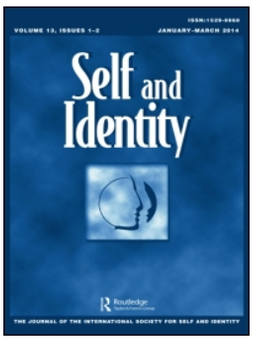

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Self-prospection and energization: The joint influence of time distance and consideration of future consequences

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ABSTRACT

The way people envision their future (self-prospection) plays a key role in the energization required to pursue desired goals. We proposed that energization is determined by time distance from the imagined future-self and the individual's consideration of future consequences (CFC). We hypothesized that, when imagining their distant (vs. near) future-self, individuals higher on CFC (i.e., those who construe a stronger link between present and future selves), would report greater energization. Participants completed the CFC scale, imagined their distant or near future-self, and reported their energy level. Imagining distant (vs. near) future-self fostered energy among participants higher on CFC (Experiments 1–2), an effect mediated by vividness of self-representations (Experiment 2). Self-prospection has implications for current states, and specifically for felt energy.

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Self-prospection; consideration of future consequences; temporal distance; future self; energization

To navigate the challenges and complexities of daily life, people often need to consider events that stretch beyond the direct, here and now, experience of the self. People need to make decisions or engage in behaviors guided by temporal frames, alternative scenarios, and others' experiences (Epstude & Peetz, 2012; Trope & Liberman, 2010). We focus on imagination of future-selves at temporally extended points, that is, on self-prospection (Dunning, 2007; Gilbert & Wilson, 2007).

Self-prospection tends to be unduly positive (Shepperd, Klein, Waters, & Weinstein, 2013; Weinstein, 1980). In particular, an increase in time distance from the imagined future-self contributes to positivity and confidence in self-prospection (Heller, Stephan, Kifer, & Sedikides, 2011; Stephan, Sedikides, Heller, & Shidlovski, 2015). Interestingly, self-prospection may have implications for the present (Epstude & Peetz, 2012). For example, the way people envision their future affects strivings toward self-improvement (Oyserman, Bybee, & Terry, 2006; Sedikides & Hepper, 2009) and goal achievement (Ntoumanis, Healy, Sedikides, Smith, & Duda, 2014; Oettingen & Stephens, 2009). Thus, a deeper understanding of self-prospection may pave the way for insights into current self-regulation and goal-directed action. In this article, we address the influence of self-prospection on energy, a key motivational variable.

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Energy facilitates the pursuit and achievement of desired goals (Brehm & Self, 1989; Heckhausen, 1991; Kappes & Oettingen, 2011). Energy reflects a distinct state characterized by activation and arousal (Duffy, 1934; Luke, Sedikides, & Carnelley, 2012), and has been linked to cardiovascular reactivity (Gendolla, Wright, & Richter, 2012; Wright, 1996). Energization provides the resources needed to transform visions of a desired future-self into actual achievement, and helps people to strengthen goal commitment in the face of obstacles (Oettingen et al., 2009). Moreover, energization predicts actual performance (Brunstein & Gollwitzer, 1996; Oettingen et al., 2009). Therefore, the energy resultant from self-prospection may determine the ability to pursue and attain long-term goals. We are concerned with the general state of energy that follows self-prospection; this is energy that may impact on goal-directed activities (i.e., energy to do "what it takes" to pursue long term goals; Kruglanski et al., 2012) and may indirectly influence various forms of executive functioning (e.g., impulse control, affect regulation; Schmeichel & Baumeister, 2004).

Given that imagining a distant (than near) future-self is particularly illusive, ensuing energy may depend on individual differences in self-prospection. We propose that energization is jointly determined by *time distance* from the imagined future-self and *consideration of future consequences* (CFC) of one's actions. Persons higher on CFC take seriously into account the future consequences of their actions. We argue that individuals higher on CFC will be able to construe a stronger link between their future and present selves – a link that will contribute to the vividness of future-self representation and foster energy. Next, we review the literature and offer hypotheses.

Influence of time distance on self-prospection

Representations of distant (relative to near) future are simplified, schematic and idealistic (Dunning, 2007). The schematic property of distant future-self representations has been documented by earlier research within the framework of Construal Level Theory (Liberman, Trope, & Stephan, 2007). Distant predictions rely on relatively stable self-aspects (e.g., superordinate goals, dispositions or values) at the expense of contextual information (Wakslak, Trope, & Liberman, 2012). For example, distant future preferences emphasize desirability concerns (i.e., the value of an action's end state), whereas near future preferences emphasize feasibility concerns (i.e., the ease or difficulty of reaching the end state; Liberman & Trope, 1998).

The idealistic property of future self-representations has been documented by research on the role of self-enhancement in prediction (Alicke & Sedikides, 2009, 2011; Krosnick & Sedikides, 1990). Distant (vs. near) predictions rely more on positive (than negative) self-attributes (Stephan, Sedikides, Heller, et al., 2015), and reflect more positive (and less negative) personality traits as well as more positive (and less negative) emotions (Heller et al., 2011).

That is, the distant future, with its higher uncertainty and lower affordance of objective knowledge about contextual factors, offers increased challenges for self-prospection. In particular, appreciation of a connection between the present and future selves may be challenged more in distant (than near) self-prospection. For example, people progressively care less about more temporally distant selves to the point where an extremely distant future-self may seem a different person (Pronin, Olivola, & Kennedy, 2008; Pronin & Ross, 2006; Wakslak, Nussbaum, Liberman, & Trope, 2008).

To address the consequences of time distance in self-prospection for energization, we draw from earlier work that offers a distinction between fantasies, which idealize the future, and expectations, which take into account potential barriers to success (Oettingen & Stephens, 2009). Positive fantasies about an idealized future sap energy (Kappes & Oettingen, 2011), whereas positive expectations are associated with stronger effort and performance (Oettingen & Mayer, 2002). It has been proposed that the key to activating positive expectations (rather than fantasizing) lies in the ability to juxtapose an imagined future with the present reality, that is, to render the desired future and present reality simultaneously accessible (Kawada, 2004; Oettingen & Stephens, 2009). We argue that individual differences in the representation of the future may play a key role in the ability to appreciate the connection between the present and the increasingly distant future-self, and thus attenuate fantasizing that is likely to sap energy. The predilection to consider future consequences of one's actions (CFC; Strathman, Gleicher, Boninger, & Edwards, 1994) reflects the capacity to link the present and future, an attribute that is valuable for traversing greater time distance.

Individual differences in self-prospection: Consideration of future consequences

James (1890/1950) had the insight that people create an extended present by assimilating past and future instances into it. People are flexible in how far into the past and the future any particular notion of "the present" extends (Ross & Wilson, 2002; Stephan, Sedikides, & Wildschut, 2012). Indeed, they differ in the extent of their focus beyond the presently experienced moment; for example, high conscientiousness involves relatively broad temporal thinking (Carver, 2010). Thus, stable individual differences may qualify self-prospection. We were interested in the degree to which people take into account the long-term implications of their behavior. Operationally, those who score high on the CFC scale (Strathman et al., 1994) believe that the value of current behaviors is determined more by their long-term consequences than by their immediate effect. Those persons are willing to pay the price of inconvenience in the present to gain a more desirable future. Put differently, CFC captures a vital aspect of intertemporal thinking, namely the proclivity to perceive an association between present actions and distant future outcomes or to consider simultaneously present and future.

CFCs has self-regulatory implications for diverse domains of human functioning (e.g., academic achievement, financial decision-making, health behaviors) that require intertemporal valuation and self-control (Metcalfe & Mischel, 1999; Thaler & Shefrin, 1981). For example, high CFC is associated with higher achievement in academic settings, less impulsive buying, and greater engagement in exercise and healthy eating (Joireman, Shaffer, Balliet, & Strathman, 2012; Joireman, Sprott, & Spangenberg, 2005).

We reason that the tendency to link the present action to its distant consequences (high CFC) attenuates distance-induced, simplified, and idealistic self-prospection, that is, fantasizing that is likely to sap energy. Consistent with this reasoning, the ideal self in the future is more motivating for persons high on CFC. For example, after imagining their ideal future self (rather than prototypes of others), persons high on CFC intensify their exercise behavior (Ouellette, Hessling, Gibbons, Reis-Bergan, & Gerrard, 2005). We address in the current article the relation between CFC and energization as a function of time distance from the imagined future self (near vs. distant future-self). Drawing from literature, which showed that future

thinking can be energizing if linked to the present (Oettingen et al., 2009; Sevincer, Busatta, & Oettingen, 2013; Sevincer & Oettingen, 2015), we hypothesize that higher CFC is particularly conducive to energization when participants ponder their distant (than near) future-self.

The role of vividness in self-prospection

We also examine the mechanism underlying the role of CFC in energization during self-prospection. We reason that persons high on CFC may represent their future in more detailed or vivid (rather than simplified or undifferentiated) manner. Vividness involves "a combination of clarity and liveliness" (Marks, 1972, p. 83). The more vivid an image therefore is, the more it approximates an actual percept. Although to our knowledge the link between vividness and energy has not been examined directly, some findings suggest that factors associated with energy are enhanced by vividness. For example, vivid (compared to pallid) information grabs attention, is more arousing, and is easier to scrutinize (Nisbett & Ross, 1980). Moreover, anything that enhances the vividness of the imagined scenario leads to stronger intentions, because it is indicative of a concrete, cue-rich, and available behavioral script (Anderson, 1983). Events that are more vivid are perceived as more likely to happen (Carroll, 1978), and people are more likely to act upon information that is vividly represented in mind (Anderson, 1983; Cialdini, 2001; Gregory, Cialdini, & Carpenter, 1982). This link has also been demonstrated using brain imaging, with memories high (vs. low) in vividness generating stronger brain activation in relevant areas (Slotnick, Thompson, & Kosslyn, 2012). Loewenstein (1996) theorized that a more vivid impression of oneself engaging in some action in the future might intensify emotions linked to thinking about that scenario. He suggested that, in order to make a true connection to the future self, the future emotional consequences of current decisions must be made clear. Consistent with this suggestion, Hershfield (2011) found that, if the future self is more vividly imagined, people act in ways that will benefit them in the future. Therefore, the ability to create a vivid mental image of the future self may foster energy. We hypothesize that the influence of CFC on energy as a function of time distance will be accounted for by vividness of future-self representation. Distant self-prospection will not energize persons who represent their future in a pallid manner, but will energize persons who envision their distant future in a vivid manner, linking it to the present self.

Overview

We conducted two experiments to examine the role of CFC in energization as a function of time distance. We asked participants to imagine and describe themselves in either the distant or near future, and subsequently measured their self-reported energy level. We hypothesized that higher CFC would entail more energy when participants consider their distant (rather than near) future-self. In technical terms, we expected for time distance to moderate the effect of CFC on energy (Experiments 1–2). We also hypothesized that the facilitating role of CFC on energy, when thinking about one's distant future, would be mediated by vividness of future self-representations. That is, we anticipated that participants who are high in CFC would report higher vividness, which in turn would increase their level of energy when thinking about their distant future. In technical terms, we expected that time distance would

moderate the effect of CFC on energy, which would be mediated by vividness of future self-representations (Experiment 2).

Experiment 1

In Experiment 1, we examined the relation between CFC and energy as a function of time distance from the imagined future-self. We manipulated time distance by asking participants to think and describe themselves in either the near or distant future. We hypothesized that higher CFC would be positively associated with energy in the distant (than near) future-self condition.

Participants and design

We set to test as many participants as possible until the end of the relevant academic semester under the stipulation of including at least 30 participants per condition (Simmons, Nelson, & Simonsohn, 2011). We tested individually in the laboratory a total of 78 University of Southampton undergraduates (73% female), who ranged in age from 18 to 30 years (M = 19.5, SD = 1.80). We randomly assigned them to the near future-self condition (N = 38) and the distant future-self condition (N = 40).

Procedure

First, participants completed the CFC scale. They indicated the extent to which each of 12 items was characteristic of them (1 = *very uncharacteristic*, 6 = *very characteristic*). Sample items are: "I consider how things might be in the future and try to influence those things in my day-to-day behavior" and "I often engage in particular behavior in order to achieve outcomes that may not result for many years". We averaged responses to 12 CFC scale items to yield an overall CFC score (α = .81). Higher scores indicate greater CFC.

The manipulation of time distance from the imagined future-self followed Stephan, Sedikides, Heller, et al. (2015). Participants imagined and described themselves in either the near future (one month from now) or the distant future (three years from now). Specifically, they read: "We are interested in how you think about yourself in the future. Now please take a couple of minutes to imagine yourself one month/three years from today. Please provide a description of your imagined self below."

Finally, we assessed energy by asking participants to rate (1 = *not at all*, 5 = *very well*) the degree to which the following words described their current state: alert, attentive, active (e.g., Pronin & Wegner, 2006). We averaged responses to the three items to form an energy score (α = .71).

Results and discussion

We present the mean values of CFC and energy across conditions as well as correlations between those variables in Table 1. We hypothesized that high CFC would be associated with more energy in the distant (but not near) future-self condition. To test this hypothesis, we conducted a regression analysis with time distance from the imagined future-self, CFC, and the time distance × CFC interaction as the independent variables, and with energy as

Table 1. Means (SDs) and zero-order correlations Study 1.

	Mean (SD)	1	2
1. CFC	3.86 (.72)	–	
2. Energy	3.31 (.79)	.16	–

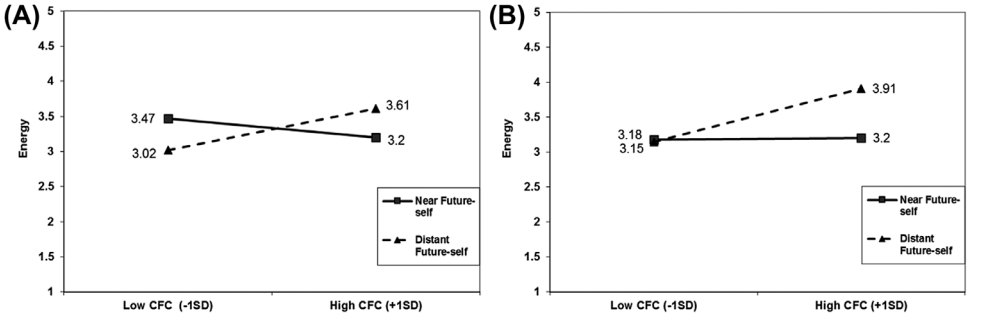

Figure 1. CFC × time distance interaction on energy in Experiment 1 (A) and Experiment 2 (B).
Notes: The figures include mean values of self-reported energy as a function of CFC (low CFC = the value 1SD below the mean vs. High CFC = the value 1SD above the mean) and time distance (near future vs. distant future). The solid line represents the association between CFC and energy in the near future-self condition. The dashed line represents the association between CFC and energy in the distant future-self condition.

the dependent variable. Time distance did not predict energy, $b = -.01$, SE = .087, $t(74) = -.15$, 95% CI [−.1864, .1600], $p = .88$ and neither did CFC, $b = .11$, SE = 12, $t(74) = .88$, 95% CI [−.1376, .3569], $p = .38$. Importantly, thought, time distance and CFC jointly predicted energy, as manifested by the relevant interaction, $b = .29$, SE = .124, $t(74) = 2.37$, 95% CI [.0475, .5420], $p = .020$, R^2 *change* = .069. We followed up with an analysis examining the associations between CFC and energy in the two time distance conditions. CFC and energy were positively related in the distant future-self condition, $b = .40$, SE = .153, $t(74) = 2.62$, 95% CI [.0977, .7111], $p = .010$, but were unrelated in the near future-self condition $b = -.18$, SE = .195, $t(74) = -.95$, 95% CI [−.5731, .2029], $p = .345$ (Figure 1(A)).

The results were consistent with the hypothesis. When imagining the distant (but not near) future-self, participants who were particularly inclined to consider future consequences of their actions reported higher levels of energy. We suggest that these participants were able to construe a stronger link between their desired future selves and their present selves, and this link contributed to energization. In Experiment 2 we aimed to test the replicability of these findings in a larger sample and address the mechanism underlying the observed pattern.

Experiment 2

According to Construal Level Theory, representations of the distant (than near) future are more simplified or less detailed (Trope & Liberman, 2010) and are more positive or idealistic (Stephan, Sedikides, Heller, et al., 2015). As the literature on fantasy realization suggests (Oettingen, 2012), such oversimplified representations (even of positive events) may reduce energy. However, we argue that outcomes of distant (vs. near) self-prospection in terms of energy are qualified by individual differences in CFC. As demonstrated in Experiment 1,

higher CFC (i.e., the ability to construe a strong link between present and future selves) is positively associated with energy following distant (but not near) self-prospection.

One goal of Experiment 2 was to test the replicability of Experiment 1 findings. Once again, we assessed the role of CFC in energy as a function of time distance. A second and more important goal was to extend the scope of Experiment 1 by examining a mechanism that could account for the positive relation between CFC and energy when distant (vs. near) future-self is imagined. The suggested mechanism is vividness of future-self representations.

We propose that CFC fosters energy, because it enables a more vivid representation of the distant future-self. Representation of distant future-self are particularly positive and, when vividly imagined (i.e., among persons higher on CFC), may render the distant future-self highly rewarding, – thus conferring energization. Representations of the near future-self differ: they are less positive and less rewarding even if vividly imagined, and thus will be less energizing. Stated otherwise, near self-prospection will not be dependent on CFC and vividness.

We reasoned, then, that the ability to generate vivid self-representations will mediate the association between CFC and energy in the distant future. In particular, we proposed that greater CFC (i.e., construal of a strong connection between the present and the future) implies vividness in the process of self-prospection, which in turn is likely to activate energy when individuals ponder their distant (than near) future-self. More formally, we hypothesized that vividness of self-representations would mediate the relation between CFC and energy, but that the indirect effect would be stronger for the distant (compared to near) future-self condition.

Participants and design

We recruited United States residents from an online platform (Amazon's Mechanical Turk) in exchange for a payment of $1. We included participants who completed a minimum of 500 Hits with an approval rate higher than 95%, as such reputable MTurk workers yield high quality data (Peer, Vosgerau, & Acquisti, 2014). Given the addition of the putative mediator (i.e., vividness of future self-representations) and the lack of precedence, we conservatively set the sample size to 150. One additional participant completed the study without registering for payment. We ended up with 151 participants (52% female), ranging in age from 19 to 69 years *(M* = 34.01, SD = 11.86). We randomly assigned them to the near future-self condition (*N* = 78) and the distant future-self condition (*N* = 73). The majority of participants provided extensive and thoughtful responses, averaging 45 words. Three participants provided brief responses, but excluding them produced results identical to the reported ones.

Procedure

First, participants completed the CFC scale. We averaged responses to the 12 items to create an overall CFC score (α = .85). Then, they imagined and described themselves in either the near future-self condition (one month from now) or the distant future-self condition (three years from now). Next, all participants rated the *vividness* of their imagery on six bipolar items (Crisp, Husnu, Meleady, Stathi, & Turner, 2010). The items were: faint–vivid, fuzzy–clear, dim–bright, vague–sharp, dull–lively, and simple–detailed (1 = *not at all*, 5 = *very well*). We

averaged responses to the six items to create a vividness score ($\alpha = .85$). Finally, participants reported their current energy level, as in Experiment 1(i.e., alert, attentive, active). We averaged responses to the three items to form an energy score ($\alpha = .81$).

Results and discussion

We present in Table 2 the mean values of CFC, vividness, and energy across conditions, as well as the correlations between those variables. We conducted a moderation analysis examining, as in Experiment 1, whether time distance moderates the association between CFC and energy. Subsequently, we tested whether this putative moderation is mediated by vividness of future self-representations.

Does time distance moderate the association between CFC and energy? Our first goal was to test the replicability of Experiment 1 findings, namely, whether time distance moderates the relationship between CFC and energy. We hypothesized that high CFC would be associated with more energy in the case of distant (than near) future-self. To test this hypothesis, we conducted a regression analysis with time distance, CFC and the time distance × CFC interaction as the independent variables, and with energy as the dependent variable. Time distance predicted energy $b = .169$, SE = .082, $t(147) = 2.06$, 95% CI [.0069, .3312], $p = .041$, and so did CFC, $b = .206$, SE = .088, $t(147) = 2.33$, 95% CI [.0315, .3820], $p = .021$. Further and as hypothesized the time distance × CFC interaction predicted energy, $b = .1953$, SE = .0887, 95% CI [.0200, .3705]. In particular, CFC was related to energy in the distant future-self condition, $b = .4020$, SE = .1366, 95% CI [.1321, .6719], $p = .038$, but not in the near future-self condition, $b = .0115$, SE = .1132, 95% CI [−.2122, .2351], $p = .919$, F change (1, 147) = 4.8486, $p < .029$, R-square change = .303 (Figure 1(B)). These findings replicate those of Experiment 1. Also, similar to the interaction observed in Experiment 1 we found no correlation between CFC and energy in the near future-self condition, but found a significant correlation between CFC and energy in the distant future-self condition.

Refining the model: Does time distance moderate the association between CFC and energy, which is mediated by vividness of future self-representations? We hypothesized that vividness would intensify energy as a function of time distance from the imagined future-self: The mediating effect of vividness in the association between CFC and energy would be stronger in the case of distant (than near) future-self. To test moderated mediation (second stage moderation; Edwards & Lambert, 2007), we used PROCESS Model 14 (Hayes, 2013, 2015; 10,000 bias corrected bootstrap samples; see Figure 2 for the conceptual model). We entered CFC as the independent variable (X), time distance as the second step moderator (V), energy as the outcome variable (Y), and vividness of future-self representations as the mediator (M) variable.

We report model parameters in Table 3. CFC (X) was significantly associated with vividness (M), suggesting that participants high in CFC formed more vivid representations of the future self, $b = .1882$, SE = .0797, 95% CI [.0306, .3457]. Additionally, holding constant CFC (X), the

Table 2. Means (SDs) and zero-order correlations Study 2.

	Mean (SD)	1	2	3
1. CFC	4.26 (.94)	–		
2. Energy	3.36 (1.04)	.16	–	
3. Vividness	3.70 (.936)	.19*	.46**	–

*$p < .05$; **$p < .01$.

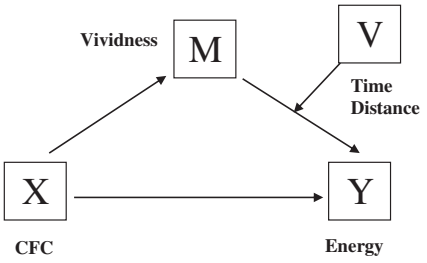

Figure 2. Graphical depiction of the moderated mediation model in Experiment 2: the effect of CFC on energy as a function of time distance is mediated by vividness of future self-representations.

Table 3. Moderated mediation analysis in Experiment 2.

Regression weights	Coefficient	SE	Lower	Upper
CFC → vividness**	.1882	.0797	.0306	.3457
Vividness → energy**	.5499	.0792	.4003	.7134
CFC → energy	.0634	.0762	−.0872	.2141
Time distance → energy**	.2904	.0723	.1474	.4333
Vividness × time distance → energy**	.2113	.0776	.0579	.3647
Conditional effects				
Vividness near future-self*	.0650	.0386	.0084	.1633
Vividness distant future-self**	.1446	.0774	.0109	.3086
Index of moderated mediator				
Vividness	.0795	.0571	.0043	.2274

Notes: CI = confidence interval; LL = lower limit, UL = upper limit.
*$p < .05$; **$p < .01$.

effect of vividness (*M*) on energy (*Y*) depended on time distance (*V*), $b = .2113$, SE = .0776, 95% CI [.0579, .3647]. This vividness × time distance interaction (Figure 3) shows that vividness had a stronger effect on energy in the distant future-self condition, $b = .1446$, SE = .0774, 95% CI [.0109, .3086] than in the near future-self condition $b = .0650$, SE = .0386, 95% CI [.0084, .1633]. The direct effect of CFC (*X*) on energy (*Y*), after controlling for vividness (*M*), time distance (*V*), and the interaction between vividness and time distance ($M \times V$), was no longer significant, $b = .0634$, SE = .0762, 95% CI [−.0872, .2141]. In support of our moderated-mediation model, the indirect effect of CFC on energy through vividness differed as a function of time distance, $b = .0795$, SE = . 0571, 95% CI [.0043, .2274]. That is, the indirect effect of CFC (*X*) on energy (*Y*) through vividness (*M*) depended on time distance (*V*): it was stronger in the distant (compared to the near) future-self condition. In all, the results extend substantially those of Experiment 1. Time distance moderates the association between CFC and energy, which is mediated by vividness of future self-representations.

General discussion

Self-prospection has implications for present states, and in particular for felt energy required to pursue long-term goals. We examined the joint influence of time distance from the imagined future-self and individual differences in CFC on energization. Specifically, we hypothesized that high CFC has an advantage in the case of distant (than near) self-prospection. Consistent with this hypothesis, findings from two experiments documented that, when participants imagined their distant (than near) future-self, those high on CFC reported greater

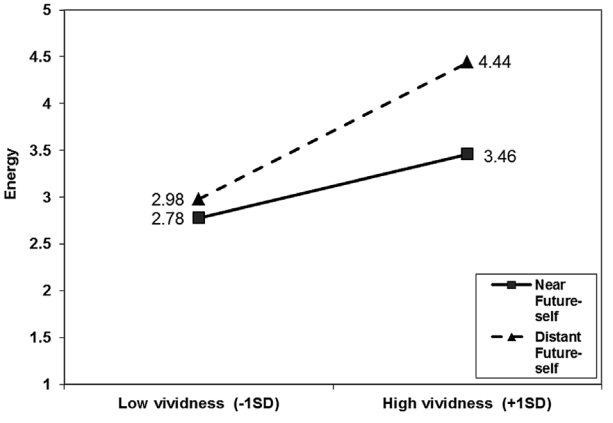

Figure 3. Vividness × time distance interaction on energy in Experiment 2.
Notes: The figure includes mean values of self-reported energy as a function of CFC (low CFC = the value 1SD below the mean vs. high CFC = the value 1SD above the mean) and time distance (near future vs. distant future). The solid line represents the association between vividness and energy in the near future-self condition. The dashed line represents the association between vividness and energy in the distant future-self condition.

energy. In addition, we tested a critical mediator of the effect, vividness of future self-representations. We found that participants high on CFC generated more vivid representations of their future self, which fostered energization in the distant (vs. near) future-self condition.

Our findings advance the literature on the effect of time distance on self-prospection. Although the consequences of future self-representations in terms of preferences and choices have been addressed (Hershfield, 2011; Liberman et al., 2007), their implications for subjective present states have only recently begun to garner empirical attention (Kappes & Oettingen, 2011). Advancing understanding of regularities in self-prospection, we hypothesized that time distance along with individual differences in time travel (e.g., CFC) have implications for future oriented states, and in particular energization, which facilitates goal pursuit and attainment (Brunstein & Gollwitzer, 1996; Kruglanski et al., 2012; Oettingen et al., 2009). We showed that the disposition to link present action and future consequences (high CFC) aids in traversing time distance. This disposition implies the ability to create a vivid representation of the distant future-self, a self-representation that fosters energy.

We demonstrated that CFC plays an important role in distant self-prospection, leading to greater energy. However, CFC did not influence energization in near self-prospection, possibly due to the less idealized or more detailed character of near future-self representations. Yet, other individual differences may be relevant to energization in the course of imagining the near future-self. Certain beliefs about the relation between one's self and social world (e.g., self-efficacy, locus of control, agency or sense of power) are a case in point. For example, individuals who believe that one can take an action to improve the future may be more energized by less idealized (and frequently grayish) near self-prospection.

Future work may advance our findings in several ways. To begin, such work would need to use objective measures of energy (e.g., systolic blood pressure; Gendolla et al., 2012; Kappes & Oettingen, 2011; Wright, 1996) as an alternative to self-reported energy.

Also, such work would need to consider self-prospection in a particular domain (e.g., academic achievement) and examine energy associated with activities in that domain.

Energization can fuel behavioral outcomes such as reduced procrastination and greater effort or time on a task (Kuhl & Fuhrmann, 1998; Sevincer et al., 2013), and thus may be especially consequential when the task is linked to a long-term goal reflected in the content of the self-prospection narrative. For example, if a person mentions success at school in her future-self narrative, she may spend more time on a course related assignment.

In addition, such work may examine the valence of self-prospection. Our research capitalized on the general positivity of self-prospection (Stephan, Sedikides, Heller, et al., 2015) in demonstrating that CFC is relevant to energizing imagination of distant future-self. However, when the content of self-prospection is negative – due either to manipulation or disposition – high CFC may be also relevant to energizing imagination of near future-self (e.g., avoidance of undesirable outcomes).

Our findings regarding the effect of vividness of self-representations on energy are consistent with the literature (e.g., effects of script availability on intentions; Anderson, 1983; Husnu & Crisp, 2010). Future work may attempt to identify cognitive and motivational processes that contribute additively to the complex phenomenon of energization. For example, vividness may precipitate fluency (i.e., meta-cognitive ease associated within information processing; Alter & Oppenheimer, 2009) and therefore increase the subjective likelihood of future events (Johnson, Hershey, Meszaros, & Kunreuther, 1993; Sherman, Cialdini, Schwartzman, & Reynolds, 1985). Moreover, vividness may induce consideration of concrete means to achieve a goal and enhance perceived imminence of a reward (Peetz, Wilson, & Strahan, 2009), which is likely to foster energization.

The disposition to consider future consequences may have additional implications for traversing psychological distance. For example, persons high on CFC may be more prone to consider consequences of their actions for other people (i.e., mind perception; Ames & Mason, 2012) and, in general, may regard events and people as interdependent rather than isolated. The proclivities to anticipate responses from others and perceive interdependence between people and events may promote prosocial behavior. Indeed, as we have mentioned, conscientiousness (a correlate of prosociality; Carlo, Okun, Knight, & De Guzman, 2005; McCrae & Costa, 1989) is positively related to an extended time perspective (Carver, 2010).

Finally, the disposition to consider future consequences may be linked to more effective mental time travel backwards as well, given that somewhat similar cognitive processes seem to be involved in traveling backward and forward (Addis, Sacchetti, Ally, Budson, & Schacter, 2009; Brown, Dorfman, Marmar, & Bryant, 2012; Viard et al., 2011). Specifically, it is possible that persons high on CFC are more adept at mental travel that utilizes past experiences (e.g., nostalgia) in order to benefit the present self. For example, high CFC persons may be particularly good at using nostalgia in order to augment self-continuity (i.e., perceptions of one's past being interwoven into one's present; Sedikides et al., 2016), optimism (Cheung et al., 2013), inspiration (Stephan, Sedikides, Wildschut, et al., 2015), or creativity (Van Tilburg, Sedikides, & Wildschut, 2015).

In conclusion, the way people envision their future has crucial implications for present psychological states, and in particular energy. Our work indicates that energization is jointly determined by time distance from the imagined future-self and the disposition to consider future consequences. In particular, greater CFC enables people to imagine their future in a more vivid manner, which facilitates energization, especially when people think of themselves in the distant (than near) future. Vivid future self-representations may help individuals

clarify what needs to be done today for the benefit of the future-self, a process that fosters energy.

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