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Self-Enhancement or Self-Coherence? Why People Shift Visual Perspective in Mental Images of the Personal Past and Future

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Abstract

It is often assumed, by laypeople and researchers alike, that people shift visual perspective in mental images of life events to maintain a positive self-concept by claiming ownership of desirable events (first-person) and disowning undesirable events (third-person). The present research suggests that people shift perspective not according to the pictured event's desirability but according to whether they focus on the experience of the event (first-person) or on the event's coherence with the self-concept (third-person). This explains why self-change promotes third-person imagery of prechange selves (Studies 1 and 2). And, the same mechanism determines perspective apart from self-change, in both memory and imagination (Studies 3 and 4). By demonstrating that people shift perspective according to whether they focus on the experience of an event or its self-concept coherence, these results suggest how perspective may function more broadly in social cognition, and specifically in the construction and maintenance of the temporally extended self.

Keywords

perspective-taking, self-concept, imagery, autobiographical memory, imagination, mental simulation

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Joan Didion's autobiographical play *The Year of Magical Thinking* portrays a traumatic period in her life. Describing the process of writing the play, Didion (2007) commented,

> I thought of [the character who would appear on stage] as "the speaker," or "she." I thought of myself as the witness, the watcher, the auditor, the audience. . . . It would be logical to assume that I adopted this distance to protect myself. It would also be wrong. The idea that whoever appeared onstage would play not me but a character was central to imagining how to make the narrative: I would need to see myself from outside. (p. B7)

Writing the play required Didion to integrate specific life experiences into a coherent story, and she suggests that reflecting on her past self from an external vantage point was crucial to this process. Didion's remark that she needed to see herself from the outside may be interpreted as a metaphor, but when thinking about life events—both past and future—people often picture those events in their minds and, on occasion, spontaneously see these images from the visual perspective an observer would have (*third-person*) rather than from their own visual perspective (*first-person*). This phenomenon has long been remarked on (e.g., Freud, 1907/1960; Galton, 1883) and more recently verified by systematic investigation (e.g., Nigro & Neisser, 1983). However, the psychological function that imagery perspective serves is still under investigation.

The present studies speak to this question by investigating the determinants of imagery perspective. Specifically, we test whether use of third-person as opposed to first-person imagery is determined by a desire to disown a pictured event or by a focus on how the event relates to broader themes in one's life—one's self-concept. According to both hypotheses, shifts in imagery perspective reflect the function it serves in representing the subjective meaning of events. However, the hypotheses differ in their assumptions about the nature of that function. We evaluate the empirical basis for each assumption and conclude that evidence supports the hypothesis that a focus on an event's self-concept coherence, and not a desire to disown it, promotes use of the third-person perspective. Furthermore, given the commonalities in the constructive processes that

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support recalling the past and imagining the future (Addis, Pan, Vu, Laiser, & Schacter, 2009), we expect our predicted effect to hold regardless of whether the life events people picture are in the past or future. We report four studies that provide an empirical test and discuss implications for understanding the construction and maintenance of the temporally extended self.

Does Motivation to Disown a Pictured Event Promote Third-Person Imagery?

One hypothesis is that motivation to disown a pictured event promotes third-person imagery. This hypothesis follows from the assumption that third-person imagery excludes the self in the pictured event from the present self-concept whereas first-person imagery includes the pictured self in the present. This assumption frequently shapes assertions about the role that imagery perspective plays in psychological processes (e.g., Kenny et al., 2009; McIsaac & Eich, 2004; Sanitioso, 2008; Wilson & Ross, 2003). Most relevant to the present studies is an account that implicates imagery perspective in self-enhancement processes (Sanitioso, 2008).

This account starts with the assumption that imagery perspective serves as a cue to include pictured events in the present self (first-person) or exclude (third-person) pictured events from the present self. Based on this assumption, and in line with the idea that information produces assimilation effects when it is included in the representation of the evaluated object and contrast effects when it is excluded (Schwarz & Bless, 2007), recalling negative past events from the third-person perspective and positive past events from the first-person perspective should enhance the present self. Thus, this account proposes that people adopt the third-person perspective to picture negative events and the first-person perspective to picture positive ones in an effort to enhance the present self (Sanitioso, 2008). By this account, imagery perspective functions analogously to subjective perceptions of time: People have been shown to disown negative events by pushing them into the past and claim ownership of positive events by pulling them toward the present (Ross & Wilson, 2002).

Although some data appear to support this line of reasoning, other data cast considerable doubt. In evaluating the starting assumption that imagery perspective serves as a cue to include or exclude the pictured event from the present self, it is relevant to consider evidence from experiments that manipulate imagery perspective. Picturing an event from the third-person as opposed to first-person perspective can promote the exclusion of the pictured self from the present—for example, increasing perceived self-change since a recalled event occurred—but only when people hold a self-theory that defines the pictured self as inconsistent with the present. When people hold a self-theory that defines the pictured self as consistent, using third-person imagery promotes the inclusion of the pictured self in the present—for example, decreasing perceived self-change (Libby, Eibach, & Gilovich, 2005). These findings undermine the idea that imagery perspective directly cues the inclusion or exclusion of an event from the present self-concept.

Even if picturing an event from the third-person perspective does not necessarily exclude it from the present self, it is still possible that a desire to disown an event might prompt people to picture it from the third-person. In evaluating this possibility, experiments that measure imagery perspective are most relevant, and the support is mixed. One investigation tested whether an event's emotional impact, positive or negative, predicted the perspective people used to picture it. Such an effect would be expected, given self-enhancement motivation, if people shift perspective in response to a desire to include or exclude events from the present self. However, no evidence of an effect emerged (D'Argembeau & Van der Linden, 2004).

Another study directly manipulated participants' desire to claim or disown a past self and measured the perspective they then used to picture the event in question (Sanitioso, 2008). In this study participants either were led to believe that introversion or that extraversion was predictive of success. Then, they recalled and reported the perspective they used to picture an incident in which they behaved introvertedly. Participants were more likely to use the third-person perspective when they had been led to believe that extraversion was predictive of success. This result was interpreted as evidence that people shift perspective in response to the desire to disown (third-person) or claim (first-person) the pictured event (Sanitioso, 2008).

However, it was also acknowledged that the data did not rule out an alternative interpretation. The manipulation of beliefs about whether introversion or extraversion was predictive of success could have changed participants' present self-concepts before they pictured the introverted behavior. Thus, the effect of the manipulation on perspective could have been driven by the perceived consistency of the introverted behavior with the present self-concept (Sanitioso, 2008). Indeed, other work suggests that inconsistency between present and pictured selves promotes third-person imagery (Libby & Eibach, 2002).

Furthermore, it is important to consider that although people are motivated to enhance the self, they are also motivated to achieve a coherent self-understanding (Swann, Rentfrow, & Guinn, 2002). Perceived inconsistencies represent a threat to self-coherence, but people can counter such threats by integrating the discrepant event with a broader life narrative, citing a turning point or trajectory of development that explains how the past self became the present (Ross & McFarland, 1988). According to another account of imagery perspective's representational function, it is just this way of thinking about an event that should lead people to picture it from the third-person perspective.

Does Focusing on an Event's Self-Concept Coherence Promote Third-Person Imagery?

We hypothesize that focusing on an event's self-concept coherence promotes third-person imagery. To understand the basis for this hypothesis, it is useful to consider the nature of event representations and of the self. Any life event can be understood

in terms of the concrete details that define that particular situation or in terms of the meaning the event has in relation to the self-concept (Vallacher & Wegner, 1985). This distinction in levels of meaning corresponds with a widely recognized distinction between two facets of the self. William James (1890/1950) referred to these facets as the "I" and the "me." Many theories across philosophy and psychology converge on a similar idea, albeit using a variety of labels (see Gallagher, 2000). Here we use the terms *experiential self* and *conceptual self* to highlight the distinct bases of the two facets. The experiential self (i.e., the Jamesian "I") is the phenomenology of engaging with the immediate environment (Farb et al., 2007; Legrand & Ruby, 2009). The conceptual self (i.e., the Jamesian "me") is a framework of general self-theories about life themes, developmental trajectories, personality traits, and superordinate goals (Conway, 2005; McAdams, 2001; Ross, 1989).

The hypothesis that focusing on an event's self-concept coherence leads people to picture it from the third-person perspective follows from the assumption that imagery perspective shapes the level of meaning in event representations. According to this account (Libby & Eibach, in press), first-person images represent an event in terms of the experience of acting on and reacting to the environment—the basis for the experiential self. Third-person images represent an event in terms of its meaning in a broader context. General self-theories—the basis for the conceptual self—can provide such a context for autobiographical events. Experiments that manipulate perspective are most relevant to evaluating this assumption about the representational function of imagery perspective, and a variety of findings provide converging support.

For example, when people picture past events from their lives, first-person imagery produces more reliving of emotions evoked by experiencing the event than does third-person imagery (Robinson & Swanson, 1993). When people see actions depicted from a first-person as opposed to third-person perspective, areas of sensory-motor cortex are more active (Jackson, Meltzoff, & Decety, 2006). In addition, when instructed to picture a past event from the first-person rather than third-person perspective, people recall more details about their past emotions, physical sensations, and psychological states (McIsaac & Eich, 2002). Picturing a life event from the third-person perspective seems to cause people to analyze what the event means in relation to more general knowledge about themselves and their life. For example, compared to first-person imagery, third-person imagery makes people more likely to think about their pictured behavior in terms of personality traits, goals, and identities (Frank & Gilovich, 1989; Libby, Shaeffer, & Eibach, 2009; Vasquez & Buehler, 2007).

Thus, research that manipulates perspective suggests that imagery perspective defines the mental representation of a life event either as a specific experience (first-person) or in terms of its meaning in the context of their lives more broadly (third-person). If people's spontaneous choice of imagery perspective reflects this representational capacity, then manipulating the level of meaning that people focus on as they think about a life event should produce corresponding changes in the visual perspective people use to picture that event. Most relevant to evaluating this hypothesis are experiments that measure imagery perspective, and results are consistent.

In one study participants were more likely to picture an event from the first-person perspective if they had described their emotional experience of it rather than the objective circumstances (Nigro & Neisser, 1983). In another set of experiments, participants pictured themselves doing hypothetical actions. Participants were more likely to use the third-person perspective when the actions (e.g., voting, greeting someone) were described in terms of associated goals and traits (e.g., influencing the election by voting, showing friendliness by greeting someone) than in terms of concrete movements (e.g., voting by pulling a lever, greeting someone by saying hello; Libby et al., 2009). Thus, together, research that manipulates and measures perspective converges on the idea that the perspective people spontaneously adopt as they picture a life event should depend on whether they focus on the concrete experience of the event or on the event's self-concept coherence. Studies we report here tested this hypothesis directly.

Overview of the Present Research

Participants pictured past and future events from their lives and reported the visual perspectives they used. Studies 1 and 2 employed the phenomenon of self-change to investigate whether use of third-person as opposed to first-person imagery is determined by a desire to disown a pictured event or by a focus on the event's self-concept coherence. Studies 3 and 4 investigated shifts in perspective apart from self-change by directly manipulating whether participants focused on the experience of an event's concrete details or on integrating the event with a coherent self-concept. We predicted that, regardless of whether an event was in the past or future and whether it was positive or negative, adopting a coherence focus as opposed to an experience focus would make people more likely to picture it from the third-person perspective.

Study 1

Study 1 tested which of the two hypothesized determinants of imagery perspective could better account for a previously documented determinant: People are more likely to picture a past event from the third-person perspective if they believe they have changed since it occurred than if they do not (Libby & Eibach, 2002).

Because people are motivated to perceive self-improvement over time (Ross & Wilson, 2000), self-change will often be confounded with perceived negativity of the past self. Thus, the effect of self-change on perspective could be due to the use of third-person imagery to disown negative past selves and first-person imagery to claim positive ones. According

to this account, if self-change is manipulated orthogonally to perceived negativity of the past self, then people should be more likely to picture an event from the third-person perspective if their past self is negative than if it is positive, regardless of whether or not they perceive themselves to have changed.

Alternatively, we propose that perspective varies according to whether people are focused on integrating an event with a coherent self-concept or are focused on the experience of the event's concrete details. When people believe they have changed they necessarily perceive an inconsistency between past and present selves. Inconsistency is a threat to self-coherence, but people can maintain coherence by linking the discrepant incident to a broader life theme that accounts for it (Ross & McFarland, 1988). Thereby, according to our account people should be more likely to picture an event from the third-person perspective if their past self is inconsistent with the present than if it is consistent, regardless of its valence. Study 1 orthogonally manipulated the valence and consistency of past selves to test this prediction.

Method

Participants. Eighty undergraduates (56 female) participated in exchange for course credit.

Materials and procedure. Participants were randomly assigned in equal numbers to complete one of four versions of a high school memories questionnaire, which varied according to a 2 (past-self consistency: consistent vs. inconsistent) × 2 (past-self valence: positive vs. negative) design.

In the consistent conditions, participants were instructed to identify an "aspect of yourself that has been an enduring quality of your personality since high school." It was specified either that this aspect be undesirable (consistent negative past-self condition) or desirable (consistent positive past-self condition). In the inconsistent conditions participants were instructed to identify "an aspect of yourself that you feel has changed since high school." It was specified either that this change be for the better (inconsistent negative past-self condition) or for the worse (inconsistent positive past-self condition).

Participants wrote about their chosen self-aspect for 5 minutes. Next, they recalled a high school memory related to this self-aspect—the enduring aspect of themselves (consistent conditions) or the way they used to be (inconsistent conditions). To elicit a specific autobiographical memory, instructions directed participants to recall an event that they were involved in or witnessed firsthand and that occurred at a particular place and time. Participants recorded a cue word identifying the event.

To measure perspective, the questionnaire introduced the distinction between first-person and third-person perspectives, explaining that memories are often accompanied by visual images and defining the two perspectives as follows:

> Some images you may see from the first-person perspective, which means you see the event from the same visual perspective that you originally did; in other words, in your memory you are looking out at your surroundings through your own eyes.
>
> Some images you may see from the third-person perspective, which means you see the event from an observer's visual perspective; in other words, in your memory you can actually see *yourself*, as well as your surroundings.

Because participants could have experienced multiple images of the event and some from each perspective (e.g., Huebner & Fredrickson, 1999), participants used a 10-point scale ranging from *entirely first-person* to *entirely third-person* to indicate the relative proportion of images experienced from each perspective.

At the end of the questionnaire, participants estimated the date of the recalled event, providing an index of its objective temporal distance. Participants also used a scale ranging from *extremely negative* (1) to *extremely positive* (10) to indicate their present evaluation of their recalled behavior, allowing for an additional test of the possibility that perspective is related to past-self valence.

Results and Discussion

Participants' ratings of the relative proportion of memory images viewed from the two perspectives were coded such that 1 corresponded to *all first-person* and 10 corresponded to *all third-person*. These values were submitted to a 2 (past-self consistency: consistent vs. inconsistent) × 2 (past-self valence: positive vs. negative) ANOVA. There was a main effect of past-self consistency, $F(1, 76) = 4.65$, $p < .05$. No other effect was significant, Fs < 1.[1] As we predicted, participants experienced more third-person imagery when their past selves were inconsistent (inconsistent–positive: $M = 5.05$, $SD = 3.12$; inconsistent–negative: $M = 5.20$, $SD = 3.52$) than when they were consistent (consistent–positive: $M = 3.50$, $SD = 2.82$; consistent–negative: $M = 3.75$, $SD = 2.94$), regardless of the past self's valence (see Figure 1).

We also looked for an effect of past-self valence using participants' ratings of their past behavior. Due to self-enhancement motivation, participants may have regarded their past selves more favorably when those past selves were consistent with their present selves than when they were inconsistent (e.g., Ross & Wilson, 2000), even if participants regarded negative past selves less favorably than they did positive past selves on average. If evaluation of past selves was thus confounded with self-change, then the previous analysis may obscure the role of past-self valence in determining perspective.

To investigate this possibility, we submitted participants' present evaluations of their recalled behavior to a 2 (past-self consistency) × 2 (past-self valence) ANOVA. There were main effects of both variables—past-self consistency, $F(1, 76) = 7.63$, $p < .01$, past-self valence, $F(1, 76) = 49.09$, $p < .001$—as well as an interaction, $F(1, 76) = 5.55$, $p < .05$. Participants regarded

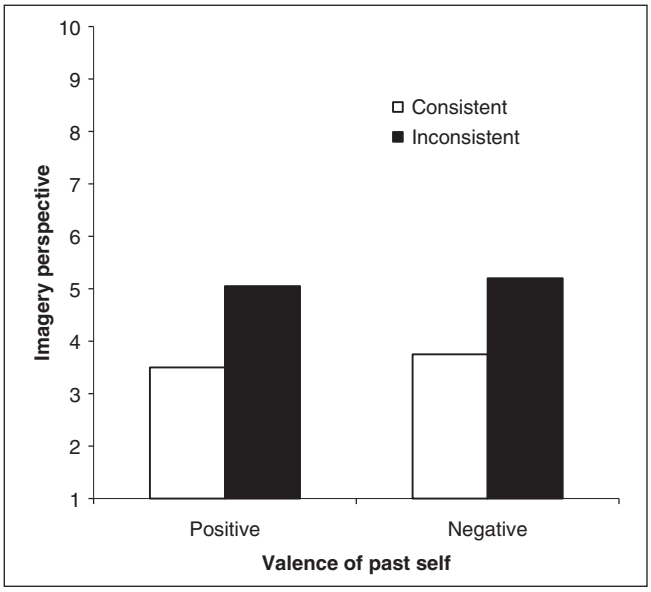

Figure 1. Mean imagery perspective ratings in Study 1, depending on the valence of the past self and its consistency with the present
Note: Ratings were made on a scale ranging from *entirely first-person* (1) to *entirely third-person* (10).

Table 1. Mean Favorability Rating of Recalled Behavior in Study 1, Depending on Past-Self Valence and Consistency

	Consistency of past self with present self			
	Consistent		Inconsistent	
Valence of past self	*M*	*SD*	*M*	*SD*
Positive	8.53[a]	1.37	6.33[b]	2.46
Negative	4.50[c]	1.79	4.33[c]	1.91

Note: Scale ranged from *extremely negative* (1) to *extremely positive* (10). Within rows and columns, means not sharing the same superscript are significantly different, *p*s < .01.

their consistent past selves more favorably than their inconsistent past selves only in the positive past-self conditions, $F(1, 76) = 13.08$, $p < .001$, not in the negative past-self conditions, $F(1, 76) < 1$ (see Table 1). This pattern does not match that observed for perspective, nor does it account for it: When including evaluations as a covariate in the analysis of perspective, the only significant effect was again that of past-self consistency, $F(1, 75) = 4.07$, $p < .05$, and there was no hint that evaluations predicted perspective, $F(1, 75) = 0.007$, $p = .93$.

The lack of evidence for an effect of past-self valence on perspective casts doubt on the idea that the desire to claim or disown pictured events directly determines imagery perspective. The fact that imagery perspective did depend on the consistency between past and present selves means it is plausible that imagery perspective varies according to whether people focus on the experience of an event or its self-concept coherence—if, in fact, people tend to direct their mental focus to self-concept coherence when they perceive inconsistency. Study 2 sought evidence to support this account.

Study 2

In Study 2 we asked undergraduates who judged their personalities as having changed or remained stable since high school to recall an event from that period. We predicted that those who believed they had changed, and thus perceived inconsistency between their present and past selves, would be more likely to picture the event from the third-person perspective and that a greater tendency to focus on the event's coherence with the self-concept would account for changed participants' greater use of third-person imagery.

The alternative idea that the motivation to claim or disown pictured selves determines imagery perspective suggests that imagery perspective functions analogously to subjective temporal distance. If this is the case, imagery perspective may be correlated with subjective temporal distance. Furthermore, to the extent that participants who had changed felt more temporally distant from the events they recalled, subjective temporal distance could account for their greater tendency to use third-person imagery. We expected this would be unlikely given the results of Study 1 and the evidence we reviewed in the introduction, but we included measures of subjective temporal distance in Study 2 to allow an empirical test.

Method

Participants. Fifty-two undergraduates (39 female) participated in exchange for course credit.

Materials and procedure. Participants completed a questionnaire distributed in stages. The first page measured whether participants believed themselves to have changed since high school or not. It stated,

> Over the transition to college there are some people whose personalities seem to change as a result of their college experience. However, there are other people whose personalities seem to remain pretty much the same over the transition to college.

Participants classified themselves as one type or the other. Then, depending on these self-classifications, they listed three things about themselves either that had changed or that had remained the same.

Next, depending on their self-identified status as changed or stable, participants recalled a high school memory related to either what they used to be like or to the enduring aspects of their personality. To elicit a specific autobiographical memory, instructions directed participants to recall an event that they were involved in or witnessed firsthand and that occurred at a particular place and time. Participants estimated the event date, providing an index of objective temporal distance, and then they described the event. The next page of the questionnaire presented two measures of mental focus, two measures of subjective temporal distance, and a measure of perspective.

The first measure of mental focus instructed participants to evaluate their written memory descriptions according to the extent they had focused on "what it was like to experience the event directly—e.g., describing the sights, sounds, smells you experienced; describing your thoughts and feelings during the event" versus on "analyzing the event—e.g., explaining the larger meaning of the event, what it says about your personality now or in the past, why the event happened, and/or what the consequences were or are." Participants used a 10-point scale ranging from *focused completely on what it was like to experience the event, not at all on analyzing the event* to *focused completely on analyzing the event, not at all on what it was like to experience the event*.

Next, participants completed a checklist consisting of 10 thoughts and feelings; 8 were used to compute a second measure of mental focus, and 2 were used to compute the first subjective temporal distance measure. Half the mental focus items (see the Appendix) were worded such that endorsing them signaled a focus on the self-concept coherence of the event, as opposed to the experience (e.g., "Thinking, 'why did I do that?'"), and the other half were worded such that endorsing them signaled a focus on the experience of the event, as opposed to self-concept coherence (e.g., "Feeling like you were living the event all over again"). The subjective temporal distance items were "Feeling like the event happened just yesterday" and "Feeling like the event happened ages ago." Participants indicated which, if any, of the thoughts and feelings they had while thinking about the recalled event.

Next came the measure of imagery perspective. Instructions introduced the distinction between first-person and third-person perspectives and asked participants to report their use of the two perspectives using the same 10-point scale described in Study 1.

After this came the second subjective temporal distance measure (adapted from Ross & Wilson, 2002): "Regardless of when events actually occurred in the past, sometimes they feel very far away, while other times they feel very close, almost like yesterday. As you think about it right now, how far away does the event you recalled FEEL to you?" Participants responded using an 11-point scale ranging from *like yesterday* (0) to *the very distant past* (10).

When the session ended participants used a scale ranging from *I've stayed exactly the same* (1) to *I've changed completely* (10) to evaluate the consistency of their personalities since high school. This was a check on participants' forced-choice judgments.

Results and Discussion

Participants were assigned to the changed or stable group depending on their own classifications. We expected most participants would naturally frame the development of their personalities one way or the other, but to identify those who might be ambivalent (and thus could not accurately be assigned to either group), we used the scale measure of self-change as a check on participants' forced-choice judgments. All but 4 participants provided compatible responses on the two measures, that is, rating themselves on the *changed* end of the scale (6–10) if they had identified themselves as changed on the forced-choice measure or rating themselves on the *same* end of the scale (1–5) if they had identified themselves as having stayed the same. The 4 participants with incompatible responses were excluded from analyses.[2] Thus, the final sample consisted of 48 participants, 29 in the changed group and 19 in the stable group.

Mental focus. The first mental-focus measure consisted of participants' ratings of their memory descriptions. The pattern of means supported our predictions: Participants focused relatively more on the coherence of the event with the self-concept if they believed they had changed ($M = 7.72$, $SD = 1.83$) than if they did not ($M = 6.47$, $SD = 2.91$). This difference was marginally significant $t(46) = 1.83$, $p = .07$. However, this was the one analysis in the studies reported here where the objective temporal distance of the pictured event was a significant predictor of a dependent variable when included as a covariate, $t(45) = 2.00$, $p = .05$. Controlling for the relationship between objective temporal distance and mental focus, the relationship between self-change and mental focus was significant, $t(45) = 2.41$, $p < .05$.

The second mental-focus measure was contained in the thoughts and feelings checklist. For each participant, we computed the proportion of mental-focus items on which he or she responded in line with coherence focus as opposed to experience focus (i.e., endorsed coherence-focused items and did not endorse experience-focused items). On this index (reliability: KR-20 = .80) values greater than .5 indicate a focus more on coherence than on experience, and values less than .5 indicate a focus more on experience than on coherence. Consistent with participants' memory description ratings, the checklist index suggested that participants were more coherence-focused when they believed they had changed ($M = 0.72$, $SD = 0.22$) than when they did not ($M = 0.25$, $SD = 0.20$), $t(46) = 7.37$, $p < .001$.

Subjective temporal distance. The first subjective temporal distance measure was contained in the thoughts and feelings checklist. For each participant, we computed the proportion of subjective temporal distance items on which they responded in a manner consistent with feeling as if the event happened a long time ago (reliability: $\chi^2 = 7.76$, $p < .006$). Subjective temporal distance was greater when participants believed they had changed ($M = 0.74$, $SD = 0.32$) than when they did not ($M = 0.42$, $SD = 0.42$), $t(46) = 3.02$, $p < .01$.

The second subjective temporal distance measure was the rating scale. Again, subjective temporal distance was greater when participants believed they had changed ($M = 6.48$, $SD = 1.77$) than when they did not ($M = 4.11$, $SD = 2.64$), $t(46) = 3.74$, $p < .01$.

Imagery perspective. As they were picturing their memory, participants used the third-person perspective more of the time when they believed they had changed ($M = 5.62$, $SD = 2.73$) than when they did not ($M = 3.68$, $SD = 2.38$), $t(46) = 2.52$, $p < .05$. This result replicates the findings of Libby and Eibach (2002) and Study 1.

Next, we investigated whether perspective was associated with measures of mental focus and subjective temporal distance. With both mental-focus measures, greater use of third-person imagery was associated with a bias toward coherence focus, as predicted (memory descriptions: $r = .35$, $p < .05$; checklist: $r = .46$, $p < .01$). With both subjective temporal distance measures, the sign of the correlations suggested that greater use of third-person imagery was associated with greater subjective distance, but the relationship was at best only marginally significant (scale: $r = .27$, $p = .06$; checklist: $r = .15$, $p > .3$).

Next, we created composite indices of mental focus and subjective temporal distance by standardizing and averaging the two measures for each variable. When both indices were used to predict perspective simultaneously, only mental focus was significant, $\beta = .56$, $t(45) = 3.76$, $p < .001$; subjective temporal distance: $\beta = -.07$, $t(45) = .50$, $p = .62$.

Although this study design does not allow definitive conclusions about the causal relationships among the variables, a mediational analysis showed that the mental-focus measure accounted for the association between perceived self-change and perspective (Sobel $z = 2.69$, $p < .01$; see Figure 2), as we predicted.[3] An analysis using subjective temporal distance instead of mental focus as a potential mediator revealed no support for the idea that the greater subjective temporal distance of changed participants' memories accounted for their greater use of third-person imagery: Perceived self-change remained a significant predictor of perspective, $\beta = .32$, $t(45) = 2.00$, $p = .05$, when subjective temporal distance was included as an additional predictor, $\beta = .07$, $t(45) = 0.45$, $p = .65$.

In Study 1 participants used the third-person perspective more if their past self was inconsistent with the present than if it was consistent, regardless of whether or not including the past event in the present would be self-enhancing. Study 2 suggests that this pattern was not due to the effect of consistency per se but rather due to the effect of consistency on whether people focused on the experience of an event or its self-concept coherence. Although the recalled events felt more temporally distant if participants believed they had since changed, the relationship between subjective temporal distance and perspective was not reliable and did not account for the relationship between perceived self-change and perspective.

Studies 1 and 2 used the phenomenon of self-change to obtain evidence that perspective varies according to whether people focus on the experience of an event or its self-concept coherence. Studies 3 and 4 investigated this mechanism directly, apart from the phenomenon of self-change. These studies manipulated people's mental focus as they thought about life events, past and future, and tested the effect on perspective.

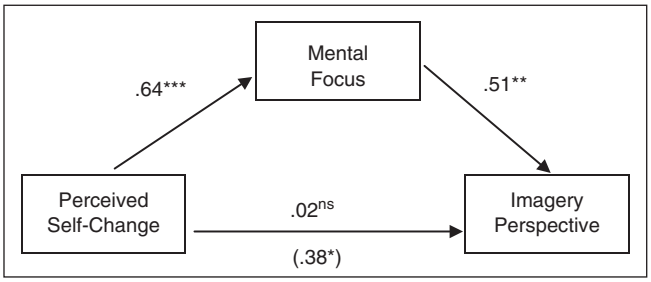

Figure 2. Path diagram relating perceived self-change and mental focus to imagery perspective

Note: Numbers on paths represent standardized regression coefficients. The coefficients along the path from perceived self-change to imagery perspective are the coefficients with (no parentheses) and without (parentheses) mental focus included in the equation. Perceived self-change was coded –1 for no change and +1 for change. The mental-focus index was coded such that higher numbers indicate more coherence focus and less experience focus. Higher numbers on the imagery perspective measure indicate more third-person imagery. Sobel $z = 2.69$, $p < .01$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Study 3

Regardless of whether an event is in the past or the future people can focus on the experience of the event or its self-concept coherence. It is this difference in mental focus that we propose influences the point of view from which people construct visual images of events. Although there are certainly differences between recalling the past and imagining the future, both processes are constructive and appear to rely on a common core network for generating episodic event representations (Addis et al., 2009). Consistent with these commonalities, imagery is a hallmark of mental time travel in both directions (Brewer, 1996; Conway, Meares, & Standart, 2004), and visual perspective influences the level of meaning people perceive in actions, both when people recall the past and when they imagine the future (e.g., Libby et al., 2005; Vasquez & Buehler, 2007). Thus, if our hypothesis about the effect of mental focus on visual perspective is correct, focusing on the self-concept coherence of an event, as opposed to the experience of its concrete details, should promote third-person imagery regardless of whether the event is in the past or future. To test this in Study 3 we manipulated not only participants' mental focus but also the event's temporal position and measured the effect on perspective.

Method

Participants. Eighty undergraduates (48 female) who attended their high school graduation at least one month prior to the study participated in exchange for course credit.

Materials and procedure. Participants were randomly assigned in equal numbers to complete one of four versions of a questionnaire, which varied according to a 2 (temporal position: past vs. future) × 2 (mental focus: coherence vs. experience) design. Instructions either directed participants to describe their high school graduation (past) or their university graduation (future). In the coherence-focus conditions, participants were instructed to focus "on the broader significance of this event in your own life," defined as the meaning of the event in relation to personal characteristics and other life events. In the experience-focus conditions, participants were instructed to focus "on the concrete

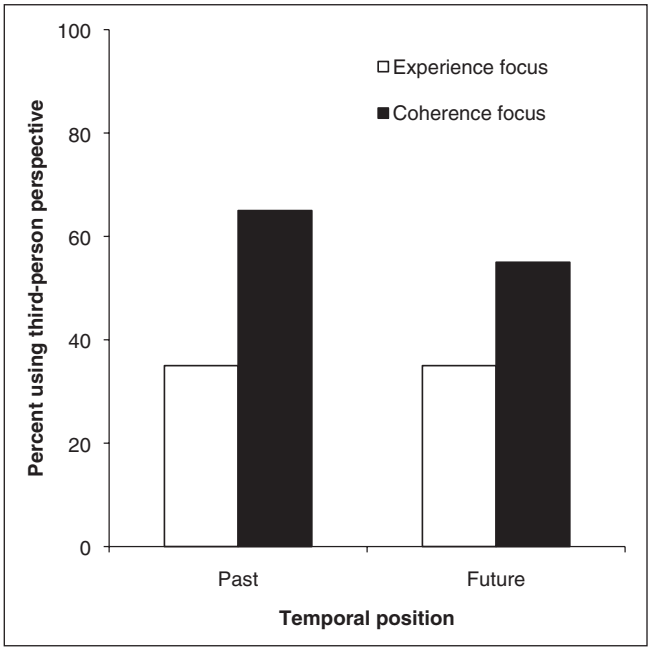

Figure 3. Percentage of participants using third-person imagery in Study 3, depending on temporal position of event and mental focus

details" of the event, defined as the actions and sensory experiences involved. In each condition participants were instructed to refrain from focusing on the aspects of the event specified in the other condition.

After writing about the event for 7 minutes participants formed an image of that event and held it in mind while continuing to the next page, which introduced the distinction between first-person and third-person perspectives using descriptions from Libby and Eibach (2002). Participants indicated which perspective—first-person or third-person—they were using while picturing their graduation. They also reported the dates of their high school and university graduations.

Results and Discussion

We used logistic regression to predict perspective from mental focus (coherence vs. experience), temporal position (past vs. future), and their interaction. Mental focus was the only significant predictor (Wald $\chi^2 = 4.92$, $p < .05$; for all other predictors Wald $\chi^2 < 1$ and ps $> .65$). As hypothesized, participants were more likely to picture graduation from the third-person perspective if they focused on integrating that event with a coherent self-concept (past: 65% of participants; future: 55% of participants) than if they focused on the concrete experience of the event (past and future: 35% of participants; see Figure 3).

The temporally extended self stretches both into the past and the future, and for both directions focusing on the self-concept coherence of an event as opposed to the experience of its concrete details caused participants to be more likely to use third-person imagery. In this study, the event—graduation—was presumably self-enhancing, and participants should have been motivated to include this event in their present self-concept (Ross & Wilson, 2002), especially when they were directed to think about its meaning in relation to the self-concept. The fact that participants were most likely to adopt the third-person perspective under these conditions contradicts the idea that people use first-person imagery when they want to claim a pictured event and third-person imagery when they want to disown it.

Study 1 provides additional indirect evidence. Participants thought about either a past they should have been motivated to claim or one they should have been motivated to disown. This difference had no measurable impact on perspective, which instead depended only on the consistency of the pictured self with the present. We interpret this result to be a function of how the consistency of past selves influences the tendency to focus on self-concept coherence versus experiential details, and the results of Study 2 support this interpretation. Study 4 was designed to provide more definitive evidence by directly manipulating both the valence of a pictured event and participants' mental focus, then testing the effects on perspective.

Study 4

In Study 4 undergraduates imagined an important upcoming event—an interview for a desired position after graduation. They were either instructed to imagine the event unfolding according to a best-case or a worst-case scenario. We also manipulated their mental focus—either coherence or experience. To the extent that perspective depends on whether people desire to claim or disown the pictured event, participants should use more third-person imagery when they picture the worst-case as opposed to the best-case scenario. To the extent that perspective depends on whether people focus on the experience of an event or its self-concept coherenceparticipants should use more third-person imagery when they focus on coherence than on experience.

Method

Participants. Fifty-six undergraduates (40 female) participated in exchange for $5 each.

Materials and procedure. Participants were randomly assigned to complete one of four versions of a computerized questionnaire, which varied according to a 2 (valence: best case vs. worst case) 2 (mental focus: coherence vs. experience) design.

First, participants briefly described the job or degree program they hoped to enter upon graduation. Next, they imagined that they had the opportunity to interview for this ideal position. Participants were either instructed to imagine this interview according to "a best-case scenario in which everything about the interview goes extremely well and you perform at your very best" or a "worst-case scenario in which everything about the interview goes extremely poorly and you perform at your very worst." In the coherence-focus conditions,

participants were instructed to "explain what this interview would mean about you and your life," defined as the meaning of the event in relation to personal characteristics and other life events. In the experience-focus conditions participants were instructed to "describe what it would be like to experience the interview," defined as the actions and sensory experiences involved.

After participants had written about the interview they were directed to close their eyes and picture it. The next screen presented the imagery perspective measure, introducing the distinction between first-person and third-person perspectives similarly to Study 1. Participants used an 8-point fully labeled scale to indicate the proportion of images they experienced from each perspective as they had been writing about and picturing the interview. The endpoints of the scale were anchored at *all first-person images* and *all third-person images*.

The remaining questions were included for exploratory purposes or as manipulation checks. Participants completed the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). After this came a check for the valence manipulation: Participants used a fully labeled 7-point scale ranging from *very poorly* to *very well* to rate how well they imagined themselves performing in the interview. They used the same type of scale to rate how well they thought they would actually perform on such an interview. Next, they used fully labeled 5-point scales to rate imagery vividness and realism of the scenario. They used a fully labeled 7-point scale to rate how difficult it was to picture the event.

Next, as a check for the mental-focus manipulation, participants rated the thoughts they had when they wrote about the scenario. It was explained that they might have focused more on "what it would be like to experience the event directly—e.g., describing the sights, sounds, smells you would experience; describing the thoughts and feelings you would have during the event" or more on "analyzing the meaning of the event in your life—e.g., explaining its broader significance, what it would say about your personality and/or goals, how it would connect to other events in your life, and/or what the consequences of the event would be." Participants indicated the focus of their thoughts by choosing a point along an 8-point scale ranging from full focus on analyzing meaning to full focus on describing experience.

They then used 5-point scales ranging from *not at all* to *extremely* to rate their commitment to the career path that the interview represented, the likelihood they would follow this path upon graduation, and the extent of their preparation for the next step in their career path. Finally, they reported the month and year in which they would graduate.

Results and Discussion

One participant was excluded from analyses for failure to complete the questionnaire. This left 55 participants, with 12 to 15 per condition.

Participants' ratings of the proportion of images experienced from each perspective were submitted to a 2 (valence: best case vs. worst case) × 2 (mental focus: coherence vs. experience) ANOVA. As predicted, there was no significant effect of valence on perspective, $F(1, 51) = 0.18$. The only significant effect was mental focus, $F(1, 51) = 4.81$, $p < .05$; participants used more third-person imagery in the coherence-focus condition ($M = 4.74$, $SD = 2.68$) than in the experience-focus condition ($M = 3.25$, $SD = 2.15$). This was true regardless of whether the interview represented a best-case scenario, which participants would be motivated to claim, or a worst-case scenario, which participants would be motivated to disown, $F(1, 51) = 1.29$, $p > .25$ (see Table 2).

We also analyzed participants' responses to the other questionnaire items using the same 2 (valence) × 2 (mental focus) ANOVA (see Table 2). Demonstrating the effectiveness of the manipulations, there was a significant main effect of valence on imagined performance, $F(1, 51) = 66.95$, $p < .001$, and a significant main effect of mental focus on the mental-focus manipulation check, $F(1, 51) = 8.45$, $p < .01$. The manipulations of scenario valence and mental focus also had significant or marginal effects on several other variables (see Table 2). However, none of these variables was significantly correlated with perspective (ps > .25), and the effect of mental focus on perspective remained significant when each of these variables was included as a covariate in 2 (valence) × 2 (mental focus) ANOVAs predicting perspective.

General Discussion

When people picture a life event, the imagery perspective they use varies according to whether they focus on integrating that event with a coherent self-concept (third-person) or on the experience of the event's concrete details (first-person). We found no evidence that perspective depends on whether people desire to disown (third-person) or claim (first-person) the pictured event as part of the present self. In Study 1, participants recalled events they should have been motivated either to disown or to claim. Imagery perspective did not vary according to this distinction but rather according to whether past selves were inconsistent with the present (third-person) or consistent (first-person). Study 2 suggested that the reason inconsistency promotes third-person imagery is that inconsistency promotes a focus on an event's self-concept coherence. Studies 3 and 4 provided direct evidence for this determinant of perspective. Both when recalling the past and when imagining the future, and regardless of whether or not the pictured event reflected positively or negatively on the self, adopting a coherence focus rather than experience focus made participants more likely to picture the event from the third-person perspective. Here we consider how these findings relate to other research on the self and event representations, and we discuss implications for the functional role of imagery in developing and maintaining the temporally extended self.

Table 2. Scenario Ratings in Study 4, Depending on Valence and Mental Focus

	Valence							
	Best case				Worst case			
	Mental focus				Mental focus			
	Experience		Coherence		Experience		Coherence	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Perspective	**3.00**	**2.04**	**5.20**	**2.64**	**3.47**	**2.30**	**4.17**	**2.76**
Positive affect[a]	3.46	0.71	3.04	0.67	2.84	0.51	2.98	0.69
Negative affect	1.46	0.49	1.47	0.68	1.45	0.41	1.98	0.92
Imagined performance[b]	***2.15***	***0.99***	***2.27***	***0.80***	***–1.67***	***1.29***	***–0.25***	***2.34***
Predicted performance	1.54	1.05	2.13	0.92	1.80	1.01	1.58	1.68
Vividness of imagery	4.62	0.77	4.73	0.88	4.87	0.64	4.33	0.78
Ease of imagery	1.46	1.20	1.07	1.34	1.33	0.98	1.00	1.35
Realness of scenario[a]	3.46	0.78	2.87	0.92	2.73	1.03	2.67	0.78
Mental focus	**2.54**	**1.13**	**4.53**	**1.64**	**3.87**	**2.17**	**4.83**	**2.37**
Commitment to career path[c]	4.00	1.08	4.47	0.74	3.67	1.05	4.17	0.84
Likelihood of career path	4.08	0.95	4.07	0.88	3.80	1.01	4.08	0.79
Preparation for career path	3.69	1.11	3.60	1.06	3.13	1.13	3.58	1.17

Note: Italic formatting indicates significant main effect of valence. Bold formatting indicates significant main effect of mental focus. Valence and mental focus did not significantly interact. Perspective and mental focus scales ranged from *entirely first-person/experience focus* (1) to *entirely third-person/coherence focus* (8). Scales for imagined and predicted performance as well as for ease of imagery ranged from *very poorly/extremely difficult* (–3) to *very well/extremely easy* (+3). All other ratings were on 5-point scales with endpoints coded 1 for the lowest level of the variable and 5 for the highest.
[a]Marginally significant main effect of valence, $p < .10$.
[b]Marginally significant mental focus by valence interaction, $p < .10$.
[c]Marginally significant main effect of mental focus, $p < .10$.

Relation to Prior Work on the Self and Event Representations

The research reported here is concerned with different facets of the self and different ways of representing life events in memory and imagination. This creates points of contact with other lines of research that investigate these variables.

Self-awareness theory. Self-awareness theory (Duval & Wicklund, 1972) distinguishes between subjective and objective self-awareness, states that could be understood as mapping onto the two facets of the self we study here. Research in the tradition of self-awareness theory has focused almost entirely on the effects of experiencing one state of self-awareness or the other, and very little on the determinants of the two states (cf. Eichstaedt & Silvia, 2003), which is the focus of the studies we report here. Theoretically, objective self-awareness is proposed to vary according to gestalt figure-ground principles: When the self is the "smaller" area of the cognitive field, people should spontaneously experience objective self-awareness (Duval & Wicklund, 1972). This is proposed to occur when the self is distinct from a comparison set, which can consist of other people, nonsocial objects, or one's own past experience (Duval, Silvia, & Lalwani, 2001). Whereas self-awareness theory focuses on what causes the present self to become the object of awareness, the studies we report here concern what causes a past or future self to become an object in visual imagery. Yet, it is possible that the same principles apply.

We found that people were more likely to picture an event from the third-person perspective when that past self was discrepant from the present self, which initially appears to fit the principles of self-awareness theory. However, evidence suggested this effect was due to considering how the event related to the conceptual self, a process that promoted third-person imagery even when the recalled or imagined event was likely not discrepant from the conceptual self (e.g., graduation, successful job interview). It may be that considering a given event in terms of its coherence with the conceptual self causes the self in the pictured event to stand out as a figure against the ground of the conceptual self, even if the pictured self is not discrepant from the conceptual self. This would suggest an additional determinant of objective self-awareness. It is also possible that there are meaningful differences between objective self-awareness as it pertains to the present self versus past or future selves. Thus, further investigation of whether the factors that prompt shifts in imagery perspective also prompt shifts in self-awareness as operationalized by self-awareness theory would inform both that theory and an understanding of imagery perspective.

Construal level theory. The manipulation of mental focus in our studies can be understood as varying the level of abstraction at which participants construed events. Construal level theory proposes that greater abstraction promotes greater psychological distance (Trope & Liberman, 2010). Other research shows that people are more likely to picture simple hypothetical

actions from the third-person perspective if those actions are described in abstract as opposed to concrete terms (Libby et al., 2009). The present findings are consistent with this effect, demonstrating that it holds for complex events, regardless of their valence or temporal position.

However, whether use of third-person imagery necessarily reflects a feeling of psychological distance from the pictured event is a more complicated question. In the studies reported here perspective was not reliably associated with the subjective temporal distance of the event. And the results of the present experiments along with research reviewed in the introduction cast doubt on the idea that perspective functions to code the ownership of events, one of the proposed dimensions of psychological distance (Trope & Liberman, 2010). How or if third-person imagery varies in response to differences in felt psychological distance is an interesting question beyond the scope of this article.

Coping. When it comes to coping with traumatic events, integrating those events into a coherent causal structure and highlighting the connections to larger themes and meaning in one's life can contribute to better outcomes (e.g., Taylor, 1983). One way to induce this sort of shift in understanding is to engage in expressive writing about the traumatic incident (Pennebaker, Mayne, & Francis, 1997). The effect of this procedure has been likened to a shift in perspective (Pennebaker, 1990), and the present findings suggest that expressive writing could produce a literal shift toward the third-person perspective in traumatic memories. However, the present findings also caution against assuming that spontaneous use of third-person imagery when recalling upsetting events necessarily reflects adaptive coping. Furthermore, the present findings suggest a potential moderator of the relationship between third-person imagery and coping as well as between expressive writing and coping.

For example, studies of trauma survivors have investigated the association between imagery perspective for traumatic events and recovery from them. In some cases spontaneous use of third-person imagery has been found to predict more severe symptoms of posttraumatic stress disorder (PTSD; e.g., Kenny et al., 2009). However, in other cases, this association has not emerged, and third-person imagery has even been found to predict better outcomes on some dimensions (e.g., McIsaac & Eich, 2004). The results of the present studies suggest one reason for this mixed pattern of results. If perspective varies according to whether individuals focus on the experience of an event or on integrating it into a coherent sense of themselves as a person, then whether use of third-person imagery is associated with better or worse outcomes should depend on the framework that individuals use to integrate the traumatic event with their self-concept.

In some cases individuals focus on a traumatic experience as defining a negative central organizing theme in their lives, and this tends to be associated with more severe PTSD symptoms (Berntsen & Rubin, 2007). However, individuals are often able to make sense of traumatic events in ways that preserve well-being (Bonanno, 2004). And evidence suggests that it is when this sort of framework is used that focusing on the broader meaning of a traumatic event in one's life has positive outcomes (Taylor, 1983). Thus, use of third-person imagery may predict worse outcomes among those who adopt a maladaptive understanding of an event's meaning in their lives but predict better outcomes among those who adopt an understanding that restores control and self-esteem. By extension, this analysis suggests that whether or not expressive writing predicts better outcomes in the wake of an upsetting experience may also depend on the way in which individuals perceive the upsetting experience to fit into a coherent concept of self. These possibilities represent intriguing questions to be addressed in future research.

Imagery Perspective as a Tool in Event Representation

In addition to these ways in which the present results connect with and diverge from other investigations of the self and event representations, they make a unique contribution by demonstrating the role of visual imagery. In cognitive psychology imagery is widely recognized as a representational tool (e.g., Reed, 2010). The present experiments help make the case that imagery serves a representational function in social psychological processes as well.

We found that the perspective people used to picture life events varied according to whether people focused on the events' meaning in relation to the self-concept (third-person) or on the experience of the events (first-person). Alone, this variation in imagery perspective might be interpreted as epiphenomenal, and thus as serving no purpose in psychological processes. However, given that the effect also works in the opposite causal direction, as reviewed in the introduction, it seems more plausible that variation in the use of first-person versus third-person perspectives reflects their representational function. According to this account, first-person images define an event in terms of the experience of acting on and reacting to the environment whereas third-person images define an event in terms of its meaning in a broader context. If this is true, then when people picture life events as they think about them, the visual perspective of those images may play a role in maintaining a certain construal of the event.

In the present studies participants were explicitly prompted to think about past or future events to investigate the determinants of visual perspective in mental imagery. However, there are many instances in everyday life in which people spontaneously evoke thoughts of life events. For example, people use memories of past events to ground a sense of personal identity (Singer & Salovey, 1993), and people think about past and especially future events during episodes of mind wandering (Smallwood, Nind, & O'Connor, 2009). Given the pervasive role of subjective construal in social psychological processes (Griffin & Ross, 1991) and the prominence of visual imagery when people think about life events (Brewer, 1996; Conway et al., 2004), imagery perspective may play a role in shaping the dynamics of a wide range of social psychological processes.

Conclusion

The present findings speak most directly to the role of imagery perspective in defining the two facets of the self. It has been suggested that the experiential self represents a primitive awareness shared with other animals, whereas the conceptual self is uniquely human (Gallagher, 2000). Humans have a notion of the self as a coherent entity persisting across time from the past to the present into the future. One process contributing to the construction of this conceptual self is the creation of an overarching framework linking specific life experiences to beliefs and theories about themes, trajectories, and goals that define the self across time (Conway, 2005; McAdams, 2001). The studies reported here demonstrate that focusing on these connections causes people to use third-person imagery, both when recalling the past and imagining the future. Given the bidirectional nature of the relationship between imagery perspective and the level of meaning in event representations, the present findings suggest that picturing events from the third-person perspective contributes to the construction and maintenance of a sense of self as an entity that extends in both directions across time.

Appendix

Mental Focus Items From the Thoughts and Feelings Checklist in Study 2

Feeling like you were living the event all over again
Feeling like you were transported back into the past
Feeling the same feelings you felt when the event was happening originally
Thinking the same thoughts you thought when the event was happening originally
Thinking, why did I do that?
Thinking of ways you could have acted other than the way you did
Feeling like your high school self was a different person
Thinking "that's not me anymore"

Note: Participants saw all items presented in plain text. Mental focus was scored as the proportion of items on which participants responded consistent with a coherence focus as opposed to an experience focus (i.e., responded by endorsing items here in roman text and not endorsing items here in italics).

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Notes

1. Unless noted otherwise, including objective temporal distance as a covariate in this and subsequent analyses does not change patterns of means or significance.
2. The four participants who gave inconsistent answers initially identified themselves as having changed, but then rated themselves as unchanged.
3. We also tested an alternative model in which third-person imagery would account for the relationship between self-change and mental focus. Results were not consistent with this causal chain and provided only further support for our interpretation. When perspective was added to the model predicting mental focus from self-change, the effect of perspective was significant, $\beta = .34$, $t(45) = 3.05$, $p < .01$, but the effect of self-change remained significant, $\beta = .53$, $t(45) = 4.76$, $p < .001$. Thus, self-change relates to mental focus directly, independent of perspective. This supports the idea that the inconsistency created by self-change prompts people to focus on an event's self-concept coherence. The fact that perspective also predicts mental focus, independent of self-change, is consistent with research that manipulates imagery perspective (e.g., Libby, Shaeffer, & Eibach, 2009; Vasquez & Buehler, 2007). In that research, picturing events from the third-person rather than first-person perspective causes people to define those events in terms of their connection with more general theories about traits, goals, and identities, as opposed to in terms of concrete experience; the present analysis suggests the same. In conjunction with the main analyses in this study and other research, the present analysis is consistent with a bidirectional relationship between perspective and mental focus. However, together these analyses also suggest that in the case of self-change it is mental focus that initially prompts a shift in perspective and not the other way around.

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