# Self-Distancing: Theory, Research, and Current Directions

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#### **Abstract**

When people experience negative events, they often try to understand their feelings to improve the way they feel. Although engaging in this meaning-making process leads people to feel better at times, it frequently breaks down leading people to ruminate and feel worse. This raises the question: What factors determine whether people's attempts to "work-through" their negative feelings succeed or fail? In this article, we describe an integrative program of research that has addressed this issue by focusing on the role that self-distancing plays in facilitating adaptive self-reflection. We begin by describing the "self-reflection puzzle" that initially motivated this line of work. Next, we introduce the concept of self-distancing and describe the conceptual framework we developed to explain how this process should facilitate adaptive self-reflection. After describing the early studies that evaluated this framework, we discuss how these findings have been extended to broaden and deepen our understanding of the role that this process plays in self-regulation. We conclude by offering several parting thoughts that integrate the ideas discussed in this chapter.

## 1. THE SELF-REFLECTION PUZZLE

Many people try to understand their feelings when they are upset, under the assumption that doing so will lead them to feel better. Indeed, it would seem that many of us reflexively heed Socrates' advice to "know thyself" when we experience emotional pain. But are people's attempts to work-through their feelings productive? Do they actually lead people to feel better? A great deal of research has addressed these questions over the past 40 years, and the results reveal a puzzle.

On the one hand, several studies suggest that it is indeed helpful for people to reflect on their emotions when they experience distress (e.g., Pennebaker & Chung, 2007; Wilson & Gilbert, 2008). A guiding assumption behind this work is that to improve the way people feel about a negative event, it is necessary to change the way they think about it (e.g., Ayduk & Mischel, 2011; Foa & Kozak, 1986; Gross, 2013; Pennebaker & Graybeal, 2001; Wilson & Gilbert, 2008). Supporting this idea, converging evidence indicates that interventions and therapeutic practices that lead people to mentally represent emotionally arousing stimuli in less negative terms lead to a number of short- and long-term mental and physical health benefits (e.g., Foa & Kozak, 1986; Gross, 1998; Monson et al., 2006; Pennebaker, Mayne, & Francis, 1997; Ray, Wilhelm, & Gross, 2008; Resick & Schnicke, 1992; Smyth, 1998; Stanton, Kirk, Cameron, & Danoff-Burg, 2000; Wilson & Gilbert, 2008).

However, an alternative equally sizeable literature indicates that people's attempts to understand their painful emotions are often counterproductive (e.g., Mor & Winquist, 2002; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Smith & Alloy, 2009). According to this line of work, when people try to analyze their feelings, negative thoughts becomes accessible, which lead people to engage in a vicious cycle of "rumination" that serves to maintain and exacerbate distress in the short term, and undermines people's health and well-being over time (e.g., Ayduk & Kross, 2008; Brosschot, Gerin, & Thayer, 2006; Denson, Spanovic, & Miller, 2009; Gerin, Davidson, Christenfeld, Goyal, & Schwartz, 2006; Gotlib & Joormann, 2010; Hankin, 2008; Hankin, Stone, & Wright, 2010; McEwen, 1998).

Putting these different lines of research together creates a puzzle. We know on the one hand that it is useful for people to work-through their negative feelings, but we also know that their ability to do so effectively is rife with difficulty. So the question is: What conditions promote adaptive vs maladaptive self-reflection?



## 2. SELF-DISTANCING: A TOOL TO PROMOTE ADAPTIVE SELF-REFLECTION

## 2.1 Background

In our early research, we reasoned that the answer to this question had to do with psychological distance. We hypothesized that people's attempts to reflect adaptively on their negative feelings often fail because they focus on their experiences from a *psychologically immersed* perspective, which makes it difficult for people to reason objectively without getting

caught up in the emotionally arousing details of what happened to them. Thus, we hypothesized that a mechanism was needed to allow people to "take a step back" from their experience so that they could work-through it more effectively. We called this process *self-distancing* (Kross, Ayduk, & Mischel, 2005).

We likened this process to the experience of seeking out a friend's counsel on a difficult problem. Whereas it is often challenging for the person experiencing a personal dilemma to reason objectively about their own circumstances, friends are often uniquely capable of providing sage advice because they're not involved in the experience—they are *psychologically removed* from the event (Grossmann & Kross, 2014). We expected a similar logic to explain how self-distancing would facilitate adaptive self-reflection—i.e., by enhancing a person's level of psychological distance from the self, we expected people to be increasingly capable of reasoning constructively about their own problems.

It is important to note that we were not the first to suggest that self-distancing might be useful from a self-regulatory perspective. To the contrary, psychologists have written about the self-regulatory benefits of psychological distance for decades (and philosopher's centuries before them). For example, Mischel's seminal work on delay of gratification in children demonstrated that cognitive strategies that increase psychological distance enhance children's delay of gratification ability (Mischel & Ayduk, 2004; Mischel & Rodriguez, 1993)—a set of findings that led him to describe psychological distance as one of the "basic ingredients" that enable self-control (Mischel & Rodriguez, 1993). In work on coping and emotion regulation, Lazarus and Alfert (1964) and Gross (1998) likewise demonstrated the benefits of adopting a distanced perspective for enhancing emotion regulation.

Outside of social-personality psychology, Beck, one of the cofounders of cognitive therapy, once described "distancing" as an important prerequisite for allowing patients to benefit from cognitive therapy (Beck, 1970). Ingram and Hollon (1986) later reinforced this point, arguing that cognitive therapy involves "helping individuals switch to a controlled mode of processing that is metacognitive in nature, typically referred to as 'distancing'." They went on to suggest, "the long-term effectiveness of cognitive therapy may reside in teaching individuals how to initiate this process on their own" (p. 272).

The concept of distancing has also factored prominently into mindfulness practices for centuries. Such work emphasizes the importance of "decentering," a concept that overlaps conceptually with self-distancing

and is believed to be one of the active ingredients underlying mindfulness's benefits (e.g., Bernstein et al., 2015; Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Linehan et al., 2006; Segal, Williams, & Teasdale, 2002).

Collectively, these different strands of research and theory were consistent with the idea that encouraging people to reflect on their negative experiences from a psychologically distanced perspective might allow people to reflect on their feelings more constructively. But they raised a critical question: How do you get a person to self-distance while they analyze their feelings?

## 2.2 Conceptual Framework

We reasoned that one way of doing this was to manipulate the vantage point that people adopt when they reflect on negative autobiographical experiences. Specifically, prior research indicates that when people recall negative emotional experiences, they tend to do so from a *self-immersed* perspective, in which they visualize events happening to them all over again through their own eyes (e.g., Nigro & Neisser, 1983; Robinson & Swanson, 1993). But it is also possible for people to adopt a *self-distanced* perspective as they reflect on their feelings, in which a person views themselves in their experience from afar, for example, from the perspective of a "fly on the wall" (Libby & Eibach, 2002, 2011; McIsaac & Eich, 2002; Nigro & Neisser, 1983; Pronin & Ross, 2006; Robinson & Swanson, 1993; Vasquez & Buehler, 2007).

We predicted that cueing people to analyze their negative experiences from a self-distanced perspective (rather than a self-immersed perspective) should lead them to focus less on recounting the emotionally arousing features of their past experience and focus more on reconstruing it in ways that provide them with a sense of insight and closure. In turn, we predicted that this shift in how people focused on their negative experience—less recounting and more reconstruing—would lead them to experience less distress in the short term, immediately after they analyzed their feelings.

Importantly, because we expected self-distancing to lead to changes in the way people mentally represent aversive past experiences that reduce their negativity, we also expected it to buffer individuals against ruminating about their experience over time and becoming increasingly distressed when they thought about their experience in the future. Thus, we predicted self-distancing would predict long-term benefits as well. Fig. 1 presents these predictions in schematic form.

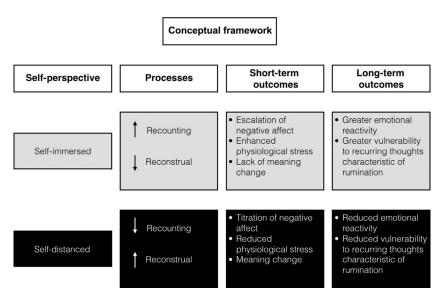


Fig. 1 Conceptual framework.

Before we turn to discussing the initial studies that we performed to test these ideas, it is important to emphasize that from its inception this program of research focused on the role that self-distancing plays in allowing people to *make sense* of their reactions to negative experiences. Thus, in all of the studies we initially performed, participants were asked to do two things: (a) adopt a specific type of self-perspective (e.g., self-immersed vs self-distanced) and then (b) analyze the reasons underlying their feelings (while maintaining the perspective they initially adopted). Thus, our studies focused on how self-distancing impacts self-regulation in the context of a specific epistemic goal—to make sense of one's feelings.

As we have noted elsewhere (e.g., Ayduk & Kross, in press; Kross, Gard, Deldin, Clifton, & Ayduk, 2012), it is also possible for people to self-distance to achieve different goals. For example, a person could self-distance to avoid thinking about the emotional content of their experiences, as may be the case for patients with posttraumatic stress disorder (Kenny & Bryant, 2007; Kenny et al., 2009; McIsaac & Eich, 2004). Alternatively, they could adopt a self-distanced perspective to simply observe and accept their feelings as mindfulness practices advocate (Bernstein et al., 2015; Segal et al., 2002). In our view, each of these examples demonstrates how people can adopt a self-distanced perspective to achieve different goals. And each of these different goals may have quite different implications for how people think, feel, and behave, a point we return to at the end of this chapter.



## 3. MAKING MEANING FROM AFAR

## 3.1 Paradigm Overview

Does self-distancing facilitate adaptive self-reflection? To test the predictions sketched out in Fig. 1, we developed an experimental paradigm that involves having participants first recall and then reflect on an intense negative experience from either a self-immersed or self-distanced perspective. As we describe in more detail later, the specific type of negative experience that participants were asked to recall across studies varied depending on the goals of the experiment. Thus, in some cases, participants were asked to recall experiences in which they felt overwhelming anger and hostility. In other studies, they were asked to recall other types of negative experiences (e.g., those involving sadness, anxiety, guilt, shame, happiness, and embarrassment). Once they brought an event to mind (regardless of what type), however, they were randomly assigned to adopt either a self-immersed or a self-distanced perspective.

Participants in the self-immersed group were led to visualize their past experience happening to them all over again through their own eyes (e.g., "Go back to the time and place of the experience you just recalled and see the scene in your mind's eye. Now see the experiencing unfold through your own eyes as if it were happening to you all over again. Replay the event as it unfolds in your imagination through your own eyes ..."). Participants in the self-distanced group were asked to take a few steps back so that they could watch the experience happening to them from the vantage point of a fly on the wall (e.g., "Go back to the time and place of the experience you just recalled and see the scene in your mind's eye. Now take a few steps back. Move away from the situation to a point where you can now watch the event unfold from a distance and see yourself in the event. As you do this, focus on what has now become the distant you. Now watch the experience unfold as if it were happening to the distant you all over again. Replay the event as it unfolds in your imagination as you observe your distant self ...").

After participants adopted one of these two perspectives, they were instructed to analyze their feelings surrounding their recalled experience while maintaining the perspective they were initially told to adopt (e.g., Self-Immersed: "As you continue to see the situation unfold through your own eyes, try to understand your feelings ..."; Self-Distanced: "As you continue to watch the situation unfold to your distant self, try to understand his or her feelings ..."). We then examined how these instructions

impacted people's thoughts, feelings, and behavior across multiple levels of analysis.

## 3.2 Experimental Results

In terms of short-term effects, we find that self-distancing leads people to report reexperiencing their negative emotions less than people who analyze their feelings from a self-immersed perspective (e.g., Ayduk & Kross, 2008; Kross & Ayduk, 2008; Kross et al., 2005, 2012; Mischowski, Kross, & Bushman, 2012; Wisco & Nolen-Hoeksema, 2011). For example, when asked to indicate the degree to which they "relived the negative emotions that had originally felt as they analyzed their feelings during the study" or to rate how they felt immediately after the analysis phase of the study (e.g., "how sad do you feel now?"), participants in the self-distanced group displayed lower levels of negative emotional reactivity.

How does self-distancing lead to these changes in emotions? To answer this question, we asked participants to describe in writing the "stream of thoughts that flowed through their mind" as they reflected on their feelings during the study. We then had judges content analyze the essays participants generated for the degree to which participants focused on recounting the emotionally arousing features of their recalled negative experience (i.e., What happened to me? What did I feel?) and the degree to which they focused on reconstruing their experience in ways that provided them with insight and closure.<sup>a</sup>

We find that adopting these different perspectives change the way people think about their experience. Participants in the self-distanced group focus less on recounting the emotionally arousing features of their negative experience and more on reconstruing it in ways that provide them with insight and closure (e.g., Self-Immersed example: "I was appalled that my boyfriend told me he couldn't connect with me because he thought I was going to hell. I cried and sat on the floor of my dorm hall-way and tried to prove to him that my religion was the same as his ..."; Self-Distanced example: "I was able to see the argument more clearly ... I initially empathized better with myself but then I began to understand how my friend felt. It may have been irrational but I understand his motivation ..."). This shift in thought content, in turn, leads participants in the self-distanced group to report experiencing less

<sup>&</sup>lt;sup>a</sup> In later studies (e.g., Ayduk & Kross, 2010b; Kross et al., 2012; Park, Ayduk, & Kross, 2016; White, Kross, & Duckworth, 2015), we developed self-report questions to tap into these constructs and found that the above-mentioned experimental manipulations predict scores on these measures similarly to how they predict these constructs when they are identified through essay content analyses.

distress (Kross & Ayduk, 2008; e.g., Kross et al., 2005; Mischowski et al., 2012; also see, Schartau, Dalgleish, & Dunn, 2009).

Notably, the benefits of self-distancing also extend over time (Ayduk & Kross, 2010b; Kross & Ayduk, 2008; Penner et al., 2016; Verduyn, Van Mechelen, Kross, Chezzi, & Van Bever, 2012). For example, in one study, participants who reflected on their feelings from a self-distanced perspective estimated that they thought about their negative experience less up to 1 week after the study compared to participants who analyzed their feelings from a self-immersed perspective (Kross & Ayduk, 2008). They also reported experiencing less distress when they were asked to think about their negative experience again a week later.

We have also compared the short- and long-term effects of self-distancing against distraction. Distraction provides a particularly attractive strategy to compare self-distancing against because like self-distancing, we expected cueing a person to distract themselves immediately after recalling a negative experience would reduce their negative feelings (e.g., Rusting & Nolen-Hoeksema, 1998). Indeed, as most people who have had the experience of watching a movie to take their mind off a problem can attest, shifting one's attention away from a distressing memory often provides enormous temporary relief. But unlike self-distancing, we did not expect distraction to change the way people mentally represent their negative experience. Thus, the moment a person stops distracting and refocuses on their painful experience, we expected their negative feelings to return.

This is exactly what we found in a study that compared self-distancing against distraction (Kross & Ayduk, 2008). In the short term, we found no differences between the two strategies—both led participants to report experiencing less distress compared to participants in a self-immersed comparison group. Over time, however, the effects of distraction and selfdistancing diverged. Compared to participants in the self-immersion and distraction conditions, those in the self-distancing group reported lower emotional reactivity in a subsequent session during which they were asked to think again about the same negative experience but this time without receiving any instructions about how to think about it. Furthermore, the self-distancing group reported ruminating about this experience less during the time separating the two lab sessions. In contrast, participants in the distraction group were significantly more vulnerable to rumination and emotional reactivity over time. In fact, they were indistinguishable from participants in the self-immersed group on each of these long-term measures.

Taken together, these early findings provided initial evidence that reflecting over negative experiences from a self-distanced perspective reduces people's experience of negative emotions in the short term and leads to changes in the way they mentally represent past experiences in ways that facilitate coping over time. However, these findings also raised many other interesting questions. In the next section of the chapter, we discuss how research has attempted to answer these questions to deepen our understanding of how this process operates and explore its translational potential.

## 3.3 Spontaneous Self-Distancing

Our initial results indicated that instructing people to adopt a self-distanced perspective as they analyze their feelings facilitates adaptive self-reflection. But how relevant is this process for explaining why people differ in their level of distress when they reflect on negative experiences during their daily lives? In particular, do some people *spontaneously* self-distance when they reflect on painful episodes from their past? And if so, do they likewise benefit from engaging in this process?

To address these questions, we modified our experimental paradigm for studying self-distancing to assess individual differences. As in previous studies, we asked participants to recall and then analyze their feelings surrounding a negative past experience, but this time, we did not manipulate the vantage point they adopted. Instead, we subsequently asked participants to rate the extent to which they spontaneously adopted a self-distanced (vs self-immersed) perspective as they reflected on their feelings (e.g., "As you thought about this event, to what extent did you feel like you were a distanced observer of what happened (i.e., watched the event unfold as an observer, in which you could see yourself from afar) vs an immersed participant in the experience (i.e., saw the event replay through your own eyes as if you were right there) as you replayed the experience in your minds eye?"; Ayduk & Kross, 2010b).

Several studies using this paradigm indicate that spontaneously adopting a self-distanced perspective when analyzing negative emotions leads to a similar profile of benefits as when this process is experimentally manipulated (e.g., Ayduk & Kross, 2010b; Grossmann & Kross, 2010; Park et al., 2016; Penner et al., 2016). For example, higher levels of spontaneous self-distancing predict lower levels of negative affect, and this relation is mediated by shifts in participants' tendency to recount vs reconstrue their negative experiences. Moreover, spontaneous self-distancing predicts lower levels of rumination over time, as well as reductions in how distressed people

report feeling about their negative experience when cued to think about it again in a subsequent session approximately 7 weeks later.

Additional studies have explored the relation between spontaneous self-distancing and other aspects of people's emotional experiences at the daily level. Specifically, using an innovative experience sampling procedure, Verduyn et al. (2012) showed that the duration of people's emotional responses to daily positive and negative experiences were shorter when they reflected on their experiences from a self-distanced perspective. These field results are consistent with many of our initial laboratory results concerning the role that spontaneous self-distancing plays in facilitating emotion regulation (Ayduk & Kross, 2010b).

## 3.4 Behavioral Implications

Another question raised by our early findings concerned whether self-distancing has behavioral implications, particularly in the context of aggression. Aggression became relevant because a number of studies indicate that ruminating about interpersonal transgressions increases the likelihood of engaging in physically violent behavior (Bushman, 2002; Bushman, Bonacci, Pedersen, Vasquez, & Miller, 2005). Given the personal and societal costs associated with aggressive responses, we reasoned that understanding how this behavior can be attenuated represents an important question. Thus, we investigated whether self-distancing could buffer people against aggressive reactions to perceived transgressions, paralleling its effect on attenuating negative affect and rumination.

Initial evidence suggesting that self-distancing has implications for curbing aggression came from a daily diary study that asked each member of a dating couple to indicate whether they experienced a conflict with their partner at the end of each day (over the course of 21 consecutive days) and, if so, to rate the extent to which they adopted a self-distanced perspective when we asked them to think about that conflict again at the end of the day (using the spontaneous self-distancing measure described earlier). We found that romantic partners who reported reflecting on their daily relationship conflicts from a *self-distanced* perspective during a 3-week daily diary study were significantly less likely to behave in a way that escalated hostility during a conflict discussion task with their partner in the laboratory. That is, people higher in spontaneous self-distancing remained relatively constructive (i.e., they demonstrated adaptive problem solving behavior and partner perspective taking) during the conflict discussion, regardless of the degree to which their partners were hostile (Ayduk & Kross, 2010a, 2010b).

In contrast, the hostility of people lower in spontaneous self-distancing increased linearly with that of their partners, revealing a tit-for-tat interactional style that leads to conflict escalation and predicts poor long-term outcomes in close relationships (Ariaga & Rusbult, 1998; Gottman, Coan, Carrere, & Swanson, 1998).

These findings were later conceptually replicated and extended in an experimental context. Specifically, Mischowski et al. (2012) randomly assigned participants to reflect on why they felt the way they did after being provoked by a confederate from either a self-distanced or a self-immersed perspective. A third group of participants was randomly assigned to a no-instruction control condition. After reflecting on their feelings, participants were given the opportunity to retaliate against the confederate who antagonized them by controlling the volume and duration of noise blasts they administered to them during a subsequent task.

The findings showed that participants in the self-distancing group administered noise blasts that were shorter and less intense (i.e., less aggressive) compared to participants in both of the other conditions. Furthermore, the self-immersed and control groups did not differ from each other. These findings provide causal evidence suggesting that self-distancing attenuates aggressive behavior.

#### 3.5 From Adults to Children

As we pursued the above work, we became aware of work from the developmental domain indicating that children and adolescents' chronic tendencies to ruminate contribute to the development of a range of emotional disorders (Abela, Brozina, & Haigh, 2002; Broderick & Korteland, 2004; Burwell & Shirk, 2007; Hankin, 2008; Nolen-Hoeksema, Stice, Wade, & Bohon, 2007; Schwartz & Koenig, 1996; Ziegert & Kistner, 2002), which raised another question: Might the benefits of self-distancing extend to this age group?

We addressed this issue in one study by randomly assigning middle school children (age 10 on average) to reflect on their feelings surrounding a recent anger-related episode (e.g., a fight with a friend or sibling) from either a self-distanced or a self-immersed perspective, using a version of the manipulations that closely mirrored those used in our studies with young adults (Kross, Duckworth, Ayduk, Tsukayama, & Mischel, 2011). Replicating prior research with adults, children in the self-distancing group displayed significantly lower levels of negative affect after analyzing their feelings

compared to children in the self-immersed group. Moreover, as in our studies with young adults, we asked children to describe the stream of thoughts that flowed through their mind as they thought about their negative experience. Judges' ratings of these essays indicated that children in the self-distanced group focused significantly less on recounting the emotionally arousing features of their memory and relatively more on reconstruing their experience, which partly explained how self-distancing reduced distress (for a conceptual replication, see White, Kuehn, Kross, & Ayduk, under review).

Consistent with these findings, a follow-up study demonstrated that the more adolescents spontaneously self-distanced when analyzing their negative feelings, the less emotional reactivity they displayed, the more they focused on reconstruing their experience, and the less they focused on recounting it (White et al., 2015). But perhaps most interestingly, the inverse relation between spontaneous self-distancing and emotional reactivity strengthened with age in this study, suggesting that the benefits associated with self-distancing increase with development.

Taken together, these findings provide preliminary evidence highlighting the role of self-distancing in fostering adaptive self-reflection among children and adolescents. They also begin to illuminate the role that development plays in strengthening one's ability to adopt a self-distanced perspective, suggesting the need for future research to explore this issue further.

## 3.6 Clinical Generalizability

One of the most frequent questions asked about our early research concerned whether the beneficial effects of self-distancing extend to individuals suffering from clinical disorders characterized by extreme forms of rumination and distress. Research has begun to address this issue in several contexts. We describe each in turn.

## 3.6.1 Dysphoria and Major Depressive Disorder

Few conditions are as synonymous with the concept of rumination as depression. Indeed, a large amount of research has identified rumination as a cognitive process that triggers and maintains depression and dysphoria (Nolen-Hoeksema et al., 2008). Given this, we reasoned that examining whether the benefits of self-distancing extend to people suffering from depression and dysphoria would provide an ideal first place to examine the translational potential of our previous findings (for a similar perspective, see Dalgleish & Werner-Seidler, 2014).

To address this issue, we pooled data across several self-distancing experiments that included unanalyzed Beck Depression Inventory data (Barnhofer et al., 2015; Beck, Steer, Ball, & Ranieri, 1996). We then examined whether participants' scores on this index of depressive symptoms moderated the benefits of self-distancing for reducing emotional reactivity (Kross & Ayduk, 2009). Our results indicated that the benefits associated with self-distancing increased linearly with depressive symptoms. Specifically, whereas participants who scored low on depressive symptomatology did not benefit from self-distancing, as participants' depressive symptoms increased, so did the benefits they derived from adopting a self-distanced perspective (as one might expect, we also observed a main effect of depressive symptoms—i.e., the more depressive symptoms participants reported, the worse they felt when they analyzed their feelings).

Although these findings provided initial data suggesting that the benefits associated with self-distancing might generalize to participants with depression, the limitations associated with using self-report measures of depressive symptoms to draw inferences about clinical depression are well documented (Coyne, 1994). Therefore, we next examined whether a similar pattern of results would be observed among a sample of individuals diagnosed with major depressive disorder and their age-matched healthy controls (Kross et al., 2012).

This was indeed the case. Depressed participants who were instructed to analyze their feelings from a self-distanced perspective reported experiencing less negative affect after analyzing their emotionally upsetting memories, compared to depressed participants in the self-immersed group. They also displayed lower levels of negative thought accessibility.

We also examined the links between self-distancing and avoidance in this study to ensure that the above effects were not driven by the distancing manipulation simply leading people to avoid focusing on the emotional content of their recalled negative experiences. Across both implicit and explicit measures of avoidance, be we found no evidence to support this idea. These findings argue against the idea that self-distancing serves a maladaptive, avoidant function when people engage in this perspective to make sense

Avoidance was assessed explicitly by asking participants to rate whether they "tried to avoid thinking about" their experience when they were prompted to recall it and whether they tried to "suppress [or push] away" their feelings about it. Implicit avoidance was assessed by examining the dissociation between scores on self-report and implicit emotional reactivity measures included in Kross et al. (2012), under the premise that people who repress their emotions (i.e., a sign of avoidance coping) display high scores on implicit measures of emotionality but low scores on self-report measures.

of their feelings (also see, Ayduk & Kross, 2009; Kross & Ayduk, 2008; Kross, Duckworth, et al., 2011; Kross et al., 2012).

Finally, we did not observe any beneficial effects of self-distancing among healthy control participants. The latter finding is consistent with previous work showing that rumination inductions do not lead to changes in mood among individuals who are low in dysphoria (Nolen-Hoeksema et al., 2008), presumably due to the fact that they have little negative affect to downregulate in the first place. More broadly, these findings suggest that a certain level of negative affect may be needed to observe beneficial effects of self-distancing (for similar results, see Pfeiler, Wenzel, Weber, & Kubiak, 2015).

Although the earlier findings suggest that the emotion regulation benefits associated with self-distancing may be particularly pronounced for people suffering from moderate to severe symptoms of depression, it is important to note that Wisco and Nolen-Hoeksema (2011) directly replicated our initial study on this topic (Kross & Ayduk, 2009) and did not find evidence indicating that self-distancing was more effective for regulating negative affect among dysphoric participants compared to nondysphoric participants. Instead, they found that self-distancing worked equally well for participants regardless of their level of depressive symptoms. Thus, although emerging evidence suggests that self-distancing predicts beneficial outcomes for depressed individuals, whether they benefit significantly more than healthy controls remains unclear.

### 3.6.2 Bipolar Disorder

Is the regulatory effect of self-distancing unique to reducing negative affect or does engaging in this process attenuate the intensity of emotion regardless of its valence? A number of researchers have begun to explore this idea in a clinical context by studying bipolar disorder, a mood disorder characterized by persistent and abnormally elevated positive mood states (Angst, Stassen, Clayton, & Angst, 2002), as well as periods of depression. For example, Gruber, Harvey, and Johnson (2009) randomly assigned individuals with bipolar disorder and a healthy control group to reflect on their feelings surrounding a time in which they felt intense happiness from either a self-immersed or a self-distanced perspective. Their results indicated that both bipolar participants and healthy control participants who were instructed to reflect on positive experiences from a self-distanced perspective reported lower levels of positive affect and displayed lower autonomic nervous system reactivity compared to participants in the self-immersed group.

Park et al. (2014) recently extended these findings by examining whether people with bipolar disorder *spontaneously* self-distance less than control participants when reflecting on positive experiences with the hypothesis that a relative lack of distancing (or higher self-immersion) may explain why individuals with bipolar disorder become more emotionally reactive than healthy participants when they reflect on positive experiences.

Partially supporting their prediction, they found that individuals who had bipolar disorder and a history of psychosis were less likely to spontaneously self-distance when reflecting on their positive experiences compared to healthy control participants or participants with bipolar disorder who had no history of psychosis. Moreover, across all conditions, the more participants reported spontaneously self-distancing while reflecting on their positive memories in this study, the less self-reported and neurophysiological emotional reactivity they displayed.

From a basic science perspective, these findings are important because they demonstrate that the effects of self-distancing on dampening emotional reactivity are not restricted to negative experiences; they extend to positive emotional experiences as well. They also provide preliminary data suggesting that self-distancing may provide a useful tool for helping people grapple with intense positive emotional reactions that are the require intervention.

## 3.6.3 Coping With Trauma

Research surrounding posttraumatic stress is one area where circumstantial evidence suggests self-distancing might be harmful. Specifically, prior research indicates that people who are diagnosed with posttraumatic stress tend to spontaneously adopt a self-distanced perspective when they recall trauma experiences. This tendency is often conceptualized as a maladaptive avoidance mechanism—i.e., people with posttraumatic stress reflexively adopt an observer perspective to blunt the pain associated with thinking about traumatic events (Berntsen, Willert, & Rubin, 2003; Kenny & Bryant, 2007; Kenny et al., 2009; McIsaac & Eich, 2004). However, all of this work have focused on the role that self-distancing plays in promoting distress when participants recall negative emotional experiences. Until recently, no work had examined whether self-distancing serves a similar maladaptive function when people actively analyze their negative experiences to work-through traumatic events.

To fill this gap in the literature, Wisco et al. (2015) randomly assigned veterans diagnosed with posttraumatic stress disorder to analyze their feelings surrounding a trauma experience from either a self-immersed or

a self-distanced perspective. Although they found no differences between the two groups on a self-report measure of emotional reactivity, participants in the self-distanced condition displayed lower levels of physiological reactivity (e.g., heart rate and skin conductance).

Another study by Penner et al. (2016) asked caregivers of pediatric cancer patients to analyze their feelings surrounding their child's recent painful cancer treatment experiences and then measured the degree to which participants spontaneously self-distanced while analyzing their feelings. Pediatric cancer caregivers often attend their child's frequent painful cancer treatment, and such treatments are well known to cause substantial traumatic distress. Thus, they represent a particularly relevant sample to examine issues concerning how self-distancing influences people's ability to cope with ongoing trauma.

Conceptually replicating prior research on depression and bipolar disorder (Kross & Ayduk, 2009; Kross et al., 2012; Park et al., 2014), their findings indicated that self-distancing buffered high (but not low) trait anxious caregivers against elevated levels of anticipatory anxiety during their child's subsequent painful cancer treatments. Importantly, it also buffered high trait anxious caregivers against elevated levels of psychological distress 3 months after their spontaneous self-distancing levels were initially assessed. Critically, they found no relation between spontaneous self-distancing and avoidance, which suggests that adopting this perspective to analyze (rather than simply recall) negative experiences may represent a distinct psychological process with unique outcomes.

Together, the results from these two initial studies provide promising preliminary evidence suggesting that self-distancing may be useful for helping people analyze their feelings surrounding trauma experiences. However, more research is needed to examine this issue to more fully understand the role that this process plays in clinically diagnosed posttraumatic stress disorder.

## 3.7 Implications for Physical Health

It is well established that the experience of psychological pain is often accompanied by symptoms of physical pain and distress as well (e.g., Brosschot et al., 2006; Eisenberger, Lieberman, & Williams, 2003; Gerin et al., 2006; Kross, Berman, Mischel, Smith, & Wager, 2011). One particularly important physical response our bodies show in response to stress is increased blood pressure. From a physical health perspective, acute

increases in blood pressure in response to stress is adaptive; it shows that the body is mobilizing its resources to meet the demands of a difficult situation. However, when blood pressure levels remain elevated over extended periods of time, the risk of cardiovascular disease increases. Unfortunately, ruminating over negative experiences leads to exactly this pattern—blood pressure levels go up when people recall highly arousing negative past experiences and remain elevated as people continue to think about those events (e.g., Brosschot et al., 2006; Gerin et al., 2006).

Does self-distancing attenuate such prolonged cardiovascular reactivity? Several studies indicate that it does. Specifically, regardless of whether people are led to adopt a self-distance perspective in the lab or engage in this process spontaneously, they display less cardiovascular reactivity when they analyze their feelings. More importantly, their blood pressure returns to baseline faster than people who self-immerse, suggesting that self-distancing facilitates physiological recovery from stress (Ayduk & Kross, 2008, 2010b; also see, Gruber et al., 2009; Wisco et al., 2015).

#### 3.8 Neural Correlates

Research has also begun to explore the neural correlates of reflecting over negative experiences from a self-distanced perspective. In one study, Kross, Davidson, Weber, and Ochsner (2009) instructed participants to use a distancing strategy that was conceptually similar to those used in our prior work with adults as they reflected on highly arousing negative autobiographical experiences. Results linked the use of this strategy with lower self-reported negative affect, as well as reduced activation in a network of cortical midline regions that support self-referential processing (Berman et al., 2010), including the subgenual anterior cingulate cortex.

Identifying a modulatory link between the use of a self-distancing strategy and activation in this latter region was particularly noteworthy, because the subgenual anterior cingulate has been shown to play a key role in depression and rumination. Specifically, depressed individuals display higher levels of activation in this region compared to control participants. Furthermore, various interventions that are effective at treating depression lead to reductions in activation in this area (for a review, see Ressler & Mayberg, 2007). Thus, demonstrating a link between the use of a self-distancing strategy and activation in this region of the brain is broadly consistent with the idea that self-distancing attenuates rumination, facilitating adaptive self-reflection.

A more recent study by Christian, Parkinson, Macrae, Miles, and Wheatley (2015) also linked the use of a self-distancing strategy while reflecting over a hypothetical negative emotional experience (e.g., stubbing one's toe in pain) with reduced self-reported negative affect compared to adopting a first-person perspective. However, the brain regions that were modulated by self-distancing in this study differed from those reported in our prior research. Specifically, in this study, self-distancing was associated with reduced activation in a network of limbic regions associated with emotional reactivity and interoception (e.g., the insula), not modulations of cortical midline regions (Christian et al., 2015; also see, Eich, Nelson, Leghari, & Handy, 2009).

Finally, a large program of research on reappraisal has examined the implications of cueing people to reinterpret their negative feelings using a distancing strategy that involves adopting the perspective of a clinical, detached observer for reducing self-report and neural markers of distress (e.g., Dorfel et al., 2014; Kalisch et al., 2005; Koenigsberg et al., 2009, 2010; Ochsner et al., 2004). These studies consistently link the implementation of this strategy with reductions in self-report distress. However, in contrast to the previous studies, they tend to link the use of this strategy with reduced activation in the amgydala as opposed to the brain regions described in the previous two studies (Buhle et al., 2014).

At a broad level, these studies are consistent with each other insofar as they demonstrate inverse links between self-distancing strategies and selfreported negative affect. However, they are inconsistent in terms of the specific patterns of neural activity they link with distancing. One possible explanation for these inconsistent findings concerns the fact that different instructions are used to manipulate self-distancing and to induce negative affect across these studies. For example, the emotion inductions used in the previous studies ranged from having participants recall painful emotional experiences from their past to imagining physically painful episodes (e.g., cutting a finger) to viewing aversive images. And the distancing strategies that participants were taught to use across these studies were equally heterogeneous. Thus, future research is needed to systematically examine the neural mechanisms that underlie different interactions between distancing strategies and emotion inductions. Addressing this issue is important for advancing our understanding of the neural mechanisms that underlie the emotion-regulatory benefits of distancing.

#### 3.9 From the Past to the Future

The majority of the aforementioned work deals with how people can effectively work-through negative past experiences. But past experiences are not the only kinds of negative events that people struggle to make sense of. People often anxiously worry about future events as well.

To further examine the generalizability of our prior research, we recently examined in a large sample of children and young adults (n = 2424) whether self-distancing is likewise useful for helping people cope with future events (White et al., under review).

Conceptually replicating our prior research, self-distancing predicted reductions in self-reported distress when people reflected on anticipated future negative experiences (e.g., worrying about failing an exam or having an illness), regardless of whether it was experimentally manipulated or spontaneously assessed. However, in contrast to the bulk of work reviewed earlier, participants' tendency to recount vs reconstrue their future experience did not explain how self-distancing predicted these reductions in negative emotional reactivity. Instead, imagery vividness did: self-distancing led participants to imagine their future negative experience less vividly, which in turn predicted declines in how distressed people felt.

In conjunction with our prior research, these data suggest that self-distancing facilitates people's ability to reflect adaptively over both negative past and future events. However, they also suggest that a different set of mechanisms may underlie how self-distancing facilitates adaptive self-reflection across these contexts.

## 3.10 Summary

Collectively, these findings demonstrate that cueing people to reason about negative experiences from a self-distanced perspective leads to changes in the way people cognitively represent negative experiences that have several positive downstream implications for how people think, feel, and behave. However, they also raise several additional questions that are important to address to advance our understanding of how this mechanism operates.

#### 4. SELF-TALK

In all of the above-mentioned work, self-distancing was manipulated by asking people to visualize themselves in their past or future experiences from afar. This technique proved useful for helping people work-through their feelings surrounding a range of negative past and possible future experiences. However, its utility for helping people manage their emotions in vivo, as negative experiences actively unfold in their daily lives, was unclear. After all, it is not as though people can easily close their eyes and picture themselves from a "fly on the wall perspective" while they're in the midst of experiencing a stressful event. Often times, people cannot feasibly engage in this visual shift, which raised the question: Can people self-distance in the moment, and if so, how?

To address these questions, we shifted to the domain of language. We observed that in everyday life, there are times when people refer to themselves using their name or other non-first-person pronouns (e.g., "you" or "he" or "she"), particularly in contexts that require emotion regulation. For example, consider this quote from Malala Yousafzai. When asked by Jon Stewart to describe how she responded when she discovered that the Taliban were plotting to kill her, Malala Yousafzai, the youngest person to ever win the Nobel Peace Prize, responded, "I used to think that the Tali[ban] would come and he would just kill me. But then I said [to myself], if he comes, what would *you* do *Malala*? Then I would reply to myself, *Malala* just take a shoe and hit him ...." Might this shift from using first-person to non-first-person language when reflecting silently on one's emotions serve a self-regulatory function?

We hypothesized that it would. Specifically, we reasoned that using one's name and other non-first-person pronouns to refer to oneself during silent introspection would serve a self-distancing function under the premise that people typically use these parts of speech when thinking about and communicating with *other people*. Thus, we reasoned that when people use these parts of speech to refer to the self, it should lead them to think about the self more objectively, as though they were someone else (albeit another person whose inner thoughts and feelings they have privileged access to). In turn, we expected this enhanced psychological distance to result in adaptive outcomes similar to those we observed in our prior work.

#### 4.1 Initial Studies

To test this idea, we first examined the connection between linguistic and visual self-distancing. Research on construal level theory indicates that different types of distancing dimensions are related—i.e., enhancing psychological distance in one domain should lead to enhancements in distance in other domains (Ledgerwood, Trope, & Liberman, 2010; Liberman &

Trope, 2008; Trope & Liberman, 2003, 2010). Thus, we reasoned that if using one's name and other non-first-person pronouns to refer to the self serves a distancing function, then cueing people to engage in this type of non-first-person self-talk should also lead them to adopt a self-distanced visual perspective to a greater degree on a subsequent task.

We tested this idea by asking participants across two studies to reflect on their feelings surrounding an anger (Study 1) or depression (Study 2)-related event using either their own name and non-first-person pronouns (non-first-person self-talk) or first-person singular pronouns (first-person self-talk; see Table 1 for sample instructions). After the manipulation, participants rated the degree to which they adopted a self-distanced visual perspective as they reflected on their past experience by answering the same questions we used to assess spontaneous visual self-distancing in our prior studies.

As expected, participants in the non-first-person self-talk group displayed significantly higher levels of visual self-distancing compared to participants in the first-person groups, providing preliminary evidence that using non-first-person pronouns and one's own name to refer to the self enhances self-distance.

Table 1 Self-Talk Manipulation Instruction First-Person Self-Talk Instructions	s Non-First-Person Self-Talk Instructions
One of the things we are interested in this study is the language people use to understand their feelings	One of the things we are interested in this study is the language people use to understand their feelings
Some people try to understand their feelings by thinking about themselves using first-person pronouns, so that is what we would like you to do	Some people try to understand their feelings by thinking about themselves using their own name and other non-first-person pronouns, so this is what we would like you to do
Please try to understand why you felt the way you did in the experience you just recalled using the pronouns "I" and "my" as much as possible	Please try to understand why you felt the way you did in the experience you just recalled using the pronouns "you" and "your own name" as much as possible
In other words, ask yourself, "Why did I feel this way? What were the underlying causes and reasons for my feelings?"	In other words, if your name was Jane, you would ask yourself "Why did Jane feel this way? What were the underlying causes and reasons for Jane's feelings?"

## 4.2 Implications for Emotion Regulation

Having established that third-person self-talk enhances self-distancing, our next step was to examine whether cueing people to reflect on their emotions using these parts of speech would enhance their ability to control their thoughts, feelings, and behavior under stress. In one experiment, we examined these questions by recruiting participants for a study on the "psychology of first impressions" (Kross et al., 2014, Study 2). Participants were told that the study's purpose was to identify how good each participant was at making a good first impression on a member of the opposite sex—a potent procedure for inducing social anxiety among young adults (Clark & Arkowitz, 1975; Turner, Beidel, & Larkin, 1986). They were further told that their conversation would be tape-recorded and viewed by psychologists who were trained to evaluate how well they performed.

After receiving this cover story, an experimenter went onto explain to participants that "we are interested in the different ways people go about preparing themselves psychologically for meeting new people and what effect each type of self-preparation has on performance." Half of the participants were then randomly assigned to reflect on their feelings surrounding the upcoming interaction using first-person pronouns, whereas the other half were asked to reflect on their feelings using non-first-person pronouns and their own names. They were then escorted into an adjacent room where a confederate of the opposite sex greeted them, and where they did their best to make a good first impression while their performance was recorded.

Judges who were blind to participants' condition watched these videos and rated the performance of the participants in the non-first-person group to be better overall than the first-person group. Non-first-person participants also reported significantly lower levels of anxiety following their interaction compared to participants in the first-person group.

These findings were later conceptually replicated in another laboratory study using a different type of social stress induction (Kross et al., 2014, Study 3). Specifically, participants were brought into the lab for a speechtask study. They were told at the study's start that they would be asked to deliver a speech on why they were ideally qualified to land their dream job and were given 5 min to prepare their speech. Following this social stress induction procedure, they were again randomly assigned to reflect on their current feelings of anxiety using either first-person pronouns or non-first-person pronouns. They were then taken to an adjacent room and asked

to deliver a speech in front of a panel of evaluators while their performance was videotaped.

Consistent with the results of the first impressions study, judges blind to condition rated participants in the non-first-person group as more confident, less nervous, and performing better overall than participants in the first-person group. Furthermore, participants in the non-first-person group reported experiencing less shame and embarrassment after their speech was over and ruminated less about their performance over time.

## 4.3 Challenge vs Threat Construals

The earlier findings demonstrated that small shifts in the language people use to refer to the self during introspection have implications for how people feel and behave under stress. But how do such subtle linguistic shifts impact these outcomes? To tap into how these manipulations influenced people's thought process, we reran the speech study described earlier. But this time, we asked participants to describe in writing the stream of thoughts that flowed through their mind as they reflected on their feelings using first-or non-first-person pronouns immediately after they engaged in this introspective task. We then coded these stream of thought essays for challenge and threat construals.

We focused on these construals for two reasons. First, prior research indicates that when people find themselves in situations that elicit social stress, they automatically appraise the situation along a challenge-threat continuum (Blascovich & Tomaka, 1996; Lazarus & Folkman, 1984). Challenge construals refer to appraisals in which an individual believes that they have the personal resources to cope with the stressful circumstance in which they find themselves. Threat construals capture the opposite—a person takes stock of what is required of them and judges that they do not possesses enough resources to cope with the demands of situation.

Second, prior research indicates that self-distancing leads people to focus less on the hot, emotionally arousing features of negative experiences (Ayduk & Kross, 2010a, in press; Fujita, Trope, Liberman, & Levin-Sagi, 2006; Kross, 2009; Trope & Liberman, 2003, 2010). And in the context of the speech-task study, we reasoned that focusing on these emotionally arousing features of the situation (i.e., what the person has to do—give a speech on a topic they were unprepared for) is precisely what should lead them to judge that they do not possess the resources to cope with the situation.

Condition-blind judges' content analyses of participants' essays generated evidence that confirmed these predictions—the essays of participants in the non-first-person condition contained significantly more challenge vs threat construals than the first-person condition. We also asked participants to complete a self-report questionnaire that assessed their level of challenge vs threat appraisals, and scores on this self-report measure were consistent with the essay analyses (Kross et al., 2014) providing converging evidence that linguistic self-distancing shifts a person's construal of a situation.

A follow-up generalizability study asked an older (mean age = 35) ethnically diverse sample of individuals living across the country to write about their deepest thoughts and feelings surrounding a future anxiety-provoking experience using either first-person pronouns or non-first-person pronouns and their name. One advantage of having participants write about their feelings using these parts of speech (rather than first think about their experiences and then recollect back to how they thought about them when they followed the manipulation instructions) is that the writing samples provide a direct window into how the language manipulations influence the way people appraise upcoming social stressors. Thus, at the end of the study, we asked judges to content analyze these writing statements for the same types of thought content (challenge vs threat appraisals) that were coded in our previous study. Consistent with the results of that study, judges rated the essays of participants in the non-first-person group as containing more challenge vs threat appraisals compared to participants in the first-person group (for examples, see Table 2).

## 4.4 From the Lab to Daily Life

The above-mentioned findings suggest that the language people use to refer to the self-influences the way they think, feel, and behave under stress. But do these findings generalize outside the lab when people are forced to grapple with stress in vivo?

In the autumn of 2014, the threat of an Ebola epidemic in the United States provided us with a unique opportunity to address this question. During this time period, anxiety surrounding the possibility of a widespread Ebola outbreak gripped the United States, despite public health officials' repeated announcements that the actual risk of such an event was low. According to one nationally representative poll conducted during this time period, approximately 52% of adults living in the United States were anxious

**Table 2** Sample Threat and Challenge Appraisals as a Function of Self-Talk Manipulation

#### Stream of Thought Essay Samples

#### First-person condition

I thought that I was so nervous because when I give a speech, I need to feel prepared; however, I do not think I am prepared enough to give a speech such as this one

I cannot prepare an oral speech in 3 min. It takes days for me to examine my strengths, weaknesses, etc. I need to have my oral speech written down and perfected, and therefore, this is not going to work out

Nervousness. Shock. Not much time to prepare. What did I get myself into? Oh, my goodness. My palms are sweating. What are my weaknesses? Think of really good strengths

#### Non-first-person condition

First, I asked myself what was I nervous about? It is not like this will be the first interview or speech I have ever had to give. And even if it does not go perfectly, it won't be the end of the world. I mostly think reassuring and comforting thoughts to motivate and encourage myself

The topic of my speech, specific wording, the times that I have given a speech like this before. The fact that it is not a "speech" and that word is often associated with a scare tactic and panic inducer

I told myself that I'm not under a lot of pressure for this. I'm qualified and have worked hard; I have confidence in my abilities

*Note*: Seventy-three percent of participants who received the *highest* possible score on the challenge-to-threat ratio variable were in the non-first-person group; 67% of participants who received the *lowest* possible score on the challenge-to-threat ratio variable were in the first-person group.

Reproduced from Kross, E., Bruehlman-Senecal, E., Park, J., Burson, A., Dougherty, A., Shablack, H., ... Ayduk, O. (2014). Self-talk as a regulatory mechanism: How you do it matters. *Journal of Personality and Social Psychology*, 106(2), 304–324. http://dx.doi.org/10.1037/a0035173.

about an Ebola epidemic (Harvard School of Public Health Poll, 2014). Given that self-distancing helps people think differently about emotional experiences, might cueing people to reflect on their deepest thoughts and feelings surrounding Ebola allow them to reason more rationally about their risks of contracting the disease and thus reduce their Ebola-related anxiety?

We examined this question by randomly assigning 1257 people from across the United States to write about their deepest concerns regarding Ebola using either their own name and non-first-person pronouns or first-person pronouns as concerns about Ebola swelled (10/24/14–10/26/14). Judges then coded participants' essays for statements indicating that

participants focused on fact-based reasons why they should not worry about Ebola (e.g., because the medical infrastructure in the United States is superior to Western Africa; Ebola does not spread by air). To ensure that judges were blind to participants' condition, all non-first-person essays were converted into first-person essays prior to coding.

Analyses of judges' ratings indicated that participants who were randomly assigned to use their name to think about Ebola generated significantly more fact-based reasons not to worry about an outbreak compared to participants who used first-person singular pronouns. In turn, focusing on fact-based reasons not to worry led participants in the non-first-person group to report experiencing less anxiety about Ebola after the manipulation, and reduced their risk perception surrounding the prospect of them contracting the disease (Kross et al., under review).

Perhaps most interestingly, the benefits associated with non-first-person self-talk were most pronounced among participants who scored the highest on a baseline measure of Ebola anxiety completed at the start of the study. Specifically, whereas participants who scored particularly low on a baseline measure of Ebola anxiety did not accrue any benefits from the manipulation, participants who scored high on this measure did.

These findings suggest that self-distancing manipulations work as well, and possibly better (Kross & Ayduk, 2009; Kross et al., 2012; Park et al., 2014; Penner et al., 2016), for vulnerable individuals (compared to nonvulnerable individuals). They also highlight the potential "real-world" value that self-talk manipulations may have for helping anxious individuals cope effectively with anxiety-provoking stressors in their daily lives.

#### 4.5 An Effortless Form of Self-Control?

Although self-control and emotion regulation are typically thought of as effortful processes (Baumeister, Vohs, & Tice, 2007; Heatherton, 2011; Moser, Krompinger, Dietz, & Simons, 2009; Ochsner & Gross, 2008), participants in the aforementioned studies consistently indicated during informal debriefings that it was quite easy for them to engage in non-first-person self-talk, which raised the question: Might this process constitute a relatively effortless form of self-regulation?

We predicted that it would for two reasons. First, recent work suggests that people reason more wisely about other people's negative emotional experiences than their own (Grossmann & Kross, 2014). Second, people

virtually exclusively use names and other non-first-person pronouns to think about and refer to other people. Thus, there is a very strong association between using these parts of speech and thinking about others—an association that is so strong that we reasoned it might lead people to virtually automatically think about themselves similar to how they think about someone else. Therefore, to the extent non-first-person self-talk allows people to think about themselves similar to the way they think about others, we reasoned it might also allow them to reason about their emotions with relative ease.

We tested this prediction by turning to the brain as our level of analysis. Over the past 15 years, an overwhelming amount of data has accumulated that pinpoints the different patterns of neural activity that underlie the experience of self-referential processing and negative emotional reactivity on the one hand, and cognitive control processes on the other (e.g., Araujo, Kaplan, & Damasio, 2013; Buhle et al., 2014). Thus, by using this information, we could ask the question: Does cueing a person to engage in non-first-person self-talk lead to reductions in brain signatures that capture self-referential processing and emotional reactivity with or without leading to increases in brain signatures that capture effortful cognitive control processes? Two studies addressed this issue.

In the first study, we (Moser et al., under review) asked participants to introspect about how they felt in response to viewing a series of negatively arousing photographs (e.g., pictures of weapons, mutilated faces, bloody bodies; Lang, Bradley, & Cuthbert, 2008) using either their name or first-person singular pronouns (e.g., I, me, my) in the context of a within-subjects design. We monitored participants' brain activity using electroencephalogram (EEG) throughout the task, and used the data method generated to extract event-related potentials neurophysiological waveforms that reflect different psychological processes. Participants were trained prior to the study how to implement the manipulations and were simply asked to do so silently in their mind during the study. The results of the study indicated that non-first-person self-talk reduced a neurophysiological marker of self-referential emotional reactivity (i.e., the late positive potential; Hajcak, Weinberg, Macnamara, & Foti, 2012; Moser et al., 2009) within the first second of viewing aversive images without enhancing activation in a neurophysiological marker of effortful cognitive control (i.e., the stimulus proceeding negativity; Brunia, Boxtel, & Bocker, 2012; Moser et al., 2009).

A follow-up functional magnetic resonance imaging (fMRI) study conceptually replicated these findings using a complementary neuroscience technique. Specifically, participants were asked to reflect on a series of highly arousing negative emotional events (i.e., experiences that led them to feel intensely distressed each time they thought about them) from their past using either their name or I in the context of a within-subjects design. The results indicated that participants reported feeling significantly less distressed on trials in which they reflected on their negative past experiences using their name vs I.

At the neural level, participants displayed significantly less activation on name trials compared to I trials in a broad swath of the medial prefrontal cortex (MPFC), which prior research has reliably linked with self-referential processing (Araujo et al., 2013). Critically, we again found no differences between the two conditions (I vs name) in a network of a priori identified brain regions that support effortful cognitive control. This remained true even when the statistical threshold for detecting significant activations was dropped well below conventional standards for detecting significant effects, suggesting that low power was not driving our failure to observe significant results in these cognitive control areas.

Although preliminary, these finding suggest that non-first-person self-talk may constitute a relatively effortless self-control process—a finding that, if true, has important basic science and clinical implications.

## 4.6 Clinical Implications

Although no research that we are aware of has directly examined the clinical implications of linguistic self-distancing, two sets of findings support the idea that future research in this area may be a worthwhile endeavor.

First, as described in the context of the Ebola study, the participants who benefited the most from non-first-person self-talk were those who scored the highest on a baseline measure of Ebola-related anxiety. Second, several of the previously mentioned studies included trait measures of social anxiety. To examine the potential clinical implications of research on distanced self-talk, we examined whether the aforementioned effects of non-first-person self-talk were moderated by participants' social anxiety scores by conducting a metaanalysis across all studies in which self-reported social anxiety scores were available (Kross et al., 2014). Although we did not have clinical diagnoses of social anxiety, approximately 10% of the sample across these studies

scored in the clinically social anxious range according to established guide-lines (Carleton, Collimore, McCabe, & Antony, 2011; Connor et al., 2000). The results from this metaanalysis indicated that non-first-person self-talk was equally effective at fostering challenge appraisals, enhancing performance (e.g., better speech), and reducing negative affect among individuals both high and low in social anxiety.

Taken together, these findings suggest that linguistic self-distancing may be useful for facilitating emotion regulation among vulnerable individuals, highlighting the need for future research to examine this issue further.

## 4.7 Converging Evidence

Although the above findings are relatively recent, they are beginning to be extended by other groups. For example, Dolcos and Albarracin (2014) recently demonstrated over a series of studies that cueing people to address themselves with the word *you* led them to perform better on a demanding task (i.e., solving difficult anagrams) and enhanced their intentions to perform well compared to participants who were cued to address themselves using the word *I*. Interestingly, this group has also found that people are more likely to spontaneously address themselves using *you* when they encounter situations that require self-guidance (Zell, Warriner, & Albarracin, 2012), further underscoring the role that this process plays in self-regulation.

Additional evidence supporting the self-regulatory benefits of non-first-person self-talk comes from recent studies performed in the developmental domain. For example, White and Carlson (2016) found that 5-year-old children who used their names to reflect on the self outperformed children who used *I* on an executive functioning task (a seven-level card-sorting task designed for 2–7-year-olds). Interestingly, 3-year-olds did not benefit from this manipulation, a finding that the authors interpreted as suggesting that a certain level of theory of mind may be needed for these manipulations to be effective.

A follow-up study by the same group extended these findings to the domain of perseverance (White et al., in press). Specifically, they examined whether cueing 4- and 6-year-old children to reflect on their performance on a boring repetitive task using their names or I influenced their performance on the task. Participants assigned to a third condition were asked to impersonate *someone else* who they thought was really good at working hard and reflect on their performance as though they were that person.

The latter manipulation was conceptualized as an additional form of distancing.

The findings revealed a linear effect of the manipulation across both age groups—children who impersonated someone else persevered the longest on the task, followed by children who reflected on their performance using their name, with children who reflected on their performance using *I* performing the worst.

## 4.8 Summary

Collectively, these findings demonstrate how subtle shifts in the language people use to refer to themselves during introspection can influence their capacity to regulate how they think, feel, and behave under stress. It is important to emphasize, however, that all of the above work focuses on the role that non-first-person self-talk plays in enhancing self-regulation when people *privately* engage in this process (i.e., silently during introspection). There are, of course, times when people engage in non-first-person self-talk *out loud*. Whether engaging in that process is likewise helpful is unclear, and awaits future research.

## 5. MENTAL TIME TRAVEL

Most of our research on self-distancing has focused on how people can reflect adaptively on negative experiences by self-distancing using visual imagery (i.e., adopting a fly on the wall perspective) or linguistic (i.e., engaging in non-first-person self-talk) techniques. Recently, we have begun to explore whether people can self-distance through an alternative mechanism: by focusing on their future selves. Our motivation to pursue this question stemmed from the recognition that both common wisdom and research suggest that the passage of time improves the way people feel about negative experiences (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). But can the healing power of time be harnessed through mental time travel to imagine a future self without having to wait for actual time to pass?

## 5.1 Experimental Evidence

As with linguistic distancing, we first examined the connection between temporal and visual self-distancing. Based on our prior work and construal level theory, our expectation was that to the degree that temporal distancing is a form of self-distancing, cueing people to temporally distance and think about their future selves should also lead them to adopt a self-distanced visual perspective. This is indeed what we found. Two studies manipulated temporal distancing by asking people to think about how they might feel about a current stressor either 1 week from now (near-future perspective) or 10 years from now (far-future perspective). Findings showed that people in the far-future (vs near-future) condition rated themselves higher on items assessing spontaneous visual distancing (described in previous sections) (Bruehlman-Senecal & Ayduk, 2015).

Next, we conducted a series of experimental studies to test the utility of temporal distancing for emotion regulation (Bruehlman-Senecal & Ayduk, 2015). Specifically, across several studies, we found that cueing people to think about how they might feel about a current stressor in the distant future (e.g., 10 years from now) vs near-future (e.g., 1 week from now) led them to experience less distress. These results held across a range of stressors, both minor (e.g., work deadlines) and major (e.g., loss of a spouse), and regardless of whether participants reflected on negative events that had already happened or were still ongoing.

But what underlying mechanisms explain these effects? We considered several alternatives. First, focusing on how our future selves might feel about our current troubles might hasten emotional recovery by increasing participants' awareness that their thoughts and feelings about the stressor might fade with the passage of time—a process we refer to as impermanence focus. Second, people tend to see their future through rose-colored glasses (e.g., Heller, Stephan, Kifer, & Sedikides, 2011) and expect it to be characterized less by ups and downs (Liberman, Sagristano, & Trope, 2002). Thus, another possibility is that adopting a temporally distanced perspective would downregulate distress by focusing people's attention on an overly optimistic idealized future. Finally, when reflecting on how their lives may be in the near-future, people are also more likely to consider concrete situational forces that may shape their day-to-day experiences. Because concrete mental simulations evoke stronger emotional reactions than more abstract ones (Taylor & Schneider, 1989), temporal distancing may regulate distress by drawing people's attention away from the potential concrete impact of the event.

Across multiple studies, impermanence focus (e.g., I told myself that my feelings about the problem are temporary), but not idealized future (e.g., "I imagined the life I ideally want to lead in the future") or concrete impact (e.g., "I thought about how this will affect my day-to-day life")

considerations, mediated the emotion-regulatory benefits of adopting a temporally far distanced perspective using the standard (Baron and Kenny, 1986) mediational framework. Moreover, when impermanence focus was experimentally manipulated using a causal-chain framework (Spencer, Zanna, & Fong, 2005), participants led to consider the ways in which their reactions might be transitory reported lower levels of distress than people led to consider the ways in which their reactions might be enduring and long lasting. Thus, converging evidence indicates that temporal distancing downregulates distress by making salient the transitory nature of the reactions one's present self feels and thinks, shrinking the emotional significance of the experience in the here and now.

#### 5.2 Individual Differences

We have also examined whether individuals differ in their chronic tendencies to use temporal distancing in everyday life and, if so, whether the habitual use of temporal distancing has similarly beneficial effects on emotion regulation as experimentally induced temporal distancing. To address these issues, we developed a trait temporal distancing questionnaire (e.g., "I focus on how my feelings about the event may change with time," "I generally do not consider that the consequences of the event may be temporary") and examined how scores on this measure predicted a variety of theoretically relevant constructs (Bruehlman-Senecal, Ayduk, & John, 2016). Our results indicated that there were stable and reliable individual differences in people's chronic tendencies to use temporal distancing to regulate their emotions. Furthermore, people high in temporal distancing scored higher on measures of decentering (i.e., taking a step back from one's thoughts and feelings and observing them as passing events in the mind), the nonreactivity facet of mindfulness (i.e., noticing one's thoughts and feelings without reacting to them), and emotion regulation efficacy (i.e., one's perceived ability to successfully regulate their own emotions) and lower on neuroticism and impulsivity. Thus, the nomological network of temporal distancing was consistent with what one would expect theoretically.

In terms of outcomes, trait temporal distancing was positively associated with indices of well-being (e.g., subjective well-being, positive affect) and negatively associated with indices of ill-being (e.g., depression, negative affect). Importantly, temporal distancing was a unique predictor of many of these outcomes even when controlling for the general tendency to use

reappraisal as measured by the Emotion Regulation Questionnaire (Gross & John, 2003).

In addition, a daily dairy study allowed us also to examine the more granular affective processes associated with temporal distancing at the daily level. As one would expect, people higher in temporal distancing displayed lower levels of negative affect and higher levels of positive affect across a 10-day daily diary period. More importantly, these differences in daily affect explained their well-being 3 and 6 months later. Interestingly, we also found that people high in temporal distancing were buffered against high negative affect particularly on days when they experienced high levels of negative experiences. On the flip side, they were protected against low positive affect particularly on days when positive, stimulating experiences were lacking in their lives.

Again, these findings are part of a broader pattern that consistently emerges in our program of research where self-distancing facilitates effective emotion regulation during times of vulnerability, whether vulnerability is assessed as a stable trait (e.g., high anxiety or neuroticism) or as a situational risk factor (e.g., days with multiple stressful events or lack of positive events).

Finally, drawing from our previous findings on the buffering effect of visual self-distancing against hostility (Ayduk & Kross, 2010b; Mischowski et al., 2012), we also explored how trait temporal distancing related to anger in response to a lab-based interpersonal provocation paradigm (Bushman et al., 2005). Specifically, participants were asked complete an anagram task and communicate their answers to the experimenter through an intercom. Three times during this interaction, the experimenter criticized participants for not speaking loudly enough and used a progressively rude manner in delivering the criticism. Participants rated their emotional reactions following the interaction. As expected, those higher in trait temporal distancing reported lower levels of anger (Bruehlman–Senecal et al., 2016, Study 5a).

## 5.3 Converging Evidence

Consistent with this work, Huynh, Yang, and Grossman (2016) recently demonstrated that the benefits of temporal distancing extend to behavior in close relationships as well. For example, partners who were instructed to reflect on a relationship conflict from a temporally distanced, far-future perspective (e.g., "one year from now, when you think of this event, what thoughts would come to your mind?") displayed more adaptive conflict

reasoning (i.e., lower partner blame, greater forgiveness, and insight) following the reflection task than partners who were led to focus on the conflict from the perspective of their present selves (e.g., "right now, when you think of this event, what thoughts come to your mind?"). Furthermore, such adaptive reasoning predicted more positive relationship attitudes, such as greater positive affect toward the partner and higher expectations of relationship growth (vs decline).

## 5.4 Summary

These finding suggest that temporal distancing is a form of self-distancing that involves shifting one's perspective from the present self to a distant future self. As the above-mentioned study illustrates, this shift enhances people's ability to control their feelings surrounding negative experiences. As research on this topic continues, a key challenge will be to examine the clinical implications of these findings, as well as the neural mechanisms that underlie the benefits of mental time travel for facilitating self-regulation.



## 6. SELF-DISTANCING TRAINING

## 6.1 Laboratory Training Intervention

Given the benefits laboratory studies have revealed about self-distancing for self-regulation, we recently began to examine whether teaching people how to self-distance when they experience powerful emotions in their daily lives can enhance their coping ability. In one study, we randomly assigned participants to one of the three conditions at the start of the study: a selfdistancing training group, a relaxation-training active control group, and a no-instruction control group (Orvell, Bruehlman-Senecal, Kross, & Ayduk, in preparation). During the training session, participants in the selfdistancing group were taught how to self-distance when they experienced daily stress using both the visual and linguistic techniques described earlier. Participants in the relaxation group were simply told that they should try to relax when they experienced daily stress. Subsequently, participants in both groups formed implementation intentions to help ensure that they would use the strategies they were taught when they encountered stressors in daily life after the training period was over (Gollwitzer, 1999). Participants in the no-instruction control group were not given any instructions on how to cope with their daily stress and did not form any implementation intentions.

Conceptually replicating prior research indicating that vulnerable individuals benefit the most from self-distancing (Kross & Ayduk, 2009; Kross et al., 2012; Park et al., 2014; Penner et al., 2016), participants in the self-distancing group who scored high on a baseline measure of vulnerability (e.g., trait anxiety and rumination) reported lower levels of daily negative affect and rumination during a 10-day daily diary assessment that followed the initial training session, compared to participants in the two control conditions who scored high on the same baseline measure of vulnerability. At low levels of vulnerability, we did not observe any differences between the groups.

Encouragingly, we also observed long-term effects of self-distancing training. Specifically, whereas vulnerable participants in the no-instruction control group displayed a significant increase in depressive symptoms assessed 3 and 6 months following strategy training, vulnerable participants in the self-distancing group were buffered against these increases. In fact, vulnerable participants in the self-distancing group were indistinguishable from their low vulnerability counterparts in terms of their depressive symptoms during the 3 and 6 month follow-ups.

We did, however, observe one nonpredicted result in this study—vulnerable participants in the relaxation control group were also buffered against increases in depression over time. In this vein, it is important to recognize that relaxation training has been shown to lead to improvements in well-being (see Carlson & Hoyle, 1993, for review). Thus, our data suggest that whereas self-distancing training is particularly useful in buffering people against daily negative affect and rumination, both self-distancing and relaxation may provide people with useful tools that help buffer them against increases in depression over time.

## **6.2 Online Training Intervention**

In the previous study, participants were trained to self-distance in the laboratory one at a time. However, the recent advent and proliferation of online tools for performing studies provided us with an opportunity to examine the scalability of these initial results by investigating whether people can be taught how to self-distance online.

We recently explored this possibility using Amazon's Mechanical Turk (MTurk) online software (Ranney, Bruehlman-Senecal, & Ayduk, 2016). Specifically, we first had participants complete a baseline assessment of well-being (e.g., life satisfaction, positive affect) and ill-being (e.g., worry,

negative affect). Next, we randomly assigned participants to one of the four strategy conditions: self-distancing training, temporal distancing training, positive reappraisal training, or no training control.

In the self-distancing group, participants were taught the visual and linguistic self-distancing strategies. Participants assigned to the temporal distancing condition were trained to adopt the perspective of their *future selves* and reflect on how they might feel about a stressor in the future when they experienced distress (Bruehlman–Senecal & Ayduk, 2015; Bruehlman–Senecal et al., 2016). Finally, participants in the positive reappraisal group were taught how to positively reinterpret their experience (i.e., focus on the bright side; e.g., Moser, Hartwig, Moran, Jendrusina, & Kross, 2014; Ochsner & Gross, 2008). All three groups then formed implementation intentions to use the strategy they were just trained on during the next 2 weeks (Gollwitzer, 1999). In the fourth, no training control condition, participants did not receive any strategy training, nor did they form any implementation intentions.

Two weeks following the training, participants in the self-distancing and temporal distancing conditions displayed significantly higher levels of wellbeing and significantly lower levels of various markers of distress compared to participants in the no training control group. And although the positive reappraisal training group also outperformed the control group on these measures (as we predicted), we found no differences between either of the two distancing groups and the reappraisal condition. The latter finding was particularly noteworthy because the mental health benefits of positive reappraisal are well established (Folkman & Moskowitz, 2000; Shiota & Levenson, 2012; Tugade & Fredrickson, 2004). Thus, the present findings suggest that distancing strategies may be equally effective in their usefulness.

# 6.3 Converging Evidence

Additional evidence supporting the benefits of self-distancing interventions comes from two additional studies that involved intervention conditions that were similar, but not identical to those described above.

In one study, Finkel, Slotter, Luchies, Walton, and Gross (2013) tracked the marital satisfaction of 120 couples over a 2-year period. Half-way through the study, half of the couples were randomly assigned to an intervention group in which they were asked to write about the most significant conflict they experienced with their partner over the course of the past 4 months from the perspective of a well-intentioned neutral observer. The

other half of the participants did not engage in any writing task (i.e., a no treatment control). This manipulation was administered three times during the second year of the study (during the 14-, 18-, and 22-month follow-ups). Participants in the control group did not perform any writing.

The results of the study were striking. Before the intervention, both groups displayed a decline in marital quality over time. After the intervention, however, participants in the control group continued to display this decline, whereas participants in the intervention group were buffered against any further decline in their marital quality levels.

More recently, Denny and Ochsner (2014) performed a short-term training study in which they taught people how to adopt a distanced perspective (e.g., adopt the perspective of a neutral observer) when viewing negative emotional images taken from the International Affective Picture System (Lang et al., 2008) and then examined the effects of this training procedure on subsequent perceived stress (i.e., participants self-report ratings of how stressed and nervous they felt over the past few days using the Perceived Stress Scale; Cohen, Kamarck, & Mermelstein, 1983) in comparison to a nondistancing reappraisal training group and a no training control group. Their results indicated that the distancing group displayed a significant decline in perceived stress over the course of the study, whereas participants in the other conditions did not.

# 6.4 Summary

Together, these studies provide converging evidence highlighting the value of teaching people how to self-distance to improve the way they cope with negative experiences and emotions in their daily lives. And although the way distancing was operationalized across many of these studies differed slightly, the fact that their results converge on a common set of findings speaks to the potential power of distancing as a scalable self-regulation strategy.

# 7. NEW EXTENSIONS

One of the most exciting discoveries we have made in pursuing the aforementioned studies is that self-distancing has implications for a range of phenomena beyond meaning making and coping. In the following sections, we describe some of these phenomena to provide a glimpse into how current research is attempting to broaden and deepen our understanding of self-distancing.

## 7.1 Wise Reasoning

Although many people are eminently capable of offering wise counsel to others (Grossmann & Kross, 2014, Study 1), they often fail to do so effectively for themselves when they face their own personal dilemmas (Ybarra, Rees, Kross, & Sanchez-Burks, 2011). Might self-distancing allow people to reason more wisely under such circumstances? Several recent studies suggest that it does.

For example, in one study, we randomly assigned college seniors and recent college graduates who were unsuccessful at securing a job after graduation to reason about how the economic recession characterizing the United States economy at the time would influence their career prospects from either a self-distanced or a self-immersed visual perspective (Kross & Grossmann, 2011, Study 1). Participants in the self-distanced group displayed higher levels of two common forms of wise reasoning—dialecticism (i.e., they were more likely to recognize that the world is in flux and the future is likely to change; Basseches, 1984; Kramer & Woodruff, 1986) and intellectual humility (i.e., they were more likely to recognize the limits of their own knowledge; Baltes & Smith, 2008; Ryan, 2012).

A follow-up study (Kross & Grossmann, 2011, Study 2), conceptually replicated these findings in a different context. Specifically, we randomly assigned participants to think about how various foreign and domestic issues would play out if their chosen candidate lost the 2008 United States Presidential election from either a self-distanced or self-immersed perspective 3 weeks before the election. Consistent with the above findings, participants in the self-distanced group again displayed higher levels of dialecticism and intellectual humility following the experimental manipulation. They were also significantly more prosocial—they endorsed their own political views less strongly after the manipulation and signed up to join a bipartisan group at a marginally higher rate than participants in the immersed group. The latter findings were particularly noteworthy because prosocial tendencies are often conceptualized as an important consequence of wise reasoning (Sternberg, 1998).

These studies provided preliminary evidence suggesting that self-distancing facilitates wise reasoning. But just how effective is self-distancing for boosting wisdom? Does asking a person to reason about their own problems from a distance lead them to reason as wisely as they do when they offer other people counsel? Or does self-distancing provide people with a smaller nudge, leading them to reason about their problems more wisely than if they

were immersed, but not quite as wisely as if they were thinking about someone else's dilemma?

To address these questions, we randomly assigned participants to one of the four conditions: (a) reason about one's own problem from an immersed perspective, (b) reason about one's friend's problem from an immersed perspective, or (d) reason about one's own problem from a distanced perspective, or (d) reason about one's friend's problem from a distanced perspective) (Grossmann & Kross, 2014, Study 2). We found that participants who reasoned about their own problems from a distance reasoned as wisely as participants who reasoned about another person's problem from either a distanced or immersed perspective. Thus, the findings from this study suggested that self-distancing completely eliminated the self-other asymmetry that normally characterizes wise reasoning (Grossmann & Kross, 2014, Study 1).

These and several other recent papers have linked self-distancing and the ability to reason wisely (e.g., Grossmann, Gerlach, & Denissen, 2016; Staudinger & Gluck, 2010). Together, they suggest that researchers should consider investigating whether teaching people how to self-distance could increase their level of wise reasoning in daily life.

# 7.2 A Common Ingredient Underlying Successful Cognitive Interventions?

Over the years, several researchers have suggested that psychological distancing is an essential ingredient that underlies self-control (Mischel & Rodriguez, 1993) and a key mechanism that allows people to benefit from cognitive interventions designed to improve the way people feel (Beck, 1970; Ingram & Hollon, 1986). But little research has directly examined whether self-distancing plays a role in mediating the outcomes of different cognitive interventions.

As a first step toward addressing this question, we examined the role that self-distancing plays in mediating the emotional benefits associated with expressive writing (Park et al., 2016), a well-studied intervention that involves asking people to write expressively about their deepest thoughts and feelings surrounding a negative past experience over several consecutive days, which has been found to lead to a number of dramatic emotional and physical health improvements (Pennebaker & Chung, 2007; Pennebaker & Graybeal, 2001; Pennebaker et al., 1997; Smyth, 1998). We focused on expressive writing because several features of this paradigm suggest that it should enhance self-distancing. Specifically constructing narratives about

one's experience involves separating the self as author from the self as the target of writing (Apgar, 1997); writing also focuses one's attention on the broader context in which one's experience occurred (Meier, 2002), leads a person to adopt the perspective of multiple people (Labov & Fanshel, 1977), and often leads to writing in the past tense (Polanyi, 1982)—each of which represents a psychological process that involves transcending one's egocentric view of the world. Thus, we reasoned that self-distancing might mediate the benefits of expressive writing.

To test this idea, we first had all participants recall and reflect on their most distressing life experience (examples of such experiences included losing a loved one, experiencing painful romantic rejection, and failing to live up to one's ideals). Then we randomly assigned participants to either an expressive writing group or a neutral writing group. Participants in the expressive writing group were asked to write about their deepest thoughts and feelings surrounding their most distressing life experience for 15 min over the course of three consecutive days; participants in the control group were asked to write about a neutral topic for the same amount of time. Both 1 day and 1 month following the writing intervention, we asked participants to recall and reflect on the same experience they thought about during the first day of the study, and then rate their tendency to adopt a self-distanced visual perspective as they reflected on their feelings surrounding the event.

Both 1 day and 1 month following the intervention, participants in the expressive writing group self-distanced more than participants in the control group when they reflected on their negative experience. Moreover, participants' tendency to self-distance when they reflected on their negative experience after the intervention predicted the emotional benefits of expressive writing over time. Specifically, participants in the expressive writing group displayed less negative emotion when thinking about their experience 1 day and 1 month following the intervention, and each of these effects was mediated by their tendency to adopt a self-distanced perspective.

A follow-up study replicated and extended these findings by demonstrating that expressive writing promotes self-distancing not only compared to a neutral control condition, but also compared to a condition in which participants are asked to simply "think" about a negative experience. Including an additional "think" condition provided a relatively conservative control group because participants in this group were likewise asked to focus on the emotional content of their negative experience for the same amount of time as participants in the expressive writing group. However, unlike

expressive writing, simply thinking about a negative emotional event was not expected to lead people to feel better (Lyubomirsky, Sousa, & Dickerhoof, 2006).

The results of this study were consistent with this prediction. Expressive writing led participants to self-distance more following the intervention relative to both the thinking and neutral writing control groups. Moreover, as in the first study, self-distancing mediated the emotional benefits of expressive writing over time.

These findings shed light on one factor that helps explain how expressive writing leads to some of its emotional benefits. But at a broader level, they raise an interesting possibility—that self-distancing may constitute a core process that explains how different cognitive interventions might achieve their benefits. Investigating this question in the future is important not only for advancing research on self-distancing, but also improving our understanding of the mechanisms that promote effective cognitive change more broadly.

### 7.3 Intergroup Relationships

Recent research has also examined the role of self-distancing in a very different context: facilitating intergroup relations. Despite the recent increase in racial diversity in the United States (Colby & Ortman, 2014), Whites continue to hold most leadership positions in many academic and professional domains (Landivar, 2013), making it likely that racial minorities are often mentored or supervised by a White mentor.

Why does this racially discordant mentorship structure matter? Interracial interactions tend to be anxiety provoking for both parties (Page-Gould, Mendoza-Denton, & Tropp, 2008). Racial minorities become anxious about confirming negative stereotypes about their group; Whites become anxious about coming across as racist (Butz & Plant, 2006; Mendoza-Denton, Goldman-Flythe, Pietzrak, Downey, & Aceves, 2010; Plant & Devine, 2003). Concerns about appearing prejudiced are in turn associated with negative attitudes toward minorities (Plant & Devine, 1998), lower quality intergroup interactions (Vorauer, 2006; Vorauer & Turpie, 2004), and the provision of less useful feedback by Whites in mentoring contexts (Crosby & Monin, 2007). Given the downstream negative consequences associated with becoming immersed in one's concerns about not being perceived as prejudiced, we reasoned that cueing White mentors to self-distance prior to interacting with their minority mentee might improve the quality of the mentorship they provide.

We tested this idea by cueing White mentors to prepare for an interaction with a Black mentee by thinking about how the interaction would proceed using either first-person pronouns (self-immersed condition) or non-first-person pronouns (self-distanced condition, Leitner et al., in press). Subsequently, we asked mentors to view a video of their mentee delivering a public speech and then provide feedback about the mentee's performance. The Black mentee was, in fact, a confederate who was videotaped as he delivered a scripted speech about his qualifications for his dream job. We recorded mentor participants' brain activity using EEG throughout this study so we could unobtrusively monitor their cognitive and emotional reactions to the task and manipulation.

Current source density analysis, a technique that allows researchers to estimate the neural generators of scalp EEG activity (Grech et al., 2008; Pascual-Marqui, Michel, & Lehmann, 1994; Tenke & Kayser, 2012), revealed that the self-distancing manipulation led to reduced activity in brain regions linked to self-referential processing (MPFC) among mentors when they critiqued their mentees. This decreased MPFC activity, in turn, predicted more positive evaluations of the mentee, and the provision of more warm and helpful feedback as rated by judges who were blind to the study's hypotheses.

These results provide promising preliminary evidence suggesting that self-distancing may be useful for improving the quality of interracial mentorship by decreasing self-referential processing during the provision of criticism. They also provide a conceptual replication of our recent neuroimaging research on linguistic self-distancing, in that they link the activation of this process with MPFC modulation.

## 7.4 Social Support

The bulk of self-distancing research to date has focused on how this process facilitates adaptive *self*-reflection. But in daily life, people do not simply try to work-through their experiences on their own. They also frequently rely on other people to help them deal with their problems. Might a common set of mechanisms explain how both of these routes to adaptive self-reflection—i.e., self-distancing and social support from other people—work?

We addressed this question by randomly assigning participants to talk about an unresolved, painful negative interpersonal event with a confederate who was trained to either prompt the participant to *recount* (e.g., "Can you tell me what happened from start to finish?") or *reconstrue* (e.g., "If you look at the big picture, does that help you make sense of this experience?") their

experience (Lee, Kross, Briskin, Shrapnell, & Ybarra, in preparation). We manipulated this construct because prior research has found that self-distancing promotes adaptive self-reflection by leading people to focus less on recounting what happened to them and to focus more on reconstruing their experience. Thus, to the extent that these processes represent key levers that determine the whether the outcomes of self-reflection are helpful or harmful, we hypothesized that participants who were prompted to reconstrue their experience would feel better than participants who were prompted to recount it.

Our results supported this prediction. Specifically, participants who were prompted to reconstrue their experience displayed significantly less negative affect at the end of the study. They also reported feeling a greater sense of closure surrounding their experience. Moreover, a follow-up study that directly replicated these results also demonstrated that the main effect of recounting vs reconstruing was evident regardless of participants' preferred style of coping (Lee et al., in preparation). That is, even participants who indicated during a pretesting session that they preferred to cope with negative experiences by engaging in recounting benefited from the reconstrual manipulation.

These findings begin to shed light on the mechanisms that underlie adaptive vs maladaptive forms of social support. They also highlight the need for future research to examine how these processes play out spontaneously among couples and friends as they live their lives.

# 7.5 Summary

Although the foci of the different lines of research described in this section are distinct, they share a common thread—they demonstrate how the process of taking a psychological "step back" to reflect on one's experiences and emotions can at times have far-reaching implications for influencing the way people think, feel, and behave.

#### 8. CONCLUDING THOUGHTS

Over the past 10 years, a substantial amount of evidence has accumulated demonstrating the benefits of distancing as a self-regulatory tool. Indeed, a recent metaanalysis (Webb, Miles, & Sheeran, 2012) conceptualized self-distancing as a member of a class of perspective-taking strategies that involve adopting a detached/observer perspective, which was one of the most effective for facilitating emotion regulation, speaking to the power

of self-distancing for helping people control the way they think, feel, and behave. The results of this metaanalysis also provide important data regarding robustness, insofar as these studies collectively demonstrated that distancing strategies, despite being operationalized somewhat differently across studies, generally converge on favorable emotion regulation outcomes.

Given these findings, it should come as no surprise that we are often asked, "Is self-distancing a magic pill?" Our answer to this question is an emphatic, "no." We conceive of self-distancing as a *psychological process*. And psychological processes, in our view, are not singularly good or bad. Instead, whether they are helpful or harmful depends critically on the context in which they are engaged. In this vein, it is important to emphasize that we and others have studied self-distancing in contexts in which we hypothesized it would be helpful.

Of course, it is possible that there are other contexts in which engaging in certain types of self-distancing strategies may be harmful or ineffective. For example, some research indicates that adopting a self-distanced visual perspective is harmful when people with social phobia imagine the stressful circumstances that drive their fear (e.g., Coles, Turk, & Heimberg, 2002; Coles, Turk, Heimberg, & Fresco, 2001; Schultz & Heimberg, 2008; Wells, Clark, & Ahmad, 1998). Other studies have linked visual self-distancing with no emotion regulation effects for people reflecting on past experiences that elicit negative self-conscious emotions such as guilt or embarrassment (Katzir & Eyal, 2013).

Although it is tempting to conclude that self-distancing is ineffective in these kinds of situations, we suggest that instances such as these are precisely when a contextual analysis is most needed (Aldao, 2013; e.g., Aldao & Nolen-Hoeksema, 2012; Bonanno & Burton, 2013; Mendoza-Denton, Ayduk, Mischel, Shoda, & Testa, 2001; Mischel & Shoda, 1995, 1998). In this vein, consider the fact that we have found another type of self-distancing technique, linguistic self-distancing, to be *helpful* in the same contexts that the aforementioned work has found visual self-distancing techniques to be harmful or benign—when people who are intensely fearful of social anxiety reflect on situations that elicit negative self-conscious emotions (Kross et al., 2014, Study 6).

Why might one self-distancing tactic be helpful in these situations and another harmful? Although we can only speculate at this point, a contextual analysis that seeks to identify the reasons why one strategy may be harmful or ineffective for certain people in certain types of situations, whereas another might be useful, offers many hypotheses that can be explored. Moving

forward, a key challenge for future research is to address these types of questions not only in the context of self-distancing strategies, but also other psychological distancing and emotion-regulatory strategies more generally. Doing so has the potential to enrich our understanding of how self-regulation operates in ways that promise to both advance basic theory and also provide people with information they can use to improve their ability to cope with negative experiences in their lives.

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