Self-distancing as a Mechanism for Processing Negative Emotional Experiences

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ABSTRACT. Human beings share the motivation to analyze and understand their negative emotions in hopes of achieving resolution and ridding themselves of the negative feelings. However, reflecting on such emotions may backfire and instead trigger dysfunctional responses such as cognitive escape or rumination with the intention to protect oneself. A wealth of scholars has examined a strategy known as "self-distancing" as a mechanism that may allow individuals to adaptively process negative events without causing further negative affect. Given the ability of humans to shift their point of view, individuals can distance themselves from their own experience and take on an observer's perspective. According to this line of work, analyzing stimulating material from a self-distanced perspective allows individuals to reconstrue their experiences in ways that facilitate adaptive processing and promote insight. In contrast, a self-immersed perspective has been linked to a concrete focus on emotionally arousing details, thus making individuals vulnerable to rumination. Researchers have examined the emotional, cognitive and physiological benefits associated with the self-distancing strategy when recalling both depression- and anger-related experiences. More recent studies have also considered its role in the context of different populations (children, clinical populations). Implications and future directions are discussed.

Numerous self-help guides fill the aisles of bookstores in Western societies. They provide readers with a range of resources that are supposed to help them work through various stressors. Indeed, human beings share a general motivation to make sense of their negative feelings; most seek to achieve this resolution by examining the causes and assigning meaning to their experiences (Wilson & Gilbert, 2008). By understanding one's emotions, it is reasonable to assume that individuals can achieve resolution and create a sense of relief associated with distressing events. This assumption is consistent with previous work, suggesting that processing negative events facilitates important insight and may weaken the frequency and intensity of these emotional disturbances (Kross, Duckworth, Ayduk, Tsukayama, & Mischel, 2011; Wenzlaff & Wegner, 2000; Wilson & Gilbert, 2008). Successful resolution of negative experiences may then not only change the distressing emotional reaction associated with these events, but insight may also benefit individuals when facing similar situations in the future.

In clinical practice, patients seek professional help in order to better cope with experiences that provoke uncomfortable thoughts and feelings. However, the so-called "self-reflection paradox" highlights a possible underlying problem in this process (Kross et al., 2011; Kross & Ayduk, 2011). Although several studies outline the advantages of emotional processing, others point out that attempting to understand negative experiences can also trigger dysfunctional mechanisms associated with maladaptive consequences (Cribb, Moulds, & Carter, 2006; Wilson & Gilbert, 2008). Instead of understanding one's emotions to achieve insight, this attempt may backfire in

ways that may make individuals become particularly vulnerable to their negative experiences.

Recently, a wealth of scholarship has advanced self-distancing as a mechanism that may allow individuals to process negative events in adaptive ways (Ayduk & Kross, 2008a, 2008b, 2010b; Kross & Ayduk, 2008; Kross, Ayduk, & Mischel, 2005; Kross et al., 2011; Kross, Gard, Deldin, Clifton, & Ayduk, 2012; White, Kross, & Duckworth, 2015). Given contradictory findings regarding the efficacy of reflecting on negative experiences, the present paper will review the literature surrounding rumination and distancing for (mal-) adaptive self-regulation. In particular, the review intends to illustrate the adaptive implications associated with self-distanced perspective-taking in the context of past distressing experiences.

1. Maladaptive processing

The motivation to reflect on and process experiences is particularly strong when individuals experience distress (Wilson & Gilbert, 2008). However, it is also assumed that this mental strategy may activate corresponding emotions and thus trigger the need for cognitive escape, avoidance and distraction in order to protect oneself (Kross & Ayduk, 2008). Although distraction and avoidance may initially appear to be adaptive responses, the well-known "white bear" study illustrates their limitations on the basis of a seemingly unimportant topic (Wegner, 2011; Wegner, Schneider, Carter, & White, 1987; Wenzlaff & Wegner, 2000).

Wegner et al. (1987) demonstrated the so-called "rebound phenomenon" by prompting participants to suppress the thought of a white bear. Despite this prompt, individuals not only experienced elevated levels of thought occurrence during suppression, but they also became preoccupied with the target thought once reactivated (in this case, a white bear). Although emotional valence of events varied across multiple studies, this finding was shown to be particularly dominant in the context of (negative) emotional material compared to neutral information (Wenzlaff & Wegner, 2000). Previous work has shown that the attempt to avoid thinking about these negatively-laden events may initially provide benefits, such as emotional relief and reduced depressed moods (Kross & Ayduk, 2008; Nolen-Hoeksema, 1991; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Wisco, & Lyobomirsky, 2008).

However, this strategy is not only assumed to eventually backfire, but engaging in avoidance predicted unique variance in depression scores among participants (Mischel, Shoda, & Rodriguez, 1989). Further, it has also been linked to increased accessibility of unwanted thoughts and may thus pose disastrous long-term implications by leading individuals to think repeatedly about their negative experiences (Moulds, Kandris, Starr, & Wong, 2007; Wegner et al., 1987; Wenzlaff & Wegner, 2000).

Rumination is defined as "a mode of responding to distress that involves repetitively and passively focusing on symptoms" (Nolen-Hoeksema et al., 2008, p. 400) and thus serves to maintain or worsen depressive episodes. Such responses are often symptom–focused and contemplative as individuals circle around the experiences, causes, and consequences of their negative emotions with no end in sight (Nolen-Hoeksema, 1991). Being fixated on the thoughts and feelings that occupy their inner world prevents individuals from generating alternative cognitive and behavioral pathways that could enable them to initiate change (Cribb et al., 2006; Nolen-Hoeksema, 1991; Nolen-Hoeksema et al., 2008; Moulds et al., 2007). Not surprisingly, Davis and Nolen-Hoeksema (2000) suggested a close link between rumination and cognitive inflexibility that affects individuals on a variety of levels. Indeed, rumination does not only promote negative thinking and depressed mood, but it also

interferes with problem-solving and proactive behavior (Nolen-Hoeksema, 1991).

Given its perseverant nature, several researchers conceptualize rumination as a mechanism that serves an affective and cognitive avoidant function (Cribb et al., 2006; Moulds et al., 2007). Ironically, ruminators often share the belief that they are constructively processing and making sense of their negative experiences (Nolen-Hoeksema et al., 2008). Individuals may also feel as if this way of processing their experiences facilitates understanding, while instead they seem to get caught up in a vicious cycle.

Multiple studies have demonstrated the consequences of this dysfunctional and self-focused response (Nolen-Hoeksema, 1991; Morrison & O'Connor, 2008). Rumination has not only been associated with higher levels of depressive symptoms, but researchers also illustrated its predictive force in regards to the onset and maintenance of depressive episodes (Nolen-Hoeksema, 2000; Nolen-Hoeksema et al., 1993). Further, rumination has been shown to negatively affect cardiovascular activity by creating elevated levels of blood pressure and poor physiological recovery (Gerin, Davidson, Christenfeld, Goyal, & Schwartz, 2006). Even more severely, Morrison and O'Connor (2008) conducted a systematic review of 11 studies examining the relationship between rumination and suicidality among clinical and non-clinical samples of varying age groups. With one exception and despite varying methodologies across the studies, researchers consistently found a direct link between these key variables.

Given that avoiding thoughts surrounding negative experiences has previously been demonstrated to undermine adaptive self-reflection, attempting to *understand* one's emotions seems to pose maladaptive consequences as well: Individuals begin to ruminate while avoiding direct confrontation and proactive engagement. Taking these findings together, Cribb et al. (2006) demonstrated a direct link between avoidance, rumination and depression. Higher levels of depressed mood were linked to a greater ruminative style of thinking and a tendency to engage in various forms of avoidance. These maladaptive responses that frequently result from the attempt to process negative thoughts demonstrate the necessity to find alternative and adaptive processing styles. What can enable individuals to work through negative thoughts and emotions without engaging in avoidance or rumination?

2. Self-distancing as adaptive mechanism

Scientific and clinical interest in the development of mechanisms that allow adaptive emotional regulation has grown in the last decades. Cognitive-behavioral therapy (CBT), coined by Aaron Beck assumes that psychological problems are the result of dysfunctional misconceptions (schemas) that influence one's cognition, affect and behavior in maladaptive ways (Beck, Rush, Shaw, & Emery, 1979). With the help of a therapist, cognitive (self-questioning) techniques are implemented to help clients identify and eventually change their distorted thought patterns. Experts assign importance to "decentering", which is described as the "capacity to take a present-focused, nonjudgmental stance in regard to thoughts and feelings and to accept them" (Fresco, Segal, Buis, & Kennedy, 2007, p. 448). Also labeled as "distancing", it is assumed that an objective perspective allows clients to process thoughts in a controlled mode.

Consistent with this approach, several "third-wave" forms of cognitive therapy, including both mindfulness-based and acceptance and commitment-based therapies, utilize this approach in order to prevent individuals from getting overwhelmed by their thoughts (Ayduk & Kross, 2010b). Instead of further relying on maladaptive assumptions that fuel biased thinking, CBT requires individuals to step back and develop reality-based interpretations to undermine this

dysfunctional process. Although work discussed thus far may suggest that focusing on one's internal world will generate negative reactions and should thus be avoided, working with dysfunctional thought patterns has been a component of therapy for several decades (Beck et al., 1979).

Past work on self-control further supports the possibility of adaptive self-regulation without triggering intense levels of affect (Kross et al., 2005; Mischel et al., 1989). Mischel et al. (1989) demonstrated in various studies with children that they were able to cognitively represent arousing stimuli in a way that enhanced their self-control and thus sustain delay of gratification. Compared to a control group that considered the arousing characteristics associated with the desired object, individuals adopting alternative strategies outperformed the former group. Both individuals who distracted themselves or those with an altered perspective and a focus on the abstract qualities were better able to withstand their impulse.

This observation is based on the "hot/cool model" that is said to substantially drive our reaction and our ability to regulate emotions (Metcalfe & Mischel, 1999). Focusing on concrete details of an experience may elicit strong (hot) emotional reactions that may, in turn, trigger arousal and protective mechanisms such as avoidance behaviors. In contrast, an abstract, reflective (cool) mode has been associated with a distanced perspective, which in turn, is assumed to inhibit overwhelming emotions in response to the affect-arousing stimuli (Metcalfe & Mischel, 1999; Mischel et al., 1989).

Taking these findings together, various experts in social-behavioral and clinical disciplines suggest that one's type of perspective in the context of arousing material may be a fundamental key ingredient for adaptive regulation (Kross et al., 2005; Mischel et al., 1989). This cognitive process is possible because humans share the unique ability to shift their egocentric point of view to an ego-decentered perspective (Kross et al., 2005; Kross & Ayduk, 2011). Utilizing the hot/cool model as a foundation, Kross et al. (2005) later transformed this theory when conducting their work on self-distancing and emotion regulation. In order to successfully process distressing material, the researchers suggest that considering mental events from a distanced, ego-decentered perspective would inhibit "hot" emotional reactions, while allowing individuals to stay in an abstract, "cool" space.

Contrary to the work on self-distancing, Cribb et al. (2006) suggested that greater rumination is associated with a focus on less concrete (more abstract) details. Their line of work led to the assumption that rumination allows individuals to cognitively avoid the confrontation with "concrete image-based thought content" (Cribb et al., 2006, p. 172) and that ruminators generally adopt an abstract focus. Therefore, their over-generalized perspective would then be associated with more rumination.

Opposed to this, Kross and Ayduk (2010b) argue that self-immersion makes individuals vulnerable to rumination and that an abstract (distanced) focus would allow adaptive processing. Again, this type of perspective entails that one focuses on the concrete (not abstract) details by recounting the causes and consequences of the distressing memory. Instead of linking rumination to an abstract focus, their train of thought suggests a link between (concrete) self-immersion and rumination. When instructing participants to adopt an immersed or distanced perspective before analyzing a personal, negative experience, self-immersed individuals recounted the detail-oriented, concrete features of an event.

These opposing views demonstrate inconsistencies between the work on rumination and distancing research. Building on Nolen-Hoeksema et al.'s definition (2008) of rumination, tenaciously and repeatedly focusing on the arousing material may even suggest that rumination entails a

perspective that is geared towards a focus on details of an event that are too specific. This definition would align with Kross and Ayduk's work (2010b).

In support of this, adopting a self-distanced perspective and mentally stepping out of one's point of view presumably requires a substantial amount of cognitive flexibility – an ability that has been shown to be inhibited among ruminators (Davis & Nolen-Hoeksema, 2000). It seems safe to conclude that this compromised perspective taking might force these individuals to attend to the emotionally arousing details which, in turn, trigger maladaptive reactions. It is important to consider that the mood manipulation in the study conducted by Cribb et al. (2006) occurred through an emotion-eliciting film clip. Although the investigators do not differentiate between these mood manipulation techniques, it is reasonable to assume that a film clip would influence participants in a different (and less emotionally relevant) way than recalling a personal, negative experience. Before drawing rash conclusions, future work may want to follow-up with this discrepancy of concrete versus abstract focus during rumination and distancing.

i. Emotional & Cognitive benefits

When reflecting on emotion eliciting experiences, Kross et al. (2012) and Verduyn, Van Machelen, Chezzi, Van Bever, and Kross (2012) suggest the self reflecting on and originally experiencing the event is the same person when adopting an immersed, first-person perspective. Given human's innate ability to shift one's point of view, individuals can distance themselves from their experience and take on an observer's perspective (Kross et al., 2005). Based on the work mainly conducted by Kross and Ayduk, this type of self-perspective is assumed to determine whether individuals can cognitively process emotional experiences in adaptive ways (Ayduk & Kross, 2008b; Ayduk & Kross, 2010a, 2010b; Kross, 2009; Kross & Ayduk, 2008; Kross et al., 2005; Kross et al., 2012).

One of the initial studies in this line of work asked participants to recall an interpersonal conflict and then instructed them to adopt an immersed or distanced perspective (Kross et al., 2005). Further, they were asked to focus on their felt emotions (what focus) or on the specific reasons underlying their sensations (why focus) associated with their anger-related memory. Regardless of the conflict status, only individuals in the distanced-why group demonstrated reduced emotional reactivity as their results displayed significantly less (implicit and explicit) anger and global negative affect.

In contrast, having individuals with an immersed perspective question the underlying reasons (why) did not create an effect. Given that concrete vs. abstract construals were previously identified as mechanisms that substantially influence one's emotional response to arousing stimuli, Kross et al. (2005) examined participant's written stream of thoughts. As predicted, adopting a distanced perspective was associated with more abstract construals as individuals utilized a greater proportion of insight and closure statements. The researchers also revealed a mediating relationship in this context by demonstrating that fewer concrete construals mediated the effect of the distanced-why perspective on emotional reactivity. When controlling for construal type, the effect of condition on emotional reactivity diminished. These findings established a basis for subsequent research by suggesting that individuals seem to experience a shift in thought content depending on their perspective which in turn influences their emotional reaction.

A specific example can help clarify this process of distancing that has been demonstrated across multiple studies (Ayduk & Kross, 2008b; Kross & Ayduk, 2008, 2009; Kross et al., 2012). Take, for example, Laura who has just had an argument with her partner. As she attempts to understand the uncomfortable incident, she can adopt different perspectives while reflecting back

on this experience. A self-immersed perspective would entail recounting emotionally arousing details and episodic features of the argument including the chain of events and her specific feelings (Kross, 2009). Assuming that Laura would like to avoid reliving the negative emotions that she associates with this event, researchers argue that a self-distanced perspective would enable her to reconstrue the experience in ways that promote enhanced understanding. Through a distanced perspective, she would be able to perceive the "big picture", make sense of the event while possibly identifying the causes as well as underlying motivations on both sides.

Several researchers were able to replicate and extend these findings to different sets of emotions. Cueing individuals to take a step back and adopt a "fly on the wall" perspective has been shown to benefit self-regulation following the recall and analysis of negative interpersonal/anger-related (Ayduk & Kross, 2008a, 2008b, 2010b; Kross et al., 2011; White et al, 2015) as well as depression-related (Kross et al., 2012; Kross & Ayduk, 2008) experiences. In contrast, these studies have shown that adopting a self-immersed perspective intensifies one's emotional reactivity. In support of these findings, Verduyn et al. (2012) demonstrated that self-immersed individuals experienced negative emotions longer compared to the ones who self-distanced. As a result, this strategy may not only buffer against a heightened negative emotional response but it may also be able to shorten the duration of negative emotions.

Although the initial study of Kross and colleagues (Kross et al., 2005) induced a certain type of focus (why vs. what) after manipulating the type of perspective, subsequent work suggests that individuals engaging in self-distancing naturally tend to reconstrue more and recount less (Ayduk & Kross, 2010b; Kross et al., 2012; Kross & Ayduk, 2008). In particular, Ayduk and Kross (2010b) demonstrated that the proportion of recounting over reconstruing decreased as self-distancing increased. Kross and Ayduk (2008) suggested that individuals in both immersed and distanced conditions focus on their emotions (recounting), but they argue that the balance of relatively less recounting and more reconstruing accounts for the regulatory benefits linked to self-distancing (Ayduk & Kross, 2010a).

In support of this, participants in subsequent studies were merely asked to analyze their feelings and thoughts from their assigned perspective without giving further instructions regarding their focus (Ayduk & Kross, 2008b; Kross et al., 2012; Kross & Ayduk, 2008). Manipulating one's perspective would then be sufficient enough to trigger the shift in thought content and thus lead self-distanced individuals to favor the use of abstract (why) construals without inducing a specific focus.

However, the importance of analyzing a memory after its recall should not be undermined. Prior work suggests that creating mental distance might be comparable with third-wave mindfulness and acceptance-based approaches during which individuals observe and accept, but do not analyze their experience (Ayduk & Kross, 2010b; Kross et al., 2012). As a consequence, individuals may not experience the adaptive benefits associated with self-distancing. This idea may suggest that the analysis of one's emotions is fundamental when adopting a self-distanced perspective and that immersed individuals may be unable to engage in this high-level, abstract thinking. Drawing from this, it is not surprising that asking immersed individuals to adopt a "why" focus during analysis did not yield an effect (Kross et al., 2005). Consistent with this assumption, experts distinguish between recalling (and observing) as opposed to analyzing an experience as these mental processes are believed to affect different areas of information processing.

ii. Spontaneous self-distancing

Although a majority of the studies presented thus far intentionally manipulated

participant's perspectives, it remains questionable whether individuals spontaneously self-distance outside of the laboratory and without researchers cuing them to adopt a certain perspective. Collectively, recent research on the external validity of self-distancing seems promising (Ayduk & Kross, 2010b; Verduyn et al. 2012; White et al., 2015).

In two separate studies, Ayduk and Kross (2010b) demonstrated that participants did not only engage in the self-distancing process without being cued, but doing so has also been linked to various adaptive consequences. After recalling a negative, interpersonal experience, participants identified the perspective they adopted when reflecting on the event. This approach differs from other studies by relying on spontaneous perspective-taking rather than induced. Overall, participants were more likely to reflect on their experience from a self-immersed rather than self-distanced perspective.

Given that memory age (duration between experience and experimental recall), baseline negative affect, and the resolution status of the recalled experience can influence the relationship between the key variables, Ayduk and Kross (2010b) controlled for these covariates in their analyses. Consistent with previous studies that have relied on the experimental manipulation of the examined perspectives, higher spontaneous self-distancing was associated with lower emotional reactivity and thought content fully mediated this relationship. Given that these findings were replicated in the second study when participants reflected on an anger-related interpersonal experience, spontaneous self-distancing seems to occur in response to different emotions.

However, it is important to mention that studies examining spontaneous self-distancing have relied on a single-item measure which can limit the reliability of the finding (Ayduk & Kross, 2010b; White et al., 2015). Individuals who self-reported the extent to which they adopted a self-immersed vs. self-distanced perspective may not be able to consciously grasp the complexity of this cognitive approach.

Although spontaneous self-distancing seems to be an established process in adult samples, only one study has examined the effects of distancing in a sample of fifth-grade students (Kross et al., 2011). To extend this line of work, White et al. (2015) asked a sample of African-American adolescents to reflect on an anger-related experience and assessed the degree to which (and whether) participants spontaneously adopted a distanced perspective. Similar to past experiments, memory age was treated as a covariate. Past work has demonstrated age-related differences in emotion regulatory control, thus suggesting that maturation may be closely linked to one's ability to regulate emotions (Orgeta, 2009*)*.

The adolescent sample was not only able to spontaneously adopt an observer's perspective, but this cognitive process has also been linked to the same benefits of distancing shown in previous studies with adult samples (Ayduk & Kross, 2008b, 2010b; Kross et al., 2005). Although only three construal items (as opposed to thought content essays) were used to examine the degree of maladaptive (recounting) vs. adaptive (reconstruing) reflection, the researchers were still able to illustrate the relationship between distancing and a predominance of reconstruing over recounting. Further, the researchers demonstrated a growing strength in the relationship between self-distancing and emotional regulation with age, thus supporting previous work suggesting that older individuals may be better able to engage in adaptive regulation.

According to White et al. (2015), this finding may be due to age-dependent physiological (brain) development, suggesting that distancing may require the maturation of late-developing brain regions. An increased exposure to social-environmental situations that demand

emotional regulation may also explain these age differences. Future studies need to move beyond a predominantly adult sample in order to better understand the generalizability of this strategy to different age cohorts.

Although individuals have generally been shown to favor a self-immersed perspective when reflecting on their experiences, the extent to which participants spontaneously engaged in distancing still yielded significance across various studies (Ayduk & Kross, 2010b; Verduyn et al., 2012). These findings generate two questions that have not received enough attention in the studies conducted up to this point. It is reasonable to assume that adopting a self-distanced perspective requires cognitive flexibility because individuals need to mentally step out of their point of view to take on an observer's perspective. Supporting this assumption, researchers have demonstrated that this ability seems to be inhibited among ruminators (Davis & Nolen-Hoeksema, 2000). Indeed, Ayduk and Kross (2010b) demonstrated that spontaneous self-distancing was associated with more problem-solving behavior, which reasonably requires extensive cognitive resources. In contrast, compromised perspective taking might force these individuals to focus on the emotionally arousing details which may in turn further enhance rumination. On this note, some individuals may be particularly susceptible to rumination because they spontaneously adopt a self-immersed perspective when reflecting on stimulating material and are consequently more likely to re-experience the negative event. To better provide suggestions for these vulnerable populations, future research may need to examine the specific relationship between self-immersion and rumination.

It also remains unclear why and how certain people (choose to) engage in this adaptive process. None of the studies reviewed have examined whether certain characteristics/dispositions or abilities are responsible for increasing the likelihood of some individuals to self-distance during reflection. Cross-cultural studies have demonstrated differences in types of self-awareness between individuals from individualistic, Western countries or collectivistic, particularly East Asian countries (Heine, 2016). Subjective self-awareness entails that one's attention is directed towards the external world and away from ourselves. In contrast, individuals who focus on themselves and monitor their interactions from an outside perspective would adopt an objective focus.

Given the value of interpersonal connection in collectivistic countries, it is not surprising that individuals in East Asian countries were shown to be more likely to habitually adopt third-person, objective perspective (Heine, 2016). Although the studies discussed in this review were conducted in a Western context which cross-cultural researchers would argue to favor a subjective inside-out perspective, participants still spontaneously engaged in distancing which could be equated with the latter version (objective self-awareness). More research is needed to better understand the role of culture and different tendencies in adopting certain perspectives as this line of work may suggest that socio-environmental factors could play a role in spontaneous self-distancing.

b. Physiological benefits

i. Cardiovascular

Prior work has linked a ruminative style to delayed physiological recovery which may over time contribute to a heightened risk of cardiovascular disease (Gerin et al., 2006). Given these data, researchers have extended their work beyond self-reported measures to examine the effect of distancing on physiological markers (Ayduk & Kross, 2008b). Ayduk and Kross (2008b) asked participants to recall an anger-related autobiographical experience and then analyze this memory from their assigned (distanced or immersed) condition. Blood pressure activity was recorded throughout

the entire study including baseline, manipulation and recovery.

Even when controlling for the vividness and the resolution status of the recalled memory, researchers replicated the attenuating effect of self-distancing on emotional reactivity. Preceding the memory recall, the experimental groups did not differ on the variables. However, the self-distanced group displayed lower levels of physiological reactivity during each phase (recall, analysis, and recovery phase). Given the nature of the recalled experience, individuals across both conditions displayed elevated levels of emotional and physiological reactivity, but the scores on these variables were lower for individuals who self-distanced.

To build upon this finding, Ayduk and Kross (2010b) later demonstrated these soothing effects when individuals spontaneously self-distanced. By monitoring participant's blood pressure and cardiac output, researchers computed the amount of constriction occurring in the peripheral autonomic nervous system (TPR). Elevated levels of TPR reactivity demonstrate a maladaptive response to stress. While baseline reactivity did not differ among the groups, spontaneous self-distancing was linked to lower physiological reactivity across all three phases of the study (recall, reflection, recovery).

In contrast to rumination, which has previously been linked to heightened distress and delayed physiological recovery, these findings suggest that the regulatory benefits associated with self-distancing can be extended to physiological markers. It should be noted that both studies examined the effects of self-distancing on physiological recovery in the context of an anger-related (interpersonal) experience. Although it is reasonable to assume that similar outcomes ought to be expected in response to other emotion-eliciting events, future studies may want to examine this relationship.

ii. Health benefits

Although Ayduk and Kross (2008b, 2010b) demonstrated that the beneficial effect of distancing on immediate physiological regulation is promising, future work needs to examine the long-term outcomes in this context. Given that prolonged levels of heightened distress are associated with a greater risk of cardiovascular disease, identifying effective mechanisms can hold important implications for physical health outcomes over time. It seems reasonable that the promising effects of distancing on physiological reactivity can, in turn, positively affect one's overall health.

As an inclusive part of a comprehensive three-part study on expressive writing, Park, Ayduk, and Kross (2015) examine the relationship between distancing and lasting physical health outcomes. In this recent study, combined data of a baseline measure of physical health and health center visit records provide support for the above-mentioned path. Increased self-distancing was linked to lower levels of emotional reactivity which in turn led to fewer physical symptoms over time. Although this study provides a starting point, more research is needed to gain confidence in the prolonged physical health benefits of distancing.

iii. Brain areas

Comparable with the popular idiom of the chicken and the egg, prior work has identified that individuals with a greater degree of depressed mood are more prone to rumination and that this maladaptive response has also been shown to interact with depression in various ways (Nolen-Hoeksema et al., 2008). Rodríguez-Cano et al. (2014) have demonstrated a link between depression and heightened activity in certain brain regions including subgenual anterior cingulated cortex (sgACC). Given that this region has previously been linked to self-referential processing and emotion dysregulation, increased activity may explain the emotional experience of these individuals often characterized by self-focused

rumination (Rodríguez-Cano et al., 2014). In contrast, self-distancing has been shown to facilitate adaptive emotional processing and thus provides a foundation for the assumption that it may also alter the activity in certain brain regions.

Kross, Davidson, Weber, and Ochsner (2008) asked participants to recall a series of negative autobiographical memories and examined the effect of different cognitive strategies on emotional and neural reactions. Although these strategies are only conceptually similar to the "traditional" ways of experimentally inducing distanced and immersed perspectives, authors of previous literature reviews regard this study as a clear cornerstone to demonstrate the neural effects of self-distancing (Kross, 2009; Kross & Ayduk, 2011). The "feel" condition, in which participants were directed to focus on the specific emotions associated with a distressing event can possibly be equated with the process of self-immersion. Indeed, a significant effect of strategy revealed increased brain activity in this region when individuals implemented the "feel" strategy.

Given that self-immersion has been conceptualized as the maladaptive contrast to self-distancing, these findings would provide a neural explanatory approach regarding the regulatory difficulties associated with immersion. Although the relationship has not yet been examined, the results could possibly be interpreted as depressed individuals reflecting on their feelings from a self-immersed perspective.

Nonetheless, the conceptually different strategies require caution when drawing conclusions about the neural effect of self-distancing. In the "accept" condition, experiences were regarded as passing events that are mentally distant from the person. Participants in the "analyze" condition were instructed to consider the causes and reasons underlying their feelings. Although the latter one better aligns with the description of the thought content (reconstruing) associated with self-distancing, the "accept" condition is consistently used as a comparison strategy and referred to as the "distancing strategy "(Kross & Ayduk, 2011, p. 189). As individuals observe their experiences from a distance but do not analyze the underlying context, they are missing the analysis component that has previously been said to be crucial in combination with distancing (Ayduk & Kross, 2010b; Kross et al., 2012). Instead, "simply" observing and accepting the mental events that are passing by would then match the conceptualization of mindfulness and acceptance-based approaches. Although individuals in both "accept" and "analyze" strategies reported a down-regulation of self-reported negative affect, neural activity only correlated with the "accept" and "feel" condition. Analyzing the event, which seems to better match a distanced perspective, did not yield a significant correlation.

Given these findings, it is no surprise that these studies conclude that distancing ("accept" condition) lowers the neural activity in the discussed regions; this is a strong indicator for the neural benefits of distancing (Kross, 2009; Kross & Ayduk, 2011). As only mentioned in one review (Ayduk & Kross, 2010a), researchers need to interpret these findings with caution to avoid false conclusions. Future studies that intend to assess neural activity in this context may want to rely on "traditional" strategies to manipulate the type of perspective. Given that distancing may potentially have a buffering effect for neural activity and may thus especially benefit individuals who tend to engage in rumination, conducting further work in this area is much needed.

3. Avoidance and Distraction

Previous work has demonstrated that avoidance mechanisms, including distraction and suppression, may initially provide relief, but could eventually trigger individuals to repeatedly ruminate about their negative experiences (Kross et al., 2005; Moulds et al., 2007; Wegner et al., 1987; Wenzlaff & Wegner, 2000). Both, distancing and distraction then seem to benefit an individual

in the short-term when exposed to distressing stimuli. However, a majority of the studies on self-distancing have only examined the short-term implications which prevent researchers from making statements about its lasting efficacy. Building on this, researchers have conducted various studies to examine the long-term effects of self-distancing (Ayduk & Kross, 2010b; Kross & Ayduk, 2008).

After having participants recall a depressing event, they were randomly assigned to one of three experimental conditions (Ayduk & Kross, 2010b). The instructions of the distanced- and immersed-analysis were adapted from previous work (Kross et al., 2005). Individuals in the distraction condition were asked to think about a series of neutral statements presented to them. Given that the strength of task engagement presumably influences one's emotional reactivity, the researchers controlled for this variable when analyzing the results.

Compared to the distraction and distancing condition, which did not differ in their effect on emotional reaction, self-immersion was shown to increase depressed affect. In order to examine the long-term effects of these cognitive strategies, participants returned to the laboratory one or seven days later and were asked to recall the same experience without being cued to adopt a specific kind of perspective. At session two, only individuals who self-distanced at session one were able to further facilitate adaptive regulation. Without manipulating the participant's perspective, those in the original distancing condition continued to experience lower levels of depressed affect (at session two) and expressed a reduction in recurring thoughts during the time preceding the second assessment.

Consistent with this, having participants return to the lab for a second session has demonstrated that individuals high in self-distancing reported lower levels of intrusive ideation, such as unwanted thoughts during weeks prior to the second assessment (Ayduk & Kross, 2008a, 2010b). In contrast, Kross and Ayduk (2008) illustrated that participants previously assigned to the distraction condition reported greater depressed affect as well as elevated levels of recurring thoughts over time. The long-term benefits only associated with distanced-analysis may suggest that only this strategy facilitates emotional processing in ways that can buffer individuals during future recall and may aid coping over time. Although the immediate reduction in depressed affect may be tempting for both strategies, the emotional and cognitive implications of the distraction condition further highlight the long-term limitations associated with this cognitive strategy (Nolen-Hoeksema et al., 2008).

Although distraction, which is a type of avoidance, has been shown to embody long-term limitations, several researchers were interested in further examining whether distancing facilitates emotional processing via avoidance (Ayduk & Kross, 2008a, 2010b; Kross et al., 2011; Kross & Ayduk, 2008). According to Ayduk and Kross (2008a), this motivation was based on a claim suggesting a direct relationship between those variables. However, several studies were able to provide objections to this assumption. Following the analysis of a distressing memory, Kross and Ayduk (2008) revealed a non-significant negative relationship between distancing and avoidance after explicitly asking individuals to indicate the degree to which they tried to avoid thinking about the distressing event. Further, Ayduk and Kross (2010b) found that the initial extent of distancing negatively predicted negative affect at a seven-week follow-up. Conversely, previous work has demonstrated a positive relationship between avoidance and depressed affect (Kross & Ayduk, 2008).

Longitudinal findings further showed that individuals high in self-distancing did not report engaging in avoidance to a greater extent (Kross & Ayduk, 2008). In fact, Ayduk and Kross (2008a) even demonstrated

that this cognitive group experienced the largest decrease in avoidance over time. Given that individuals in the distancing condition continuously displayed emotional reactivity across all studies, it seems safe to exclude self-distancing as a form of emotional avoidance which would be associated with the suppression of emotions (Kross et al., 2005). Further, thought essays revealed that individuals in both the distanced- and immersed-analysis groups focused on concrete emotions as indicated by the use of recounting statements (Ayduk & Kross, 2010b; Kross & Ayduk, 2008, 2009; Kross et al., 2005; Kross et al., 2012). However, the balance of people's thought content was shifted as participants adopting a distanced perspective engaged in relatively less recounting than their counterparts. Drawing from these findings, it seems safe to conclude that distancing does not facilitate avoidance among individuals who utilize this strategy (Ayduk & Kross, 2008a).

Given that a majority of the studies discussed thus far restrict the analysis period to 30 to 60 seconds (Park et al., 2015), it is reasonable to question whether individuals would possibly start ruminating when extending the duration to reflect on the memory. By measuring the duration of an open-ended recall and reflection period, Ayduk and Kross (2010b) intended to examine whether their ethnically diverse sample engaged in behavioral avoidance with a shorter response time indicating greater avoidance. The researchers revealed that one's tendency to spontaneously self-distance did correlate with neither of those time periods, thus suggesting that the effect of distancing is not linked to the duration one spends analyzing the experience.

While this may seem like it could be an answer to our question, participants could have possibly stopped their response time shortly before the onset of rumination. In addition, researchers examined the extent of spontaneous distancing instead of experimentally manipulating one's perspective. Future researchers need to further investigate the effect of duration by possibly extending the reflection period after manipulating the participant's perspective. Seeking clarity in this context allows investigators to better provide suggestions and possibly identify a time period to maximize adaptive benefits.

4. Clinical application

Distancing has long been considered to be a therapeutic precondition in the cognitive behavioral interventions, because it presumably allows patients to constructively work through their irrational and distorted thought patterns (Beck et al., 1979). However, the construct of distancing, as it is presented in this paper, is assumed to require a substantial amount of cognitive flexibility because individuals mentally step out of their experience and then utilize it in a way that allows adaptive and analytic processing. When considering Gotlib and Joormann's findings (2010), the researchers argued that individuals with depression demonstrate inhibitory control deficits when processing negative information as well as difficulties disengaging from unpleasant material. Other scholars have emphasized that clinically depressed individuals who attempt to analyze such experiences often face an overwhelming feeling, which may suggests that they possibly adopt an overly immersed perspective (Nolen-Hoeksema, 1991; Nolen-Hoeksema et al., 2008).

Consistent with these ideas, previous work has highlighted the inverse relationship between trait rumination and spontaneous self-distancing (Ayduk & Kross, 2010b). The researchers concluded that distancing may protect individuals against maladaptive processing styles such as rumination. Building upon this work, it is questionable whether individuals with depression are cognitively able to adapt a distanced perspective and whether this approach is associated with the same benefits previously described.

By combining data from five samples that were used to examine the effect of perspective (immersed vs. distanced), Kross

and Ayduk (2009) analyzed the Beck Depression Inventory data (BDI) collected as part of these studies. Other results of all five studies have been discussed in other parts of this paper and follow the dominant methodology in this line of work (Ayduk & Kross, 2008b; Kross & Ayduk, 2008; Kross et al., 2005). Participants across all five studies were asked to recall an anger-related or depression-related experience and then analyze it from their assigned perspective. Both, emotional reactivity and depressive symptoms were examined in all studies following the manipulation and thought content was assessed in four of the five studies. As a result, the combined sample of high BDI scorers was large enough to provide sufficient power thus allowing the researchers to examine the effect of distancing among participants vulnerable to maladaptive processing styles. In their analyses, researchers controlled for the severity of the experience recalled as it can possibly influence participant's self-reported depressed affect.

Across both perspective conditions, individuals with lower depressive symptom displayed reduced negative emotional reactivity compared to the high BDI scorers. However, a distanced analysis seemed to alleviate this positive relationship, as high BDI individuals in the distanced-analysis group and low BDI individuals in the immersed-analysis group had similar affect scores. This suggests that both, high and low BDI scorers successfully utilized distancing in a way that allowed them to maintain a relatively low score of negative emotional reactivity. In contrast, reported negative affect among participants in the immersed condition increased as depressive symptoms scores increased, thus creating a greater difference between high BDI scorers in both perspective conditions.

Consistent with other findings, the shift in thought content moderated the relationship between condition (perspective) and emotional reactivity, but depressive symptoms did not influence this moderating effect. This suggests that both high and low depression symptom scorers displayed significantly higher levels of reconstruing in the distanced-analysis group. In sum, the study demonstrated that individuals with higher depression symptoms seem to be able to engage in and benefit from a distanced perspective.

To examine the effect of distancing in a population most vulnerable to rumination, Kross et al. (2012) randomly assigned a group of adults clinically diagnosed with major depressive disorder (MDD) and a healthy control group to an immersed or distanced-analysis condition following established procedures. After recalling and analyzing a depressing experience, participants completed a set of dependent variable measures including a lexical-decision task to measure depressotypic thought accessibility and negative affect. MDD participants in the distanced-analysis group reported lower levels of negative affect compared to their counterparts, thus suggesting that individuals with and without depression seem to benefit from the strategy in similar ways.

Using the baseline affect data, the researchers completed a repeated measures analysis of variance (ANOVA) in order to examine the change in negative affect over time. MDD participants in the distanced condition reported a trend toward a decrease in negative affect relative to baseline, whereas MDD participants in the immersed condition reported an increase in negative emotions. This finding supports the assumption that the buffering effect previously demonstrated by Kross and Ayduk (2008) can be extended to vulnerable populations. It seems safe to conclude that this cognitive approach buffered depressed participants against an increase in negative affect when analyzing their negative emotions. Furthermore, MDD participants in the distanced condition also displayed a slower response time to depression words, thus suggesting that a distanced perspective might counteract their tendency to focus on

the negative information and their difficulties to disengage from unpleasant material (Gotlib & Joormann, 2010).

In light of documented associations, a self-immersed perspective does not only seem to drive a maladaptive response when analyzing negative experiences, but the promising benefits associated with self-distancing can be extended to clinical populations. The findings may hold profound practical implications for therapeutic settings as it may be beneficial to induce this type of perspective when working through negative stimuli. Further investigation is needed in order to examine the efficacy of distancing in the context of other disorders.

Individuals dealing with anxiety disorders could greatly benefit from a strategy that allows them to distance themselves from their overwhelming feelings of fear in regards to past, present and future stressors. Patients diagnosed with PTSD constantly face debilitating flashbacks triggered by traumatic events. It is necessary to examine whether self-distancing would provide therapeutic benefits for this population and whether there are certain clientele groups who may not benefit from this intervention. In fact, features of the self-objectification theory in regards to body image suggest that many women adopt an observer's perspective by habitually monitoring their own appearance (Calogero, Tantleff-Dunn, & Thompson, 2010). According to the authors, there is a substantial wealth of support suggesting the negative effects of self-objectification that may hold serious implications for individuals dealing with eating pathology and disordered eating. Taken together, these areas of work may present certain conditions under which distancing could potentially be harmful and demonstrates avenues for future research.

Conclusion

The present literature review outlines the array of benefits associated with self-distancing, thus proposing a strategy that may allow individuals to process negative experiences in adaptive ways. By analyzing distressing experiences from a distanced perspective, individuals were shown to experience a shift in thought content and to attenuate their emotional experiences in ways that extended to the regulation of physiological responses. Additionally, the paper lists a number of directions and highlights multiple avenues for future research.

A majority of the studies follow an established process when manipulating the participant's perspectives. Given that the time period for reflection and analysis is quite brief, researchers may want to examine different durations in order to provide suggestions for individuals implementing this strategy outside of a controlled setting. Additionally, more longitudinal research on self-distancing is needed. Although the strategy seems to outperform the initial benefits associated with distraction when placed in a long-term context, future studies may want to follow up with the efficacy of self-distancing over an extended period of time. Further, several studies have relied on people's tendency to spontaneously self-distance. Although this approach has yielded significant findings across various studies, it remains questionable why some individuals were more likely to adopt a distanced or immersed perspective. It is possible that differences in individual dispositions or one's habitual way of dealing with such experiences are responsible for varying tendencies.

Furthermore, studies examining the physiological benefits are limited. In order to draw confident conclusions, future work needs to investigate the effect of self-distancing on physiological as well as physical functions. Lastly, clinical populations seem to be the ones who would most benefit from a strategy that undermines maladaptive response styles. Although initial studies have examined the benefits for individuals diagnosed with clinical depression, other populations including individuals dealing with anxiety and/or

trauma need to receive attention when conducting further studies in this field. With the refinements of these suggestions for future research avenues, self-distancing can be a powerful mechanism in helping individuals process negative experiences adaptively.

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