A Counterfeit Competence:

After Threat, Cheating Boosts One's Self-Image

S. Wiley Wakeman
Department of Management and Organization
Stockholm School of Economics
Sveavagen 65, 113 83 Stockholm
Email: wiley.wakeman@hhs.se

Celia Moore
Department of Management and Technology
Bocconi University
Via Roentgen, 1
Milan 20136 Italy
Email: celia.moore@unibocconi.it

Francesca Gino
NOM Unit
Harvard Business School
Harvard University, Baker Library
Boston, MA 02163
fgino@hbs.edu

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Abstract

In six studies, we show that after experiencing a threat to their abilities, individuals who misrepresent their performance as better than it actually is boost their feelings of competence. We situate these findings in the literature on self-protection. We show that this "counterfeit competence" effect holds when threat is measured (Study 1), manipulated (Study 2), and when the opportunity to cheat is randomly assigned (Study 3). We extend our findings to a workplace context, and show that threatened individuals who lie on a job application feel more capable than those who report them honestly (Study 4). Finally, consistent with the argument that counterfeit competence is driven by self-protection, we find individuals do not predict they would experience such a boost (Study 5), and that cheating after threat offers benefits similar to those provided by other established methods of self-protection (Study 6). Together, our findings suggest that, after threat, misrepresenting one's performance can function as a mechanism that helps to restore positive self-evaluations about one's capabilities.

Keywords: Competence, Unethical Behavior, Ego Threat, Self-Protection, Self-Deception

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Buried in the story of Bernie Madoff's spectacular $65 billion Ponzi scheme lurks an interesting observation about human nature. His fraud, initiated after the stock market crash of 1987 seriously threatened his success as an investor, bolstered his sense of himself as a capable businessman. Even though manipulating one's financial reports to appear more profitable than they are seems an odd way to support a belief that one is competent, Madoff claimed that fraudulently presenting oneself as a brilliant investor ultimately "feeds your ego" (Fishman, 2011).

That fraud can feed your ego is a rather counterintuitive outcome of unethical behavior. In this paper, we examine this dark consequence of the deep-seated desire to feel competent and view oneself in a positive light. Specifically, we argue that, after experiencing a threat to one's competence, misrepresenting one's performance as better than it objectively is can reaffirm one's perceptions of oneself as a competent person. This prediction counters and complicates the dominant perspective in behavioral ethics about the role of self-image in ethical behavior, which proposes that unethical behavior elicits negative perceptions of the self (Aquino & Reed, 2002; Mazar, Amir, & Ariely, 2008).

Drawing on theories of self-protection (Alicke & Sedikides, 2009; Sedikides, 2012; Sedikides & Alicke, 2012; Taylor, 1989), we propose that individuals have a heightened need to self-protect after experiencing threats to their competence and engage "behavioral and attributional strategies that serve to avoid decrements in self-views" (Alicke & Sedikides, 2009, p. 14-15). We argue that after a threat to one's competence, individuals who misrepresent their performance as better than it actually is can use that illegitimate achievement to provide a

"counterfeit competence". We define counterfeit competence as the boost to one's self-perceptions provided by artificially inflating one's performance, while ignoring the illegitimate means that inflated it. Moreover, consistent with work showing that individuals are unaware of engaging self-protective processes (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998), we predict that individuals do not foresee that they will experience this boost. Ultimately, we assert that this counterfeit competence represents a "creative self-deception" (Taylor, 1989) that supports the fundamental human desire to evaluate oneself positively (Sedikides & Alicke, 2012), particularly after threat (Campbell & Sedikides, 1999; Roese & Olsen, 2007).

1. Competence as a core value and the need to protect this value after threat

Competence has long been identified as a core personal value (Schwartz, 1992). It plays an important role in forming our perceptions of who we are (Erikson, 1980; Cross & Markus, 1994), and is an important high-level interest we champion throughout our lives (Alicke & Sedikides, 2009). Belief in one's competence predicts psychological health (Baard, Deci, & Ryan, 2004), task motivation (Deci & Ryan, 1985), and resilience in the face of challenges (Rosenberg, 1979), ultimately supporting one's personal development (Harter, 1993) and social belonging (Leary & Baumeister, 2000).

Ever since James (1890/1950) claimed that the desire to maintain positive self-regard is a fundamental human need, decades of research has confirmed the many ways in which individuals maintain "a tendentiously positive view of [themselves]" (Sedikides & Gregg, 2008, p. 102). Performing poorly on challenging tasks "belittles the self" (Hilgard, 1949, p. 377), and represents a concrete threat to positive self-evaluations (Leary, Terry, Allen, & Tate, 2009). As Madoff's life story attests, after the 1987 market crash threatened his perceptions that he was a talented investor, his fraud "fed his ego" and bolstered his sense of himself as a success.

Although it may be odd to suggest that unethical behavior could ultimately bolster one's self-perceptions, we suggest this process makes more sense if one considers that this behavior might function as part of one's psychological immune system: "the artful methods by which the human mind ignores, augments, transforms, and rearranges information in its unending battle against the affective consequences of negative events" (Gilbert et al., 2008, pg. 619). In other words, even though relying on illegitimately claimed performance to boost one's perceptions of oneself as competent is self-deceptive (von Hipple & Trivers, 2011), it may nevertheless protect one's high-level interests (i.e., competence, or "effectance") from deteriorating (Alicke & Sedikides, 2009).

Critically, individuals are particularly likely to hold self-deceptively positive views about themselves following threat. Threat increases the use of self-serving biases, such as rating oneself as better than most people on given traits or abilities (Brown, 2012), or making internal attributions for one's success but external attributions for one's failure (Campbell & Sedikides, 1999). Threat also amplifies selective self-memory, or the tendency to remember past behaviors that show individuals to be kind and trustworthy rather than those that show them to be unkind and untrustworthy (Sedikides & Green, 2009; Sedikides, Green, Saunders, Skowronski, & Zengel, 2016). Here, we argue that after experiencing a threat to one's competence, the motivation to re-affirm a positive view of one's capabilities outweighs the motivation to ensure that such a belief is accurate.

We suggest that one route for individuals to reaffirm their positive self-views after threat is to rely on illegitimately gained performance as if it were legitimately earned. To make this argument, we build on research that shows individuals readily believe they were responsible for performing at levels they did not achieve on their own merit (Chance, Norton, Gino, & Ariely,

2011). In this series of studies, some participants were asked to answer trivia questions without help, while others were given an answer key to "check" their responses, with explicit instructions to do so only *after* they had committed to their final answer. Perhaps unsurprisingly, participants with the answer key offered more correct answers than those without that advantage, meaning they were using those answers, consciously or not, to augment the number of correct answers they provided.

What is most interesting about these studies is not that participants who were given the answers in advance reported higher levels of performance. It is that when the two groups were later asked how they would do on a subsequent trivia task *without* being given answers, both groups replied that they would match the level of performance they had achieved during the first round of the task. Participants who had had the answer key available to them believed that they would obtain the same level of performance in a future task without that same advantage. This finding suggests that individuals are quick to deceive themselves into thinking that the performance they achieved with the answer key in hand was *not* due to that unfair advantage, but was, in fact, representative of their actual abilities.

In these experiments, accuracy in predicting one's future performance took a back seat to an enhanced belief about one's abilities that ought to have been attributed to the fact that they could see the answers before providing their own. Although it seems unlikely that misrepresenting one's performance can enhance perceptions of one's competence, when one considers that individuals have (1) a heightened desire to restore positive self-perceptions after experiencing direct threats, as well as (2) a capacity to hold self-deceptive and overly positive beliefs about their abilities, this prediction becomes more reasonable. As a result, we hypothesize:

H1: After experiencing a threat to one's competence, misrepresenting one's performance as better than it legitimately is will boost an individual's perceptions of themselves as competent, compared to those who report their performance honestly, and those who were not threatened.

2. Self-protection after threat

In this paper, we argue that counterfeit competence is driven by the need to self-protect after threat. Alicke and Sedikides describe self-protection as "an emergency system, [or] a form of damage control" (2009, p. 14), the goal of which is to return one's self-regard to a tolerable level after a high-level interest (such as one's competence or "effectance") has been threatened. The need to self-protect after threat is so fundamental to one's psyche that Allport called it "nature's eldest law" (1937).

Self-protection can be achieved through both behavioral and cognitive strategies (Alicke & Sedikides, 2009; Sedikides, 2012). Behavioral strategies, sometimes referred to as "primary control" tactics (Rothbaum, Weisz, & Snyder, 1982), offer the most straightforward routes to stabilizing one's self-regard after threat. These tactics change the "objective state of affairs by taking effective or instrumental action" (Alicke & Sedikides, 2009, p. 6). For example, after receiving a failing grade on a math test, behavioral strategies to self-protect might include studying harder for the next test to ensure a better score or asking the professor to reconsider the failing grade.

Cognitive, or "secondary control" tactics, help individuals to protect their positive impressions of themselves when they cannot (or do not want to) actively change their environment. These secondary control tactics rely on "altering how one perceives or interprets" one's circumstances (Alicke & Sedikides, 2009, p. 6). After the same math test failure, cognitive

self-protection strategies might include deciding to focus instead on how one aced an art history exam, or suggesting that the math test was a poorly designed means of measuring one's intelligence (Mackinnon, Smith, & Carter-Rodgers, 2015). Often, cognitive self-protection strategies allow us to feel better without taking any onerous action, reconstruing available information to allow for cheerier self-perceptions instead. For example, drawing positive comparisons to individuals who are worse than us on a given dimension (Wills, 1981), affirming our own superiority by derogating others (Fein & Spencer, 1997), externalizing the causal attributions one makes about one's failures (such as finding flaws in a test that one fails, see Wyer & Frey, 1983), or even crediting the negative feedback received by an evaluator to that person's racism or sexism (Crocker, Voelkl, Testa, & Major, 1991) all help to restore positive self-perceptions without taking any direct action to objectively improve one's circumstances.

These cognitive strategies often require what Hilgard calls "mechanisms of adjustment" (1949, p. 374) to ignore, minimize, or reconstruct the threatening information (Alicke & Sedikides, 2009; Sedikides & Alicke, 2012). Thus, cognitive self-protection strategies are often associated with "elaborate, dramatic, and difficult to maintain" beliefs (Alicke & Sedikides, 2009, p. 14). These cognitions may not reflect reality, but rather involve what Taylor (1989) terms creative self-deception, focusing on positively biased, rather than accurate, information about the self. For example, cancer patients adapt better following negative prognoses when they maintain positive beliefs unsupported by objective reality, such as believing that they have more control over the disease than they do (Taylor, 1983). Though inaccurate, self-deceptive beliefs serve the psychologically functional purpose of helping individuals cope with negative circumstances.

We argue that the motive to self-protect after a threat to one's competence is strong enough for individuals to rely on illegitimately-augmented performance as a de facto demonstration of their competence, facilitating the restoration of positive self-perceptions—even though those perceptions are based on a fraud. By ignoring the unethical means they used to "perform" well, individuals can internalize their illegitimate displays of competence in ways that bolster their ego from threat (Kelly, 1980; Schlenker & Leary, 1982).

Despite how common self-protective processes are in daily life, individuals seem largely unaware of their presence as part of their broader psychological immune system. Gilbert and colleagues (1998) stress that individuals consistently mispredict the effectiveness of psychological mechanisms designed to deal with threat, perceiving that negative events will have a larger and longer effect on than they actually do. This "immune neglect" (Gilbert et al., 1998) suggests that individuals are unaware of many of the cognitive self-protective processes that threat activates, and unlikely to predict that they will engage these self-protective strategies themselves. If counterfeit competence is driven by the need to self-protect after threat, we would expect the following:

H2: Individuals will not predict that they will experience a boost to their self-perceptions of competence if they misrepresent their performance to appear better than it legitimately is.

H3: The boost to one's competence perceptions that individuals receive from misrepresenting their performance after threat will be similar to a boost elicited by established self-protection strategies.

3. Overview of studies[1]

We test these hypotheses across six studies using a variety of experimental paradigms, measures of competence, and cultural samples. We show that individuals who cheat after threat boost their self-perceptions of competence when threat is measured (Study 1), after it has been manipulated (Study 2), and when the opportunity to cheat has been randomly assigned (Study 3). Using a job application task, we show that these effects extend to organizational settings, and that threatened individuals who lie about their credentials on a job application feel more capable those who complete their application honestly (Study 4). Consistent with the idea that counterfeit competence is driven by self-protective processes, we show that individuals do not predict they would experience this boost (Study 5), but that that cheating after threat offers benefits similar to those triggered by a more established self-protective strategy after threat (Study 6). Together, these results suggest that cheating after threat serves as a source of counterfeit competence.

4. Study 1: Cheating boosts perceptions of competence after threat

In Study 1, we test whether cheating after engaging in a threatening task leads to higher levels of perceived competence.

4.1. Method

4.1.1. Participants

Eighty-three individuals in a UK based behavioral lab participated in the study in exchange for a £10 payment and were told they could win an extra £4 during the study. One

[1]All of the data and results reported in this paper, including the syntax used to create variables and run the reported analyses, are available on the Open Science Framework website (https://osf.io/vjwsg/). Sample size for all studies was determined before data analysis and our methodology for determining sample sizes, as well as sensitivity analyses, are reported for each study. To address the editor's and a reviewer's concern, we report analyses throughout the paper including controls for alternative explanations (gender, age, and individual differences when available). However, we note at the outset, and report in the supplementary materials, that the results remain the same whether we include controls or not. For transparency, we include a study removed during the review process in the supplementary materials. Additionally, at the suggestion of the editor, we conducted a single paper meta-analysis (see McShane & Böckenholt, 2017), which we report in Appendix B.

participant failed to complete the final round of measures and was excluded, leaving eighty-two participants in the sample (M_{age}=25.16, *SD*=8.24, 42.7% male). Sample size was determined by the number of participants who showed up during a fixed number of lab sessions. One person did not complete the study; results are reported for the remaining 82 participants. Post-hoc sensitivity analyses based on adequate power (.80) and conventional statistical significance (α=.05) suggested that this sample was large enough to detect a large effect size (f=.42).

4.1.2. Task and procedure

The study included two rounds of a matrix problem-solving task (adapted from Mazar et al., 2008) and a short questionnaire with psychological measures. In the first round of the problem-solving task, each participant received a worksheet with 20 matrices (four-by-three sets of three-digit numbers [e.g. 5.43]). We informed participants that the sum of two numbers in each matrix equaled 10, and asked them to find and circle these two numbers for each matrix, as well as tick a box stating "I got it" for each matrix they solved. Participants had four minutes to solve as many matrices as they could.

Before the second matrix task, we informed participants that they would be paid £0.20 for each matrix they solved. We gave them an envelope with £4 and asked them to pay themselves from it, based on their performance in the second round. Finally, we showed participants a recycling bin in the corner of the room and asked them to recycle their second matrix sheet when the four minutes were up. Unbeknownst to the participants, we collected these sheets from the bin after the experiment. Participants' worksheets were all identical, other than the bottom right number of the final matrix, which was customized (e.g. for participant 23, the number in the bottom right read 0.23). This allowed us to determine their actual performance after the experiment ended, and to establish which participants cheated. We asked participants to report

how they felt on a number of dimensions (i.e. imaginative, ambitious, funny), including how 'capable' they felt. Including this item with others that were unrelated to our domain of interest allowed us to unobtrusively capture their self-perceptions of competence.

4.2. Results

On average, this was an extremely challenging task. Participants legitimately completed an average of 4.12 (*SD*=3.04) matrices in the first round and an average of 6.79 (*SD*=4.49) matrices in the second round. Only one person was able to solve all the matrices in the time given. We used the difference between participants' self-reported and actual number of correctly solved matrices in the second round of the matrix task as our measure of cheating. In total, 20 (24%) of the participants cheated, claiming to have solved 7.95 matrices (*SD*=3.69) when in fact they had correctly solved only 5.70 matrices (*SD*=4.18). Participants who did not cheat solved an average of 7.19 matrices (*SD*=4.56). The self-reported performance of cheaters did not significantly differ from the legitimate performance of honest participants, $t(80)=.972$, $p=.334$, 95% CI=[-1.11, 3.23], $d=.253$).

Since individuals experience poor performance as a threat (Leary et al., 2009), we used the participants' performance in the first round of the matrix task as a proxy for the level of threat they experienced from participating in the task. To determine the effect of cheating on perceptions of competence, we ran a one-way between-subjects ANOVA to compare how feelings of capability differed between cheaters and non-cheaters, controlling for Round 1 performance. Since age and gender are both individual characteristics associated with cheating (Newstead, Franklyn-Stokes, & Armstead, 1996; Betz, O'Connell, & Shepard, 1989; Ruegger & King, 1992), we also controlled for them in the analyses, though we note that the results are unchanged when we exclude them. The result indicates that those who cheated reported feeling

more 'capable' than those who did not cheat, M_{cheat}=5.50, *SD*=1.31; M_{honest}=4.87, *SD*=1.18, $F(1,77)=3.85$, $p=.053$, 95% CI=[-0.009, 1.27], $\eta_p^2=.048$ (see Figure 1)[2], albeit at a marginal level. There were no other significant differences between cheaters and non-cheaters on any of the other single item measures.

---------- Insert Figure 1 about here ----------

4.3. Discussion

The results of Study 1 provide preliminary support for Hypothesis 1. After engaging in a task where people perform poorly—a typically threatening experience—those who cheated felt more capable than those who reported their performance honestly.

5. Study 2: Cheating after manipulated threat boosts perceptions of competence

In Study 1, we did not manipulate threat directly. Instead, we depended on the nature of the task—one in which most people do poorly—to threaten participants. In addition, Study 1 used a single-item measure of competence. Though single-item measures have significant validity (Bergkvist & Rossiter, 2007), we acknowledge they may not be ideal. In Study 2, we address these concerns by manipulating threat, and using a multi-item measure of competence (Intrinsic Motivation Inventory; Deci & Ryan, 1985).

5.1. Method

5.1.1. Participants

Eighty-six individuals in a UK based behavioral lab (M_{age}=25.34, *SD*=5.71, 31.4% male[3]) participated in the study in exchange for £10 and told they could win an additional £20 based on their performance during the study. The sample size was determined by the number of participants who showed up during a fixed number of lab sessions. A post-hoc sensitivity

[2] One participant did not report their age. Degrees of freedom were adjusted accordingly.
[3] Three participants did not enter their age. The age statistics use the other 83 participants.

analysis based on adequate power (.80) and a traditional significance level (α=0.05) suggested that this sample was large enough to detect a large effect (f=.41).

5.1.2. Task and procedure

The study employed a 2 (Threat: Threat vs. Control) x 2 (Behavior: Misrepresented Performance vs. Honest) between-subjects factorial design where participants completed two rounds of tasks. In the first round, participants completed a series of trivia questions, where they were randomly assigned to either a *Threat* or *Control* condition. Participants the *Threat* condition (n=44) answered a series of 20 extremely difficult trivia questions (pretested by Moore & Healy, 2008), which included questions such as "What is the tallest mountain in South America?" and "Who invented the wristwatch?" Participants in the *Control* condition (n=42) were asked a series of 20 easy questions about themselves, such as "What is your favorite color?" and "What is the name of the street you grew up on?" Participants then reported how competent they felt (1=Not True At All, 7=Very True) using the six-item Perceived Competence subscale of the Intrinsic Motivation Inventory, which includes items such as "I think I am pretty good at this task" and "I was pretty skilled at this task" (Deci & Ryan, 1985: R1 IMI α=0.95).

We then gave all participants ten minutes to complete ten anagrams, and told them they would earn £2 for each anagram they solved (adapted from Cameron & Miller, 2009). The rules of the task stated clearly that the anagrams must be solved in the order in which they were presented for their answers to count towards the bonus payment. At the end of the allotted time, we asked participants to record their participant number on a Post-It note along with how many anagrams they had solved, so the experimenter could organize bonus payments while participants completed the study. The solution to the third anagram, "Unaagt", is "Taguan," a rare flying squirrel. Prior research shows this anagram is statistically unsolvable (Wiltermuth,

2011). Thus, consistent with prior research using this paradigm (Ruedy, Moore, Gino, & Schweitzer, 2013; Wiltermuth, 2011), we coded participants who reported solving more than two anagrams as having misrepresented their performance. Participants then completed the Perceived Competence subscale of the IMI (R2 IMI: α=0.93) a second time.

5.2. Results

5.2.1. Manipulation check

Individuals in the threat condition reported significantly lower self-perceptions of competence after the initial round of trivia than those in the control condition (M_{threat}=2.03, *SD*=0.80 vs. $M_{control}$=5.09, *SD*=1.20; $t(71)$[4]=-13.89, p<.001, 95% CI=[-3.51, -2.63], d=3.03).

Sixty-one participants (71% of the sample) cheated by claiming to have solved three or more anagrams. The likelihood of misrepresenting one's performance did not differ across conditions: 28 participants (64%) in the threat condition misrepresented their performance, while 33 (79%) participants did so in the control condition, $\chi^2(1, N=86)=2.33$, p=.127, r_φ=.164.

5.2.2. Main analyses

We conducted a 2 (Threat vs. Control) x 2 (Misrepresented Performance vs. Honest) between-subjects ANOVA with the change in self-reported feelings of competence between Round 1 and Round 2 as the dependent variable. As in Study 1, we controlled for age, gender, and education, though we note, again, that the direction and significance of the results remain the same when these controls are excluded. The results revealed a significant effect of misrepresenting one's performance, $F(1,76)$[5] =5.86, p=.018, 95% CI=[0.15, 1.52], η_p^2=.072, as well as of threat, $F(1,76)$=63.06, p<.001, 95% CI=[2.06, 3.44], η_p^2=.453. These main effects were

[4] Degrees of freedom were adjusted to account for a significant Levine's test. The results are significant even when this adjustment is not made.
[5] Degrees of freedom were adjusted to account for a significant Levine's test. The results are significant even when this adjustment is not made.

qualified by a significant interaction, $F(1,76)=7.32$, $p=.008$, $\eta_p^2=.088$. Planned contrasts reveal that for threatened individuals, those who misrepresented their performance reported a larger boost to their feelings of competence, compared to those who reported their performance honestly (Threat: $M_{cheat}=1.85$, $SD=1.50$; $M_{honest}=0.07$, $SD=0.58$; $F(1,76)=14.99$, $p<.001$, $\eta_p^2=.165$: see Figure 2). Participants in the control condition reported a decline in their perceived competence from Round 1 to Round 2, whether or not they misrepresented their performance (Control: $M_{cheat}=-1.84$, $SD=1.48$; $M_{honest}=-1.74$, $SD=1.48$, $F(1,76)=0.04$, $p=.842$, 95% CI=[-0.93, 1.14], $\eta_p^2=.001$), but we recognize that this decline is likely explained by participants in the control condition being asked to complete a more challenging task in the second round than they had in the first.

-------- Insert Figure 2 about here --------

5.3. Discussion

Study 2 confirms that individuals who misrepresent their performance after experiencing a threat to their abilities boost their perceptions of their competence, providing additional support for Hypothesis 1.

6. Study 3: Random assignment to the opportunity to cheat

Though we have shown that individuals who cheat after threat report a larger boost to their self-perceptions of competence than individuals who report their performance honestly (Studies 1 and 2), the decision to cheat in these studies was self-selected. In Study 3, we partly address these endogeneity concerns by using a paradigm that randomly assigns the opportunity to cheat to some participants. In addition, the instructions in this condition make clear that cheating is possible and highlight how it can be done, minimizing the possibility that any boost to competence is driven by "duping" the experimenter (cf. "duping delight", Ekman, 2001).

6.1. Method

6.1.1. Participants

We recruited 200 participants based in the United States through Amazon's Mechanical Turk and paid them $1.50 for participating. We recruited participants with the goal of averaging fifty participants per cell. To improve participant quality, we restricted recruitment to individuals who had completed more than 100 Human Intelligence Tasks (i.e., "HITs") and had received an approval rate of above 95% for these studies, a restriction previously determined to improve data quality (see Peer, Vosgerau, & Acquisti, 2014). Of the 200 participants, four participants did not provide their consent to participate, three participants did not finish the survey, twenty-two failed to complete demographic information, and six were excluded for repeat IP addresses, leaving 165 participants[6] (M_{age}=34.89, *SD*=11.88, 49.7% male) in the final sample. A post-hoc sensitivity analysis based on adequate power (0.80) and a traditional significance level (α=0.05) suggested this sample was large enough to detect a medium-large effect (f=.29).

6.1.2. Task and procedure

We used a 2 (Threat: Threat vs. Control) x 2 (Opportunity to Misrepresent One's Performance: Answers Shown vs. No Answers Shown) design (adapted from Chance et al., 2011). We randomly assigned participants to either a *Threat* (n=92) or a *Control* (n=95) condition, identical to the first round of Study 2. Participants then reported how competent they felt (1=Not At All, 5=Extremely), using a 5-item measure (Heatherton & Polivy, 1991) of performance self-esteem, which included such items as "I feel confident about my abilities" and "I feel frustrated or rattled about my performance [reversed]" (R1 PerfSE: α=0.88). Using a second multi-item measure of competence helps assure that our results are not specific to the

[6] Twenty-one participants did not provide their age and one did not provide their gender. The direction and significance of the results does not change if these participants are included.

particularities of any one scale. Next, all participants answered 20 moderately difficult trivia questions (also pretested in Moore & Healy, 2008), where participants were randomly assigned to either an *Answers Shown* or *No Answers Shown* condition. We instructed participants in the *Answers Shown* (n=95) condition to answer the questions using their own knowledge. However, we told them that if they wanted to keep track of how well they were doing, they could scroll to the bottom of the page to see the answers, but that they should only do this *after* providing the answer they had arrived at on their own. In the *No Answers Shown* (n=92) condition, participants answered the same trivia questions, without any answers shown. Participants then reported their performance self-esteem a second time (R2 PerfSE: α=0.85).

6.2. Results

6.2.1. Manipulation check

After the initial round, individuals in the threat condition reported significantly lower self-perceptions of competence than those in the control condition (M_{threat}=3.04, SD=1.02 vs. $M_{control}$=4.23, SD=0.62, $t(148)$[7]=9.48, p<.001, 95% CI=[-1.43, -0.94], d=1.39).

6.2.2. Evidence of misrepresented performance

This paradigm randomly assigns participants to a condition where cheating is possible (or not). To establish that individuals in the *Answers Shown* condition did use the visible answers to augment the number of correct answers they reported, we compared the average number of correct answers provided by individuals in the *Answers Shown* condition with the average number of correct answers provided by individuals in the *No Answers Shown* condition. Though we cannot know which participants in the *Answers Shown* condition misrepresented their performance, results did confirm that these participants provided significantly more correct

[7] Degrees of freedom were adjusted to account for a significant Levine's test. The results are significant even when this adjustment is not made.

answers on average, compared to those without the opportunity to see the answers in advance ($M_{\text{answers shown}}$=15.24, *SD*=4.29 vs. $M_{\text{no answers shown}}$=10.48, *SD*=3.31; $t(158)^{8}$=8.02, p<.001, 95% CI=[3.58, 5.93], d=1.25). Consistent with Chance et al. (2011), these results suggest that participants in the *Answers Shown* condition did look at the answers before reporting their own performance.

6.2.3. Main analyses

We conducted a 2 (Threat vs. Control) x 2 (Answers Shown vs. No Answers Shown) between-subjects ANOVA with the change in competence between Round 1 and Round 2 as the dependent variable. As in Studies 1 and 2, we again control for age, gender, and education, but note again that the directions and significance of the results does not change when excluding these controls. The results revealed a significant effect for threat, $F(1,158)$=83.45, p<.001, 95% CI=[0.92, 1.43], η_p^2=.346, but not for the opportunity to cheat, $F(1,158)$=1.45, p=.231, 95% CI=[-0.10, 0.41], η_p^2=.009. That is, having the opportunity to misrepresent one's performance by looking at the answers before responding did not significantly boost perceptions of competence across the board. However, these main effects were qualified by a significant interaction, $F(1,158)$=4.10, p=.045, η_p^2=.025. A planned contrast revealed no difference in changes to competence perceptions among participants who had not been threatened, regardless of whether or not they had been given the opportunity to misrepresent their performance, $F(1,158)$=0.34, p=.563, 95% CI=[-0.47, 0.25], η_p^2=.002. However, as hypothesized, for threatened participants, a planned contrast showed that feelings of competence increased significantly more for those who did have the opportunity to misrepresent their performance, compared to those without that

[8] Degrees of freedom were adjusted to account for a significant Levine's test. The results are significant even when this adjustment is not made.

opportunity, $F(1,158)=5.26$, $p=.023$, 95% CI=[0.06, 0.77], $\eta_p^2=.032$ (see Figure 3).

-------- Insert Figure 3 about here--------

6.3. Discussion

This study provides additional support for the proposition that cheating after threat can boost one's perceptions of competence. The design of this study has three main advantages. Most importantly, the study uses a paradigm that compares participants who had the opportunity to cheat with those who did not, which reduces self-selection concerns. While we cannot be certain who, in this paradigm, does, in fact, use the answers provided to augment their legitimate levels of performance, the fact that some individuals in the *Answers Shown* condition refrain from cheating should make it a more conservative test of our hypothesis. Second, the design minimizes the possibility that duping the experimenter is driving the counterfeit competence effect. Finally, we also note that the absence of a bonus does not affect our results.

7. Study 4: Inflating credentials on a job application boosts competence after threat

In Study 4, we generalize the findings from Studies 1-3 to a workplace context. Job applications serve as the first step to most organizational entry. Whether candidates report their credentials accurately or not when applying to jobs is critically important for organizations, as this ensures that the individuals who are hired are as competent as they claim. Yet surveys indicate it is common for individuals to inflate their credentials when applying for jobs. A recent analysis of 3000 CVs by a global consultancy found that 63% contained inaccurate information, 26% contained mistakes in academic credentials, and 35% contained discrepancies about applicants' employment histories (Risk Advisory Group, 2015). These misrepresentations can be substantial. For instance, in 2007, Marilee Jones, the Dean of Admissions at the Massachusetts Institute of Technology, resigned after admitting to doctoring her resume to include degrees from

three schools, two of which she never attended, and a third that she had only studied at part-time for a year (Lewin, 2007).

In Study 4, we use a job application task that permits individuals to report their educational credentials dishonestly. Thus, this design represents an externally valid operationalization of how individuals misrepresent their performance in workplace contexts (Lewin, 2007; Risk Advisory Group, 2015). It is also consistent with theory that defines "provid[ing] the organization with false information to obtain a job (i.e. regarding education or experience" as a key form of counterproductive work behavior (Gruys & Sackett, 2003, p. 34).

7.1. Method

7.1.1. Participants

One hundred and one participants in a UK based behavioral lab participated in the study in exchange for £10 and the possibility of a £1 bonus based on their performance. We recruited for a sample size of fifty participants per condition. We excluded thirteen participants who failed an attention check[9] and seven who failed a manipulation check asking them what the job application asked them to report, leaving a total sample of 81 participants (M_{age}=28.12, *SD*=10.43, 38.3% male). Post hoc sensitivity analyses based on adequate power (.80) and traditional levels of significance (α=0.05) indicated that this sample was large enough to detect a large effect size (f=.66).

[9] For the attention check, we asked participants to read a paragraph ostensibly about the aims of our research, which ended by asking participants to indicate their favorite sports team, color, and musician in three text boxes on the screen. However, in the middle of the paragraph, participants were instructed: *"Please disregard the questions below and instead put the first letter of your first name in the first box, the first digit of your birth year in the second box, and the last number of your home address or apartment number in the third box."* We coded participants who did not follow these instructions as failing the attention check.

7.1.2. Task and procedure

This study used a single 2-factor design, in which we threatened all participants, and then asked them to complete a job application in which it was possible to misrepresent their credentials. First, participants completed the difficult trivia questions from Studies 2 and 3, introduced as a test of their general intelligence, after which participants reported how capable they felt, using the single-item measure from Study 1. Next, we asked participants to complete a web-based job application. We informed them that the study was focused on how people highlight different information in online job applications (such as their education, experience, and skills). We provided them with a hypothetical CV (see Appendix A) and informed them that they were to apply for a job at RedHedge Consulting. We told them that their objective was to make it past the screening process of an online recruitment process by constructing an effective online application using the credentials available in "their CV". To simulate the high stakes of actual job applications, we told them that participants whose applications were evaluated as being in the top 25% would earn a £1 bonus. In reality, at the end of the experiment we awarded all participants the bonus.

In the educational section of the job application, we informed participants that the consulting company was interested in their educational credentials, but only education that had continued for over one year and which resulted in a degree (e.g. BA, PhD). We informed participants that they had a second-class honors BA in English from Oxford (Brookes) University (1994-1998). We also informed them that they had attended a two-week long executive education course at Harvard University in Economics in 2002. This, participants could misrepresent their educational credentials in three ways. First, they could report that they went to Oxford University, instead of Oxford Brookes. Oxford University is ranked 2nd in the Complete

Universities Guide (versus 54th for Oxford Brookes), and 5th on the QS World University Rankings (versus 379th). Second, similar to the example of Marilee Jones, they could report that they had attended Harvard University, despite being asked to include only education that had lasted for over a year and culminated in a degree. Finally, they could have reported that they achieved first class honors (e.g., summa cum laude) on their degree, despite only receiving second-class honors. We coded participants as having misrepresented their credentials if they augmented their educational qualifications in any of these ways. Following the job application, we again asked participants to report how capable they felt. We used the change in reported feelings of capability as our dependent variable.

7.2. Results

7.2.1. Evidence of misrepresented performance

Twenty-eight of the participants misrepresented their credentials in one of these three ways (35% of the sample), a proportion similar to what the Risk Advisory Group found in its field study of lying on CVs (2015).

7.2.2. Main analysis

Consistent with our previous studies, after experiencing a threat to their competence, participants who misrepresented their educational credentials in an online job application reported a larger boost to their feelings of capability between Rounds 1 and 2 compared to those who reported those credentials honestly ($M_{misrepresented}$=0.91, SD=1.70 vs. M_{honest} =0.12, SD=1.55; $F(1,76)=2.18$, p=.042, 95% CI=[0.03, 1.54], η_p^2=.053, see Figure 4), providing additional support for Hypothesis 1 in an employment context.

-------- Insert Figure 4 about here--------

7.3. Discussion

In Study 4, we generalize our findings to a real world context: the job application process. We find that threatened participants who misrepresent their credentials on a job application (a form of counterproductive work behavior) report a larger boost to their competence than those who report their credentials honestly.

8. Study 5: Lay predictions of counterfeit competence

Across four studies, we have shown that cheating after threat leads to higher levels of perceived competence, what we term a "counterfeit competence". We suggest this effect is driven by the need to self-protect after threat, and, like many within the psychological immune system, will not be anticipated (Gilbert et al., 1998). In Study 5, we explore whether individuals predict that cheating after threat would boost their self-perceptions of competence, to test Hypothesis 2.

8. 1. Method

8.1.1. Participants

We recruited 240 participants based in the United States though Amazon's Mechanical Turk and paid them $0.50 for participating in the study. A priori power analyses determined that we needed 211 participants for adequate power (0.80), a medium effect size (f=0.25), and α=0.05. We over-recruited to ensure we adequate sample size after accounting for incomplete data. Of the 239 participants who completed the HIT, we excluded eight who had repeated IP addresses based on an a priori decision, leaving 231 participants (M_{age}=36.97, SD=11.61, 64.5% male) in the final sample.

8.1.2. Design and procedure

Study 5 employed a 2 (Threat: Threat vs. Control) x 2 (Behavior: Misrepresented Performance vs. Honest) between-subjects factorial design. We told all participants to picture themselves as the protagonist in a scenario in which they complete two word games. We first randomly assigned participants to either a *Threat* or *Control* condition. Participants in the *Control* condition (n=118) read, *"In the first word game, you performed relatively well, answering quite a few questions correctly."* Participants in the *Threat* condition (n=113) read, *"In the first word game, you performed relatively poorly, answering only a couple questions correctly."* We then asked participants to indicate their agreement (1=Completely Disagree, 7=Completely Agree) with a series of measures assessing how they would feel (e.g., Happy, Sad, Angry, Calm), including how "Capable" they would feel, as in Studies 1 and 4. We included this item as part of a series of state measures to reduce demand effects.

We then randomly assigned participants to either a *Misrepresented Performance* or *Honest* condition. In the *Misrepresented Performance* condition (n=117), participants read, *"In the second word game, you broke the rules and looked up some of the answers on the internet, boosting your total score."* Participants in the *Honest* condition (n=114) read, *"In the second word game, you performed relatively well, correctly answering quite a few questions correctly."* Participants then responded to the same set of state measures again. We used the change in predicted feelings of capability as our dependent variable.

8.2. Results

8.2.1. Manipulation check

As expected, participants who pictured themselves doing poorly on a task reported they would feel significantly less competent (*M*=3.11, SD=1.66) than those who imagined performing well (*M*=6.08, SD=0.98; $t(180)$[10]=-16.51, p<.001, 95% CI=[-3.23, -2.62], d=2.18).

8.2.2. Main analyses

We conducted a 2 (Threat vs. Control) x 2 (Misrepresented Performance vs. Honest) ANOVA with the change in their feelings of competence from Round 1 to Round 2 as our dependent variable. Again, we control for age, gender, and education, but note that the direction and significance of these results does not change without these covariates. There was a main effect for threat, $F(1,224)=134.55$, p<.001, 95% CI=[0.93, 1.59], η_p^2=.375, as well as a main effect for misrepresenting one's behavior, $F(1,224)=124.83$, p<.001, 95% CI=[-1.72, -1.08], η_p^2=.358. The interaction was not significant, $F(1,224)=0.107$, p=.744, η_p^2<.001. Our primary interest, however, was in the specific contrast between individuals who imagined cheating vs. being honest. Among participants who imagined they had been had been threatened, those who also imagined cheating reported significantly lower boosts to their self-reported feelings of competence (*M*=-0.03, SD=2.07), compared to those who imagined behaving honestly (*M*=2.56, SD=1.94; $F(1,224)=57.28$, p<.001, 95% CI=[-3.18 -1.87], η_p^2=.204). Similarly, imagining having cheated was also associated with significantly smaller boosts in feelings of competence for participants who had not imagined being threatened (*M*=-2.79, SD=1.72), compared to

[10] Degrees of freedom were adjusted to account for a significant Levine's test. The results are significant even when this adjustment is not made.

unthreatened participants who imagined behaving honestly (M=-0.11, SD=1.23; F(1,224)=67.57, p<.001, 95% CI=[-3.32, -2.04], η_p^2=.232: see Figure 5).

8.3. Discussion

Consistent with the idea that individuals do not accurately forecast self-protective processes (Gilbert et al., 1998), we find that individuals do not predict that cheating will improve their self-rated perceptions of competence, compared to when they forecast behaving honestly. These findings support Hypothesis 2, suggesting that counterfeit competence is a self-protective strategy that arises after threat.

---------- Insert Figure 5 about here ----------

9. Study 6: Test derogation and cheating as fungible self-protective strategies

In Study 6, we test whether cheating after threat functions as a self-protective strategy more directly. To do so, we compare the boost that individuals receive by cheating after threat to the boost individuals receive through derogating the difficult intelligence test that initially threatens their competence (Mackinnon, Smith, & Carter-Rodgers, 2015). Derogation is a proven self-protection strategy that affirms one's relative superiority by "reinterpreting experiences or events in ways that reaffirm the self's integrity and value" (Fein & Spencer, 1997, p. 31-32). Thus, we explore whether these two self-protective strategies are fungible, boosting individuals' belief in their competence after experiencing an unexpected threat in similar ways.

9.1. Method

9.1.1. Participants

We recruited 240 participants based in the UK using Prolific Academic in exchange for £1.00. Five participants did not complete the study, leaving two hundred thirty-five participants in the final sample (M_{age}=37.47, SD=12.89, 32.5% male). An a priori power analysis using a

medium effect size (f=0.25), high power (1-β=0.90), and conventional alpha (α=0.05) suggested that a sample of 207 participants would be necessary to detect our effects. We over-recruited to assure that this number was met.

9.1.2. Design and procedure

Study 6 employed a 3 (No Answers Shown vs. Answers Shown vs. Test Derogation) between-subjects factorial design. We first threatened all participants by asking them to complete twelve of the same extremely difficult trivia questions used in our prior studies, introduced as an intelligence test. Following this initial task, we asked all participants to indicate how capable they felt (1=Not At All, 7=Extremely). We then randomly assigned participants to one of three conditions. In the *No Answers Shown* condition (n=79), and the *Answers Shown* condition (n=78), we replicated the procedure from Study 4, where participants in both conditions were presented with a series of timed trivia questions, but in the answers shown condition participants could scroll to the bottom of the page, where the answer was displayed, to "check" to see if their answer was correct. In the *Test Derogation* condition (n=78), we gave participants the opportunity to derogate the difficult trivia task they had just completed. First, we asked participants to indicate their agreement (1=Strongly Disagree, 7=Strongly Agree) with three statements evaluating the validity of the trivia task as a measure of intelligence (adapted from Mackinnon, Smith, & Carter-Rogers, 2015): "*This trivia task is a good predictor of my aptitude or ability*," "*The trivia task is a valid measure of intelligence*," and "*The trivia task provides an accurate assessment of my general knowledge*." We then asked participants to comment on the broader prompt, "*We would like to know whether you think the questions you answered are a good reflection of your broader intelligence*" and provided a text entry box to do so. Finally, we asked participants to indicate their agreement (1=Not At All, 7=To A Large Extent) with two

questions: "*Do you think the test needs to be changed?*" and "*Do you think the test is bad?*" After completing a short filler task, we asked participants to complete a 10-item measure of the Big-5 personality traits (Gosling, Rentfrow, & Swann, 2003: Extraversion, r=.620, p<.001; Agreeableness, r=.291, p<.001; Conscientiousness, r=.336, p<.001, Neuroticism, r=.498, p<.001; Openness, r=.303, p<.001), and a shortened measure of the Dark Triad (Machiavellianism, α=.72; Narcissism, α=.62; and Psychopathy, α=.77: Jones & Paulhus, 2013), to help us ensure that these personality differences are not driving these effects.

9.2. Results

9.2.1. Manipulation check

There was no significant difference in the competence of participants across conditions after completing the initial trivia task, $F(2, 233)=1.17$, p=.312, η_p^2=.010. However, participants who had the opportunity to cheat by checking their answers at the bottom of the page reported solving significantly more trivia questions (M=5.94, SD=3.52) than those who did not have the same opportunity to "check" their answers (M=3.64, SD=2.27, $t(131)=4.84$, p<.001, 95% CI=[1.36, 3.23]), indicating that those who were given the opportunity to see the answers in advance did artificially inflate their scores.

9.2.2. Main analyses

The change in competence measured after the difficult trivia task and competence measured after the randomly assigned second task (*No Answers Shown*, *Answers Shown*, *Test Derogation*) was our dependent variable. We conducted a one-way ANOVA, controlling for both demographic (age, gender, education) and personality (Dark Triad, Big 5) variables, but note, again, that the direction and results of these analyses do not change if these variables are excluded. The results indicated a significant effect of condition on the resulting boost to

competence, $F(2, 233)=3.60$, $p=.029$, $\eta_p^2=.032$. As expected, pairwise comparisons showed that the opportunity to cheat offered a larger boost to participants' competence ($M=0.74$, SD=1.53) than not being able to cheat ($M=0.15$, SD=1.32; $p=.008$, 95% CI=[0.15, 1.00]; see Figure 6). This boost was not significantly different to that experienced by those who were offered the opportunity to derogate the validity of the test ($M=0.41$, SD=1.01; $p=.154$, 95% CI=[-0.12, 0.74]). It should be noted that test derogation only offered a directional, but not significant boost above those who did not cheat on the initial task, $p=.213$, 95% CI=[-0.16, 0.69].

---------- Insert Figure 6 about here ----------

9.3. Discussion

In Study 6, we again replicate our main finding: individuals experience a significant boost to their perceptions of competence when they cheat after threat, which they do not if they report their scores honestly. Additionally, we find that this boost is not distinguishable from the boost experienced by those who use an established self-protective strategy: affirming their superiority by derogating the test that provided the initial threat (Fein & Spencer, 1997). These findings support Hypothesis 3 as well as our broad claim that counterfeit competence is a method of self-protection after threat.

10. General discussion

Following a threat to one's competence, individuals strive to self-protect and restore their self-evaluations to a tolerable level (Alicke & Sedikides, 2009). Across six studies, we show that individuals who misrepresent their performance after threat boost their self-perceptions of competence, even though they do not predict they would. We argue that this boost represents a creative self-deception about one's competence, a "counterfeit competence" motivated by the need to self-protect following threat (Hilgard, 1949; Taylor, Neter, & Wayment, 1995).

Consistent with the claim that counterfeit competence is driven by the need to self-protect, we show that the boost observed in cheaters is comparable to that experience by those who were offered the opportunity to engage in another self-protective strategy: derogating the test that threatened their competence at the outset.

This set of studies has a number of strengths. Our effect holds using multiple measures of perceived competence, both with and without financial incentives for cheating, and across several ways of misrepresenting one's performance, from using the answer key before responding to trivia questions (general knowledge), to breaking the rules of an anagram task (verbal ability), to misrepresenting one's credentials on a job application. It is interesting to note that our effect holds across a range of cheating base rates. About three quarters of participants (71%) broke the rules of the anagram task (Study 2), while only 35% of participants misrepresented their educational qualifications in the job application task (Study 4). Thus, while the likelihood of misrepresenting one's performance or qualifications after threat may vary depending on the nature of the task, we find that the boost to one's perceptions of competence after doing so remains constant. This consistency suggests that our ability to protect and boost one's self-image after threat, even if doing so requires self-deception about the source of the performance that leads to those boosted perceptions, is particularly robust.

10.1. Theoretical contributions

These studies make several theoretical contributions, predominantly to the literatures on the psychological consequences of unethical behavior, and the (arguably) adaptive ways through which individuals can deceive themselves in order to protect their self-concept after threat. First, our results show cheating as a novel mechanism to bolster impressions of the self after experiencing a threat. This represents a positive psychological consequence of unethical behavior

that has not been theorized or predicted before. Studies of the psychological consequences of unethical behavior are rare (Klass, 1978), and to date have focused mainly on negative consequences such as guilt and shame (e.g., DePalma, Madey, & Bornschein, 1995). Though researchers have begun to explore some unexpected positive psychological consequences of unethical behavior (e.g., Ruedy et al., 2013), this study is the first to show that cheating can be used as a mechanism to boost one's sense of competence after threat—a potentially short-term adaptive response to threat that supports our fundamental human need for positive self-evaluation. It is also the first study to demonstrate that positive psychological reactions to cheating can depend on prior psychological states. Although research has shown that psychological states affect *whether* individuals engage in unethical behavior (e.g., Kouchaki & Desai, 2015; Vincent, Emich, & Goncalo, 2013), here we show that an individual's prior psychological state can affect the psychological consequences of unethical behavior.

Second, research in behavioral ethics has tended to focus on how our self-concept restrains us from engaging in unethical behavior (Mazar et al., 2008). Here, we find that unethical behavior can be used to bolster the self-concept. While we agree that people generally shy away from actions that threaten their sense of themselves as moral individuals, they also seek to confirm their sense of competence. Prior work that has focused on how our moral self-image restrains us from acting unethically has not pit the need to see ourselves as moral against the need to see ourselves as anything else. Our results suggest that when the need to see ourselves as competent is salient, such as after it has been recently threatened, the motivation to understand our abilities accurately may ultimately take a back seat to our motivation to feel competent (cf. Sedikides & Strube, 1997).

Relatedly, these findings extend our understanding about the relationship between self-deception and unethical behavior (Moore, 2016). By misrepresenting our performance on a task to appear more competent, we not only deceive others about our true level of competence, but also ourselves. We find, as others have (Chance et al., 2011), that individuals are quick to believe that levels of performance not gained on the basis of their own merits are reflective of their actual ability. We find this likelihood peaks when there is a need to protect the self-concept and restore self-views to a tolerable level. Such findings help show how self-protective motives work with existing self-deceptive processes to shield the self from negative information and bolster positive self-perceptions.

10.2. Practical contributions

Our findings underscore the central role that competence plays in our identity and well-being (e.g. Deci & Ryan, 1985; White, 1959). If misrepresenting our performance offers a mechanism through which individuals reaffirm perceptions of their competence after threat, it is important to be aware of this from a practical perspective. For example, if cheating allows one to boost one's sense of competence following a threat, it may encourage individuals to ignore important information regarding true deficiencies in their ability. In the long run, if individuals rely on counterfeit competence without actually improving their abilities, they may neglect failure as a signal that they need to improve weak skills. This potential implication of our findings is worth examining in future research.

Understanding that reporting artificially inflated levels of performance following threat can ultimately boost feelings of competence sheds light on one potential motive behind unethical behavior in performance domains such as in the classroom (McCabe, Trevino, & Butterfield, 2001) or in organizations (Moore & Gino, 2013). In organizational domains, this may mean that

those who have failed and then cheated not only feel more competent but also have an inappropriate overconfidence about their abilities, an outcome that has many negative consequences (Moore & Healy, 2008). In addition, our results suggest that counterfeit competence might be more likely in organizations with internal practices that are known to be threatening (e.g. tournament promotion practices, sales competitions). Organizations that use these sorts of motivational techniques should be particularly vigilant about their potential consequences.

10.3. Limitations and future research

One issue that complicates research in behavioral ethics is that the decision to engage in unethical behavior is often self-selected. It is both logistically and conceptually challenging to randomly assign individuals to engage in unethical behavior. Logistically, it is hard to create a condition where all participants cheat, because some individuals will resist doing so. More importantly, if one somehow does require individuals to engage in unethical behavior (removing volition from the participant), conceptually, one has elicited obedience or compliance rather than unethical behavior. We dealt with this issue the way it has commonly been addressed in the literature: by comparing a condition where individuals have the opportunity to cheat to a condition where they do not (e.g., Chance et al., 2011; Gino, Ayal, & Ariely, 2009; Ploner & Regner, 2013). While this is not a perfect solution to the challenges of self-selection, our theoretical question revolves around the psychological consequences of misrepresenting one's performance after threat. As such, we focus on how the psychological consequences of cheating differ as a function of threat (comparing cheaters whom we threatened with cheaters whom we did not). This mitigates some concerns about who has self-selected into cheating. In addition, our results are unchanged after controlling for demographic characteristics and some measures of

personality that have been associated with cheating behavior. Still, future research should continue to disentangle the effects of electing to cheat from the effects of other methods of cheating (colluding with a third party, following a direction from someone else to cheat, misrepresenting one's performance by mistake).

In this same vein, there are potential individual differences that would be useful to explore in future research, but which are beyond the scope of this paper. Though we found no evidence that common demographic (age, gender, education) or personality (as measured using the Big 5 and Dark Triad) variables were significant explanatory factors in our results, there remain some interesting dispositional avenues to explore. Some individuals may be more threatened by failing at competence-based tasks, while others may care less about failing in competence domains. Thus, it would be useful to understand how our effects differ as a function of the domains that are most important to individuals' self-esteem (Crocker & Wolfe, 2001). In addition, understanding how the psychological response to misrepresenting one's performance might interact with one's identity, such as one's moral identity (Aquino & Reed, 2002), would be an interesting future contribution. The effectiveness of self-deceptive processes may also vary as a function of the individual (Sedikides et al., 2016). Some may be very adept at deceiving themselves, especially when their competence is on the line, while others may be less able to do so. These potential moderators provide many interesting avenues for future research.

One question our studies leave open is the degree to which individuals buy in to this counterfeit self. Research on strategic-self presentation (Kelly, 2000; Schlenker & Pontari, 2000; Schlenker & Leary, 1982) and cognitive dissonance (Festinger, 1962) suggests that individuals often adjust their attitudes to match their behaviors, internalizing their external self-presentations. It would be particularly helpful to understand if individuals find these illegitimate

self-presentations "impenetrable" and thus able to withstand the scrutiny of others, or if they experience their counterfeit competence as "transparent" and thus avoid situations with added scrutiny (cf., Schlenker & Wowra, 2004). This would help us better understand if counterfeit competence is transient and potentially adaptive, or more persistent and durable, the latter which may lead to a potentially dangerous dependence on this counterfeit competence (Taylor & Brown, 1994).

Finally, although we situate our findings within the literature on self-protection, these effects point to other closely related literatures. Indeed, as Alicke and Sedikides have noted (2009), it can be hard to completely disentangle outcomes motivated by self-protection from those motivated by self-enhancement. Our findings are closely related to findings documenting that individuals strive to achieve an overtly positive view of themselves (self-enhancement). However, the fact that counterfeit competence is observed exclusively following threat suggests that it is primarily driven by a need to restore one's competence perceptions to one's tolerance level (indicating self-protection), rather than raise them to an aspirational level (which would indicate self-enhancement). While we agree that it is common to pursue self-enhancing strategies when one's competence is involved, since competence is clearly a high-level interest to be championed by one's ego (Greenwald, 1980), the fact that we consistently find no boost to competence perceptions when individuals cheat after experiencing no threat suggests that our effects are not driven by the need to self-enhance. Rather, it is only after threat has destabilized individuals' beliefs in their competence that cheating helps to restore faith in their abilities, even if it means relying on illegitimately-boosted performance to do so. Nevertheless, this does not exclude the possibility that cheating might be self-enhancing in other contexts or when considering other interests beyond one's competence.

10.4. Conclusion

Dominant perspectives suggest that unethical behavior elicits negative perceptions of the self. Here, we show that those who misrepresent their performance after they have been threatened boost their feelings of competence. Our findings present an important but previously overlooked mechanism through which individuals may self-protect following threat. It turns out that individuals do not have to actually perform well to feel capable after experiencing a direct threat to their competence. The motive to self-protect may be so strong and the ability to self-deceive so efficient that individuals overlook negative moral and social consequences and use illegitimately gained performance to support a "counterfeit competence".

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Figures

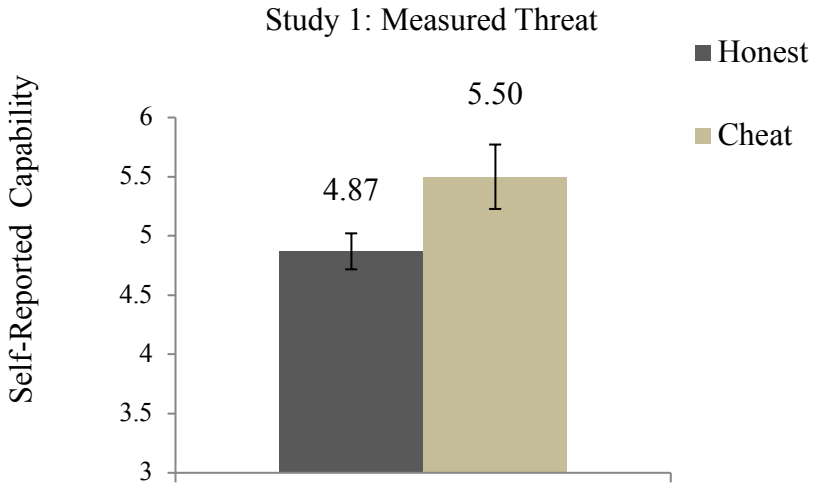


Figure 1. Cheaters report higher levels of competence than non-cheaters when controlling for threat experienced by first task (Study 1). Error bars represent +/-1 standard error of the mean.

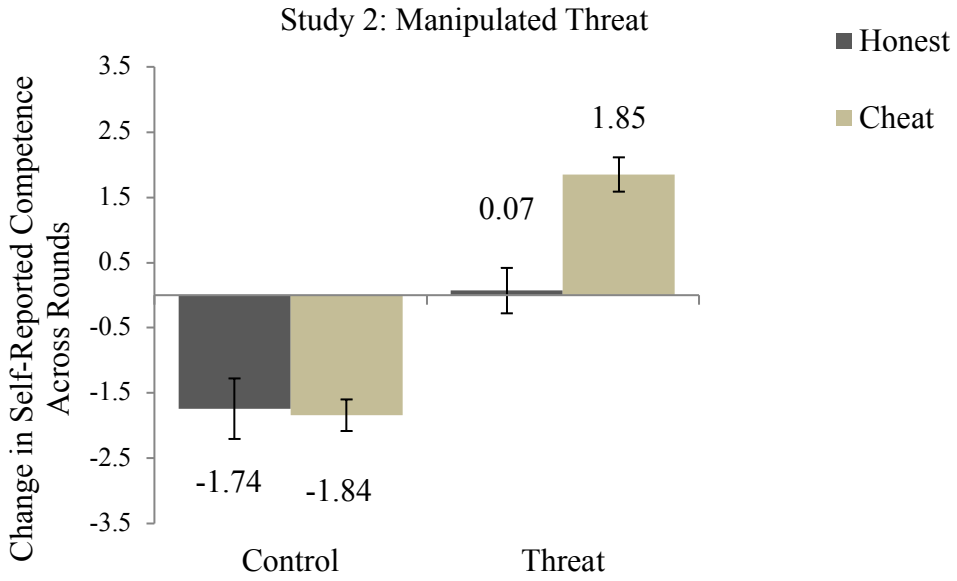


Figure 2. Threatened cheaters significantly boost self-reported feelings of competence between Round 1 and Round 2 (Study 2). Error bars represent +/-1 standard error of the mean.

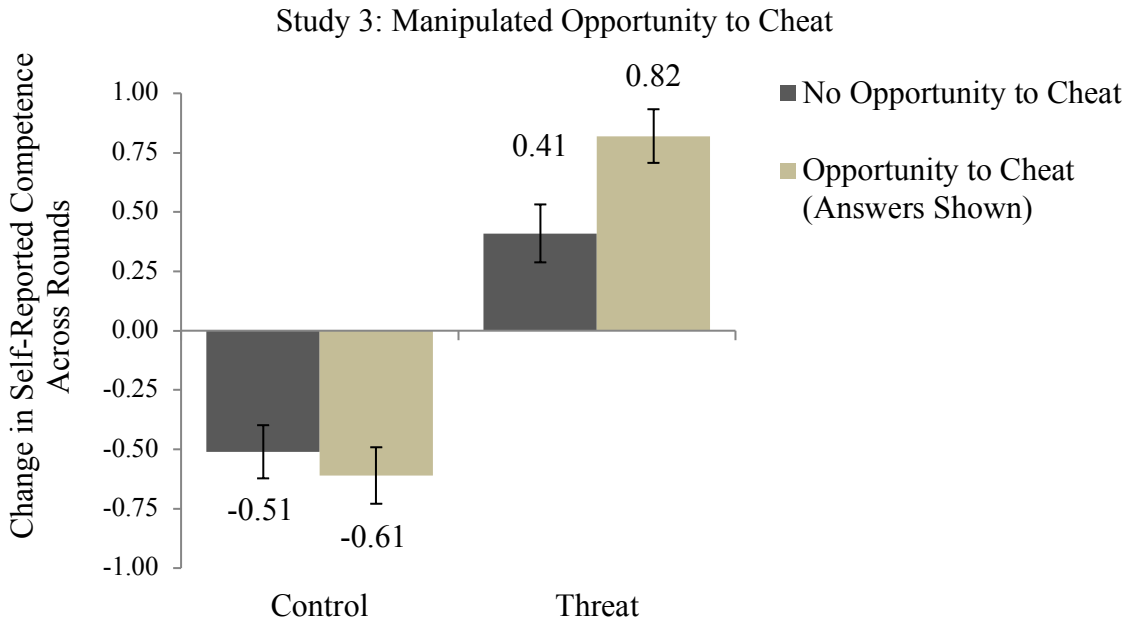


Figure 3. Threatened cheaters significantly boost self-reported feelings of competence between Round 1 and Round 2, even when the opportunity to cheat has been randomly assigned (Study 3). Error bars represent +/-1 standard error of the mean.

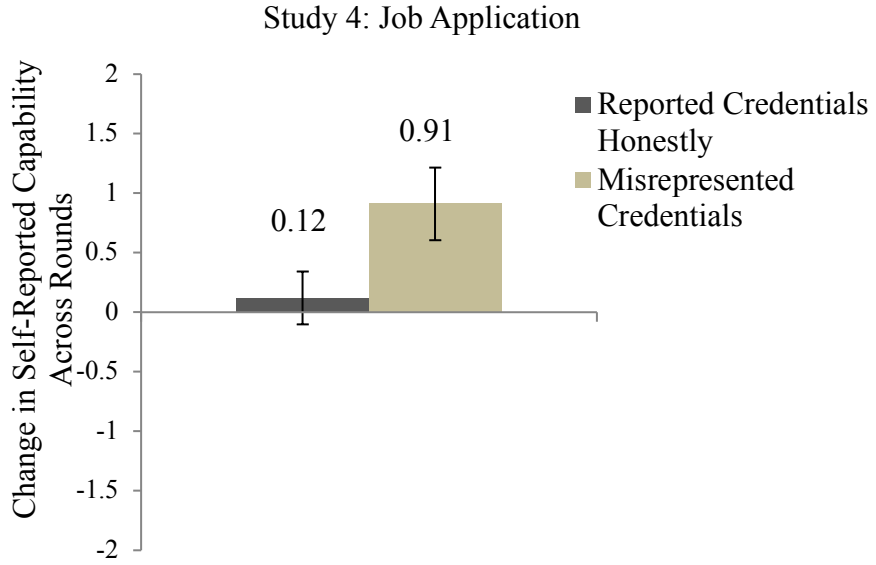


Figure 4. Following a competence threat, participants who misrepresented their credentials in a job application task reported a larger boost to their perceived competence than those who reported their credentials honestly (Study 4). Error bars represent +/-1 standard error of the mean.

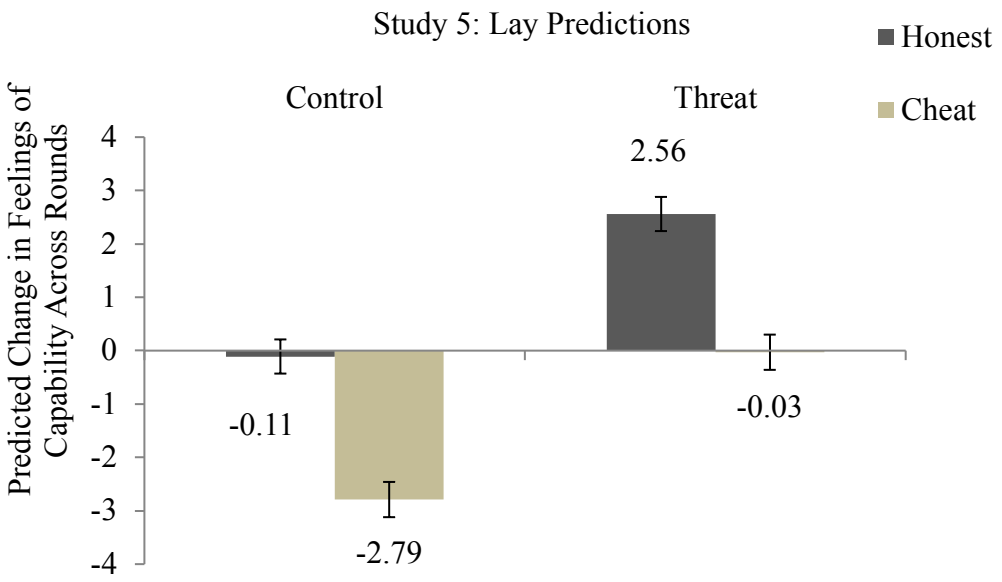


Figure 5. Participants predict that behaving honestly will have a more significant effect on improving feelings of competence whether individuals have been recently threatened or not (Study 5). Error bars represent +/- one standard error of the mean.

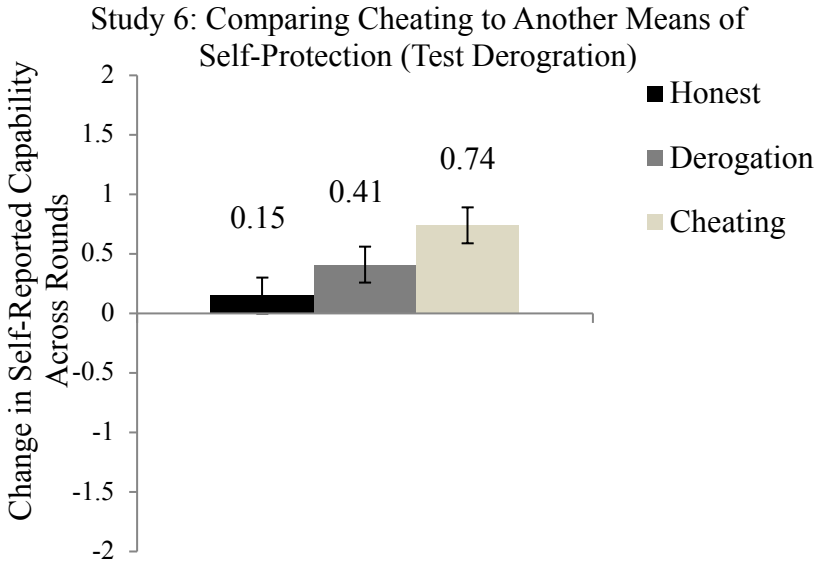


Figure 6. After threat, participants who cheat feel more competent than those who behave honestly. There is no statistically significant difference between those who cheat and those who self-affirm by derogating the validity of the intelligence test (Study 6). Error bars represent +/-1 standard error of the mean.

Appendix A: Online Job Application Materials

Hypothetical CV:

Education

You have a BA in English from Oxford Brookes University (1994-1998) and graduated with lower second class honours (2:2), though your thesis received high honours. This university is ranked 54th nationally on the Complete Universities Guide.

Recently you also attended a two-week long executive continuing education course at Harvard University in Economics (summer 2002).

Experience

You were an unpaid volunteer with the International Red Cross, part time, from June 1998 until April 2000.

For 9 months (May 2000-January 2001) you were a development associate for the UN Economic Development scheme in Sierra Leone, where you worked on well construction in West Africa.

For 6 years (January 2003-February 2009) you were a consultant at Furnacebrook Consulting in Edinburgh. Ultimately, you led a staff of 40 project engineers leading a project in Scotland.

For 6 months (March 2009-August 2009) you were a contractor for WhiteHat Consulting, which advised Chinese manufacturers on UK and European import requirements. It was not a happy experience and you were terminated.

You then returned to Furnacebrook Consulting to the same position you left (January 2010-current). Your career has been stalled since then.

Languages

Your native language is English, and you also speak very basic French and Spanish. You are starting a course in Chinese (Mandarin) next month.

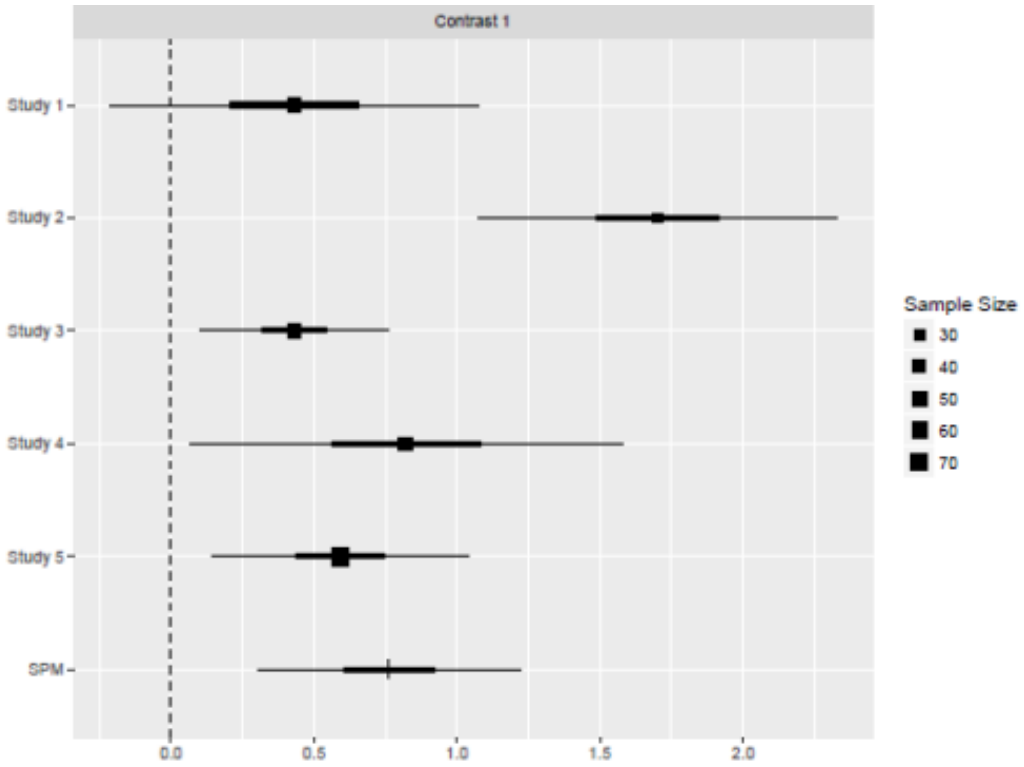
Interests

You are an avid runner, having recently completed a marathon. You also enjoy cooking, yoga, enjoy writing detective stories, and are an amateur botanist.

Skills

Microsoft office (Advanced), HTML (intermediate), JAVA and C++ (novice)

Appendix B: Single Paper Meta-Analysis (SPM)
Comparing Misrepresented vs. Honestly Reported Performance in the Threat Condition Only
Studies 1-4 and 6 (Labelled 1-5 here).



The meta-analysis returned an aggregated point estimate of 0.76, 95% CI [0.30, 1.22].