Self-Distancing and Human Reflection:

Overcoming Bias in Judgment and Emotional Reasoning

by

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Dedication

To three mentors who helped make my time at Michigan the best of my life:

Ethan Kross, Norbert Schwarz, and Ricks Warren

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Abstract

It is difficult to describe what takes place when we reflect on our thoughts, feelings, or actions without resorting to metaphor. “Detachment,” “getting outside of ourselves,” “taking a step back”—all of these expressions use the metaphor of distance to describe what happens when we relate to mental states in a way that differs from our initial experience of them. This dissertation aims to demonstrate that gaining psychological distance from ourselves and our thoughts can improve decision-making, strengthen emotion regulation, and, ultimately, increase well-being. Chapter 2 demonstrates that self-distancing can reduce biased thought: Writing while using second- or third-person pronouns (e.g., “you,” “he,” or “she”) to refer to the self reduces the correspondence bias. Chapter 3 demonstrates that this same type of self-distanced writing can improve well-established cognitive behavioral therapy homework interventions, leading to increased life satisfaction. Chapter 4 demonstrates that self-distanced writing can increase people’s assessments of their ability to cope with difficult situations. This program of research begins to demonstrate the depth and power of gaining psychological distance from the self.

Chapter 1: Getting Outside of Ourselves

"I rightly think that the pursuit of *detachment* from our initial standpoint is an indispensable method of advancing our understanding of the world and of ourselves, increasing our freedom in thought and action, and becoming better. But since we are who we are, we can't get *outside of ourselves* completely."

-Thomas Nagel, *The View from Nowhere* (1989, p.6, emphasis added)

It is difficult to describe what takes place when we reflect on our thoughts, feelings, or actions without resorting to metaphor. "Detachment," "getting outside of ourselves," "taking a step back"—all of these expressions use the metaphor of distance to describe what happens when we relate to mental states in a way that differs from our initial experience of them. As the philosopher Thomas Nagel implicitly suggests in the above quote, in mental reflection we separate, detach, or distance one part of ourselves—our conscious awareness—from another part of ourselves—a thought, a feeling, or an experience as a whole. This dissertation aims to demonstrate that gaining psychological distance from the self when engaging in reflection can improve self-insight, emotion regulation, decision-making, and, ultimately, overall well-being.

Why self-distancing?

Not all of our spontaneously occurring thoughts, feelings, and desires are accurate, good for us, or good for others around us (e.g., Kross & Mischel, 2010).

Despite our knowledge about the pernicious nature of many automatic thoughts and impulses, we often have difficulty controlling them (e.g., Kross & Mischel, 2010; Wegner, 1994). Our experience of our thoughts is immersive—it is quite difficult to step outside of them and recognize their interpretive and subjective nature.

As a result of this immersive nature, our thoughts are highly compelling to us. They have an immediacy and power that is lacking when we hear the same thoughts expressed by someone else. Many of us have had the experience of having a worry nagging at us for days that would seem totally irrational if a friend came to us and recounted the very same worry. When the worry is not ours, we automatically have *distance* from the thought.

However, we can simulate this experience of having "distance" on our own as well. *Reflection* as "the process or faculty by which the mind observes and examines its own experiences and emotions" (Oxford English Dictionary, 2011) is the natural language term for the process of attempting to gain psychological distance from one of our own thoughts or desires in order to observe it – thus the phrase "take a step back and reflect." A thinker must create "mental space" between the self and the thought or desire to be observed.

The word "reflection" itself is based on a metaphor that requires space or distance between one object and a second object (e.g., a mirror) that has the capacity to bounce light back in such a way that a representation of the first object appears. For example, if I were to stand across from a mirror, then I would see a reflection of myself and be able to observe my own appearance. However this effect and this relation

necessitate distance. If I were to—in some way—be on the same spatial level as the mirror, no reflection would occur. If I were to stand half an inch from the mirror, I may be able to see a reflection, but it would not be a reflection that would tell me much about what I was seeing. It is only when I move back and gain distance from the reflective surface that I can fully see my own reflection.

In the same way, if I were to reflect on a train of thought, I cannot simultaneously be "immersed in" that train of thought. This represents the difference between thinking "Julie is an awful person," and "Right now I am thinking that Julie is an awful person." The difference between these two thoughts is difficult to describe, and thus we resort to the metaphor of *physical* reflection and distance.

This process of successfully breaking out of a default state of "immersion" in one's thoughts and gaining psychological distance from the self has been called "self-distancing" (e.g., Kross & Ayduk, 2011). Distance from the self has been generated in two distinct ways: a) instructing people to take the perspective of a "fly on the wall" when reflecting on a past experience—in other words to take a third-person or observer's perspective of the situation (e.g., Ayduk & Kross, 2008), or b) to think or write while referring to oneself as one would typically refer to another person—in other words, to refer to oneself in the second- (e.g., "you") or third person (e.g., "he" or "she"; e.g., Kross et al., under review).

Self-distancing—i.e., the process of taking a step back from one's own thoughts and looking at one's thoughts and experiences as if one were an "other,"—has previously been shown to distinguish productive reflection from counterproductive

rumination (for a review, see Kross & Ayduk, 2011). Building on these findings, my dissertation examines the role that this process plays in three contexts: (a) Facilitating the correction of cognitive biases, (b) demonstrating that self-distancing can improve a well-established cognitive behavioral therapy intervention, and (c) changing the balance of challenge versus threat appraisals of problematic situations.

Self-Distancing as a general technique to correct cognitive biases

Since the 1970s, manifold biases in human thought have been uncovered (for a review, see Kahneman & Tversky, 2000). These often involve an initial, automatic response that can be corrected with appropriate knowledge and/or an appropriate amount of reflection. Notably absent from the literature are general techniques that successfully correct a wide range of biases (e.g., Larrick, 2004; Yates et al., 2003). Many debiasing techniques such as instructing people to think harder, offering them incentives, or increasing social accountability are successful with some biases but can exacerbate others (Larrick, 2004; Lerner & Tetlock, 1999)

On the other hand, both conventional wisdom and experimental evidence suggest that people are better at recognizing bias in others than in themselves (Kruger & Gilovich, 1999; Wilson & Brekke, 1994). Recognizing the irrationality of a friend's worry, as mentioned above, is but one example of a pervasive asymmetry in human recognition of mental mistakes. Thus, to the extent that a person can think of themselves

as if they were an "other"—i.e., adopt a self-distanced perspective—they should also make more accurate judgments.

I tested this prediction in two experiments by examining whether self-distancing reduces the correspondence bias (also known as the fundamental attribution error; Bremner, Kross, & Goldberg, under review). The correspondence bias refers to the finding that in many situations people tend to reach unjustified conclusions about the dispositions or personality of another person when situational constraints are the most appropriate explanation for their behavior (e.g., Gilbert & Malone, 1995; Jones & Harris, 1967). This tendency has been shown to be very robust in the face of numerous factors, including even explicit warnings of judgmental bias (Croxton & Miller, 1987; for a review, see Gawronski, 2004). These two experiments will be the subject of Chapter 2.

Self-Distancing can improve CBT interventions

Although the treatment of affective disorders may seem far removed from eliminating cognitive biases, the two are closely related. Cognitive Behavioral Therapy (CBT) is by far the most common and effective treatment for affective disorders. The "cognitive" in its title reflects the idea that irrational thoughts (another word for biases) can cause emotional disorders. If self-distancing attenuates biases that are easier for outsiders to see (as demonstrated in Chapter 2), then it may also reduce those cognitive biases that are in part responsible for the generation and maintenance of disorders such as generalized anxiety disorder (GAD). People with GAD overemphasize the dangers or

threats inherent in everyday life and respond to a wide range of life situations with anxiety. Self-distancing may help people see these dangers with greater objectivity.

More generally, self-distancing has been shown to help people adaptively reflect on problematic situations and exhibit less emotional reactivity when considering those situations (Kross & Ayduk, 2011). For both of these reasons self-distancing should be a helpful adjunct to CBT interventions.

As mentioned above, my colleagues and I have developed a means of creating distance from the self by instructing participants to either think or write in the second- (i.e., "you") or third person (i.e., "he" or "she"). For example, imagine a stressed undergraduate named Joe who is approaching a deadline on a term paper. If Joe wanted to write about his anxiety in the third person, then instead of writing "I am really worried…I think I'm never going to finish this," he would write, "Joe is really worried…he thinks he is never going to finish this."

CBT already makes extensive use of written exercises such as worry episode logs for GAD that are completed in the first person; these provide an ideal opportunity to test my hypothesis that self-distancing via third-person writing could be a substantial help to people engaging in such written exercises. If self-distanced writing allows people to engage in more accurate assessments of threats, and/or reflect on threats with less accompanying emotional intensity, it may offer substantial benefits over and above the previously demonstrated efficacy of standard CBT interventions. A longitudinal intervention study that tests this hypothesis will be the subject of Chapter 3.

Self-Distancing can change interpretations of threat and challenge

A follow-up study was completed to explore in greater detail what may have caused the effects observed in Chapter 3. By its nature, the brief responses called for by the format of the worry episode log used in Chapter 3 rendered the responses difficult to code. For that reason I completed a separate study in which participants wrote in a free-form manner for as long as they desired about an ongoing source of worry. Based on the encouraging results of Chapter 3, I thought that one cognition that might be targeted through self-distanced writing is the balance of threat versus challenge appraisals when facing difficult situations. Drawing on the work on challenge and threat appraisals by Lazarus, Blascovich, and others, I posited that people writing in a self-distanced fashion would interpret ongoing problems in their lives as less of a threat and more of a challenge for two reasons.

First, through self-distancing, people focus less on the concrete and emotionally arousing aspects of a difficult situation, and instead concentrate more on reconstruing experiences so that they can better "work through" their feelings (Kross & Ayduk, 2011). In difficult situations, it is likely that the concrete, emotionally arousing elements of that situation are what make it more likely that someone will believe that the demands of the situation outweigh his or her ability to cope. Because people focus less on such details when they self-distance, I predict that self distancing will make people less likely to view a given situation as a threat, and more likely to view that situation as a challenge.

Second, I make the argument that perceptions of danger that developed through the course of human evolution result in irrationally high assessments of threat in a modern industrialized society. Because Chapter 2 will demonstrate that self-distancing decreases bias, I reasoned that, even for nonclinical samples, taking a self-distanced, outsider's perspective should result in less biased perceptions of threat and increased perceptions of challenge in problematic situations. A change in the balance of threat versus challenge appraisals may also hint at the mechanism for the results of Chapter 3.

There is clearly more to be done by building on the findings presented in this dissertation. The final chapter outlines several future directions for research on the process and consequences of gaining psychological distance from the self.

Chapter 2: Self-Distancing and the Reduction of Cognitive Bias

> "Why do you see the speck that is in your brother's eye, but do not notice the log that is in your own eye?" – Jesus, Luke 6:41
>
> "…it is much easier, as well as far more enjoyable, to identify and label the mistakes of others than to recognize our own." – Daniel Kahneman (2011, p. 3)

People are much better at recognizing bias in others than in themselves (Kruger & Gilovich, 1999; Wilson & Brekke, 1994). Our own thoughts are highly compelling to us. We (incorrectly) believe that they are an accurate, unfiltered representation of the external world. This "naïve realism" is a serious impediment to correcting biased thinking (Ross & Ward, 1996).

What if the compelling nature of our thoughts could be reduced by gaining *distance* from them? This is not a radical idea. Forty years ago, Beck (1970) described "distancing" as a process that allows clients to "gain objectivity towards [their] cognitions" and cope with distress. Numerous studies have supported this hypothesis by demonstrating that cueing people to reflect on distressing experiences from a *self-distanced* perspective—i.e., visualizing a negative experience from a "fly on the wall" perspective, in which the self becomes an observer of his or her experience—facilitates emotion regulation (for a review, see Kross & Ayduk, 2011).

But what if emotion regulation is not the ultimate goal? A major problem in social perception is the correspondence bias—the tendency to erroneously attribute the causes of people's behavior to their personalities and attitudes rather than the situation (also termed the fundamental attribution error; cf. Gawronski, 2004; Gilbert & Malone, 1995; Jones & Harris, 1967; Ross, 1977). When focusing on a behavior, inferences about dispositions follow three steps: behavior categorization, dispositional characterization, and situational correction. The first two have been demonstrated to be relatively automatic (for a review, see Uleman, Newman, & Moskowitz, 1996) whereas situational correction is often more conscious and controlled (Gilbert, Krull, & Pelham, 1988; Gilbert, Pelham, & Krull, 1988; Gilbert, 1989)

One could argue then that dispositional inference is part and parcel of naïve realism – initially behaviors often appear to us as if they have been caused by dispositions. Subsequently, if we are motivated and have the cognitive capacity, we can correct this initial inference by realizing that our initial view of the world was incorrect. This "breaking through" naïve realism is precisely what I expect self-distancing to support.

I expect this for the same reason that a given person, let's call her the "observer" is better able to see bias in others than in herself: She has distance from any given "other's" experience—the initial impressions or thoughts of the other are not compelling to her in the same way as they are to the other. By definition she is freed from the other's naïve realism which is generated by the other's automatic thoughts about and impressions of the world. This, of course, is not to say that the subject does not have her

own naïve realism to contend with, instead it is simply to say that she is not bound by *the other's* naïve realism. This is far easier to illustrate using a concrete example.

Let's say that a man exists named George who is a recovering racist. Negative automatic thoughts about minorities are part of the naïve realism of George's experience of the world, but he consciously no longer wants them to be. In this example, George will be the "other" and George's friend, Simon, who does not suffer from such automatic prejudicial thoughts, will be the "observer" of George. One day George meets Simon for lunch and their server is a member of a disadvantaged minority group. George makes the comment to Simon that he hopes the server doesn't spit in their food. The server was perfectly pleasant and Simon is fairly confident that there is no reason for George to have this suspicion apart from the automatic prejudicial thoughts that George unfortunately continues to have. However, it is difficult for *George* to realize this. To George, the server simply seemed to him like someone who might spit in his food. In general, people are bad at understanding why they have the thoughts that they have (Nisbett & Wilson, 1977), and when the world *appears to them* to be a certain way, people almost always assume that the world *is* that way. In fact, it seems to require "taking a step back" from one's thoughts to call them into question.

Once this distance appears between the thinker and the thought, it is easier to call the thought into question. However, in the *very* moment that George is thinking that the server might spit in his food, it is impossible for him to call this into question. In other words, George has to first have the thought in order to be able to doubt it. George has to think to himself "Hey, I'm thinking that this server might spit my food." This changes

the train of thought in which he was currently engaged into the object of his thinking. George is now engaging in *metacognition*, in other words, treating one of his own thoughts as an object of his thinking.

The best way that humans have found to describe this process is to evoke the metaphor of distance. In this case the subject who is having the thoughts has to be divorced or distanced from the object, the thought itself. The more one is able to dispassionately look at the thought, in other words, to look at the thought without the attachment that comes from thinking the world is exactly as it initially appears, the better one is able to critically examine the thought itself. If George, with some prompting from Simon, takes a step back from his judgment and thinks about why he might have made the judgment about the server, he may be able to recognize his own bias, but only if he is not immersed in the train of thought, only if he is not too attached to the thought. In short, I believe that gaining "distance" from one's thoughts will better allow people to realize mistakes that they are making in thinking, in other words, will better allow people to recognize their own cognitive biases.

So, given the above, in this line of research I ask the question: Might self-distancing, by allowing people to reflect on the self as an "other," reduce the correspondence bias? I ask this not because of anything particular to the correspondence bias, but simply because the correspondence bias is an important example of a mental error that may be better seen and corrected when one is able to step back from one's thoughts.

It is important to note that in this experiment I did not ask participants to take the perspective of the target—a manipulation that has been shown to increase the salience of situational information and, thus, decrease dispositional judgments when participants make judgments about situational versus dispositional causes of behavior (Storms, 1973). Rather, I asked people to take a step back from their own thoughts and view themselves as an "other," thus (I posit) increasing their ability to think about possible mistakes that they have might have made in their initial judgment (e.g., in the case of this experiment, "Well, this person was a participant in experiment and she was instructed to write a pro-Obama essay, so maybe the essay isn't that representative of her actual opinion"). This distinction is noteworthy because the perspective-taking manipulation used by Storms is likely not generalizable to other types of biases, many of which do not hinge on taking the perspective of the target of the judgment. In contrast, a priori, I expect the debiasing technique explored here to work on any bias that is easier for an outsider to notice.

I tested this prediction in two studies using the *attitude attribution paradigm* (Jones & Harris, 1967). In this paradigm, participants are given an essay that is written by a participant in a separate study. They are then asked to rate the author's attitude on the subject of the essay—in the present case, United States President Barack Obama. To elicit the correspondence bias, participants are told that the essay's author was *instructed* to write a pro-Obama essay prior to making their rating. This information is meant to decrease the value of the content of the essay when making a judgment about the target's actual attitude. The correspondence bias is so named because participants tend to infer

an attitude that *corresponds* to the content of the essay even when the position of the essay is assigned and such an inference is unwarranted. This tendency is robust, and resistant to a host of factors, including explicit warnings of judgmental bias (Croxton & Miller, 1987; for a review, see Gawronski, 2004).

In the current studies, I examined whether cueing people to adopt a self-distanced perspective would attenuate the correspondence bias. Specifically, I examined whether asking people to refer to *themselves* as they would typically refer to other people—i.e., in the second person ("you") or third person ("he" or "she") instead of the first person ("I")[1]—would allow for correction of this bias. Two experiments explored this hypothesis.

Experiment 1

Experiment 1 examined whether self-distancing reduces the correspondence bias. Participants were given an essay supporting Barack Obama that was written by a previous participant. They were told that the essay's author was *instructed* to take a pro-Obama position. After participants read the essay, they were asked to rate the author's "actual attitude" about Obama. Before making this rating, however, I randomly assigned participants to one of four groups.

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[1] Prior research indicates that using second- and third-person pronouns to refer to the self promotes self-distancing (Kross et al., 2012).

Participants in the *self-distanced* group were asked to write about their thoughts about the author's opinion in the *third person* (i.e., using "he" or "she" and their own first name to refer to the self).

Participants in the *first-person* group were asked to write about their thoughts about the author's opinion in the *first person* (i.e., using "I" to refer to the self). This condition was included to ensure that merely instructing people to use a specific pronoun to refer to the self would not affect judgment.

Participants in the *no pronoun instructions* group were told to write about their thoughts about the author's opinion; they were not told to use certain types of pronouns. This condition was included to ensure that writing without instructions about how to refer to the self would not affect judgment.

Finally, participants in the *no-writing* group were asked to rate the author's attitude after reading the essay without receiving additional instructions. This condition was included to replicate the original demonstration of the correspondence bias.

I tested three hypotheses. First, I predicted that self-distanced participants would exhibit less bias. That is, they should rate the author's attitude as less pro-Obama compared to the three other groups. Second, I predicted that the three other conditions would not differ from each other on the grounds that each involves having people think in the first person, which should maintain immersion in one's own thoughts (and thus naïve realism). Finally, I did not expect the debiasing effects of self-distancing to be driven by the (potential) difficulty associated with implementing the self-distancing instructions. Several recent studies indicate that the psychological experience of

difficulty (i.e., "disfluency") can lead to debiasing (for a review, see Schwarz, 2012). To rule out the possibility that mere difficulty of writing in the third person would be responsible for any difference between conditions (rather than the fact that self-distancing allows people to think about themselves as if they were an "other"), I asked participants in each of the writing conditions to rate how difficult it was to write in the way that I requested after they rated the author's actual attitude about Obama.

Methods

Participants. Participants were 137 "workers" (84 women; M_{age} = 30.4) on Amazon's Mechanical Turk, a "crowdsourcing" platform through which people complete tasks for compensation.

Cover story. Participants were recruited for a study on human reasoning.

Experimental manipulations. Participants in the *self-distanced* [*first-person*] group were told, "We are interested in learning about the different ways people think. Some people report thinking to themselves in the *third person* [*first person*] (in other words, *using the pronouns "he" or "she" and using their own names* [*using the pronoun "I"*] when thinking about themselves) when engaging in certain activities, so this is one type of thought that we are interested in examining. For example, *when a person with the name John is doing something, he might think: '**John** is thinking that... **He** is feeling...*' [*when doing something, someone might think: "**I** think that... **I** feel...*']."

On the next page participants were told, "In a moment we are going to ask you to rate the writer of the Obama essay on his or her actual position toward Obama. But first,

in order to investigate the effects of this *third-person* [*first-person*] thought on the current task, we would like you to write in the *third person* [*first person*] about what you are currently thinking and feeling about the writer of the Obama essay for the next few minutes. Please make sure to include your thoughts about your rating of his or her position toward Obama. Use the *third person pronouns "he" or "she" as well as your own name* [*use the first person pronoun "I"*] as much as possible as you try to understand the thoughts and emotions you are currently experiencing. Why are you having the thoughts that you are having? What underlying causes might exist for your current thoughts and feelings?"

Participants in the no pronoun instructions condition were told, "We are interested in learning about the different ways people think. In a moment we are going to ask you to rate the writer of the essay on his/her actual position on Obama. But first, we would like you to write about what you are currently thinking and feeling about the writer of the Obama essay for the next few minutes. Please make sure to include your thoughts about your rating of his or her position toward Obama. Try to understand the thoughts and emotions you are currently experiencing. Why are you having the thoughts that you are having? What underlying causes might exist for your current thoughts and feelings?"

Participants in the no writing group were asked to rate the writer of the essay after reading the essay.

Author Rating. Participants were instructed to "Please rate the writer of this essay on his/her actual position on Obama" on a 9-point scale (-4 = *anti-Obama*, 4 = *pro-Obama*; $M = 2.54$, $SD = 1.70$)

Perceived difficulty of writing instructions. Participants were asked, "How difficult did you find it to follow the instructions about the way to write the essay?" on a 7-point scale (1= *very difficult*, 7 = *very easy*; $M = 4.73$, $SD = 1.78$).

Instructional manipulation check (IMC). I included a "trap question" to determine whether participants read our instructions. Specifically, participants read, "…*We are interested in whether you actually take the time to read the directions…In order to demonstrate that you have read these instructions, please select cricket and badminton below and no other answer choices…*" Participants were then presented with a series of sport choices with badminton and cricket embedded among them.

Results

Preliminary analyses. The second response of one participant who took the survey twice was excluded. Twenty-six participants were excluded because they failed the IMC. Exclusion rates based on the IMC were consistent with rates found in previous studies (Oppenheimer, Meyvis, & Davidenko, 2009). Two participants did not follow protocol and were excluded. Results remain significant when participants who did not follow protocol are included.

There were no interactions between the results presented below and age, gender, education, income, political orientation, political party identification, or interest in politics (*ps* > .18). Controlling for these variables did not influence the results.

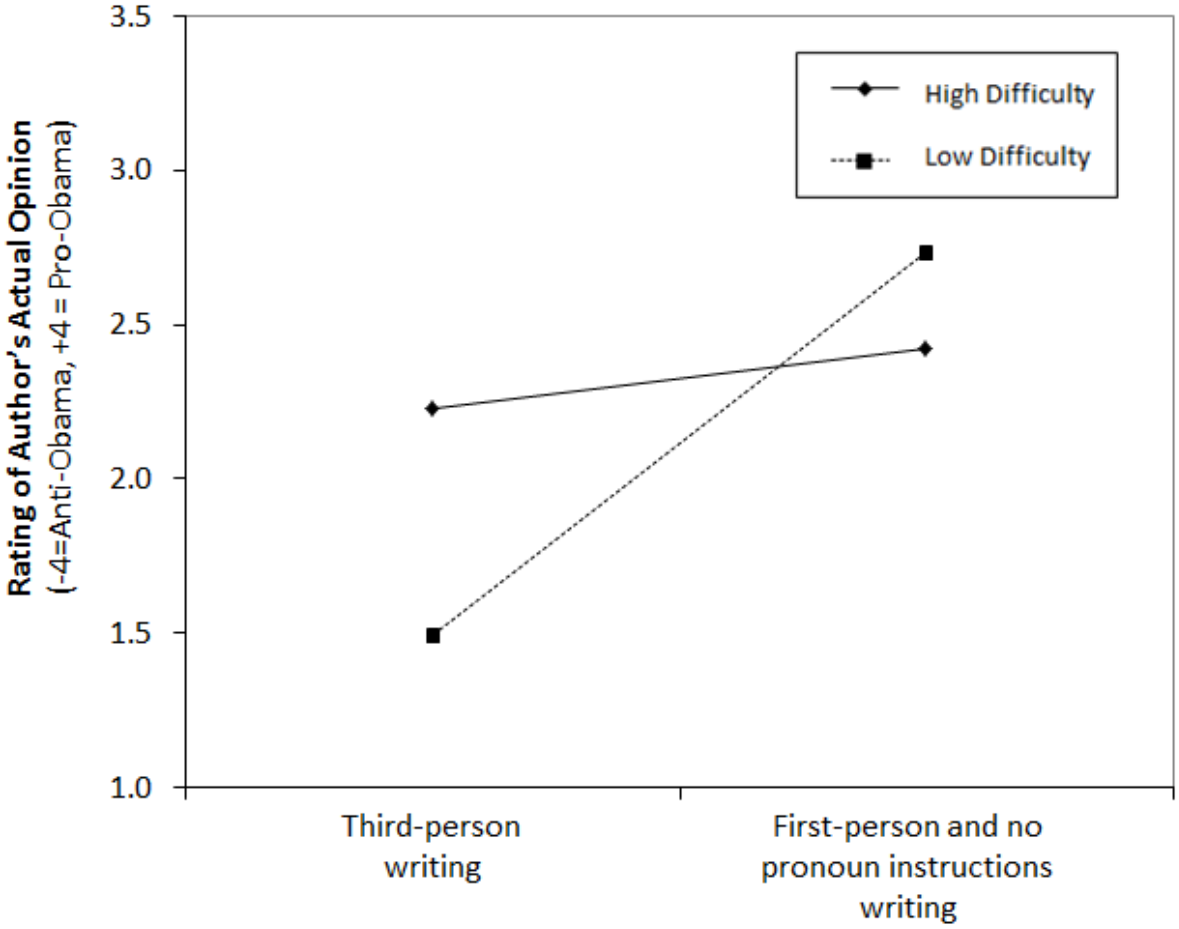
Primary analyses. As expected, using planned contrasts as described in my hypotheses, participants in the *self-distanced* group (*M* = 1.63, *SD* = 2.18) rated the author's attitude as less pro-Obama than the other groups (*M* = 2.80, *SD* = 1.44; *t*(102) = 3.09, *p* = .003, *d* = 1.07). There were no differences between the no-writing group (*M* = 3.07, *SD* = .65), the first-person writing group (*M* = 2.96, *SD* = 1.34), and the no pronoun instructions writing group (*M* = 2.35, *SD* = 2.02; *ts* < 1.64 , *ps* > .1).

Participants in the *self-distanced* group (*M* = 4.04, *SD* = 1.94) reported more difficulty following instructions about how to write than the two control writing groups (*M* = 5.04, *SD* = 1.63; *t*(74) = 2.33, *p* = .02)[2]. Critically however, difficulty writing in the manner requested did not predict attitude ratings (*t*(73) = 0.94, *p* = . 35). Using Hayes' PROCESS module (2013) it was determined that difficulty did not interact with condition *t*(73) = 1.39, *p* = .17) to predict participants' judgments of the author's attitude towards Obama and controlling for this variable did not influence the results, suggesting that mere difficulty associated with writing in the third person is not

[2] Degrees of freedom have changed because only participants in the three writing conditions were asked how difficult it was to write in the manner requested. Therefore only these three conditions are taken into account in this analysis.

responsible for any differences between conditions. However, a nonsignificant interaction pattern existed, depicted here for purposes of completeness (Figure 1).

Fig. 1. Effects of third-person writing compared to control writing at high (1 SD above the mean) and low (1 SD below the mean) levels of difficulty



Additional exploratory analyses demonstrated that in the first-person instructions condition, self-reported difficulty correlated positively with attitude ratings, $r(25) = .390$, $p = .045$, such that as people found the writing task more difficult, attitude ratings

became less biased (i.e., less pro-Obama). In the third-person instructions condition, there was a marginal negative correlation between difficulty and attitude ratings, $r(22) = -.375$, $p = .071$, such that as people found the writing task more difficult, attitude ratings became more biased (i.e., more pro-Obama). There was no correlation between difficulty and attitude ratings in the no pronoun instructions group, $r(24) = -.129$, $p = .531$. However, it should be emphasized that the correlations reported here are highly exploratory in nature and reported only for the sake of completeness.

Experiment 2

Experiment 2 had two goals. First, I sought to directly replicate the debiasing effect I observed in Experiment 1 with a larger and more diverse sample. To this end, I included lab participants and Mechanical Turk workers to ensure that these results generalize beyond an online sample.

Second, I was interested in refining our understanding of the role that pronoun use plays in debiasing. In Experiment 1, I manipulated self-distancing via third-person writing. However, the second person (i.e., "you"), like the third person, is used to refer to people other than the self. Thus, like the third person, it should promote self-distancing when used to refer to the self. This condition sheds light on whether the construct "self-distancing" is the cause of the debiasing effect as opposed to, say, something idiosyncratic about writing in the third person. In the past, self-distancing studies have not differentiated between the second- and third person, instead instructing

people to write using "non-first-person pronouns" (cf. Kross, et al., under review) Therefore, although I expected third- and second-person writing to have equivalent effects, the possibility existed that a linear effect of distancing would appear, such that third-person writing would generate more distance from one's thoughts than would second-person writing, which in turn would generate more distance from one's thoughts than first-person writing or no writing. While admitting this possibility, I expected participants in the self-distanced conditions (second- and third-person writing) not to differ from each other and to exhibit reduced bias compared to the first-person writing- and no writing groups. Consistent with Experiment 1, I expected the latter groups not to differ.

I addressed these issues by randomly assigning people to one of four conditions: third-person writing, second-person writing, first-person writing, or no writing. Having established in Experiment 1 that the no pronoun instructions writing condition did not differ from the first-person writing condition, I chose not to include the no pronoun instructions condition in this study. With the exception of the aforementioned changes, the design of Experiment 2 was identical to Experiment 1.

Methods

Participants. Participants were 407 "workers" (237 women; M_{age} = 33.8) on Amazon's Mechanical Turk and 142 (94 women; M_{age} = 20.2) paid lab participants.

Design

Cover story. See Experiment 1.

Experimental manipulations. The instructions for no writing, first-person writing, and third-person writing groups were identical to Experiment 1. The second-person instructions mirrored the third-person instructions except references to third-person pronouns were replaced by references to the second-person pronoun "you."

Author Rating. See Experiment 1 (M = 2.39, SD = 1.76).

Rating of difficulty of writing instructions. See Experiment 1 (M = 4.53, SD = 1.65).

IMC. See Experiment 1.

Results

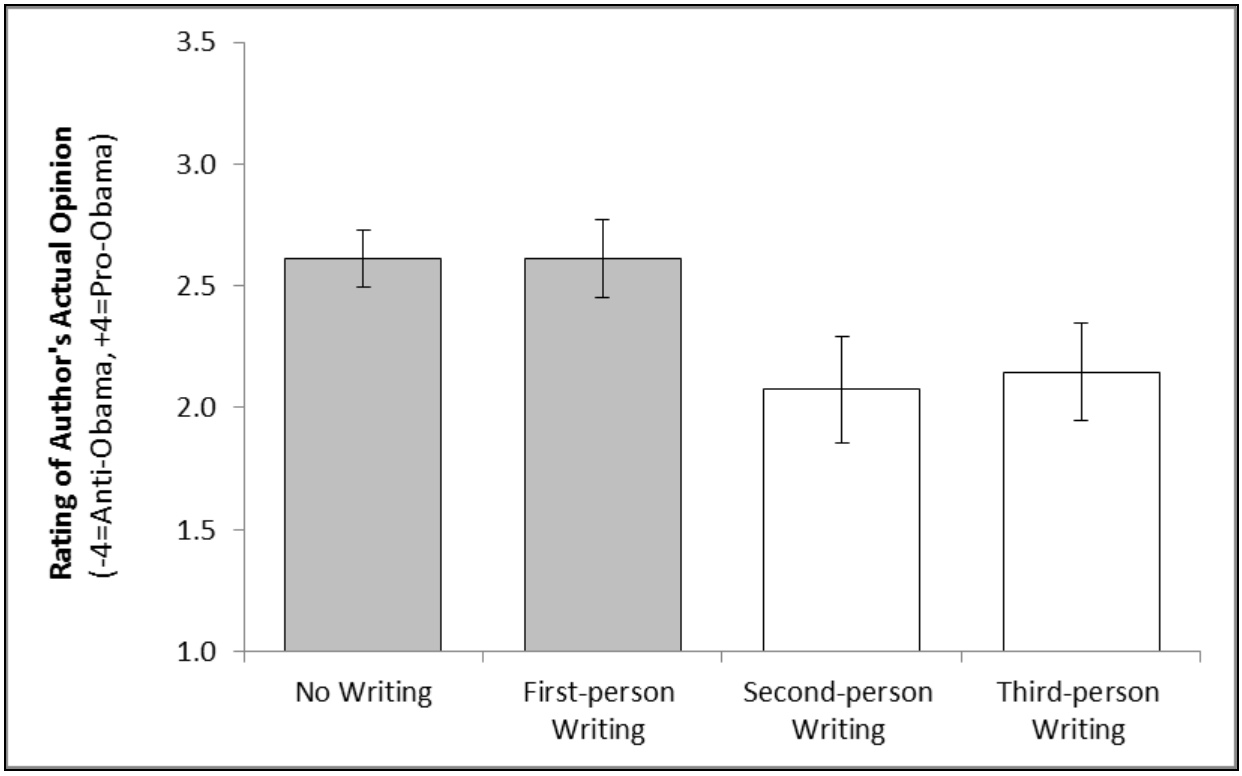
Preliminary analyses. The second responses of seven participants who took the survey twice were excluded. Eighty-nine participants failed the IMC and were excluded. Exclusion rates based on the IMC were consistent with rates found in previous studies (Oppenheimer et al., 2009). Thirty participants did not follow protocol and were excluded. The results presented below in the primary analyses remain significant when participants who did not follow protocol are included.

The results presented in the primary analyses below did not interact with Sample (Mechanical Turk vs. Laboratory participants), age, gender, education, income, political orientation, political party identification, or interest in politics ($ps > .1$). Controlling for these variables did not influence the results.

Primary analyses. As expected, I observed no differences between the second-person and third-person writing groups, $t(420) = 0.28$, $p = .777$, or between the no

writing and first-person writing groups, $t(420) = 0.01$, $p = .997$. Critically, as Figure 2 illustrates, the two self-distanced groups rated the author's attitude as less pro-Obama compared to the two control groups, $t(420) = 2.91$, $p = .004$, $d = .29$.

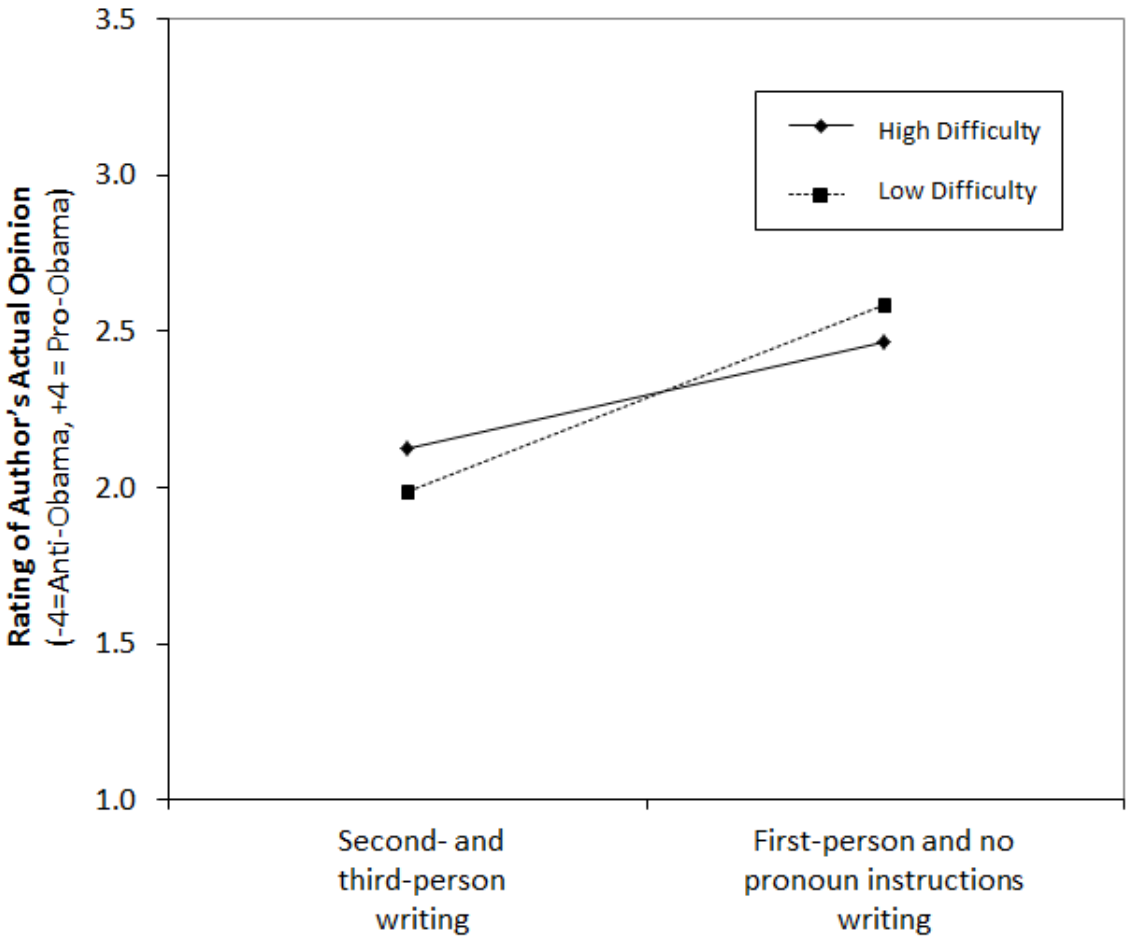
Fig. 2. Self-Distancing reduces the correspondence bias. Ratings closer to zero represent less bias. Error bars represent standard error.



Using Hayes' PROCESS module (2013) it was determined that difficulty did not interact with condition, $t(300) = 0.61$, $p = .541$, to predict participants' judgments of the author's attitude towards Obama and controlling for this variable did not influence the results, suggesting that mere difficulty associated with writing in the second- or third

person is not responsible for any differences between conditions. Additionally, the nonsignificant pattern observed in Experiment 1 did not exist in Experiment 2 (see figure 3).

Fig. 3. Effects of second- and third-person writing compared to control writing at high (1 SD above the mean) and low (1 SD below the mean) levels of difficulty.



Additional exploratory analyses demonstrated that within the first-person instructions writing condition difficulty did not correlate with attitude ratings, $r(113) = .043$, $p = .649$, within the second-person writing condition difficulty did not correlate

with attitude ratings, $r(81) = .137$, $p = .222$, and within the third-person writing condition difficulty did not correlate with attitude ratings, $r(81) = -.138$, $p = .153$.

Discussion

In *The View from Nowhere,* one of the most influential works of 20th century philosophy, Nagel (1989) claimed that, "the pursuit of detachment from [one's] initial standpoint is an indispensable method of advancing [one's] understanding of the world," but added, "since we are who we are, we can't get outside of ourselves completely" (p. 6). Although this may be true, the current results suggest that self-distancing—a process that allows people to "step back" from themselves and their initial view of the world—can indeed advance people's understanding of the world, helping them engage in less error-ridden social reasoning. In this vein, I found in two experiments that cueing people to think about the self using second- and third-person pronouns—parts of speech that promote self-distancing (Kross et al., 2012)—attenuated the correspondence bias. Future research is needed to establish what extent these findings generalize to other biases.

A brief note is called for on the differences in effect size between the two experiments. Experiment 2 had much greater power and thus, I believe that the effect size of Experiment 2 to be closer to the true effect size.

Across both studies, self-reported difficulty of writing in the manner requested did not predict attitude ratings. Thus, it is unlikely that a disfluency explanation can be given for the debiasing effect of self-distancing. Additionally, it might be thought that people will only believe the results of their self-distanced judgment when they perceive

the process of self-distancing to be sufficiently easy, or, in other words, people may doubt the results of their self-distanced judgment when they perceive the act of self-distancing to be difficult (e.g., Schwarz, 2012). However, although the nonsignificant interaction pattern and correlations provided some exploratory support for this proposition in Experiment 1, these hints were not replicated in Experiment 2, which had much greater power. Fluency may play a role in the process of looking at oneself from the outside, but from these data it is unclear what that may be.

However, further experimentation should be undertaken to rule out fluency as a mechanism. One possibility would be to create an experimental situation in which participants would practice writing in the second- or third person a number of times before actually engaging in writing about the judgment task. If mere difficulty is driving this effect, then as second- and third-person writing becomes easier as a result of practice, the debiasing effect of self-distancing should decrease. However, this is a complicated discussion because one aspect of the difference between our experience of our own thoughts and our experience of thinking about others' thoughts is the fact that our thoughts are fluent to us. The disfluency of thinking about someone else's thoughts, or of thinking about one's own thoughts from a self-distanced perspective might be part and parcel of the way in which self-distancing works. The potentially complicated role of fluency should be engaged in future research.

In addition to having implications for debiasing, these findings extend research on psychological distancing more generally. They suggest that gaining distance from the self is a process that differs in some ways from gaining distance from objects other than

the self. For example, using the same attitude attribution paradigm that I used in these experiments, Nussbaum, Trope, and Liberman (2003) found that asking participants to make judgments about a target person's behavior in the *distant* future (compared to the *near* future) enhanced the correspondence bias. In contrast, the present studies demonstrate that gaining distance *from the self* reduces the correspondence bias. The discrepancy between these findings highlights the need for future research to directly examine the effects of distancing from the self versus distancing from others.

Concluding Comment

Although we humans are better at recognizing bias in others than in ourselves, we also possess the ability to self-distance. These findings demonstrate that this capacity improves error-prone judgments by allowing people to "step back" from the immediacy of their thoughts. They also demonstrate how easily this can be done.

Chapter 3: Self-Distancing Can Improve Existing Evidence-Based Therapeutic Interventions

Human history is replete with accounts of the benefits of writing down one's thoughts, from the age-old practice of keeping a diary or journaling, to the more structured written exercises of groups such as Alcoholics Anonymous (Smith & Wilson, 2013). In the scientific literature, the benefits of writing about intrusive thoughts have also been demonstrated repeatedly (e.g., Pennebaker, 1997). For that reason it is not surprising that through the years, written homework exercises have been integrated into cognitive behavioral therapy (CBT) in order to help clients process their thoughts and emotions (e.g., Craske & Barlow, 2006; Rygh & Sanderson, 2004).

Written homework exercises are used in virtually every instantiation of CBT treatment, including treatment for generalized anxiety disorder (GAD). Homework exercises allow clients to practice what they have learned in therapy, to challenge their biased ways of thinking about themselves and the world, and to increase their self-awareness (e.g., Freeman, 2007).

I argue that the function of all of these helpful practices of writing can be accentuated through self-distancing. This particular experiment focuses on a CBT intervention for anxiety, but the current findings should apply to other forms of written emotion- and thought-processing as well. I expect self-distancing to increase the effectiveness of writing practices for two reasons.

First, when people analyze their feelings from a self-distanced perspective, they report less distress than people who adopt a self-immersed perspective (Ayduk & Kross, 2008; Ayduk & Kross, 2009; Kross, Ayduk, & Mischel, 2005). Across both sad and angry experiences, participants who self-distance when thinking about these experiences recount their experience to a lesser degree than those who adopt an immersed perspective, and self-distanced participants reconstrue their experiences more than immersed participants. This reduction of distress and facilitation of meaning-making associated with self-distancing should be particularly helpful when addressing ongoing worrisome concerns.

Secondly, self-distancing may help people reason about worries more accurately and adaptively. The previous chapter demonstrated that self-distancing can reduce the correspondence bias. Cognitive biases such as the correspondence bias are not the first things that come to mind when one thinks of disorders of the emotions such as Major Depressive Disorder (MDD) and GAD. However, since its founding, one of the assumptions of CBT has been that these illnesses are based in part on problematic cognitions, or biases. One example of such a bias is overgeneralization. This tendency occurs when someone takes a single event (e.g., a classmate saying "you're a loser") to

be representative of an unjustifiably broad range of events (the target of the insult might think "everyone thinks I am a loser"; e.g. Beck, 1970; Craske & Barlow, 2006).

If self-distancing attenuates biases that are easier for outsiders to see (as suggested by the experiments in Chapter 2), then it may also reduce the cognitive biases that are partly responsible for the generation of these illnesses with downstream effects for well-being, the dependent variable of interest in this experiment. In fact, apart from the studies on the correspondence bias, a number of studies in which self-distancing is shown to help with the processing of negative emotions could be reinterpreted as debiasing studies. Take the two examples of self-distanced thought that Kross and Ayduk (2011) provide in their review of their program of research.

> Participant 1: "… All of these underlying currents and frustration led me to be irritable and thus sparked the conflict over silly argument…"

> Participant 2: "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…"

Kross and Ayduk explain these changes in terms of meaning making, and this makes sense in light of their findings—participants sometimes see the events on which they are reflecting in a larger context, as related to other things, etc. However the two examples that they provide seem to be equally indicative of debiasing. Presumably Participant 1 did not realize at the time that the argument was silly, instead thinking that her grievance was legitimate and pursued the argument with vigor. To the extent that this insight was gained in the self-distancing session, the participant was able to overcome her own

biased perspective and her own bias toward self-enhancement (e.g., Sedikides & Gregg, 2008) in order to see the argument as it actually occurred. Similarly, Participant 2 explicitly says that he now sees "the argument more clearly", suggesting that his previous view of the argument was in some way biased, presumably in a self-enhancing manner. This assumption is underscored by his statement that he revised his understanding of how his friend felt. Both of these participants overcame their biased views of these situations.

It is important to recognize that meaning-making is orthogonal to debiasing. Kross and Ayduk convincingly demonstrated that meaning-making occurs when people self-distance. However meaning-making can occur without correcting one's biased view of a situation. For example, Participant 1 could have said, "I was absolutely right in my convictions at the time of the argument, and I still believe what I said, but now I can see that argument as a stepping stone on my way to becoming a more assertive person, the kind of person that I ultimately want to be." This gives the argument additional meaning without admission of any bias in one's perception of the argument. Conversely, it is conceivable that someone could come to see that they were wrong, without lending any additional meaning to the event.

Thus, even in self-distancing experiments that primarily target emotion regulation, there may be a debiasing aspect, something that makes sense given the demonstration in Chapter 2 that cognitive biases can be reduced through self-distancing. Therefore, if self-distancing does have a broad debiasing effect, this effect should extend

to the cognitive biases inherent in emotional illnesses with consequent improvements in emotional well-being.

As mentioned above, my colleagues and I have developed a means of creating distance from the self by instructing participants to either think or write in the second- (i.e., "you") or third person (i.e., "he" or "she"). For example, imagine a stressed undergraduate named Joe who is approaching a deadline on a term paper. If Joe wanted to write about his anxiety in the third person, then instead of writing "I am really worried…I think I'm never going to finish this," he would write, "Joe is really worried…he thinks he's never going to finish this."

The present study examines whether self-distancing in the form of third-person writing can improve well-being outcomes from the use of CBT homework exercises or "worry logs".

Experiment 1

In this longitudinal study, I invited participants into the lab, they filled out a questionnaire, and were randomized into a self-distanced, third-person writing condition or a self-immersed, first-person control writing condition (the default way in which these logs are usually filled out). They were educated about the purpose of the worry logs, given a practice worry log to complete in either the first- or the third person, and given an internet link through which they were to fill out one worry log daily at home for six days. They were also emailed this link every day as a reminder. On the eighth day,

participants returned to the lab and again filled out the same measures as the Day 1 questionnaire.

Method

Participants

102 University of Michigan undergraduates received course credit for their participation.

Materials

The primary measures in this study were the Satisfaction with Life Scale (SWLS), the Penn State Worry Questionnaire (PSWQ), the Patient Health Questionnaire (PHQ-8), and the Ruminative Response Scale (RRS). I included the SWLS because, although it has high internal consistency, its temporal stability is moderate and it is sensitive enough that it can pick up on changes from the beginning to the end of a clinical intervention (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993). I expected a greater increase in life satisfaction for the self-distanced than for the immersed group. The other three measures are measures of traits or chronic tendencies that were used to assess whether individual differences in worry, depression, or rumination would moderate the efficacy of the self-distancing intervention.

SWLS. The five items of this scale (e.g., "In most ways my life is close to my ideal"; "If I could live my life over, I would change almost nothing" with response options from 1 = *strongly disagree* to 7 = *strongly agree*) are intended to tap general life

satisfaction. The SWLS shows convergent validity with similar measures of subjective well-being (Diener et al., 1985; Pavot & Diener, 1993).

PSWQ. The 16 items of this scale (e.g., "I never worry about anything"; "Once I start worrying, I cannot stop" with response options from 1 = *not at all typical* to 5 = *very typical*) are used to assess chronic worry. It has high internal consistency and demonstrates good test-retest reliability (Brown, Antony, & Barlow, 1992; Meyer, Miller, Metzger, & Borkovec, 1990). Because this is by design a trait measure, in other words, a measure of enduring personality characteristics, I did not expect pre-post differences on this item. However, I did administer the PSWQ at both time points to ensure that this was not the case.

PHQ-8. The 8-items of this scale ask how often the respondent has experienced the symptoms related to depression over the past two weeks (e.g., "Feeling down, depressed or hopeless"; "Feeling tired or having little energy" with response options from 0 = *not at all* to 3 = *nearly every day*). It is employed in the diagnosis of depressive disorders. It has been shown to be not only a reliable and valid measure of the severity of depression, but also to be diagnostically valid (Kroenke & Spitzer, 2002; Kroenke et al., 2009; Kroenke, Spitzer, & Williams, 2001). Because the PHQ is a questionnaire used to assess a chronic syndrome, depression , and specifically asks how often participants have had specific symptoms over the past *two* weeks (longer than the course of our study), I did not expect differences on this measure. However, I administered the PHQ at both time points to ensure that this was not the case.

RRS. The 22 items of this scale describe cognitive responses to a) physical symptoms (e.g., "Think about your feelings of fatigue or achiness"), b) unpleasant emotions linked to the self (e.g., "Think about all of your shortcomings, faults, mistakes"), or causes/consequences of unpleasant emotions (e.g., "Think, 'I won't be able to do my job if I don't snap out of this.'" Respondents are asked whether they *never*, *sometimes*, *often* or *always* engage in the response described by a given item when feeling depressed or sad. The RRS is a valid and reliable instrument for assessing chronic rumination that has good predictive validity (Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Treynor, Gonzalez, & Nolen-Hoeksema, 2003). The RRS is a questionnaire that targets a chronic personality trait, and thus I did not expect differences on this measure. However, I administered the RRS at both time points to ensure this was not the case.

Procedure

On Day 1 of this eight day study, participants were invited into the lab and depending on condition were told: "In this study, we are examining the completion of a daily worry log as a means of managing stress and reducing worry and anxiety. You will be asked to fill out a daily worry log every day for the next week in the *first* [*third*] person, that is, by using the *first person pronoun "I"* [*third person pronouns "he" or "she" and your own name*]. People report experiencing benefits from filling out a daily worry log in the *first* [*third*] person." They were told they would be returning to the lab on Day 8.

Participants then completed demographic questions as well as the SWLS, PSWQ, PHQ-8, and RRS in that order, so that worry, depression, and rumination responses would not affect SWLS scores.

Then participants received a sample worry log completed in either the first- or third person depending on condition (see Appendix A) and information about both how to fill out the worry log and about its purpose. A research assistant also explained how the worry log should be completed. The worry log used here was based on a worry log in Rygh and Sanderson's (2004) *Treating Generalized Anxiety Disorder* with slight modifications based on the worry log in Craske and Barlow's (2006) *Mastery of Your Anxiety and Worry: Client Workbook* that were necessary because of the modality of this experiment.

Participants then filled out a practice worry log on the computer in the lab in either the first person or in the third person depending on condition.

A research assistant then explained that they would receive an email once daily containing a link to an online daily worry log on the Qualtrics survey platform. They were told to fill out at least one worry log each day for the following six days in a private setting where they wouldn't be distracted, but also encouraged to fill out an additional worry log if they noticed an increase in stress at a certain point in the day.

On Day 8, each participant returned to the lab where they again responded to a survey containing the same measures that they were given on Day 1.

Results

I excluded the responses of four participants from the analyses: Three participants told the experimenters that they had not taken the study seriously and one participant received two emails on day one, one with a link to each condition due to experimenter error. 98 participants remained.

Worry logs completed. The number of worry logs completed did not differ according to condition (t<1), and did not interact with condition to predict any of the results reported below, nor did controlling for this variable influence any of the results reported here.

Day one to day eight change in life satisfaction. There were no significant differences between the two groups on the measures (i.e., SWLS, PSWQ, PHQ-8, and RRS) at baseline (t < 1).

To assess the effect of self-distancing on change in participant life satisfaction, I computed residual change scores by regressing Day 8 life satisfaction scores on Day 1 life satisfaction scores as well as two other variables whose influence I wanted to control for: gender (strongly associated with differences in anxiety) and difficulty in following the instructions about the way to write worry logs (see Schwarz, 2012, and the discussion above about the way in which difficulty or disfluency can affect judgment). As a heuristic, residual change scores can be thought of as indicating how much each participant has changed and the direction of that change from Time 1 to Time 2, such that positive change scores indicate increases from Time 1 to Time 2 and negative scores

indicate decreases from Time 1 to Time 2. Residual change scores, unlike difference scores are statistically independent of baseline and thus estimate change as if all individuals were on the same level at baseline.

I then performed a one sample t-test on each condition using the residuals as the dependent variable to determine whether the changes in life satisfaction from Day 1 to Day 8 differed from zero. Participants who self-distanced while writing the worry sheets experienced an increase in life satisfaction (M=.165, SD=.551, t(44)=2.01, p=.051), whereas immersed participants did not differ from baseline (M=-.134, SD=.561, t(47)=1.65, p=.11). The two conditions also differed from each other, t(91)= 2.59, p=.011. Controlling for Day 1 scores on the PSWQ, PHQ-8, and RRS had no effect on the results and these measures did not interact with the results.

Using the same procedure as described above, there were no significant differences from Day 1 to Day 8 on the PSWQ, PHQ-8, or RRS, (see Table 1 for details).

Discussion

This study demonstrated that a very small shift in the way people reflect on themselves when processing their worries can have important downstream effects on well-being. Namely, as a result of filling out a CBT worry sheet in the third person at least once a day, participants in the self-distanced condition experienced an increase in life satisfaction, whereas participants in the immersed condition experienced no change from baseline.

Table 1

Residualized change scores from Day 1 to Day 8 and t-test on change scores by condition

Measure	Third-person change		First-person change		df	*t*	*p*
	M	*SD*	*M*	*SD*			
SWLS	.165	.551	-.134	.561	91	2.59	.011
PSWQ	-.049	.361	-.048	.374	91	1.28	.204
PHQ-8	-.002	.287	-.009	.338	91	.102	.919
RRS	-.040	.281	.039	.332	91	1.25	.216

I hypothesized that this effect would be caused at in part by correction of irrational thoughts or biases, in other words, those thoughts that these worry sheets are explicitly designed to deal with. But I could not test this proposition in the current experiment because the nature of these worry sheets gave participants limited room to respond. Subsequent experimentation will address this issue (see Chapter 4 for an example of such an experiment).

This study establishes that third-person writing in the context of CBT homework interventions can improve outcomes related to well-being. Although this is important for CBT itself, it also holds great importance for the multibillion-dollar self-help industry (Salerno, 2006). A large number of people engage in such exercises as were examined here without the guidance of a therapist. As this experiment represents just such a situation, it has direct applicability to self-help forms of writing.

Future research might examine third-person writing in varying contexts. Virtually all CBT interventions for a wide spectrum of emotional and mental difficulties make use of written homework exercises (for examples, see Oxford's *Treatments That Work* workbook series) as do nonclinical, but very effective programs such as Alcoholics Anonymous, Narcotics Anonymous, and the other Anonymous groups.

Additionally, past research has demonstrated that adopting a self-distanced perspective at the same time as asking why an event occurred is most effective for productive reflection, as opposed to nonproductive rumination (for a review, see Kross & Ayduk, 2011). In this study I wanted to make the smallest possible change to existing CBT interventions, however, effectiveness of self-distanced writing might be heightened

in future studies by asking participants to self-distance while simultaneously instructing them to think about why they were having these troublesome feelings. The worry sheets themselves may have served this purpose to some extent by activating reflection through the question prompts, but explicitly instructing participants to think about *why* they have these feelings may be even more effective than merely asking participants to complete the sheets in the third person.

In Chapter 2, asking participants to write in the second person, (i.e., using "you" and their own name) resulted in the same debiasing effects as third-person writing. However, writing in the second person is easier for people to engage in as, unlike the third person, the second person is a way in which people regularly talk to themselves. For example, if I were having trouble getting this chapter done, I might say to myself, "Come on Ryan, you can do it!" but it would be unlikely that I would say to myself, "Come on Ryan, he can do it!" People might be more likely to accept the results of their self-distanced thinking if they perceive this process to be easier; as Schwarz and his collaborators have shown (for review, see Schwarz, 2004), if thoughts are difficult to bring to mind, people may be less likely to believe them than if they are easy to bring to mind. If engaging in a self-distancing technique like third-person writing is especially difficult for someone, he or she may be less likely to believe the conclusions that come from writing in this way. Asking participants to use "you" and their own name may thus increase the effectiveness of self-distanced writing.

An additional possibility is suggested by research on distancing from positive emotions (Verduyn, Van Mechelen, Kross, Chezzi, & Van Bever, 2012). A future CBT

homework experiment should have people distance themselves from the irrational thoughts, biases, or excessive worries by writing about them in the third person, but then write the more adaptive, coping thoughts in the first-person. Whereas it makes sense to distance oneself from irrational thoughts, writing alternative rational thoughts in the first-person might help people feel a closer connection to those thoughts, and allow them to more deeply integrate the new thoughts into their mental life while simultaneously holding the old maladaptive thoughts at a distance. This is conceptually similar to past studies finding that self-distancing decreases emotional reactivity not only to negative emotions but positive emotions as well. If one wishes to cherish or enjoy positive emotions, one should refrain from distancing oneself from them (Verduyn et al., 2012). In the same way, it may not be helpful or adaptive to distance oneself from rational coping thoughts that one wishes were a part of one's regular mental life.

Appendix A

Sample Third Person Daily Worry Log

Date (mm/dd/yyyy): 10/03/2011

Day of the week: Monday

Time stress began: 01:30 **(A.M. / (P.M.)**

Current time: 02:15 **(A.M. / (P.M.)**

Select maximum level of stress:

None		Mild		Moderate		Severe		Extreme
0	1	2	3	4	(5)	6	7	8

Select amount of control over stress:

None		Low		Moderate		High		Complete
0	1	(2)	3	4	5	6	7	8

Indicate which of the following symptoms you are experiencing (select all that apply):

- ☒ Restlessness, feeling keyed up or on edge
- ☐ Easily fatigued
- ☒ Difficulty concentrating or mind going blank
- ☐ Irritability
- ☒ Muscle tension
- ☐ Sleep disturbance

How angry do you feel?

Not Angry At All				Somewhat Angry				Extremely Angry
○	○	○	○	⊠	○	○	○	○

How sad do you feel?

Not Sad At All				Somewhat Sad				Extremely Sad
○	○	○	⊠	○	○	○	○	○

How hurt do you feel?

Not Hurt At All				Somewhat Hurt				Extremely Hurt
○	⊠	○	○	○	○	○	○	○

Triggering events (i.e., What started the worry/stress?):
When writing, use the third person pronouns "he" or "she" and your own name.
John has an exam in the morning and does not feel prepared.

Stress-related thoughts (What is currently going through your head about this worry/stress?):
When writing, use the third person pronouns "he" or "she" and your own name.
John is worried he will get a bad grade on the exam and fail out of the class. He has too much studying to do tonight, and he will have to stay up all night studying, which will cause him to be tired in the morning during the exam.

Alternative possibilities (For example, if you are worried about something turning out badly, what are some other ways it could turn out?):
When writing, use the third person pronouns "he" or "she" and your own name.
John usually does well on exams, and he will likely do well on this exam because he has paid attention in class all semester and has completed all of the reading assignments. He doesn't have to get a perfect score to do well on the exam. Even if John does get a poor grade on the exam, chances are low he would fail out of the class as a result.

Ways of coping (What are some ways of dealing with the thoughts and feelings related to this worry/stress?):
When writing, use the third person pronouns "he" or "she" and your own name.
If John gets a poor grade on the exam, he can meet with his professor and discuss study strategies that will help him perform better on the next exam. This is only the first exam of the semester so he has plenty of time to improve his grade if he doesn't do as well as he would like to on this first exam. John can also look into tutoring options or go to office hours to get extra help with the course material.

Chapter 4: Self-Distancing Improves Perceived Ability to Cope with Difficult Situations

> "People with high assurance in their capabilities in given domains approach difficult tasks as challenges to be mastered rather than as threats to be avoided."
>
> – Albert Bandura (1997, p. 11)

Interpretations of difficult situations as challenges or as threats can have a significant impact on physiology, emotional state, and performance. In many tasks that frequently arise in modern life, such as taking a test, socializing, contributing to a class discussion, or speaking in front of a group, interpretation of such tasks as threats can interfere with performance (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Blascovich, Mendes, Hunter, & Salomon, 1999; Jamieson, Mendes, Blackstock, & Schmader, 2010; Jamieson, Mendes, & Nock, 2013; Jamieson, Nock, & Mendes, 2012). However, these threat interpretations can be changed. This chapter will describe a study that demonstrates that self-distancing can change the balance of challenge and threat appraisals such that people are more likely to believe that they can cope with a given difficult situation when thinking about the situation from a self-distanced perspective. As a follow-up to the experiment in Chapter 3, this experiment allows for participant responses extensive enough to code, something not possible in Chapter 3.

When a situation is encountered that presents a person with a problem, there are at least two ways in which the person can perceive the situation: as a challenge or as a threat. This process of interpretation is called an *appraisal* – a person can appraise or interpret the situation as being challenging or threatening. It is generally agreed that the determination of whether a situation is a challenge or threat results from an assessment of the objective nature of the problem in comparison with one's own abilities to solve, confront, or cope with the problem (Blascovich & Tomaka, 1996; Lazarus, 1991; Lazarus & Folkman, 1984). For example, Blascovich and Tomaka (1996) suggest that a challenge appraisal occurs when people perceive that their personal resources exceed situational demands, whereas a threat appraisal occurs when perceived situational demands exceed personal resources. Although these appraisals can generally be quick and automatic, they can also be changed (Jamieson et al., 2013). This process of changing an appraisal is called *reappraisal*.

Self-distancing should help people view problematic situations more as challenges than as threats for two reasons. First, self-distancing leads people to focus less on the concrete and emotionally-arousing aspects of a problematic situation, and instead focus more on reconstruing experiences in such a way that they can better "work through" their feelings (for a review, see Kross & Ayduk, 2011). In difficult situations, I suspect that the concrete, emotionally arousing details of an ongoing concern are exactly those elements of the situation that make it more likely that a given person will believe that the demands of the situation outweigh his ability to deal with the situation. Because self-distancing reduces people's tendency to focus on such details, I predicted that when

reflecting on a situation from a self-distanced perspective, people's tendency to view the situation as a threat would be reduced, and their tendency to believe that the situation is one with which they could cope, in other words, a challenge, would be strengthened.

There is another possible reason why self-distancing may have such an effect. The research program behind cognitive behavioral therapy (CBT) has demonstrated that numerous cognitive biases play a role in the generation and maintenance of emotional disorders. One particularly noxious emotional disorder, generalized anxiety disorder (GAD), involves anxious reactions to a whole host of aspects of one's life. In other words, people with GAD perceive multifarious aspects of life to be threatening. However, it is not necessary for someone to have GAD to generate persistent biases in appraisals of threat. In the discussion, I will make the case that appraisals of threat occur more frequently than is warranted, and thus represent biased thinking, something which self distancing has been shown to reduce.

Experiment 1

The purpose of Experiment 1 was to test the hypothesis that self-distancing will allow people to interpret troubling situations as challenges as opposed to threats. Past experiments have demonstrated that using non-first person pronouns (i.e. second- or third-person pronouns) to refer to the self increases felt distance from the self (Kross et al., under review). In this experiment, I asked people in the self-distanced condition to use non-first-person pronouns (i.e., "you" or "she" or "he") to refer to the self and then

write for as much time as they needed to describe a situation that was an ongoing worry for them. Control participants were asked to do the same using first-person pronouns (i.e., "I").

Methods

Participants. Participants were 153 "workers" (71 female; M_{age} = 34.8) on Amazon's Mechanical Turk, an online "crowdsourcing" platform through which people complete tasks for compensation.

Procedure and materials

Cover story. Participants were recruited for a study on writing about emotions from a certain perspective.

Baseline emotion. Participants were asked "How do you feel right now?" on a sliding scale with two anchors: *Very positive* and *Very negative*, which were coded as 0 and 100 respectively (M = 35.2, SD=20.2).

Experimental manipulations. Participants in both conditions were told:

> No matter how satisfied people are with their lives, there are times that they worry and experience anxiety about things that may go wrong when they interact with other people. Take a few moments right now to think about a specific experience with another person or people that you worry about happening to you from time to time. This could be as minor as worrying about a friend not calling you back or more serious like giving a speech in front of lots of people. As you do this, try to identify a specific experience that makes you feel especially anxious whenever you think about it. Although it may be difficult, most people can usually come up with at least one potential social event that they worry about. Take your time as you try to do this.

Participants in the *self-distanced* [*first-person*] group were told, "We are interested in the language people use to understand their feelings. Some people try to understand their

feelings by thinking about themselves using *their own name and other non-first-person pronouns* [*first-person pronouns*] (in other words, *using the pronouns "you" or "your" and their own names* [*using the pronoun "I" or "mine"*] to think about themselves) when engaging in certain activities, so this is one type of thought that we are interested in examining. For example, *when a person with the name John is doing something, he might think: 'John, you're thinking that... You are feeling...*' [*when doing something, someone might think: "I think that... I am feeling ...*']."

On the next page participants were told, "In order to investigate the effects of this type of thinking, we would like you to write (on the following page) about the worrisome event you just thought about using *non-first person [first-person]* pronouns to refer to yourself. Use *"you" and your own name [the first person pronoun "I"]* as much as possible as you write about the causes and reasons underlying the thoughts and feelings you experience as you think about this worrisome event. Try to understand why you're feeling the way you are as you think about this experience. Why are you having the thoughts that you are having? What underlying causes might exist for your worry?"

Participants were then instructed to take as much time as they needed to write about their concern.

Challenge and threat appraisals. Three independent judges, unaware of the experimental hypothesis, rated the essays on the extent to which they reflected threat appraisals using a scale from 0 (*if no mention of threat*) to 3 (*if threat is the major theme*

in the essay. The essay is anchored around feelings of threat and unpreparedness; *r*'s > .467, *p*'s < .001). The same three judges also rated the essays on the extent to which they reflected challenge appraisals, in other words suggestions that the subject actually does have the resources to cope with the situation using a scale from 0 (*if no statements indicating that participants are capable of coping with the event are given*) to 3 (*if statements indicating that participants are capable of coping with the event are a major theme in essay. The essay is anchored around statements indicating that participants are capable of coping with the event; statements indicating that participants are capable of coping with the event constitutes major theme in the essay.*; *r*'s >.883 *p* < .001).

In keeping with previous studies (Tomaka, Blascovich, Kelsey, & Leitten, 1993; Tomaka, Blascovich, Kibler, & Ernst, 1997; Tomaka & Blascovich, 1994) the challenge and threat appraisal variables were combined to yield one index of cognitive appraisal. This appraisal index was computed as a ratio of threat appraisals over challenge appraisals, and is intended to reflect to what extent the situation in question is appraised to be exceeding one's resources or ability to cope (Blascovich & Tomaka, 1996). As mentioned by Tomaka and Blascovich (1996), this ratio is related to Lazarus and Folkman's (1984) theory of stress and fits well with other approaches that view stress as a balance between demands and resources which with to meet those demands (e.g., Hobfoll, 1989).

Results

Preliminary Analyses. 13 participants were excluded—four participated in a similar study before, five wrote a mixture of first- and non-first-person pronouns, and four did not follow the condition instructions correctly.

Challenge and threat appraisals. Threat versus challenge appraisal ratios were computed by first taking the mean of the judges' ratings of threat and adding a constant then taking the mean of the judges' ratings of challenge and adding the same constant. Mean threat was then divided by mean challenge resulting in the above-mentioned index of cognitive appraisal. This index was analyzed in a one-way analysis of variance (ANOVA) with self-distanced versus self-immersed condition as the only between subjects variable, while controlling for gender and difficulty of writing in the manner instructed (as in Chapter 3) as well as baseline affect. The latter three variables did not interact with condition to predict the outcome. As predicted, participants in the self-distanced condition (M = 2.09, SD = 1.18) exhibited lower threat to challenge ratios than participants in the immersed condition (M = 2.94, SD = .79; $F(4,139) = 23.59$, $p < .001$, d = .85), meaning that self-distancing increased individuals' perceptions of their abilities to cope with the demands of their worrisome situation.

Representative examples of this shift include the following participant essay from the self-distanced condition:

> Come on, [participant's first name], your girlfriend's parents will love you. What's not to like about you? You treat their daughter with respect and love her so much. You're a great guy. You have a lot to be proud of, so there's no need to keep worrying about what her parnts think about you. Just be yourself, [participant's first name]. It's understandly to be nervous, but you can't let it get to you.

This is an example from the immersed condition:

> At a family reunion I have to interact with people I don't see for much of the year. I know I'm not doing as well as they expected and I worry what they will think of me. I know that they would gossip about me even when I was young, and I can't imagine thy wouldn't be doing it now.

Discussion

The results of this experiment demonstrate that self-distancing can increase people's perceptions that they are able to cope with the demands of a difficult situation across a wide variety of self-generated social worries. I suggested that self-distancing could have such an effect for two reasons.

First, prior research has demonstrated that self-distancing leads people to focus less on the concrete and emotionally relevant details of a problematic situation and more on reconstruing such a situation. As the concrete and emotionally relevant details are likely the driver of many threat appraisals, reducing focus on these details should reduce perceptions of threat and increase peoples' perception of being able to cope with the situation.

Second, I suggested that perceptions of threat in modern, industrialized societies often represent an overreaction to a problematic situation because our threat reactions evolved at a time in which a vastly greater number of existential threats existed (e.g., Pinker, 2011). In tasks common in modern society, threat appraisals often lead to impaired performance, increased bias toward perception of threat cues, increased negative affect, and a maladaptive physiological response such that cardiac efficiency

decreases, and peripheral vasculature constricts in the expectation of damage or defeat. Challenge appraisals, on the other hand, lead to improved performance, reduced bias in perception of threat cues, reduced negative affect, and an adaptive physiological response such that cardiac efficiency increases and peripheral vasculature dilates (Blascovich et al., 2001, 1999; Jamieson et al., 2010, 2013, 2012).

For example, Jamieson and colleagues (2010) provided an experimental demonstration of the effects of threat appraisals on test-taking. They brought a group of perspective GRE test-takers into the lab and told them that signs of physiological arousal that result from test-taking predict better performance. This resulted in improvements on the quantitative section of the GRE as well as higher scores on the quantitative section of the actual GRE one to three months later compared to a group of control participants who were not given such information. This begs the question, if threat-associated physiological states are damaging to performance, why do they occur? For example, controls in the GRE experiment are presumably seeing physiological arousal as a sign of a threat, thus impairing their own performance. This hardly seems adaptive—and for our current environment it is not.

Why are threat appraisals often biased? Evolution-environment mismatch

Our physiological responses did not evolve in a modern, industrialized environment with vastly lower incidence of violence than our environment of evolutionary adaptiveness (Pinker, 2011). The cognitive, emotional, and physiological

responses associated with threat appraisals often represent a mismatch between the current environment of a modern industrialized society and the hunter-gatherer environment in which these responses evolved (e.g., Nesse, 2004). Manifold situations exist that people today react to as dangerous threats, when in our current environment this is no longer the case.

One example of this is ostracism. Ostracism has been demonstrated to have a number of serious negative emotional and health consequences (for a review, see Williams, 2007). Extreme reactions to any indications of ostracism were justified in a hunter-gatherer society, in which being ostracized was equivalent to a death sentence. For that reason, it would make sense for individuals to be highly vigilant to signs of ostracism, and to react to ostracism as a deadly threat. However in our current society, the consequences of ostracism have changed dramatically. Despite dramatic physiological and emotional responses demonstrated in studies with college students, death is no longer an immediate consequence of ostracism. Ostracism has gone from being synonymous with death in a hunter-gatherer environment, to virtually never resulting in death in a modern, industrialized society.

In fact, the emotional consequences that originally developed as a way to prevent the real world, objective consequence of dying are themselves now the feared consequences of ostracism. In this way, interpreting ostracism from a given group as a dangerous threat results in a wild overreaction of our mental and physiological selves. There is a familiar word for incorrect interpretations of situations and incorrect expectations about the future: bias. The vast majority of perceptions of threat in modern

industrialized societies represent incorrect interpretations of the danger of the given situation, and thus represent bias.

Should one doubt that our evolutionary development has prepared us for certain fears, one only need to think about the fact that snakes and spiders are among the most common phobias, even though they are among the very least likely causes of death or injury in a modern industrialized society. If fears were based solely on an accurate assessments of death and injury, then city-dwelling humans would be chiefly terrified of cars. Numerous examples exist of this sort of mismatch in which things that were once deadly to us evoke responses that are inappropriate to our current environment, and especially detrimental in environments in which any type of complex thinking is required. As noted above anxiety and fear regularly impedes performance on complex and creative tasks compared to arousal associated with challenge appraisals (e.g., Blascovich et al., 1999).

Chapter 2 demonstrated that reasoning from a *self-distanced* perspective—i.e., visualizing a negative experience from a "fly on the wall" perspective, in which the self becomes an observer of his or her experience—can reduce bias (Bremner, Goldberg, Kross, under review). Briefly, I suggest that self-distancing allows people to break through their own naïve realism and recognize the biases in their thoughts by reflecting on the self as an "other," thus simulating this process of being a more impartial outside observer.

This process should also work for challenge and threat appraisals. When people are not involved in a situation--i.e., when they are an "outside observer"--they are less

emotionally affected by it. Being attacked is generally more frightening than seeing someone being attacked (otherwise, many television programs would not exist). In more mundane, everyday situations, outside observers are much better at seeing when someone immersed in a situation is making "a mountain out of a mole hill." We have a number of common language expressions for this: We say that we "lack perspective" or are "too involved" to make an objective decision. Self-Distancing allows people to simulate this outside observer within themselves, psychologically stepping outside of themselves in order to see their experience as an outside observer would. This should allow people to make more objective and realistic estimates of the relative balance of danger in the situation compared with their own resources, thus reducing the incidence of threat appraisals and increasing the incidence of challenge appraisals. However, this is speculative and future research is needed to better explore the debiasing potential of self-distancing with regard to challenge and threat appraisals.

Implications and future directions

The results of the current experiment have important implications for increasing performance on tasks common in our modern world, improving health, and decreasing emotional distress. For example, although cardiovascular reactivity occurs in both situations interpreted as challenges and situations interpreted as threats, the full physiological profile is rather different. Cardiovascular reactivity resulting from challenge states seems to be relatively benign in terms of long-term health, while

cardiovascular reactivity resulting from threat interpretations can over time lead to cardiovascular disease and other health problems (Blascovich & Tomaka, 1996; Jamieson et al., 2013).

The current results also suggest one way in which self-distancing increased life satisfaction in the CBT homework experiment outlined in Chapter 3. Self-Distanced participants likely also experienced an increase in their perception of their own ability to cope with difficult situations. Further experimentation instructing participants to write more extensively on additional CBT homework exercises could demonstrate such an effect.

In light of these findings, several future directions spring to mind. First, given the successful detection of differences in the balance of challenge and threat appraisals in these free writing episodes, it should be possible to go back and re-code past self-distancing experiments for challenge and threat appraisals. In addition, because other clinical cognitive biases outlined in the previous chapter, such as overgeneralization, should also be more obvious to an outside observer, previous data could be recoded for these clinical biases as well. Moreover, every application of writing about one's thoughts that is related to regulating anxiety in some fashion, including virtually all CBT style homework exercises, should be improved by having people think or write in a self-distanced fashion. These results could have a significant effect on shaping the practice of cognitive behavioral therapy.

Chapter 5: Conclusion

In one of the most influential works of 20th century philosophy, *The View from Nowhere* (1989), Thomas Nagel focuses on the issue of the human ability to switch from a more immersed, subjective viewpoint to a more distanced, objective viewpoint. At the outset, he claims that the understanding of this interplay is "the most fundamental issue about morality, knowledge, freedom, the self, and the relation of the mind to the physical world." One could add the relation of the mind to the social world to this already imposing list. I believe that self-distancing, or experiencing oneself as an "other," is what people naturally do when they attempt to take a more distanced, objective viewpoint. The research outlined in this dissertation demonstrates how the easily adoptable practice of thinking or writing in the second- or third-person can accentuate and strengthen the adoption of this viewpoint with significant effects for correcting one's own thoughts, improving one's well-being, and increasing the perception of one's ability to cope with difficult situations.

One result of becoming more distanced and, thus, more objective is the recognition that the world is not always as it initially appears to us. Thus, we must reject naïve realism and recognize, despite the discomfort that this may cause, that our thoughts can be biased. In Chapter 2, two experiments demonstrated that self-distancing

in the form of second- and third-person writing can reduce cognitive bias, in this case, the correspondence bias.

Gaining distance from one's thoughts can also help us manage our worries or stressful thoughts about difficult situations. In Chapter 3, a longitudinal experiment demonstrated that completing CBT homework exercises or "worry sheets" in the third person can improve well-being compared to the conventional manner of completing these worksheets.

From a distance, things also may seem less threatening, and our perception of our ability to cope with them can increase as fear retreats. In Chapter 4, self-distanced writing changed the balance of threat versus challenge appraisals, allowing people to strengthen their belief in their ability to cope with a variety of self-generated social worries.

Implications and future directions

In my opinion, the studies outlined here represent a mere scratching of the surface with regard to the potential of understanding how people engage in reflection, and how such reflection can be potentiated. Some further research is outlined in the previous chapters and is not repeated here—instead, just a brief selection of future directions is outlined below.

Because I posit that people are more objective and are more insightful when taking on a self-distanced viewpoint, a follow-up to the free writing experiment could

examine nonsocial concerns while the same time asking questions about objectivity. While it is true that I can code for insight—something that presumes greater objectivity—it is certainly worth exploring whether participants also consciously experience greater objectivity and greater insight while taking a self-distanced perspective. It is well-established that people are not always the best arbiters of their own mental processes (Nisbett & Wilson, 1977). If people do feel that they have greater objectivity and insight while self-distancing, then this should increase compliance with self-distancing interventions, and establish the conscious nature of the processes involved. Additionally, responses to questions about objectivity and insight might be one way to establish mediation of the debiasing effects presented here. Similarly, participants could be asked if they "felt a bit like they were talking about someone else" when referring to the self in the second- or third-person. Examining responses to this question as a potential mediator would be a useful undertaking, as the experience of "getting outside oneself" is the mechanism through which I believe these effects occur.

Another useful avenue of exploration would be the relation between gaining psychological distance from the self and moral judgment. Virtually every philosophical examination of morality confronts the question of why (and how) we should go beyond our own self-interest and our own perspective in making moral decisions. One of the foremost ethicists of the 20th century, R.M. Hare (1982), makes reference to a hypothetical 'ideal observer' whom he calls "the archangel" and who is freed from the lack of impartiality imposed by having a specific human viewpoint. John Rawls (1999) talks about a hypothetical "original position" in which citizens are abstracted from their

specific desires and biases and through this exercise in impartiality are asked to come to a common understanding of rules for a society. Adam Smith in his *Theory of Moral Sentiments* (1759) talks about moral norms arising from the position of an "impartial spectator." This list could go on and on, but the crux of the matter is that abstracting ourselves from our idiosyncratic desires and biases is a central theme in moral philosophy, and self-distancing may provide a means to address some of these questions as well as a practical means for people to make better moral decisions.

In this vein, it could be asked if it would be better for judges to write their verdicts in the third person. Might judges be more apt to recognize their own biases when written in the third person? If anyone doubts that judges are moved by influences other than rationality and knowledge of the law, one must only turn to the dramatic effects recently demonstrated showing that hunger/break times can radically influence judges' opinions (Danziger, Levav, & Avnaim-Pesso, 2011). Self-distancing or third-person writing would seem to be perfect for this type of situation as judgment and decision-making research demonstrates that people pay less attention to their own feelings when they are making decisions for others (for a review, see Greifeneder, Bless, & Pham, 2011). Thus, feelings of hunger should influence one less if one is thinking about oneself as an "other." This also suggests that third-person thinking or writing could be an effective strategy to boost executive function when one is "depleted" by a task or a situation (Muraven & Baumeister, 2000). Recent research has shown that depletion effects result not from a deficit of glucose as originally suggested, but instead as a result of an interpretation of feelings of tiredness (e.g., Job, Dweck, & Walton,

2010). Thus, such feelings should play less of a role when one is thinking about oneself as an "other."

Another future line of research should compare the process of self-distancing with those processes examined by construal level theory (CLT). As suggested in Chapter 2, theoretically one would expect some differences between the two. At a very basic level, CLT is a theory about distance from an observer to an observed object. In other words, if I am two feet away from someone I may make a different judgment than when I am 200 feet away from that person, and this difference in judgment is often accentuated with increasing distance. The effects of these gradations of distance contrast sharply with the categorical nature of self-distancing. Self-distancing involves a *categorical change* from taking one's own perspective to attempting to abandon that perspective and take on the perspective of an outsider or an "other." That the self-other dichotomy represents an important categorical difference is supported by decades of social psychological research. Theoretically, any differences found between judgments made about the self versus judgments made about others should be mirrored in making judgments about the self versus making judgments about the self from a self-distanced perspective.

This is not to say that self-distancing is a black or white, either/or process. There are indeed two theoretical standpoints from which one can think about oneself: one's own position (the default, or immersed position) and the position of an observer (the self-distanced position). However, the attempt to take a self-distanced perspective can be graded in the sense that it is far from easy to simply adopt the perspective of an outside

observer. One may be able to take this imagined viewpoint for a moment, and then fall back into thinking about oneself from an immersed perspective, so the amount of time spent in the self-distanced position and the frequency of self-distancing attempts allows for gradation. Additionally, one may have difficulty separating oneself from strong feelings that one has in the immersed position, so skill in adopting this perspective should be another source of gradation in self-distancing.

Concluding comment

From the experiments related here to the speculations of philosophers through the ages, there seems to be no question that while the practice of gaining distance from the self is not easy, it is a highly desirable skill to have. The various manipulations developed in the program of research on self-distancing provide the tools to explore this ability as well as its extensive implications for human thought, feeling, and behavior. Given the centrality of the variable of distance from the self to so many domains of human thought, the possibilities for future research are broad and exciting.

References

Ayduk, O., & Kross, E. (2009). Asking "why" from a distance facilitates emotional processing: A reanalysis of Wimalaweera and Moulds (2008). *Behaviour Research and Therapy*, *47*(1), 88–92. doi:10.1016/j.brat.2008.06.014

Ayduk, O., & Kross, E. (2008). Enhancing the pace of recovery: Self-distanced analysis of negative experiences reduces blood pressure reactivity. *Psychological Science*, *19*(3), 229–231. doi:10.1111/j.1467-9280.2008.02073.x

Bandura, A. (1997). *Self-Efficacy in Changing Societies*. Cambridge University Press.

Beck, A. T. (1970). Cognitive therapy: Nature and relation to behavior therapy. *Behavior Therapy*, *1*(2), 184–200. doi:10.1016/S0005-7894(70)80030-2

Blascovich, J., Mendes, W. B., Hunter, S. B., Lickel, B., & Kowai-Bell, N. (2001). Perceiver threat in social interactions with stigmatized others. *Journal of Personality and Social Psychology*, *80*(2), 253–267. doi:10.1037/0022-3514.80.2.253

Blascovich, J., Mendes, W. B., Hunter, S. B., & Salomon, K. (1999). Social "facilitation" as challenge and threat. *Journal of Personality and Social Psychology*, *77*(1), 68–77. doi:10.1037/0022-3514.77.1.68

Blascovich, J., & Tomaka, J. (1996). The Biopsychosocial Model of Arousal Regulation. In Mark P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. Volume 28, pp. 1–51). Academic Press. Retrieved from http://www.sciencedirect.com/science/article/pii/S006526010860235X

Bremner, R. H., Kross, E., & Goldberg, A. (under review) Seeing the log in your own eye: Self-Distancing improves judgmental accuracy.

Brown, T. A., Antony, M. M., & Barlow, D. H. (1992). Psychometric properties of the penn state worry questionnaire in a clinical anxiety disorders sample. *Behaviour Research and Therapy*, *30*(1), 33–37. doi:10.1016/0005-7967(92)90093-V

Craske, M. G., & Barlow, D. H. (2006). *Mastery of Your Anxiety and Worry: Workbook* (2nd ed.). Oxford University Press, USA.

Croxton, J. S., & Miller, A. G. (1987). Behavioral disconfirmation and the observer bias. *Journal of Social Behavior & Personality*, *2*(1), 145–152.

Danziger, S., Levav, J., & Avnaim-Pesso, L. (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences*, *108*(17), 6889–6892. doi:10.1073/pnas.1018033108

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*(1), 71–75. doi:10.1207/s15327752jpa4901_13

Freeman, A. (2007). The use of homework in cognitive behavior therapy: Working with complex anxiety and insomnia. *Cognitive and Behavioral Practice*, *14*(3), 261–267. doi:10.1016/j.cbpra.2006.10.005

Gawronski, B. (2004). Theory-based bias correction in dispositional inference: The fundamental attribution error is dead, long live the correspondence bias. *European Review of Social Psychology*, *15*(1), 183–217. doi:10.1080/10463280440000026

Gilbert, D. T. (1989). Thinking lightly about others: Automatic components of the social inference process. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 189–211). New York: Guilford Press.

Gilbert, D. T., Krull, D. S., & Pelham, B. W. (1988). Of thoughts unspoken: Social inference and the self-regulation of behavior. *Journal of Personality and Social Psychology*, *55*(5), 685–694. doi:10.1037/0022-3514.55.5.685

Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, *117*(1), 21–38. doi:10.1037/0033-2909.117.1.21

Gilbert, D. T., Pelham, B. W., & Krull, D. S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology*, *54*(5), 733–740. doi:10.1037/0022-3514.54.5.733

Greifeneder, R., Bless, H., & Pham, M. T. (2011). When do people rely on affective and cognitive feelings in judgment? A review. *Personality and Social Psychology Review*, *15*(2), 107–141. doi:10.1177/1088868310367640

Hare, R. M. (1982). *Moral Thinking: Its Levels, Methods and Point*. Oxford: Oxford University Press.

Hayes, A. (2013) PROCESS. Retrieved from http://afhayes.com/introduction-to-mediation-moderation-and-conditional-process-analysis.html

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. doi:10.1037/0003-066X.44.3.513

Jamieson, J. P., Mendes, W. B., Blackstock, E., & Schmader, T. (2010). Turning the knots in your stomach into bows: Reappraising arousal improves performance on the GRE. *Journal of Experimental Social Psychology*, *46*(1), 208–212. doi:10.1016/j.jesp.2009.08.015

Jamieson, J. P., Mendes, W. B., & Nock, M. K. (2013). Improving acute stress responses: The power of reappraisal. *Current Directions in Psychological Science*, *22*(1), 51–56. doi:10.1177/0963721412461500

Jamieson, J. P., Nock, M. K., & Mendes, W. B. (2012). Mind over matter: Reappraising arousal improves cardiovascular and cognitive responses to stress. *Journal of Experimental Psychology: General*, *141*(3), 417–422. doi:10.1037/a0025719

Job, V., Dweck, C. S., & Walton, G. M. (2010). Ego depletion—Is it all in your head? Implicit theories about willpower affect self-regulation. *Psychological Science*, *21*(11), 1686–1693. doi:10.1177/0956797610384745

Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology*, *3*(1), 1–24. doi:10.1016/0022-1031(67)90034-0

Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, *32*(9), 509–515.
Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9. *Journal of General Internal Medicine*, *16*(9), 606–613. doi:10.1046/j.1525-1497.2001.016009606.x
Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B. W., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders*, *114*(1–3), 163–173. doi:10.1016/j.jad.2008.06.026
Kross, E., & Ayduk, O. (2011). Making meaning out of negative experiences by self-distancing. *Current Directions in Psychological Science*, *20*(3), 187–191. doi:10.1177/0963721411408883
Kross, E., Ayduk, O., & Mischel, W. (2005). When asking "why" does not hurt: Distinguishing rumination from reflective processing of negative emotions. *Psychological Science*, *16*(9), 709–715. doi:10.2307/40064298
Kross, E., Bruehlman-Senecal, E., Park, J., Burson, A., Dougherty, A., Moser, J., Ayduk, O. (under review) Self-talk as a regulatory mechanism: How you do it matters.
Kross, E., & Mischel, W. (2010). From stimulus control to self-control: Towards an integrative understanding of the processes underlying willpower. *From Society to Brain: the New Sciences of Self-Control*, (pp. 428-446). Oxford: Oxford University Press.
Kruger, J., & Gilovich, T. (1999). "Naive cynicism" in everyday theories of responsibility assessment: On biased assumptions of bias. *Journal of Personality and Social Psychology*, *76*(5), 743–753. doi:10.1037/0022-3514.76.5.743
Larrick, R. P. (2004). Debiasing. In D. J. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment and decision making.* (pp. 316–337). Malden: Blackwell Publishing.
Lazarus, Richard S. (1991). Cognition and motivation in emotion. *American Psychologist*, *46*(4), 352–367. doi:10.1037/0003-066X.46.4.352
Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.
Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. *Psychological Bulletin*, *125*(2), 255–275. doi:10.1037/0033-2909.125.2.255
Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, *69*(1), 176–190.
Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the penn state worry questionnaire. *Behaviour Research and Therapy*, *28*(6), 487–495. doi:10.1016/0005-7967(90)90135-6
Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, *126*(2), 247–259. doi:10.1037/0033-2909.126.2.247
Nagel, T. (1989). *The View From Nowhere*. Oxford: Oxford University Press.

Nesse, R. M. (2004). Natural selection and the elusiveness of happiness. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, *359*(1449), 1333–1347. doi:10.1098/rstb.2004.1511

Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*(3), 231–259. doi:10.1037/0033-295X.84.3.231

Nolen-Hoeksema, S., Morrow, J., & Fredrickson, B. L. (1993). Response styles and the duration of episodes of depressed mood. *Journal of Abnormal Psychology, 102*(1), 20–28.

Nussbaum, S., Trope, Y., & Liberman, N. (2003). Creeping dispositionism: The temporal dynamics of behavior prediction. *Journal of personality and social psychology*, 84(3), 485-497.

Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, *45*(4), 867–872. doi:10.1016/j.jesp.2009.03.009

Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment, 5*(2), 164–172. doi:10.1037/1040-3590.5.2.164

Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, *8*(3), 162–166. doi:10.1111/j.1467-9280.1997.tb00403.x

Pinker, S. (2011). *The Better Angels of Our Nature: Why Violence Has Declined*. New York: Penguin.

Rawls, J. (1999). *A Theory of Justice, Revised Edition*. Boston: Harvard University Press.

Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. In *Advances in Experimental Social Psychology* (Vol. Volume 10, pp. 173–220). Academic Press. Retrieved from http://www.sciencedirect.com/science/article/pii/S0065260108603573

Ross, L., & Ward, A. (1996). Naive realism in everyday life: Implications for social conflict and misunderstanding. In T. Brown, E. S. Reed, & E. Turiel (Eds.), *Values and Knowledge* (pp. 103–135). New York: Psychology Press.

"reflection, n.". OED Online. March 2013. Oxford University Press. http://www.oed.com/view/Entry/160921?redirectedFrom=reflection (accessed April 2, 2013).

Rygh, J. L., & Sanderson, W. C. (2004). *Treating Generalized Anxiety Disorder: Evidence-Based Strategies, Tools, and Techniques* (1st ed.). New York: The Guilford Press.

Salerno, S. (2006). *Sham: How the Self-Help Movement Made America Helpless*. New York: Crown Publishing Group.

Schwarz, N. (2004). Metacognitive experiences in consumer judgment and decision making. *Journal of Consumer Psychology*, *14*(4), 332–348. doi:10.1207/s15327663jcp1404_2

Schwarz, N. (2012). Feelings-as-information theory. In P. Van Lange, A. Kruglanski, & E. T. Higgins (eds.), Handbook of theories of social psychology (pp. 289-308). Sage.
Sedikides, C., & Gregg, A. P. (2008). Self-Enhancement: Food for thought. *Perspectives on Psychological Science*, *3*(2), 102–116. doi:10.1111/j.1745-6916.2008.00068.x
Smith, A. (1759). *The Theory of Moral Sentiments*. London: A. Millar.
Smith, D. B., & Wilson, B. (2013). *The Big Book of Alcoholics Anonymous*. Boston: CreateSpace Independent Publishing Platform.
Storms, M. D. (1973). Videotape and the attribution process: Reversing actors' and observers' points of view. *Journal of Personality and Social Psychology*, *27*(2), 165–175. doi:10.1037/h0034782
Tomaka, J., & Blascovich, J. (1994). Effects of justice beliefs on cognitive appraisal of and subjective, physiological, and behavioral responses to potential stress. *Journal of Personality and Social Psychology*, *67*(4), 732–740. doi:10.1037/0022-3514.67.4.732
Tomaka, J., Blascovich, J., Kelsey, R. M., & Leitten, C. L. (1993). Subjective, physiological, and behavioral effects of threat and challenge appraisal. *Journal of Personality and Social Psychology*, *65*(2), 248–260. doi:10.1037/0022-3514.65.2.248
Tomaka, J., Blascovich, J., Kibler, J., & Ernst, J. M. (1997). Cognitive and physiological antecedents of threat and challenge appraisal. *Journal of Personality and Social Psychology*, *73*(1), 63–72. doi:10.1037/0022-3514.73.1.63
Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination reconsidered: A psychometric analysis. *Cognitive Therapy and Research*, *27*(3), 247–259. doi:10.1023/A:1023910315561
Uleman, James S., Newman, L. S., & Moskowitz, G. B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inference. In Mark P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. Volume 28, pp. 211–279). Academic Press. Retrieved from http://www.sciencedirect.com/science/article/pii/S0065260108602397
Verduyn, P., Van Mechelen, I., Kross, E., Chezzi, C., & Van Bever, F. (2012). The relationship between self-distancing and the duration of negative and positive emotional experiences in daily life. *Emotion*, *12*(6), 1248–1263. doi:10.1037/a0028289
Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, *101*(1), 34–52. doi:10.1037/0033-295X.101.1.34
Williams, K. D. (2007). Ostracism. *Annual Review of Psychology*, *58*(1), 425–452. doi:10.1146/annurev.psych.58.110405.085641
Wilson, T. D., & Brekke, N. (1994). Mental contamination and mental correction: Unwanted influences on judgments and evaluations. *Psychological Bulletin*, *116*(1), 117–142. doi:10.1037/0033-2909.116.1.117
Yates, J. F., Veinott, E. S., & Patalano, A. L. (2003). Hard decisions, bad decisions: On decision quality and decision aiding. In S. L. Schneider & J. Shanteau (Eds.),

Emerging perspectives on judgment and decision research (pp. 1–63). New York, NY, US: Cambridge University Press.