they do for themselves. The first piece of evidence emerged in Study 1, and was replicated in Study 2 suggesting that people indeed predict that their partners will change (specifically, improve) in the future. There was also some limited

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evidence that change in the self or change in the partner (but not improvement) were linked with relational satisfaction. However, Study 1 and 2 could not speak to whether perceived change of the self *in relation to the partner* were associated with any relational (relationship quality) or personal (happiness) outcomes.

To address this question, the next set of studies assessed perceived change in a within subject design, where participants predicted self *and* partner change. A fairly consistent image emerged. Predicting that the self and partner may change differently was linked to less relationship benefits (lower relationship quality, stability and closeness) as compared to predicting no change or both partners changing similarly. This finding first emerged in Study 3 when making general predictions of change for one's self and partner. Study 4 re-examined these findings assessing change within specific domains (personality, health, social life, work, emotions and appearance). Finally, this recurring finding became clearer as congruency and discrepancy in change was more refined in measurement (Study 5).

Limitations

These findings are not without limitations. First, across all five studies, only online samples were used. Although research has suggested that samples such as Mechanical Turk and Crowdfunder typically engage participants who are genuinely interested in being research participants (Buhrmester, Kwang, & Gosling, 2011), it is possible that the increasing popularity of such samples has created a saturated sample of participants familiar with research paradigms and less engaged in research primes. It is difficult (near impossible) to assess how seriously participants considered the primes or instructions – which is ultimately a limitation to all self-report data. This was particularly an issue for Study 5 in which I first attempted to establish a causal link between the variables of interest. For this reason, there is potential measurement error across all five studies.

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Second, results were not perfectly consistent across studies. Although the initial limitations of Study 1 and 2 were reconciled by examining perceptions of change for both the self *and* partner to examine the effects of congruent change on relationship and personal outcomes – findings were still not consistent from Study 3 to 5. However, it appears as though the inconsistency was an issue of measurement. That is, measuring congruency in change was not as effective when using more indirect measures (e.g., trait adjective ratings) as was using more direct, face valid measures (e.g., general change in Study 3). Thus, findings were not replicating across different measures.

What remained more consistent, however, was the direction of the findings – that is, predicting a congruent future with one's partner led to better outcomes than predicting a discrepant future. Interestingly, one discrepancy that emerged in Study 5 as compared to Study 3 and 4 was the difference between congruently changing selves versus congruently staying the same. Recall that in Study 3 and 4, predicting that the self and the partner will not change in the future, but rather stay the same with time, was consistently associated with higher relationship quality and personal benefits – even compared to experiencing congruent change with one's partner. However, in Study 5, there were no differences between staying the same and changing congruently. It is possible that Study 5 is the first of the three studies to properly assess congruently changing selves. That is, it is possible that Study 3 and 4 measured congruency in change by including two types of change: “we both change similarly” and “we both change, but in different directions”. In Study 5, however, this distinction was made clearer by dividing the original category in Study 3 and 4 (“both my partner and I will change”) into two categories (“both my partner and I will change in similar directions”; “both my partner and I will change in different directions”). These results suggest that change may not hurt the relationship, as long as partners are changing in the same direction.

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Finally, an initial attempt to manipulate perceived change (Study 5) was only partially successful. Perhaps instructions for the perceived change prime were too long, confusing or not specific enough for participants. Or, predicting a situation in which one partner will change while the other stays the same may be a cognitive challenge that is too difficult for participants. Indeed, some research suggests that thinking about similarities with one's partner may come more naturally than thinking of differences (Drigotas et al., 1999). An alternative technique may be to ask participants to simply think of a time when they felt they were *changing in a different way* from their partner. Or, one could ask participants to think of changes they will go through in the upcoming year that are unique to only them.

Future Directions

Considering the limitations to the current project, as well as the novelty of this research, several future directions are proposed. First, it may be interesting to revisit Study 1 findings in which participants predicted that their partners will improve with time, but did not perceive any changes from past to present. It is possible that individuals predicted that their romantic partners would improve in the future due to positively held romantic illusions (Murray, Holmes, & Griffin, 1996a). That is, research has suggested that individuals perceive their imperfect partners in idealized ways (Murray, Holmes, & Griffin, 1996b) rather than holding realistic perceptions that may be better recognized by peers (Murray et al., 1996a). Individuals tend to appraise their partners in such a way that reflect their relationship ideals and mirror their self-appraisals as well (Murray et al., 1996a) – this is particularly the case for those in satisfying relationships. These findings are also not limited to North American samples, but spans Asian and European cultures as well (Endo, Heine, & Lehman, 2000). Holding these idealistic beliefs also have positive long-term consequences with research suggesting that spouses who hold idealized beliefs about their partner are less likely to suffer declines in love through time (Miller, Niehuis, & Huston, 2006). Although this research may explain why participants predicted improved futures for their

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partners similarly to predicting improved future selves – it is unclear why these positive illusions did not hold true for past appraisals in Study 1.

Future research could examine perceived trajectories through time more fully (i.e., at several time points), assess whether this finding can be replicated and subsequently explore why this discrepancy emerges. If past behaviour is the best predictor of future behaviour, then why do individuals disregard this information when making predictions for their partner's future improvement? Are there any positive outcomes for current relationship satisfaction when predicting that one's partner will get better with time – for example, are there changes in personal behaviour? Are there any potential negative outcomes, such that individuals are disappointed or feel neglected when improvements do not occur? Not everyone is always happy about change attempts (Hui, Bond, & Molden, 2012), especially when they do not anticipate change as part of their trajectory. What moderates (e.g., lay theories) the potential for positive or negative outcomes? Questions such as these would be informative to not only the temporal self-appraisal literature but research on romantic relationships more generally.

In light of findings from Study 3-5, future research could also examine different specific aspects of anticipating change, such as: rate, magnitude, direction, importance, how related the change is to the relationship, and so forth. Given the novelty of this research, I took a very broad approach to examining the effects of change on relationships. In the present studies, I mainly focused on examining general perceptions of change, without specifying or distinguishing additional qualifiers. However, incorporating factors such as rate, direction and magnitude may provide richer, more insightful information into understanding why predicting the self and partner as changing may affect relationship outcomes or personal outcomes.

Finally, future research should implement a longitudinal study design to better examine the *actual* outcomes of predicting congruent or discrepant change. For example, participants could record these self and partner appraisals at time one, as well as assess their current and

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predicted feelings of relationship quality and personal satisfaction. Then, researchers could follow up on these predictions six months and/or one year later to assess whether these predictions were accurate and what are longitudinal outcomes of the relationship (who progresses, who falls behind, and who breaks up) for those who make congruent versus discrepant future self-partner appraisals.

Theoretical Implications

The current study informs the literature in two domains – temporal self appraisal theory and romantic relationships. The current project suggests that individuals can make both self and partner future appraisals – in fact, these self and partner appraisals both seem to share the same bias in that individuals predict greater improvement for the self and the partner with time. This is informative, as past literature has had less success in demonstrating that individuals make biased predictions for others (e.g., acquaintances and siblings, Wilson & Ross, 2001).

Theoretical developments have been advanced for the romantic relationship literature as well. *Is perceiving change good for relationships?* Existing literature has responded to portions of this question. For example, researchers have examined how perceptions of love change as a function of time (Sprecher & Metts, 1999). Research has also explored the effects of developing similarity with one's partner (the Michelangelo effect, Drigotas, et al., 1999). This line of research suggests that partners may promote one another's ideal selves by changing as a reflection of one's partners' traits. In other words, increasing similarity to one's partner may lead to feelings of reaching one's ideal self, ultimately improving relationship quality (Rusbult, Kumashiro, Kubacka, & Finkel, 2009) and personal well-being (Drigotas, 2002). The current study, however, suggests a unique response to this question by considering change as a function of context and the two people involved in the relationship. In short, yes, change can be good, but only if change is in line with one's partner. However, remaining the same (i.e., perceiving or anticipating no change) can be just as good, if not better, possibly because staying the same

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satisfies relationships' fundamental need of security. In addition, these findings are consistent with Montgomery's (1993) theoretical paper suggesting that partners can feel secure in their relationship while growing - if that growth is congruent and in similar direction as one's partner.

Practical Implications

One practical contribution from the current project relates to the contradictory aphorism debate of whether "birds of a feather flock together" or "opposites attract". Although there has been research to support both claims (e.g., similarity is best, McPherson, Smith-Lovin, & Cook, 2001; differences are better, Gattis, Berns, Simpson, & Christensen, 2004; Shiota & Levenson, 2007) the current study would lean towards the former claim. That is, perceiving similarity in change (or perceiving no change at all) may lead to better relationship outcomes.

There are also two main practical implications from the current research, for both those who are currently in relationships or those looking to start a relationship. For those currently involved in a romantic relationship, these studies would suggest that partners should focus more on similarities rather than differences. Given that the self is dynamic, and that people may experience change or stay the same in a variety of life domains – the key to relationship success may be to focus on what remains unchanged in one's partner (or what is changing similarly to one's self). Focusing on how one's partner may be changing in a discrepant manner or undergoing transformations that differ from one's self may lead to relationship issues ("growing apart"). On the other hand, focusing on similarities – that is, how one's partner and self change in the same ways or alternatively how certain circumstances may still be the same can be a tool used to strengthen the relationship.

For those currently seeking a partner, the current project would suggest seeking or selecting a mate with a similar trajectory to one's self. For example, if the single individual predicts few life transitions in their future (already have a secure job, social network and developed personality based on life experiences) then perhaps s/he should seek a mate in a

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similar situation, rather than, for example, a young student seeking new social circles and temporary employment. Similarly, an individual anticipating imminent change in their life circumstances, may be better off with others who will also be experiencing such change.

Conclusion

What happens when one partner perceives him or herself as changing, but not his or her partner? What effect does perceiving one's partner as changing through time have on the partner who feels as though they will stay relatively the same? Finally, what effect does appraising discrepant change with one's partner have on various relationship outcomes? As it turns out, these research questions all target the same underlying issue – namely, the effects of expecting congruent change in sync *with* one's partner or discrepant change apart *from* one's partner. The present research sheds light on what kinds of expectations may lead to better current and anticipated relationship outcomes. My preliminary answer to these questions is that expecting congruent future trajectories with one's partner facilitates positive outcomes the most. Partners who grow together, stay together.

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Appendices

Appendix A: Study 1 Questionnaire

New Page

Informed Consent

New Page All Participants

The following are demographic questions so that I can have some basic information about you.

What gender do you identify with? male female other

How old are you? _____ years

The following are some additional questions regarding your current relationship.

What is your relationship status? married engaged dating other:

How long have you been in a relationship with your partner (please specify in years and months (for example: 3 years, 2 months)? _____

Are you living with your partner? yes no

Do you have any children with your current partner? yes no

New Page Relationship Appraisal Condition PAST

In the following questions, I will be asking you to rate your relationship at a number of time points. It's fine to repeat your ratings or to change them – I am interested in getting the most accurate picture of what you think your relationship looked, looks like, and will look like, through time.

New Page

Please think back to what your current relationship was like one year ago. The following list contains 10 items (adjectives and behaviours) that may or may not have described your relationship one year ago. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items would have described your relationship one year ago.

Researcher note – RC stands for reverse coded

1. Boring -RC
2. Connected
3. Comforting

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4. Difficult -RC
5. Exhausting -RC
6. Lots of ups and downs -RC
7. Committed
8. Stable
9. Quarrelsome -RC
10. Laugh together often

New Page Relationship Appraisal Condition CURRENT

Now, please think of how your current relationship is like right now. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes your current relationship right now.

Researcher note – RC stands for reverse coded

1. Boring -RC
2. Connected
3. Comforting
4. Difficult -RC
5. Exhausting -RC
6. Lots of ups and downs -RC
7. Committed
8. Stable
9. Quarrelsome -RC
10. Laugh together often

New Page Relationship Appraisal Condition FUTURE

Now, please think of how your future relationship will be like in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe your relationship in one year.

Researcher note – RC stands for reverse coded

1. Boring -RC
2. Connected
3. Comforting
4. Difficult -RC
5. Exhausting -RC
6. Lots of ups and downs -RC
7. Committed
8. Stable

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9. Quarrelsome -RC
10. Laugh together often

New Page Partner Appraisal Condition PAST

In the following questions, I will be asking you to rate your partner at a number of time points. It's fine to repeat your ratings or to change them – I are interested in getting the most accurate picture of what you think your partner looked, looks like, and will look like, through time.

New Page

Please think back to what your current partner was like one year ago. The following list contains 10 items (adjectives and behaviours) that may or may not have described your partner one year ago. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items would have described your partner one year ago.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New Page Partner Appraisal Condition CURRENT

Now, please think of what your current partner is like right now. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes your current partner right now.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful

TIMES THEY ARE A CHANGIN'

9. Emotional
10. Serious

New Page Partner Appraisal Condition FUTURE

Now, please think of what your current partner will be like in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe your partner in one year.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New Page Self-Appraisal Condition PAST

In the following questions, I will be asking you to rate how you were generally when interacting with your partner at a number of time points. It's fine to repeat your ratings or to change them – I are interested in getting the most accurate picture of what you think you generally looked, look like, and will look like, through time.

New Page

Please think back to what you were like generally when interacting with your partner one year ago. The following list contains 10 items (adjectives and behaviours) that may or may not have described yourself one year ago. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items would have described you one year ago.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

TIMES THEY ARE A CHANGIN'

New Page Self-Appraisal Condition CURRENT

Now, please think of what you are like generally when interacting with your partner right now. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes you right now.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New Page Self-Appraisal Condition FUTURE

Now, please think of what you will be like when interacting with your partner in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe you in one year.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New PageAll participants

Please rate the following two questions on a scale from 1 (not at all) to 7 (very much).

1. How happy are you right now, in this moment?
2. How satisfied are you right now in your current relationship?

New PageAll Participants – Implicit Personality and Relationship Theory *modified from Dweck and Franiuk et al

For the following 12 questions, please report your agreement or disagreement with each item on a 6-point scale with 1 representing *always disagree* and 6 representing *always agree*.

TIMES THEY ARE A CHANGIN'

Implicit Personality Scale

1. The type of personality you have is something you really can't do much to change.
2. The kind of person someone is, is something very basic about them and it can't be changed very much.
3. Everyone is a certain kind of person and there is not much that can be done to really change that.
4. People can do things differently, but the important parts of who they are can't really be changed.
5. A person's personality is deeply engrained in them, with not much that can be done to change them.
6. A person's personality is a fundamental part of who they are, which stays constant through time.

7. *Implicit Relationship Scale*

8. A relationship is something that you don't have much control over.
9. The type of relationship that you're in remains stable over time.
10. The type of relationship you have is something you really can't do much to change.
11. Relationships may vary and grow, but they fundamentally stay the same.
12. The way you act in a relationship stays constant through time and you can't really do much to change that.
13. The way your partner acts in a relationship stays constant through time and you can't really do much to change that.

New PageAll Participants - Implicit Relationships Theory Questionnaire (Knee, Patrick, & Lonsbary, 2003) Destiny vs. Growth Beliefs Scale

Researcher Note - 22-item measure is randomized, D stands for items from the destiny beliefs scale and G stands for items from the growth beliefs scale

The following 22 items describe general beliefs about relationships. Please indicate on a scale from 1 (not at all) to 7 (very much) the extent to which you agree with each statement.

- D-1. Potential relationship partners are either compatible or they are not.
- G-2. The ideal relationship develops gradually over time.
- D-3. A successful relationship is mostly a matter of finding a compatible partner right from the start.
- G-4. A successful relationship evolves through hard work and resolution of incompatibilities.
- D-5. Potential relationship partners are either destined to get along or they are not.
- G-6. A successful relationship is mostly a matter of learning to resolve conflicts with a partner.
- D-7. Relationships that do not start off well inevitably fail.
- G-8. Challenges and obstacles in a relationship can make love even stronger.
- D-9. If a potential relationship is not meant to be, it will become apparent very soon.
- G-10. Problems in a relationship can bring partners closer together.
- D-11. The success of a potential relationship is destined from the very beginning.
- G-12. Relationships often fail because people do not try hard enough.

TIMES THEY ARE A CHANGIN'

- D-13. To last, a relationship must seem right from the start.
- G-14. With enough effort, almost any relationship can work.
- D-15. A relationship that does not get off to a perfect start will never work.
- G-16. It takes a lot of time and effort to cultivate a good relationship.
- D-17. Struggles at the beginning of a relationship are a sure sign that the relationship will fail.
- G-18. Without conflict from time to time, relationships cannot improve.
- D-19. Unsuccessful relationships were never meant to be.
- G-20. Arguments often enable a relationship to improve.
- D-21. Early troubles in a relationship signify a poor match between partners.
- G-22. Successful relationships require regular maintenance.

****New Page****

Debriefing for the study

TIMES THEY ARE A CHANGIN'

Appendix B: Study 2 Questionnaire

New Page

Informed Consent

New Page All Participants

The following are demographic questions so that I can have some basic information about you.

What gender do you identify with? male female other

How old are you? _____ years

The following are some additional questions regarding your current relationship.

What is your relationship status? married engaged dating other:

How long have you been in a relationship with your partner (please specify in years and months (for example: 3 years, 2 months)? _____

Are you living with your partner? yes no

Do you have any children with your current partner? yes no

New Page random assignment to either self or partner appraisal

New Page Partner Appraisal Condition CURRENT or...

Now, please think of what your current partner is like right now. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes your current partner right now.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

TIMES THEY ARE A CHANGIN'

New Page Self Appraisal Condition CURRENT

Now, please think of what you are like generally when interacting with your partner right now. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes you right now.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New Page random assignment to either no landmark control or landmark condition

New Page No-Landmark Control Condition

The following is a calendar depicting the next 12 months starting in May 2014 to April 2015. Please take a moment to look at and think of your relationship in the next year.

May							June							July						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

August							September							October						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
					1	2		1	2	3	4	5	6				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
31																				

TIMES THEY ARE A CHANGIN'

November							December							January						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
						1		1	2	3	4	5	6					1	2	3
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31
30																				

February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
							29	30	31					26	27	28	29	30		

New Page Landmark Condition

The following is a calendar depicting the next 12 months starting in May 2014 to April 2015. Please take a moment to look at and think of your relationship in the next year.

Now, please notice the important holidays or dates. I would also like you to take a moment to do two things. First, notice any important holidays highlighted in this calendar. Second, please identify up to **three personally important dates** on the calendar (for example, a Birthday, relationship anniversary etc.) that occur each year. Please list the specific date and the occasion below.

TIMES THEY ARE A CHANGIN'

May							June							July						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

August							September							October						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
					1	2		1	2	3	4	5	6				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
31																				

November							December							January						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
						1		1	2	3	4	5	6					1	2	3
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31
30																				

February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
							29	30	31					26	27	28	29	30		

TIMES THEY ARE A CHANGIN'

USA Holidays and Observances					
Jan 01	<u>New Year's Day</u>	Jan 19	<u>M L King Day</u>	Feb 14	<u>Valentine's Day</u>
Feb 16	<u>Presidents' Day</u>	Apr 03	<u>Good Friday</u>	Apr 05	<u>Easter Sunday</u>
May 11	<u>Mother's Day</u>	May 26	<u>Memorial Day</u>	Jun 15	<u>Father's Day</u>
Jul 04	<u>Independence Day</u>	Sep 01	<u>Labor Day</u>	Oct 13	<u>Columbus Day</u>
Oct 31	<u>Halloween</u>	Nov 11	<u>Veterans Day</u>	Nov 27	<u>Thanksgiving Day</u>
Dec 24	<u>Christmas</u> Eve	Dec 25	Christmas Day	Dec 26	Boxing Day

Please list **three** important Holidays that you've noticed in the calendar.

1.
2.
3.

Now, please list up to **three** recurring important dates highlighted in the calendar that you selected (for example, September 12th – wedding anniversary).

1.
2.
3.

New Page participants either still appraising self or partner based on original random assignment

New Page Partner Appraisal Condition FUTURE

Now, please think of what your current partner will be like in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe your partner in one year.

1. Confident
2. Impulsive
3. Talkative
4. Reserved

TIMES THEY ARE A CHANGIN'

5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New Page Self Appraisal Condition FUTURE

Now, please think of what you will be like when interacting with your partner in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe you in one year.

1. Confident
2. Impulsive
3. Talkative
4. Reserved
5. Intellectual
6. Organized
7. Submissive
8. Playful
9. Emotional
10. Serious

New PageAll participants

Please rate the following two questions on a scale from 1 (not at all) to 7 (very much).

3. How happy are you right now, in this moment?
4. How satisfied are you right now in your current relationship?

New PageAll Participants – Implicit Personality and Relationship Theory *modified from Dweck and Franiuk et al

For the following 12 questions, please report your agreement or disagreement with each item on a 6-point scale with 1 representing *always disagree* and 6 representing *always agree*.

Implicit Personality Scale

1. The type of personality you have is something you really can't do much to change.
2. The kind of person someone is, is something very basic about them and it can't be changed very much.
3. Everyone is a certain kind of person and there is not much that can be done to really change that.

TIMES THEY ARE A CHANGIN'

4. People can do things differently, but the important parts of who they are can't really be changed.
5. A person's personality is deeply engrained in them, with not much that can be done to change them.
6. A person's personality is a fundamental part of who they are, which stays constant through time.

Implicit Relationship Scale

1. A relationship is something that you don't have much control over.
2. The type of relationship that you're in remains stable over time.
3. The type of relationship you have is something you really can't do much to change.
4. Relationships may vary and grow, but they fundamentally stay the same.
5. The way you act in a relationship stays constant through time and you can't really do much to change that.
6. The way your partner acts in a relationship stays constant through time and you can't really do much to change that.

New PageAll Participants - Implicit Relationships Theory Questionnaire (Knee, Patrick, & Lonsbary, 2003) Destiny vs. Growth Beliefs Scale

Researcher Note - 22-item measure is randomized, D stands for items from the destiny beliefs scale and G stands for items from the growth beliefs scale

The following 22 items describe general beliefs about relationships. Please indicate on a scale from 1 (not at all) to 7 (very much) the extent to which you agree with each statement.

- D-1. Potential relationship partners are either compatible or they are not.
- G-2. The ideal relationship develops gradually over time.
- D-3. A successful relationship is mostly a matter of finding a compatible partner right from the start.
- G-4. A successful relationship evolves through hard work and resolution of incompatibilities.
- D-5. Potential relationship partners are either destined to get along or they are not.
- G-6. A successful relationship is mostly a matter of learning to resolve conflicts with a partner.
- D-7. Relationships that do not start off well inevitably fail.
- G-8. Challenges and obstacles in a relationship can make love even stronger.
- D-9. If a potential relationship is not meant to be, it will become apparent very soon.
- G-10. Problems in a relationship can bring partners closer together.
- D-11. The success of a potential relationship is destined from the very beginning.
- G-12. Relationships often fail because people do not try hard enough.
- D-13. To last, a relationship must seem right from the start.
- G-14. With enough effort, almost any relationship can work.
- D-15. A relationship that does not get off to a perfect start will never work.
- G-16. It takes a lot of time and effort to cultivate a good relationship.

TIMES THEY ARE A CHANGIN'

- D-17. Struggles at the beginning of a relationship are a sure sign that the relationship will fail.
- G-18. Without conflict from time to time, relationships cannot improve.
- D-19. Unsuccessful relationships were never meant to be.
- G-20. Arguments often enable a relationship to improve.
- D-21. Early troubles in a relationship signify a poor match between partners.
- G-22. Successful relationships require regular maintenance

****New Page***** Debriefing

TIMES THEY ARE A CHANGIN’

**Appendix C: Study 3 Questionnaire
Questionnaire**

New Page

Informed Consent

New Page All Participants

The following are demographic questions so that I can have some basic information about you.

What gender do you identify with? male female other

How old are you? _____ years

The following are some additional questions regarding your current relationship.

What is your relationship status? married engaged dating other:

How long have you been in a relationship with your partner (please specify in years and months (for example: 3 years, 2 months)? _____

Are you living with your partner? yes no

Do you have any children with your current partner? yes no

New Page All Participants

In the following questions, I will be asking you to rate how you were generally when interacting with your partner at two time points. It’s fine to repeat your ratings or to change them – I are interested in getting the most accurate picture of what you think you generally look and will look like, through time. The calendar below is a simple guide to remind you of what the next year will look like.

May							June							July						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

TIMES THEY ARE A CHANGIN'

August							September							October						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
					1	2		1	2	3	4	5	6				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
31																				

November							December							January						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
						1		1	2	3	4	5	6					1	2	3
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31
30																				

February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
							29	30	31					26	27	28	29	30		

New Page Self-Appraisal Condition CURRENT All Participants

Please think of what you are like generally when interacting with your partner right now. The following list contains 5 items (adjectives and behaviours) that may or may not describe you. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes you right now.

1. Confident
2. Talkative

TIMES THEY ARE A CHANGIN'

3. Intellectual
4. Organized
5. Playful

New Page Self-Appraisal Condition FUTURE All Participants

Now, please think of what you will be like when interacting with your partner in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe you in one year.

1. Confident
2. Talkative
3. Intellectual
4. Organized
5. Playful

New Page All Participants

Now, I would like you to do the same ratings, but for your partner. In the following questions, I will be asking you to rate your partner at two time points. Once again, it's fine to repeat your ratings or to change them – I am interested in getting the most accurate picture of what you think your partner looks and will look like, through time. The calendar below is a simple guide to remind you of what the next year will look like.

May							June							July						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

August							September							October						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
					1	2		1	2	3	4	5	6				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
31																				

TIMES THEY ARE A CHANGIN'

November							December							January						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
						1		1	2	3	4	5	6					1	2	3
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31
30																				

February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
							29	30	31					26	27	28	29	30		

New Page Partner Appraisal Condition CURRENT All participants

Please think of what your current partner is like right now. The following list contains 5 items (adjectives and behaviours) that may or may not have described your partner one year ago. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items describes your current partner right now.

1. Confident
2. Talkative
3. Intellectual

TIMES THEY ARE A CHANGIN'

4. Organized
5. Playful

New Page Partner Appraisal Condition FUTURE All participants

Now, please think of what your current partner will be like in one year. Please select on a scale from 1 (not at all characteristic) to 7 (very characteristic) how well each of the following items will describe your partner in one year.

1. Confident
2. Talkative
3. Intellectual
4. Organized
5. Playful

New Page All Participants – Direct Assessment of Congruence in Change

The following are questions regarding you and your partner within your relationship. Specifically, these questions describe feelings of change that you and your partner may experience through time.

Please use the following 1 (not at all) to 7 (very much) scale to rate how characteristic each of the following statements is to you and your relationship. After each odd numbered question (e.g., 1, 3, 5, etc.) you will rate how meaningful the previous statement is to your relationship.

1. Do you feel as though you will change as a person from now to one year from now?
2. How meaningful will this change be to your relationship?
3. Do you feel as though you will change within your relationship from now to one year from now?
4. How meaningful will this change be to your relationship?
5. Do you feel as though your behaviour towards your partner will change from now to one year from now?
6. How meaningful will this change be to your relationship?
7. Do you feel as though your partner will change as a person from now to one year from now?
8. How meaningful will this change be to your relationship?
9. Do you feel as though your partner will change within your relationship from now to one year from now?
10. How meaningful will this change be to your relationship?
11. Do you feel as though your partner's behaviour towards you will change from now to one year from now?
12. How meaningful will this change be to your relationship?

TIMES THEY ARE A CHANGIN'

Out of the following four options, which do you think best represents the future of you and your partner in one year from now? Please select one.

Both me and my partner will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both me and my partner will stay relatively the same.

New Page All Participants – Outcome Variable Relationship Assessment Scale (RAS, Hendrick, 1988)

The following questions are regarding your current romantic relationship. Please rate how characteristic the following questions are on a scale from 1 (low) to 5 (high) right now.

1. How well does your partner meet your needs right now?
2. In general, how satisfied are you with your relationship at the moment?
3. How good is your relationship compared to most at the moment?
4. How often do you wish you hadn't gotten into this relationship at the moment?
5. To what extent has your relationship right now met your original expectations?
6. How much do you love your partner right now?
7. How many problems are there in your relationship at the moment?
8. How stable (feels consistent through time) is your relationship right now?

New Page All Participants – Outcome Variable Happiness

Please rate the following question on a scale from 1 (not at all) to 7 (very much).

5. How happy are you right now, in this moment?
6. How happy will you be one year from now?

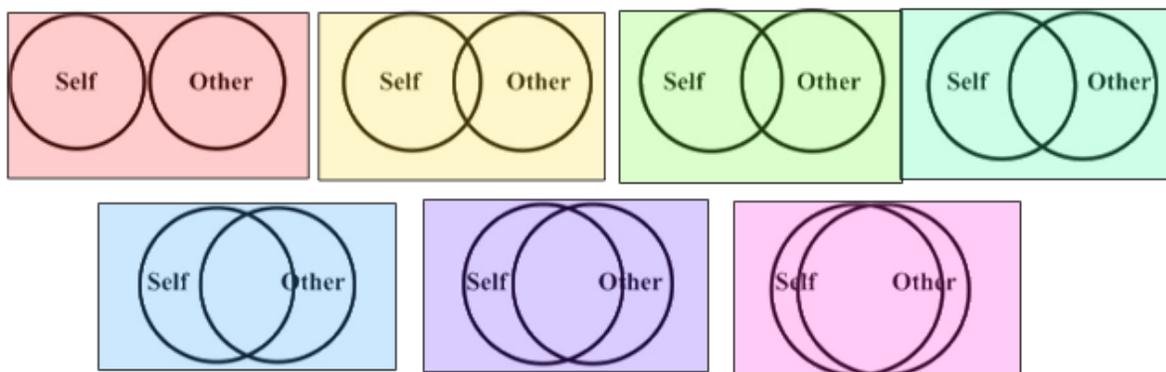
New Page All Participants – Outcome Variable Self-Expansion IOS scale

TIMES THEY ARE A CHANGIN'

Below you see illustrations of several possible relations of yourself and your partner, with the left circle representing you and the right circle representing your partner. We will ask you to rate your closeness to your partner at two time points (currently) and in one year from now. One might feel close or distant, to stand apart from or be connected with one's partner.

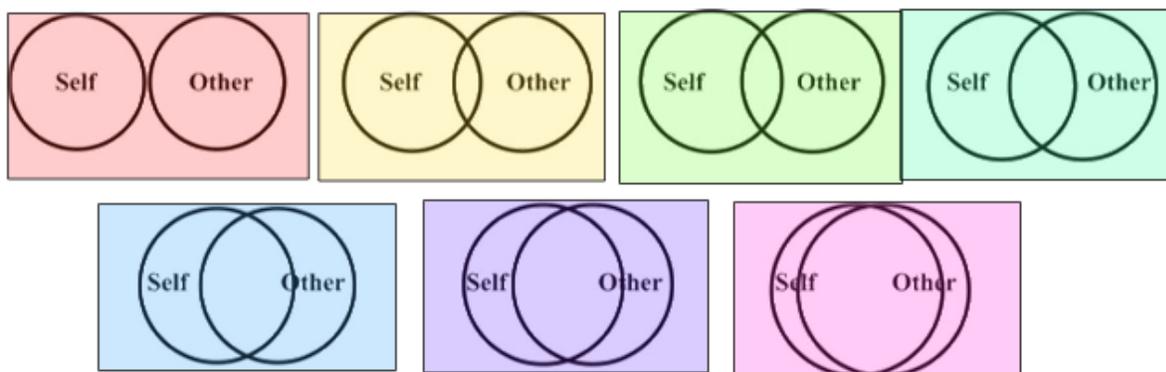
First, please select the circle that best describes your **CURRENT** relationship with your partner. Please think about your current relationship. How close are you with your partner right now?

Please click on the correct image to indicate your response.



Now, please select the circle that best describes your **FUTURE** relationship with your partner. Please think about your relationship in one year. How close will you be with your partner one year from now?

Please click on the correct image to indicate your response.



TIMES THEY ARE A CHANGIN'

Please answer each question according to the way you personally feel, using the following scale ranging from 1 (not very much) to 7 (very much). Please be open and honest in your responding.

- 1) How much does being with your partner result in your having new experiences?
- 2) When you are with your partner, do you feel a greater awareness of things because of him or her?
- 3) How much does your partner increase your ability to accomplish new things?
- 4) How much does being with your partner make you more appealing to potential future mates?
- 5) How much does your partner help to expand your sense of the kind of person you are?
- 6) How much do you see your partner as a way to expand your own capabilities?
- 7) Do you often learn new things about your partner?
- 8) How much does your partner provide a source of exciting experiences?
- 9) How much do your partner's strengths as a person (skills, abilities, etc.) compensate for some of your own weaknesses as a person?
- 10) How much do you feel that you have a larger perspective on things because of your partner?
- 11) How much has being with your partner resulted in your learning new things
- 12) How much has knowing your partner made you a better person?
- 13) How much does being with your partner increase the respect other people have for you?
- 14) How much does your partner increase your knowledge?

TIMES THEY ARE A CHANGIN'

Appendix D: Study 4 Questionnaire Questionnaire

New Page

Informed Consent

New PageAll Participants

Thank you for participating in our study! First, please tell us a little bit about yourself. This demographic information will help us understand the sample of the study better.

What gender do you identify with? male female other

How old are you? _____ years

The following are some additional questions regarding your current relationship.

What is your relationship status? married engaged dating other:

How long have you been in a relationship with your partner (please specify in years and months (for example: 3 years, 2 months)? _____

Are you living with your partner? yes no

Do you have any children with your current partner? yes no

New Page

In the following questions, you will be asked to think about how you and your partner may change (or stay the same) within different domains in the upcoming year. Domains are different areas of your life (e.g., your health) in which you may experience change through time (e.g., health improves) or no change through time (e.g., health stays the same). Equally, your partner may experience change or no change in this domain.

The next six pages of this questionnaire will describe a different domain. You will then be asked to indicate whether you and your partner will change, or stay the same, in the upcoming year.

Use the calendar below to help guide you when thinking about the upcoming year.

January							February							March						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28
25	26	27	28	29	30	31								29	30	31				
			:							:							:			

TIMES THEY ARE A CHANGIN'

April							May							June						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4						1	2		1	2	3	4	5	6
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30				
							31													
							:													
July							August							September						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4							1			1	2	3	4	5
5	6	7	8	9	10	11	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31		23	24	25	26	27	28	29	27	28	29	30			
							30	31												
							:													
October							November							December						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		
							:													

New Page Work/School Domain (order of domains will be randomized)

Consider your own working (or school) life and your partner's working (or school) life—and how it may change or stay the same in the upcoming year.

Changes in work may include: getting a new job, receiving a promotion, completing a big project, losing a job, transferring departments, etc. (Likewise, change in school could include: changing programs, graduating, starting a new school year, failing a program, changing schools, etc.)

Alternatively, you or your partner may not experience any change in work or school.

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner.

TIMES THEY ARE A CHANGIN'

2. Do you feel your work/school life will change between now and one year from now?
3. How meaningful will this change be?

4. Do you feel your partner's work/school life will change between now and one year from now?
5. How meaningful will this change be?

6. Out of the following four options, which do you think best represents the future of your own and your partner's work or school life? Please select one.

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page Health Domain

Consider your own health and your partner's health– and how it may change or stay the same in the upcoming year.

Changes in health may include: losing a significant amount of weight, being diagnosed with a disease, breaking a bone, being in an accident, getting in better shape, etc.

Alternatively, you or your partner may not experience any change in health.

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

1. Do you feel your health will change between now and one year from now?
2. How meaningful will this change be?

3. Do you feel your partner's health will change between now and one year from now?
4. How meaningful will this change be?
5. Out of the following four options, which do you think best represents the future of you and your partner's health? Please select one.

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page Appearance Domain

TIMES THEY ARE A CHANGIN'

Consider your own appearance and your partner's appearance– and how it may change or stay the same in the upcoming year.

Changes in appearance may include: losing a significant amount of weight, changing clothing styles, gaining weight, changing hairstyles, grooming habits, etc.

Alternatively, you or your partner may not experience any change in appearance.

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

- 1. Do you feel your appearance will change between now and one year from now?**
- 2. How meaningful will this change be?**
- 3. Do you feel your partner's appearance will change between now and one year from now?**
- 4. How meaningful will this change be?**
- 5. Out of the following four options, which do you think best represents the future of your and your partner's appearance? Please select one.**

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page Personality Domain

Consider your own personality and your partner's personality– and how it may change or stay the same in the upcoming year.

Changes in personality may include: becoming more outgoing, becoming more introverted, being more open to new experiences, experiencing more anxiety, becoming more conscientious, being more assertive, etc.

Alternatively, you or your partner may not experience any change in personality.

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

- 1. Do you feel your personality will change between now and one year from now?**
- 2. How meaningful will this change be?**
- 3. Do you feel your partner's personality will change between now and one year from now?**
- 4. How meaningful will this change be?**

TIMES THEY ARE A CHANGIN'

5. Out of the following four options, which do you think best represents the future of your and your partner's personality? Please select one.

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page Social Groups Domain

Consider your own social life and your partner's social life– and how it may change or stay the same in the upcoming year.

Changes in social life may include: joining new activities (clubs, team sports), gaining a new social group, changing groups of friends, losing old friends, changing hobbies, etc.

Alternatively, you or your partner may not experience any change in social life.

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

- 1. Do you feel your social life will change between now and one year from now?**
- 2. How meaningful will this change be?**
- 3. Do you feel your partner's social life will change between now and one year from now?**
- 4. How meaningful will this change be?**
- 5. Out of the following four options, which do you think best represents the future of your and your partner's social life? Please select one.**

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page Affect Domain

Consider your own emotional style and your partner's emotional style– and how it may change or stay the same in the upcoming year.

Changes in emotional style may include: having a shorter temper, being more patient, struggling to keep a conversation going, feeling bored, feeling more happy than usual, became sadder etc.

Alternatively, you or your partner may not experience any change in emotional style.

TIMES THEY ARE A CHANGIN'

Please take a moment to reflect on these possible changes for yourself. Then think of these possible changes for your partner. Use the calendar below to help guide you when thinking about the upcoming year.

1. **Do you feel your emotional style will change between now and one year from now?**
2. **How meaningful will this change be?**

3. **Do you feel your partner's emotional style will change between now and one year from now?**
4. **How meaningful will this change be?**
5. **Out of the following four options, which do you think best represents the future of your and your partner's emotional style? Please select one.**

Both my partner and I will change.	I will change, but my partner will stay relatively the same.
My partner will change, but I will stay relatively the same.	Both my partner and I will stay relatively the same.

New Page All Participants – Outcome Variable Relationship Assessment Scale (RAS, Hendrick, 1988)

The following questions are regarding your current romantic relationship. Please rate how characteristic the following questions are on a scale from 1 (low) to 5 (high) right now.

1. How well does your partner meet your needs right now?
2. In general, how satisfied are you with your relationship at the moment?
3. How good is your relationship compared to most at the moment?
4. How often do you wish you hadn't gotten into this relationship at the moment?
5. To what extent has your relationship right now met your original expectations?
6. How much do you love your partner right now?
7. How many problems are there in your relationship at the moment?
8. How stable (feels consistent through time) is your relationship right now?

New Page All Participants – Outcome Variable Happiness

Please rate the following question on a scale from 1 (not at all) to 7 (very much).

7. How happy are you right now, in this moment?

TIMES THEY ARE A CHANGIN'

8. How happy will you be one year from now?

New Page All Participants – Outcome Variable Couple Identity

For each of the following items, please indicate your agreement using the 1 (completely disagree) to 7 (completely agree) scale regarding your current relationship.

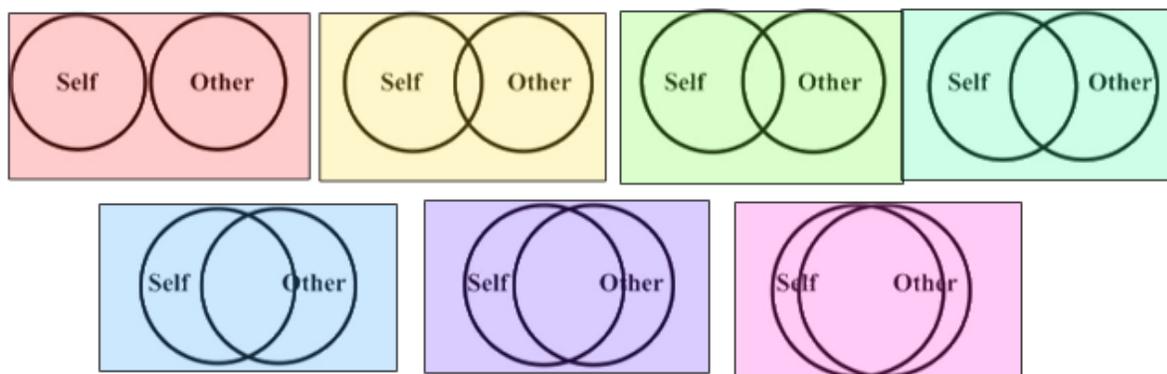
1. I want to keep the plans for my life somewhat separate from my partner's plans for life.
2. I am willing to have or develop a strong sense of an identity as a couple with my partner.
3. I tend to think about how things affect "us" as a couple more than how things affect "me" as an individual.
4. I like to think of my partner and me more in terms of "us" and "we" than "me" and "him/her".
5. I am more comfortable thinking in terms of "my" things than "our" things.
6. I do not want to have a strong identity as a couple with my partner.

New Page All Participants – Outcome Variable Self-Expansion IOS scale

Below you see illustrations of several possible relations of yourself and your partner, with the left circle representing you and the right circle representing your partner. We will ask you to rate your closeness to your partner at two time points (currently) and in one year from now. One might feel close or distant, to stand apart from or be connected with one's partner.

First, please select the circle that best describes your **CURRENT** relationship with your partner. Please think about your current relationship. How close are you with your partner right now?

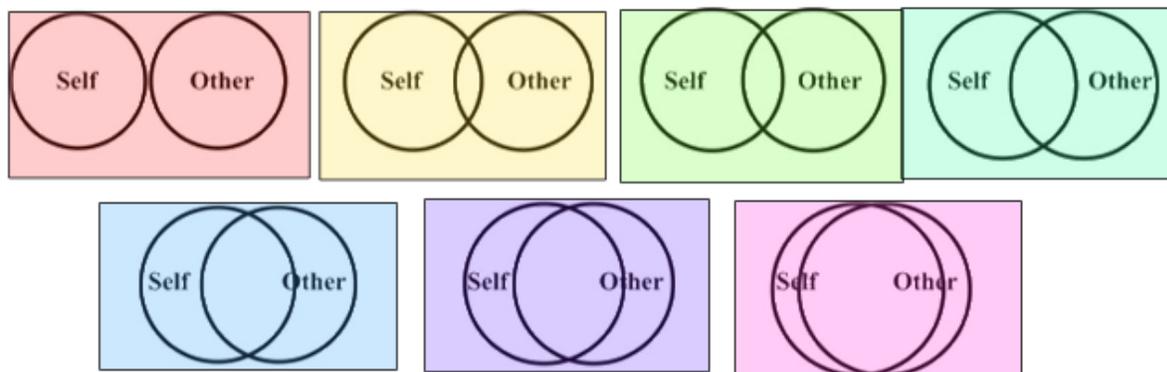
Please click on the correct image to indicate your response.



TIMES THEY ARE A CHANGIN'

Now, please select the circle that best describes your **FUTURE** relationship with your partner. Please think about your relationship in one year. How close will you be with your partner one year from now?

Please click on the correct image to indicate your response.



New Page All Participants – Outcome Variable Self-Expansion Questionnaire

Please answer each question according to the way you personally feel, using the following scale ranging from 1 (not very much) to 7 (very much). Please be open and honest in your responding.

- 1) How much does being with your partner result in your having new experiences?
- 2) When you are with your partner, do you feel a greater awareness of things because of him or her?
- 3) How much does your partner increase your ability to accomplish new things?
- 4) How much does being with your partner make you more appealing to potential future mates?
- 5) How much does your partner help to expand your sense of the kind of person you are?
- 6) How much do you see your partner as a way to expand your own capabilities?
- 7) Do you often learn new things about your partner?
- 8) How much does your partner provide a source of exciting experiences?
- 9) How much do your partner's strengths as a person (skills, abilities, etc.) compensate for some of your own weaknesses as a person?
- 10) How much do you feel that you have a larger perspective on things because of your partner?
- 11) How much has being with your partner resulted in your learning new things?
- 12) How much has knowing your partner made you a better person?
- 13) How much does being with your partner increase the respect other people have for you?
- 14) How much does your partner increase your knowledge?

TIMES THEY ARE A CHANGIN'

Appendix E: Study 5 Questionnaire

New Page

Informed Consent

New PageAll Participants

Thank you for participating in our study! First, please tell us a little bit about yourself. This demographic information will help us understand the sample of the study better.

What gender do you identify with? male female other

How old are you? _____ years

The following are some additional questions regarding your current relationship.

What is your relationship status? married engaged dating other:

How long have you been in a relationship with your partner (please specify in years and months (for example: 3 years, 2 months)? _____

Are you living with your partner? yes no

Do you have any children with your current partner? yes no

***Random assignment to one of 6 conditions: 2(past or future appraisal) x 3 (both self and partner change, one partner changes, neither changes)**

New Page PAST APPRAISAL

Please take a moment to think about the past year (2014). Let the calendar below help guide you through these reflections.

January							February							March						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28
25	26	27	28	29	30	31								29	30	31				
:							:							:						
April							May							June						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4						1	2		1	2	3	4	5	6
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13

TIMES THEY ARE A CHANGIN'

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
:	:	:
July	August	September
Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
:	:	:
October	November	December
Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
:	:	:

New Page PAST APPRAISAL - both self and partner change

Think about yourself throughout this past year. It is common for people to experience change or transformation from one year to the next.

For example, change may include changes in emotional style (e.g., having a shorter temper than before, becoming more patient), or changes in personality (e.g., becoming more of a home-body, being less anxious). People’s social lives can also change (e.g., changing jobs and meeting new colleagues, making new friends).

Just as you may change, so may your partner change.

Now, please describe, or provide an example, in which you felt as though both you and your partner changed (in the past year).

TIMES THEY ARE A CHANGIN'

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner from one year ago to now? Please select one.

- a. Both my partner and I have changed in similar directions.
- b. Both my partner and I have changed in different directions.
- c. I have changed, but my partner has stayed relatively the same.
- d. My partner has changed, but I have stayed relatively the same.
- e. Both my partner and I have stayed relatively the same.

New Page PAST APPRAISAIL – one partner changes the other does not

Think about yourself throughout this past year. It is possible for people to experience change or transformation from one year to the next. However, it is also possible to stay relatively consistent through time.

For example, people may change in their emotional style (e.g., becoming more patient) or stay the same in emotional style (e.g., remaining even-tempered), may change in their personality (e.g., becoming more of a home-body) or stay the same in their personality (e.g., remaining an anxious person). People's social lives can stay consistent through time (e.g., remaining in the same job, with the same colleagues) or they can change (e.g., making new friends).

Just as you may change, or stay the same, so may your partner change or stay the same.

Now, please describe, or provide an example, in which you felt as though either you or your partner changed, and the other did not (in the past year).

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner from one year ago to now? Please select one.

- a. Both my partner and I have changed in similar directions.
- b. Both my partner and I have changed in different directions.
- c. I have changed, but my partner has stayed relatively the same.
- d. My partner has changed, but I have stayed relatively the same.
- e. Both my partner and I have stayed relatively the same.

TIMES THEY ARE A CHANGIN'

New Page PAST APPRAISAL - both self and partner stay the same

Think about yourself throughout this past year. It is common for people to stay relatively consistent from one year to the next.

For example, people may stay the same in emotional style (e.g., being a patient person, remaining even-tempered), stay the same in their personality (e.g., remaining an anxious person, be a home-body). People's social lives can also remain consistent through time (e.g., remaining in the same job, with the same colleagues, keeping old friendships).

Just as you may stay relatively the same and do not change, so may your partner.

Now, please describe, or provide an example, in which you felt as though both you and your partner did not change (in the past year).

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner from one year ago to now? Please select one.

- Both my partner and I have changed in similar directions.
- Both my partner and I have changed in different directions.
- I have changed, but my partner has stayed relatively the same.
- My partner has changed, but I have stayed relatively the same.
- Both my partner and I have stayed relatively the same.

New Page FUTURE APPRAISAL

Please take a moment to think about the upcoming year (2015). Let the calendar below help guide you through these reflections.

January							February							March						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28
25	26	27	28	29	30	31								29	30	31				
:							:							:						
April							May							June						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa

TIMES THEY ARE A CHANGIN'

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
:	:	:
July	August	September
Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
:	:	:
October	November	December
Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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TIMES THEY ARE A CHANGIN'

New Page FUTURE APPRAISAL self and partner change

Think about yourself this upcoming year. It is common for people to experience change or transformation from one year to the next.

For example, change may include changes in emotional style (e.g., having a shorter temper than before, becoming more patient), or changes in personality (e.g., becoming more of a home-body, being less anxious). People's social lives can also change (e.g., changing jobs and meeting new colleagues, making new friends).

Just as you may change, so may your partner change.

Now, please describe, or provide an example, in which you feel as though both you and your partner will change (in the upcoming year).

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner from one year ago to now? Please select one.

- f. Both my partner and I have changed in similar directions.
- g. Both my partner and I have changed in different directions.
- h. I have changed, but my partner has stayed relatively the same.
- i. My partner has changed, but I have stayed relatively the same.
- j. Both my partner and I have stayed relatively the same.

New Page FUTURE APPRAISAL – one partner changes the other does not

Think about yourself in the upcoming year. It is possible for people to experience change or transformation from one year to the next. However, it is also possible to stay relatively consistent through time.

For example, change may include changes in emotional style (e.g., being more patient than you used to be), or changes in personality (e.g., becoming more of a home-body). However, our lives can stay consistent through time as well, for example, no changes at work, no changes in our social lives, etc.

Just as you may change, or stay the same, so can your partner. Think of how your partner will change (or instead, stay the same) in a year from now.

Now, please describe, or provide an example, in which you either you or your partner change will change and the other partner will not (in one year from now).

TIMES THEY ARE A CHANGIN'

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner in one year from now? Please select one.

- f. Both my partner and I have changed in similar directions.
- g. Both my partner and I have changed in different directions.
- h. I have changed, but my partner has stayed relatively the same.
- i. My partner has changed, but I have stayed relatively the same.
- j. Both my partner and I have stayed relatively the same.

New Page FUTURE APPRAISAL - both self and partner stay the same

Think about yourself in the upcoming year. It is common for people to feel stable and consistent from one year to the next. Think of all the different ways you will stay consistent in one year from now.

For example, stability in the self may include consistent emotional style (e.g., always being patient, having the same temper) or stability in personality (e.g., being a home-body, feeling sometimes anxious), or having consistent social groups (e.g., having the same friends, the same coworkers), etc.

Similarly to personal stability, your partner stays relatively the same too. Think of how your partner will stay the same in one year from now.

Now, please describe how you and your partner will stay relatively the same in one year from now.

***page break**

Out of the following five options, which do you think best represents the description you just wrote of you and your partner in one year from now? Please select one.

TIMES THEY ARE A CHANGIN'

- f. Both my partner and I have changed in similar directions.
- g. Both my partner and I have changed in different directions.
- h. I have changed, but my partner has stayed relatively the same.
- i. My partner has changed, but I have stayed relatively the same.
- j. Both my partner and I have stayed relatively the same.

New Page All Participants – Outcome Variables

Modified QRS scalepast, present and future ratings.

Please answer the following questions about your past, current and future feelings regarding your relationship on a scale ranging from 1 (Not at all) to 7 (Extremely)

1. How satisfied are you with your relationship?
 - a. One year ago
 - b. Currently
 - c. One year from now
2. How committed are you to your relationship?
 - a. One year ago
 - b. Currently
 - c. One year from now
3. How intimate do you feel to your partner?
 - a. One year ago
 - b. Currently
 - c. One year from now
4. How much do you trust your partner?
 - a. One year ago
 - b. Currently
 - c. One year from now
5. How passionate is your relationship?
 - a. One year ago
 - b. Currently
 - c. One year from now
6. How much do you love your partner?
 - a. One year ago
 - b. Currently
 - c. One year from now
7. Please rate your happiness for the following three time points using the same scale ranging from 1 (not at all) to 7 (extremely).
 - a. One year ago
 - b. Currently
 - c. One year from now

New Page All Participants – Outcome Variable Couple Identity

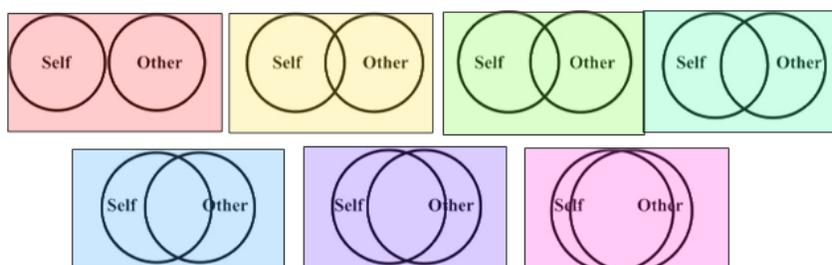
TIMES THEY ARE A CHANGIN'

For each of the following items, please indicate your agreement using the 1 (completely disagree) to 7 (completely agree) scale regarding your current relationship.

7. I want to keep the plans for my life somewhat separate from my partner's plans for life.
8. I am willing to have or develop a strong sense of an identity as a couple with my partner.
9. I tend to think about how things affect "us" as a couple more than how things affect "me" as an individual.
10. I like to think of my partner and me more in terms of "us" and "we" than "me" and "him/her".
11. I am more comfortable thinking in terms of "my" things than "our" things.
12. I do not want to have a strong identity as a couple with my partner

New Page All Participants – Outcome Variable Self-Expansion IOS scale

Below you see illustrations of several possible relations of yourself and your partner, with the left circle representing you and the right circle representing your partner. Please select the circle that best describes your CURRENT relationship with your partner. How close are you with your partner right now? Please click on the correct image to indicate your response.



New Page All Participants – Outcome Variable Relationship Assessment Scale (RAS, Hendrick, 1988)

The following questions are regarding your current romantic relationship. Please rate how characteristic the following questions are on a scale from 1 (low) to 5 (high) of your relationship right now.

1. How well does your partner meet your needs right now?
2. In general, how satisfied are you with your relationship at the moment?
3. How good is your relationship compared to most at the moment?
4. How often do you wish you hadn't gotten into this relationship at the moment?
5. To what extent has your relationship right now met your original expectations?
6. How much do you love your partner right now?
7. How many problems are there in your relationship at the moment?

TIMES THEY ARE A CHANGIN'

8. How stable (feels consistent through time) is your relationship right now?

New PageAll Participants – Implicit Personality and Relationship Theory (modified from Dweck and Franiuk et al)

For the following 12 questions, please report your agreement or disagreement with each item on a 6-point scale with 1 representing *always disagree* and 6 representing *always agree*.

Implicit Personality Scale

7. The type of personality you have is something you really can't do much to change.
8. The kind of person someone is, is something very basic about them and it can't be changed very much.
9. Everyone is a certain kind of person and there is not much that can be done to really change that.
10. People can do things differently, but the important parts of who they are can't really be changed.
11. A person's personality is deeply engrained in them, with not much that can be done to change them.
12. A person's personality is a fundamental part of who they are, which stays constant through time.

Implicit Relationship Scale

7. A relationship is something that you don't have much control over.
8. The type of relationship that you're in remains stable over time.
9. The type of relationship you have is something you really can't do much to change.
10. Relationships may vary and grow, but they fundamentally stay the same.
11. The way you act in a relationship stays constant through time and you can't really do much to change that.
12. The way your partner acts in a relationship stays constant through time and you can't really do much to change that.