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The Power and Limits of Personal Change: When a Bad Past Does (and Does Not) Inspire in the Present

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Observing other people improve their lives can be a powerful source of inspiration. Eight experiments explore the power, limits, and reasons for this power of personal change to inspire. We find that people who have improved from undesirable pasts (e.g., people who used to abuse extreme drugs but no longer do) are more inspiring than people who maintain consistently desirable standings (e.g., people who have never used extreme drugs to begin with), because change is perceived as more effortful than stability (Experiments 1a and 1b). The inspirational power of personal change is rooted in people's lack of access to the internal struggles and hard work that many others may endure to successfully remain 'always-good.' Accordingly, giving observers access into the effort underlying others' success in maintaining consistently positive standings restores the inspiring power of being 'always-good' (Experiments 2–4). Finally, change is more inspiring than stability across many domains but one: people who used to harm *others* but have since reformed (e.g., ex-bullies or ex-cheaters) do not inspire, and in many cases are indeed less inspiring than people who have never harmed others to begin with (Experiments 5–7). Together, these studies reveal how, why, and when one's past influences one's present in the eyes of others: having some "bad" in your past can be surprisingly positive, at least partly because observers assume that becoming "good" is harder than being "good" all along.

Keywords: antisocial behavior, change, improvement, inspiration, self-other judgment

Inspiration is the process by which people transcend the here-and-now and experience strong motivation to pursue their goals (Thrash & Elliot, 2003, 2004; Thrash, Maruskin, Cassidy, Fryer, & Ryan, 2010). Alas, people cannot become inspired simply by deciding to do so. Rather, inspiration is typically evoked through sources outside of the individual (Batson, Schoenrade, & Ventis, 1993; McCutchan, 1999; Rothenberg & Hausman, 1976), suggesting that understanding inspiration requires an understanding of its sources. Perhaps the most common and powerful source of inspiration comes from everyday observations of other people (Haidt, 2003; Lockwood & Kunda, 1997; Pleiss & Feldhusen, 1995; Taylor & Lobel, 1989; Tjas, Nelsen, & Taylor, 1997). The present research seeks to better understand this kind of social inspiration—what is it about other people's experiences that inspires us?

The current paper explores how people react when observing others who make life-changing transitions that go beyond everyday behavior. We test the hypothesis that people find inspiration in observing others who accomplish meaningful positive change in their lives by shedding destructive behaviors—*even more so* than in observing others who maintain consistently positive lives without any negative past from which to change. In other words, a person who changes from bad-to-good may, ironically, be regarded more positively than a person who only and always has set a good example. Across 8 experiments, we document this boosting effect of change in a variety of life domains; we find evidence for mechanisms and boundaries; and we test how people who remain good over time can restore their inspiring power in line with the once-bad person who changes into that same good state.

Positive Associations With Change and Improvement

Why might people perceive others more favorably and feel more inspired by others who have changed from a negative past, as compared to others who have remained consistently positive over the same period? Indeed, from a normative perspective, a person who consistently avoids bad behavior should be perceived more positively than a person who engages in the bad only to avoid it later, given that the former person's life comprises a greater number of positive units overall (Anderson, 1981). Moreover, well-established negativity biases suggest that any one unit of "bad" should dominate and spoil an otherwise good entity (i.e., the latter person: Rozin & Royzman, 2001). However, a handful of studies suggest that people's global judgments may not always reflect these assumptions in reality. In one study, participants gave a potential romantic partner more "credit" for currently being in good shape if the partner had been described as overweight at an earlier time point than if the partner had been described as previously in good shape (Rodin & Price, 1995). In another study, participants did *not* derogate a person who first engaged in a bad behavior but then proclaimed the value of good behavior (as opposed to first proclaiming the value of good behavior and then engaging in bad behavior), because in this order they saw the person as trying to change rather than as a hypocrite (Barden, Rucker, & Petty, 2005; see also Monin & Merritt, 2012). In still

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another study, participants evaluated a person described as having the potential for future greatness more positively than a person described as already being great but with an unknown future (Tormala, Jia, & Norton, 2012). And more generally, people prefer improving sequences of stimuli (e.g., getting good news *after* bad news) more than they prefer flat or decreasing sequences, even if the sequences end at the same absolute point (e.g., the actual good news is otherwise identical: Hsee & Abelson, 1991; Loewenstein & Prelec, 1993)—a classic finding commonly understood in terms of basic research on contrast effects, such that a good entity seems even better when it can be referenced against a negative standard of comparison rather than against another equally positive standard or evaluated in isolation (Biernat, 2012; Bless & Schwarz, 2010; Tversky & Griffin, 1991).

Collectively, these findings raise the non-normative possibility that having some "bad" in one's life—but then improving upon it—may be an especially powerful (and positive) force in social judgment, even compared to successfully avoiding the "bad" altogether.

This possibility is more generally supported by people's pervasive admiration for self-improvement, echoed throughout many areas of life. In philosophy, Kant maintained that "it is a duty of man to cultivate his natural powers" (Kant, 1785/2012). In religion, the Bible encourages lifelong improvement in moral domains (Ephesians 4:22–24; Romans 12:2) and various Buddhist texts encourage perpetual improvement in pursuing enlightenment (e.g., Buddhaghosa, 1979). Popular notions of "pulling oneself up by the bootstraps" and the "Protestant work ethic" reflect cultural values of personal growth and development, particularly in the United States (Furnham, 1984). To date, self-improvement represents a $10 billion per year industry in the United States alone, ranging from book sales to blog revenues to participation in seminars, speaking engagements, and life coaching (Karlgaard, 2011; Marketdata Enterprises, 2013). As one reporter for the *New York Times* concluded, "Self-improvement . . . the notion that we can constantly make ourselves better . . . is a deeply embedded American trait" (Tugend, 2011).

In psychology too, several lines of research highlight the prominent role of self-improvement in everyday thought. First, Dweck and colleagues (e.g., Blackwell, Trzesniewski, & Dweck, 2007; Dweck, Chiu, & Hong, 1995; Dweck & Leggett, 1988) have documented differences in people's beliefs about whether they *can* improve in a domain ("incremental" theorists) versus whether they view their abilities and capacities as fixed ("entity" theorists). In most of these studies, participants by default report very high agreement with incremental thinking (Dweck, 2008), suggesting a general focus on and desire for self-improvement. Related research on identity over time finds that people indeed are highly motivated to see themselves as improvable and improving (Klein, 2015; O'Brien & Kardas, 2016; Wilson & Ross, 2001). Second, McAdams and colleagues (e.g., Dunlop & Tracy, 2013; Maruna, 2001; McAdams, 2013; McAdams & McLean, 2013; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001) go further and document the nature and function of "redemptive" themes in autobiographical narratives. McAdams (2013) details how people craft personal life stories as a means to make sense of their experiences over time, trying to define the formative characters and events that have contributed to who they are today. One of the most ubiquitous themes found in these narratives is that of redemption: people across all walks of life tend to construe past setbacks and hurdles that they successfully overcame as central and even *necessary* to bringing about the good things in their lives (see also McAdams, 2001).

These ideas suggest that one's own change from the past may have a special impact on how one is seen by others in the present: perceivers may look quite favorably on a change from bad-to-good given this pervasive and positive emphasis on change in daily life.

The Costs of Stability? An Asymmetry in Perceived Effort

Although change from bad-to-good may be highly venerated, this does not fully explain our hypothesis that *always being good* might look worse by comparison. Indeed, one can imagine that people who remain steadfast in their health, wealth, and kindness should be prime suspects for eliciting inspiration (e.g., representing an ideal role model, deserving of the highest praise, and so on). What might the person who happens to stay good over time be missing that a bad-to-good person conveys to others through their act of change?

We propose that our hypothesized effect is more specifically rooted in people's lack of access to others' mental processes. People are able to directly observe others' behaviors but they cannot directly observe others' feelings, motivations, and internal psychological states (Epley & Dunning, 2000; Gilbert & Malone, 1995; Klein & Epley, 2016; Koehler & Poon, 2006; O'Brien, 2015; Pronin & Kugler, 2007). Hence, people can more easily and readily infer others' internal states from the observable behaviors they commit rather than avoid. The act of improving upon a bad behavior is an observable, active behavior that conveys a host of particular mental capacities about the actor: that the actor likely set the goal to change and live well, had to exert a lot of willpower and endure much pain and struggle to successfully pull it off, and so forth. We refer to such capacities as a general inference about *effort*: perceiving that a person has opted in and wants to attain some outcome, and their subsequent hard work to make it happen. For example, learning of a person who used to have a drug problem but no longer does immediately conveys a sense of the great effort s/he likely had to exert in changing into their current positive state. In contrast, the act of avoiding a bad behavior is hard to observe and may seem more like a passive 'nonbehavior.' It is much less obvious from an observer's perspective whether the actor is intentionally trying to stay the same, if they feel strong urges and temptations along the way, and so forth; without any cues to suggest otherwise, it is compelling to assume that a person who has never abused drugs is simply not very tempted and has an easy time avoiding them—that their current positive state is just "who they are" rather than something that they actively intend and fight to maintain (i.e., something they are putting effort into).

In turn, perceived effort generally amplifies judgments, from increasing the evaluated quality of otherwise identical artwork (Kruger, Wirtz, Van Boven, & Altermatt, 2004) to increasing the felt pain of an otherwise identical electric shock (Gray & Wegner, 2008; see Greene, 2014; Smith & Ellsworth, 1985; Weiner, 1985). It follows that people may judge others in a similar way, such that the same achievement is evaluated more positively when others exerted high effort to attain it. Indeed, the cultural emphasis placed on self-improvement as reviewed earlier ("pulling oneself up by

the bootstraps") presumably means something more than valuing change per se or simply a basic contrast effect, but instead might also take into account the underlying reasons for how that change was brought about—the "blood, sweat, and tears" that a person had to expend in making it happen (Furnham, 1984).

Inferences about effort may be closely tied to a person's power to inspire. By definition, an inspiring person is one whose own experiences motivate others to achieve their own goals, and so inspiration itself reflects some basic sense of shared experience with the actor ("If she can do it, I can do it, too": Thrash et al., 2010). We suspect that the average observer connects to others who need to exert high effort more than to others who succeed naturally and effortlessly, because most people likely need to exert high effort themselves to succeed. Experience-sampling studies consistently find that goal setting, fighting temptations and desires, and stumbling along the way are extremely common in everyday goal pursuit (Hofmann, Vohs, & Baumeister, 2012), and studies on skill acquisition consistently find that the strongest predictor of success is dedicated work and effort, over and above a person's natural talents and abilities (Ericsson, Krampe, & Tesch-Römer, 1993). These findings are echoed in how people explicitly evaluate "perfect" others who appear to lead a good life without much thought or struggle: they are perceived as robotic and disconnected from human experience (Haslam, 2006); as threatening rather than relatable (Alicke, 2000); as resting on unfair advantages (Weiner, 1985); and they are assumed to be judgmental "do-gooders" (Minson & Monin, 2012).

To sum: inspiration reflects some sense of connection and shared experience with a successful actor ("If she can do it, I can do it, too"), and most people likely connect with others who need to work hard and exert great effort in bringing about their positive state. In turn, change and stability may elicit asymmetric inferences about such efforts. Because changing for the better (vs. staying in the same good state) more obviously conveys a person's active motivation and fight to live well, people generally may be more inspired by others who end up changing from bad-to-good than by others who, ironically, are able to maintain a consistently good life without any bad past to improve in the first place. To the extent that staying the same *does* require great effort (e.g., a person who has always been in shape might constantly monitor eating and exercise), these inspiring efforts might fall hidden behind the scenes relative to a person who very noticeably changes that way.

The Current Research

The current paper has 3 goals. Our first goal was to document the basic effect by testing whether people indeed perceive others more favorably and feel more inspired by others who have changed from a negative past, as compared with others who have remained consistently positive. We tested this idea across a wide variety of domains and parameters (Experiments 1a and 1b). Our second goal was to examine whether this basic effect is indeed driven by asymmetric perceptions of effort: that change by default is assumed to be more effortful than stability. We tested this idea by including measures of effort in our initial studies and conducting mediation analyses (Experiments 1a and 1b); manipulating different dimensions of effort (Experiment 2); and manipulating access to internal states as an intervention for restoring the inspiring power of being "always good" (Experiments 3 and 4).

Finally, our third goal was to explore possible boundaries of the basic effect. Surely not *all* change will inspire. Although people may generally be inspired by personal change, this ought to depend on the nature of the behavior that is improved upon. One important distinction we explore is between past negative behaviors that harmed only the self versus past negative behaviors that also harmed others. Research suggests that people might be more accepting of the former than the latter; a bad past that involves a negative treatment of others might "stick" with a person even after he or she has changed from it, thereby undermining their present status. Indeed, people are highly sensitive to social harms, leading social harms to evoke particularly strong impressions that may be hard to undo or explain away. One study finds that people's negative response after witnessing someone insult another person is longer lasting than people's negative response after being insulted themselves (Gilbert, Lieberman, Morewedge, & Wilson, 2004). Another study finds that people pay more money to reduce another person's pain from an electric shock than they pay to reduce their own pain (Crockett, Kurth-Nelson, Siegel, Dayan, & Dolan, 2014). Still other studies highlight the strong empathy that people feel for others who experience pain (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Singer et al., 2004).

These findings suggest that people may clearly distinguish self-destructive behaviors—those that harm only the self—from anti-social behaviors that also harm others. Harming others is seen as extreme, non-normative behavior that may elicit strongly dispositional inferences about the perpetrator's moral character (Fiske, 1980; Klein & O'Brien, 2016); someone who had a past drug problem may nonetheless seem like a good, redeemable person who simply got stuck in bad circumstances, whereas someone who used to bully and cheat others might seem like a fundamentally bad person who violated basic social norms of decency and therefore cannot be redeemed. In short, behaviors that harm others may be frowned upon to such a degree that engaging in them creates a dark mark that cannot be expunged simply by ceasing them; self-improvement may *not* elicit positive evaluations from others when a person changes from a socially destructive past. We explored this important possible boundary in a final set of studies (Experiments 5–7).

Experiments 1a and 1b: Bad-to-Good Versus Always-Good

Experiments 1a and 1b examined the power of personal change. We compared evaluations of actors who had improved upon a bad past versus actors who had a consistently positive past and present. We examined specific *behavioral habits* that a person did or did not exhibit in the past (Experiment 1a: drug use, excessive drinking, or excessive gambling) as well as more general *life circumstances* (Experiment 1b: being obese, being mentally unstable, or being bankrupt) that a person did or did not experience in the past. We did not have a priori hypotheses about whether these different behaviors and circumstances will interact with the effect of improvement versus stability. Rather, we sought to test whether the hypothesized effect (i.e., that change will be more inspiring than stability) is robust across discrete behaviors as well as more general circumstances.

Because we did not know the effect size potentially associated with our hypotheses, we aimed for a sample size of about 50

participants per cell in this and all experiments. We report all measures and manipulations, except for basic attention checks at the very end of the experiments (in total, 87.8% of participants passed these checks; results are unchanged when eliminating them from analyses, so all have been retained in order to maximize power). Except where noted, no participant was excluded for any other reason.

Method

Experiment 1a. Participants ($N = 301$; 42.5% women; $M_{age} = 31.84$, $SD_{age} = 10.06$) were recruited on Amazon.com's M-Turk and participated for nominal payment. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 3 (Domain: Drugs vs. Drinking vs. Gambling) between-subjects design. Participants learned that they would be reading a few facts about a man named "Karl" and providing their opinion about him. The Domain conditions determined the behavior that participants read about: either drug abuse, excessive drinking, or excessive gambling.

In the Bad-to-Good conditions, participants read that Karl had engaged in one of these undesirable behaviors in the past, but has now really changed as a person and stopped engaging in them. Specifically, participants read that Karl "was involved with extreme [drugs/drinking/gambling] in the past," but "now isn't involved in such things and doesn't think about them much." In contrast, in the Always-Good conditions, participants read that Karl has never engaged in the behavior, and has not changed as a person and remains uninvolved with them. Specifically, participants read that Karl "wasn't involved with extreme [drugs/drinking/gambling] in the past," and now "still isn't involved with such things and doesn't think about them much."

Dependent measure (Reactions to Karl). After reading, participants rated their reactions to Karl on 8 dimensions (how *inspiring*, *praiseworthy*, *moral*, *respectable*, *likable*, *admirable*, *positive*, and *much of a role model*), on scales ranging from 1 (*not very much*) to 9 (*extremely*). These dimensions were collapsed into a general "Inspiration Index" of perceptions of Karl ($\alpha = .95$), representing a test of our basic effect.

Mediator (Perceptions of Karl's effort). In a separate block presented in counterbalanced order, participants also rated Karl's effort underlying his currently positive conditions, again along 8 dimensions (how *effortful*, *intentional*, *much of a struggle to maintain*, *purposeful*, *actively willed by him*, *how much it is occurring because he wants it to happen*, *how much it is occurring because he's trying to make it happen*, and *how much it is a sign of his willpower*) on scales ranging from 1 (*not very much*) to 9 (*extremely*). These dimensions were collapsed into a general "Effort Index" regarding the effort underlying Karl's conditions ($\alpha = .94$), representing our proposed driver of the basic effect.

Experiment 1b. Experiment 1b followed the same procedure but used broader states as stimuli rather than specific behaviors. Participants ($N = 306$; 32.4% women; $M_{age} = 32.09$, $SD_{age} = 11.50$) from the same population were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 3 (Domain: Physical Health vs. Mental Health vs. Financial Status) between-subjects design. Participants evaluated "Rick" in terms of his past experiences with obesity, mental instability, and financial bankruptcy. Like Experiment 1a, Rick was described as either having improved upon these experiences or having always avoided them, yet each version of Rick was currently in the same objective state (e.g., "in good physical shape"). We assessed the basic effect with the same Inspiration Index ($\alpha = .95$), and meditation using the same Effort Index ($\alpha = .94$).

Results and Discussion

Experiment 1a. An ANOVA testing the effects of Change and Domain on our Inspiration Index revealed an incidental main effect of Domain, $F(2, 295) = 3.52$, $p = .031$, $\eta_p^2 = .02$, and more importantly, the critical main effect of Change: overall, targets who improved upon a bad past behavior were more inspiring ($M = 6.79$, $SD = 1.56$) than targets who consistently maintained good behavior both in the past and the present ($M = 5.70$, $SD = 1.83$), $F(1, 295) = 30.50$, $p < .001$, $\eta_p^2 = .09$. This shows the basic effect for inspiration. Further, there was *no* interaction, $F(2, 295) = .09$, $p = .914$, $\eta_p^2 = .00$ (see Table 1). Pairwise comparisons reveal that change was more inspiring than stability for each domain: as hypothesized, participants were more inspired by others who used to have problems with drug use, $F(1, 295) = 11.85$, $p = .001$, $\eta_p^2 = .04$, drinking, $F(1, 295) = 10.42$, $p = .001$, $\eta_p^2 = .03$, and gambling, $F(1, 295) = 8.36$, $p = .004$, $\eta_p^2 = .03$, than by others

Table 1
Experiments 1a and 1b: Inspiration and Perceived Effort as a Function of Improving on a Bad Behavior and Successfully Avoiding a Bad Behavior

	Inspiration		Perceived effort	
Domain	Changing from bad-to-good	Remaining always-good	Changing from bad-to-good	Remaining always-good
Exp. 1a (Behaviors)				
Extreme drugs	$7.10\ (1.34)_a$	$5.93\ (1.79)_b$	$7.34\ (1.07)_a$	$4.92\ (1.93)_b$
Excessive gambling	$6.39\ (1.52)_a$	$5.42\ (1.97)_b$	$6.98\ (1.46)_a$	$4.41\ (2.06)_b$
Excessive drinking	$6.88\ (1.76)_a$	$5.78\ (1.69)_b$	$7.10\ (1.65)_a$	$4.72\ (1.79)_b$
Exp. 1b (States)				
Mental instability	$6.56\ (1.61)_a$	$5.11\ (1.68)_b$	$6.64\ (1.47)_a$	$4.37\ (2.11)_b$
Obesity	$7.27\ (1.20)_a$	$4.86\ (1.62)_b$	$7.15\ (1.24)_a$	$4.84\ (1.73)_b$
Financial difficulties	$6.64\ (1.39)_a$	$6.08\ (1.56)_{a,c}$	$7.06\ (1.15)_a$	$5.54\ (1.50)_{b,c}$

Note. Means that do not share the same subscript within each Experiment and within each dependent variable differ at $p < .05$.

who consistently avoided these vices and thus never had to improve to begin with.

To test the mechanism, we first conducted an ANOVA testing the effects of Change and Domain on our Effort Index. As we found for inspiration, there was no main effect Domain, $F(2, 295) = 1.65$, $p = .193$, $\eta_p^2 = .01$, and there was the critical main effect of Change: overall, participants believed that improving from a bad past behavior required more effort ($M = 7.14$, $SD = 1.41$) than consistently maintaining good behavior both in the past and the present ($M = 4.68$, $SD = 1.93$), $F(1, 295) = 157.59$, $p < .001$, $\eta_p^2 = .35$. This shows the basic effect for perceived effort. And again, there was no interaction, $F(2, 295) = .08$, $p = .923$, $\eta_p^2 = .00$ (see Table 1). Pairwise comparisons reveal that participants assumed change was more effortful than stability across all domains: for drug use, $F(1, 295) = 50.51$, $p < .001$, $\eta_p^2 = .15$, drinking, $F(1, 295) = 49.22$, $p < .001$, $\eta_p^2 = .14$, and gambling, $F(1, 295) = 58.15$, $p < .001$, $\eta_p^2 = .17$. We next conducted a mediation analysis using Change as the independent variable, Domain as a covariate, Inspiration as the dependent variable, and Effort as the mediator (Hayes, 2012; SPSS PROCESS Model 4; 5,000 iterations). The indirect effect of Change on Inspiration, via Effort, was indeed significant (indirect effect = 1.10, $SE = .16$; 95% *CI* [.81, 1.42]), and the conditional direct effect of Change on Inspiration was statistically reduced when controlling for Effort (conditional direct effect = −.01, $SE = .22$; 95% *CI* [−.44, .42]. Thus, a person who improves from bad-to-good is perceived more positively and is more inspiring than a person who has always remained good because people infer that change is more effortful than stability.

Experiment 1b. All results replicated. An ANOVA testing the effects of Change and Domain on our Inspiration Index revealed an incidental main effect of Domain, $F(2, 300) = 3.08$, $p = .048$, $\eta_p^2 = .02$, and the same basic main effect of Change: overall, targets who improved upon a bad past state were again perceived as more inspiring ($M = 6.81$, $SD = 1.44$) than targets who consistently maintained a good state both in the past and the present ($M = 5.34$, $SD = 1.69$), $F(1, 300) = 71.45$, $p < .001$, $\eta_p^2 = .19$. We also observed an interaction, $F(2, 300) = 9.28$, $p < .001$, $\eta_p^2 = .06$, but this was incidental and the basic effect across Change clearly replicated (see Table 1). Pairwise comparisons show that improving was more inspiring than staying consistently positive across all states: for obesity, $F(1, 300) = 62.18$, $p < .001$, $\eta_p^2 = .17$; mental instability, $F(1, 300) = 24.28$, $p < .001$, $\eta_p^2 = .08$; and financial bankruptcy (marginally significant), $F(1, 300) = 3.30$, $p = .070$, $\eta_p^2 = .01$. The same basic effect emerged: targets who used to be overweight, mentally unstable, and bankrupt were perceived more positively than targets who have consistently stayed healthy, stable, and solvent.

To test the mechanism, we first conducted an ANOVA testing the effects of Change and Domain on Effort. There was an incidental main effect Domain, $F(2, 300) = 6.84$, $p = .001$, $\eta_p^2 = .04$, and the same critical main effect of Change: overall, participants again believed that improving from a bad past state required more effort ($M = 6.94$, $SD = 1.31$) than consistently maintaining a good state both in the past and the present ($M = 4.90$, $SD = 1.85$), $F(1, 300) = 128.80$, $p < .001$, $\eta_p^2 = .30$. Again, there was no interaction, $F(2, 300) = 2.00$, $p = .137$, $\eta_p^2 = .01$ (see Table 1). Pairwise comparisons reveal that participants assumed change was more effortful than stability across all states: obesity, $F(1, 300) = 53.69$, $p < .001$, $\eta_p^2 = .15$; mental instability, $F(1, 300) = 56.14$, $p < .001$, $\eta_p^2 = .16$; and financial bankruptcy, $F(1, 300) = 23.69$, $p < .001$, $\eta_p^2 = .07$. When conducting the same mediation analyses from Experiment 1a, the indirect effect of Change on Inspiration, via Effort, was again significant (indirect effect = 1.17, $SE = .16$; 95% *CI* [.89, 1.50]), and the conditional direct effect of Change on Inspiration was again statistically reduced when controlling for Effort (conditional direct effect = .29, $SE = .18$; 95% *CI* [−.05, .63].

Experiments 1a-1b reveal the power of personal improvement to inspire. Across a variety of behaviors and psychological states, participants were more inspired by a person who improved upon a bad behavior than a person who always maintained good standing. This effect at least partly reflects an asymmetric perception of effort: change seems more effortful than stability, which boosts inspiration. Despite being in the same good state in the present, people who got there by improving elicited more positive evaluations than people who got there by always being good.

Experiment 2: Manipulating the Work It Takes to Be "Good"

Experiments 1a and 1b find that changed others are more inspiring than stable others because observers assume that the former have exerted more effort to maintain their present good state. This suggests that directly manipulating the dimension of effort should influence a person's power to inspire in kind: a person who changes from bad-to-good but does so easily should no longer inspire, just as a person who remains always-good but does so effortfully should indeed inspire. Experiment 2 tested this possibility.

We have generally defined effort as perceiving that a person has opted in and wanted to attain some outcome (e.g., in scale items like "how intentional" and "how purposeful"), plus the person's subsequent hard work to make it happen (e.g., in scale items like "struggle to maintain" and "sign of willpower"). Intentionality and hard work are very highly correlated in our effort scale throughout all experiments and presumably go hand-in-hand in most instantiations of effort in daily life. However, we presume that most everyday differences in effort reflect differences in *hard work* rather than intentionality (e.g., it strikes us as quite rare for a person to begin to lose weight or kick a bad habit "by accident," whereas people may indeed vary in having an easier or harder time doing so once in motion). Therefore, in Experiment 2 we manipulate effort in terms of hard work while holding intentionality constant: all targets are described as actively deciding and making it a goal to either change or stay the same, but we manipulate whether the target ends up having to exert a little or a lot of work in the process of making it happen.

Method

Participants ($N = 400$; 38.8% women; $M_{age} = 36.02$, $SD_{age} = 12.02$) were recruited on Amazon.com's M-Turk and participated for nominal payment. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 4 (Information about Effort: None vs. Hard Work vs. Easy-Shortcut vs. Easy-Natural) between-subjects design. Participants learned that they would be reading a few facts about a man named "Nick" and providing their opinion about him.

All participants read either that Nick had been overweight last year, but that these days he is in normal physical shape (Bad-to-Good); or that Nick has never been overweight and has remained in normal physical shape over the same period of time (Always-Good). Participants then received 1 of 4 kinds of additional information depending on condition.

For control participants, no other specific information about Nick or his experiences was provided. Here we expected to replicate the basic effect, in that participants by default (with no additional information) will be more inspired by change than stability.

Participants in the other 3 conditions began by reading the same exact text as control participants. Then, all of these participants read that Nick's change (or stability) was highly intentional: that Nick actively decided at the start of the year to try to get (or stay) in normal physical shape, and that he put this goal at the very top of his list for the year. These additional details about Nick's intentionality were identical across conditions. Then, all of these participants were given additional information about how things actually played out for Nick as the year unfolded.

"Hard Work" participants read that Nick ended up having to exert a lot of hard work to make this happen (e.g., he had to stay strong and fight off many temptations; exert 'blood, sweat, and tears'; and so on). "Easy-Shortcut" participants read that Nick ended up being prescribed a safe pill that did all of this work for him, such that he was able to either lose weight or stay in the same weight without having to expend much struggle or hard work to make it happen ("He didn't even notice it"). Finally, "Easy-Natural" participants read that Nick ended up finding the experience very easy and that losing or maintaining the weight "just happened" for him, without much struggle or hard work ("He didn't even notice it"). We included this latter condition to rule out the possibility that taking shortcuts (pills) may seem uninspiring for more generally negative reasons beyond the lack of hard work per se. If effortful work is indeed the critical mechanism, this latter "naturally easy" condition should also reduce inspiration in the same way.

For all participants, we assessed the basic effect with the Inspiration Index from Experiments 1a and 1b ($\alpha = .96$). We also assessed 2 manipulation check items at the end of the study: one for intentionality (the extent to which Nick seemed to actively decide to get/stay in shape) and one for difficulty (the extent to which Nick seemed to fight and stay strong to make this happen), each from 1 (*definitely false*) to 9 (*definitely true*).

Results and Discussion

Manipulation checks. The manipulation was successful. An ANOVA testing the effects of Change and Effort on each of the manipulation checks revealed the same main effects for Change, Fs $\geq$ 5.96, ps $\leq$ .015, $\eta s_p^2 \geq .02$, main effects for Effort, Fs $\geq$ 30.43, ps $\leq$ .001, $\eta s_p^2 \geq .19$, and significant interactions, Fs $\geq$ 6.86, ps $\leq$ .001, $\eta s_p^2 \geq .05$.

See Table 2 for descriptive statistics. As intended, pairwise comparisons reveal that these effects reflect differences only within the control conditions: control participants assumed Nick was significantly more intentional in his change than in his stability, $F(1, 392) = 26.41$, $p < .001$, $\eta_p^2 = .06$, and that Nick exerted significantly harder work to make change happen than to make stability happen, $F(1, 392) = 39.82$, $p < .001$, $\eta_p^2 = .09$. This replicates people's default inferences about change and stability (with no other details).

More critically and consistent with our Effort manipulation, no such differences emerged between the conditions that indeed included additional information. First, intentionality was perceived as equally high across these conditions, Fs $\leq$ .15, ps $\geq$ .698, $\eta s_p^2 \leq$ .00. Second, difficulty ratings were extremely high for "Hard" conditions and extremely low for "Easy" conditions, with no differences *within* conditions: "Hard" change was perceived as equally difficult as "Hard" stability; "Easy-Shortcut" change was perceived as equally easy as "Easy-Shortcut" stability; and "Easy-Natural" change was perceived as equally easy as "Easy-Natural" stability, Fs $\leq$ .11, ps $\geq$ .741, $\eta s_p^2 \leq .00$. Our stimuli were successfully matched on perceived difficulty across targets, allowing us to compare how people react to others' change versus others' stability while equalizing the amount of effort at varying levels. All else being equal, does change still inspire when it is easy to make happen, and does stability suddenly inspire when it is effortful?

Inspiration (the basic effect). An ANOVA testing the effects of Change and Effort on Inspiration revealed a main effect for Change, $F(1, 392) = 14.07$, $p < .001$, $\eta_p^2 = .04$, a main effect for Effort, $F(1, 392) = 74.14$, $p < .001$, $\eta_p^2 = .36$, and the critical interaction, $F(1, 392) = 5.27$, $p = .001$, $\eta_p^2 = .04$ (see Figure 1).

Pairwise comparisons reveal that control participants were significantly more inspired by an overweight person who then lost weight ($M = 7.09$, $SD = 1.29$) than by a person who has only and always remained in good shape ($M = 5.36$, $SD = 1.57$), $F(1, 392) = 25.87$, $p < .001$, $\eta_p^2 = .06$. This replicates the basic effect from Experiments 1a and 1b: change is more inspiring than stability. But this boosting effect of change disappeared once the

Table 2
Experiment 2: Manipulation Checks for Different Levels of Manipulated Effort

	Perceived intentionality		Perceived effort	
Condition	Changing from bad-to-good	Remaining always-good	Changing from bad-to-good	Remaining always-good
Control	6.87_{a} (1.76)	4.78_{b} (2.49)	5.69_{a} (2.31)	3.06_{b} (2.10)
Hard work	8.38_{c} (1.50)	8.43_{c} (1.13)	8.22_{c} (1.60)	8.24_{c} (1.65)
Easy work naturally	7.25_{a} (2.90)	7.41_{a} (2.32)	2.33_{b} (2.46)	2.20_{b} (2.27)
Easy work through shortcut	$8.02_{a,c}$ (1.65)	$7.90_{a,c}$ (1.94)	2.12_{b} (2.01)	2.25_{b} (2.16)

Note. Standard deviations are in parentheses. Means that do not share the same subscript within dependent variables differ at $p < .05$.

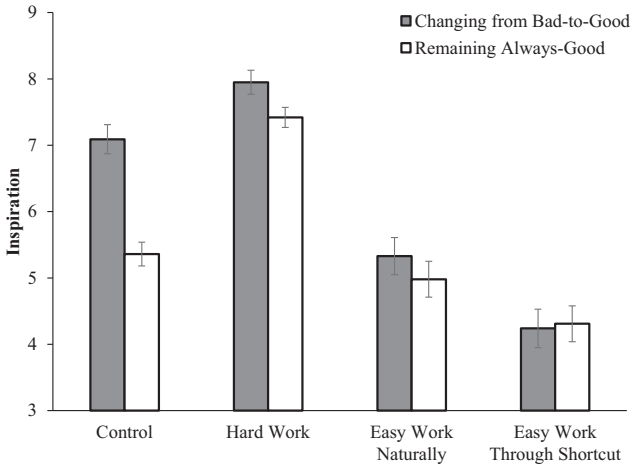

Figure 1. Experiment 2: How inspiring different targets were depending on the hard work that they put into changing from "bad-to-good" versus remaining "always-good."

change was perceived as easy to make happen: a person who *easily* lost weight was no longer particularly inspiring, and in fact was just as uninspiring as the person who has always been the same weight. This held true regardless of whether the person took pills to lose weight ($M = 4.24$, $SD = 1.92$) versus maintain weight ($M = 4.31$, $SD = 2.10$), $F(1, 392) = .05$, $p = .832$, $\eta_p^2 = .00$, or if the person naturally just happened to end up having an easy time while losing weight ($M = 5.33$, $SD = 1.95$) versus maintaining weight ($M = 4.98$, $SD = 2.01$), $F(1, 392) = 1.10$, $p = .296$, $\eta_p^2 = .00$. By the same logic, however, the boosting effect of change was *extended* to stability once stability was perceived as hard to make happen, and in fact a person who actively fought and struggled to stay the same weight was just as inspiring ($M = 7.42$, $SD = 1.24$) as the person who lost weight ($M = 7.95$, $SD = 1.04$), $F(1, 392) = 2.35$, $p = .126$, $\eta_p^2 = .01$.

These results replicate and extend the basic effect. Observers by default are more inspired by change than stability, inferring that change is much harder work to accomplish. In turn, inspiration tracks with perceptions of hard work regardless of whether people work to change from bad-to-good or whether they work just as hard to be always-good: consistent with our proposed framework, observers are inspired by others who succeed through hard work and uninspired by others who succeed easily, all else being equal.

A final insight from this experiment is that observers' preferences for actor effort may specifically be tied to hard work (the "blood, sweat, and tears" that an actor is presumed to put into success). Actively intending to change or stay the same may be insufficient for eliciting inspiration: the person must then display hard work along the way. Because intentionality and hard work tend to go hand-in-hand in daily life, we use the full Effort scale from Experiments 1a and 1b in all subsequent experiments rather than continue to tease apart these dimensions, but this is a valuable direction for future research. We return to a discussion of various potential drivers of the basic effect in the General Discussion.

Experiment 3: Gaining Better Access to a Person's Hidden Effort

In the previous experiment, we were able to shine light on a person's underlying efforts simply through manipulating the stimuli text, thereby influencing how inspired observers felt. In the real world, however, no such direct manipulations exist. Observers are often left to make their own guesses about an actor's internal mental states, which cannot be directly accessed and must be inferred from the actor's actions (Epley & Dunning, 2000; Gilbert & Malone, 1995; O'Brien, 2015; Pronin, 2009). This is precisely why understanding people's default inferences is potentially important: because people cannot readily observe the hardships, doubts, and misgivings that a person might experience when eschewing a destructive behavior, stable others who consistently avoid a bad behavior may elicit relative indifference rather than inspiration. Improving upon a bad behavior is an active, observable behavior that often conveys these internal states, whereas avoiding a bad behavior is more like a passive 'nonbehavior.' There is less obvious information from which to infer the efforts underlying the success of stable others—even if they have worked very hard behind the scenes.

In Experiment 3, we sought to use a more naturalistic manipulation that might reveal a person's underlying efforts beyond simply including this information in a stimulus text, providing a further test of the basic effect as well as the proposed driver (accessibility of effort). Via an essay task, observers were given more direct access to others' internal states by reading about their first-hand, full experience in either changing or staying the same (see Pronin & Kugler, 2007, Study 3, for a conceptually similar method). One sample of participants wrote detailed accounts of a bad past behavior they either had successfully avoided or successfully improved upon, thereby disclosing their internal states and feelings leading to their present standing. A second sample reported how inspired they were by participants in the first sample. We predicted that seeing others' writing (i.e., gaining access to their underlying efforts) would cause perceivers to appreciate the effort involved in being "always good" and therefore feel inspired. This yoked design expands external validity by using people's real open-ended experiences of change and stability as stimuli.

Method

Stimuli generation (prestudy). First, we recruited a sample of essay writers to provide open-ended responses regarding their own actual change or stability over time. Participants ($N = 115$; 53.3% women; $M_{age} = 33.30$, $SD_{age} = 9.93$) recruited from Amazon.com's M-Turk participated for nominal payment (initially 120 participants were recruited, but four participants provided empty responses and one participant simply copied the text from the study prompt; all other participants completed the task in full as intended).

Participants were randomly assigned to a 2-factor (Change: Bad-to-Good vs. Always-Good) between-subjects design. Participants read that the writing task was about "successfully stopping [avoiding] bad behavior, destructive habits, and unproductive actions." They were asked to think about a behavior from their lives that fit these criteria (depending on condition) and to describe it in writing, including specific details about their underlying reasons

for and also the consequences of their actions (minimum 350 characters). For example, one participant in the Always-Good condition wrote,

> I have avoided smoking cigarettes and I'm glad that I have. I am a college student and I see students smoking all the time. . . . I've been offered cigarettes a numerous of times but each time I turn them down. By turning them down, I am proud of myself for not giving into peer pressure.

Note how this clearly describes the writer's effort to stay unchanged, which otherwise would have been difficult to observe from simply knowing that the person has never smoked, thereby counteracting people's default perception that stability is not effortful (as we have found in our previous studies, and which has driven the basic effect).

After writing their essays, participants were told that another M-Turk worker would read their descriptions, and were asked to predict how this M-Turk worker would evaluate them on the Inspiration Index ($\alpha = .96$). Then, participants were asked to predict how this M-Turk worker would perceive the effort they exerted by changing from bad-to-good or by being always-good, via the Effort Index ($\alpha = .86$). We included these measures for exploratory purposes, to test whether people have accurate insight into the impact of their change or stability.

A pair of hypothesis-blind Research Assistants (RAs) cleaned and coded the essays, to be used for the stimuli in our actual study below. First, the RAs corrected typos and stylistic inconsistencies in order to prevent potential negative inferences based on lack of writing proficiency. Next, they coded a measure we treated as a manipulation check: the extent to which the essays described change or stability (1–7 scale, with higher numbers reflecting a greater emphasis on change). We averaged the RAs' ratings, $r = .73$, $p < .001$. They also coded 2 additional measures that we treated as potential covariates, which were rated on similar 1–7 scales and also combined across RAs: the extent to which the behavior seemed destructive (i.e., how destructive the relinquished behavior was, in comparison to how destructive the avoided behavior would have been: $r = .54$, $p < .001$), and the extent to which the behavior seemed common in the general population (i.e., how often people in general indeed engage in this behavior: $r = .34$, $p < .01$).

Perception of stimuli (actual study). We then recruited a new sample of outside perceivers to rate their reactions to these essays, serving as the actual study. Participants ($N = 230$; 47.0% women; $M_{age} = 34.00$, $SD_{age} = 11.15$) recruited from Amazon.com's M-Turk participated for nominal payment. Sample size was determined based on the prestudy. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 2 (Access to Internal States: Yes vs. No) between-subjects design. All participants read that in another study, other M-Turk workers wrote about a past bad behavior that they improved upon [successfully avoided]. Each perceiver was then randomly assigned to read one of these essays and rate their reactions to the writer's experiences.

Importantly, however, we also manipulated the amount of information provided in the essay, serving as our manipulation of "access" into the writer's underlying hard work and effort. Some perceivers read the complete original essays as the writers had written them. This provided full access and should therefore attenuate the basic effect, as hypothesized. Other perceivers simply read a summary of the essay that included two statements: the behavior the actors stopped [avoided] engaging in, and an affirmation that actors have really changed [stayed the same] and no longer [still do not] engage in that behavior. For example, the example provided earlier was summarized as, "this person has never had a problem with smoking. These days this person has really stayed the same and still does not smoke." Hence, these perceivers were made aware of the writer's past behavior, but were not given access to the writer's internal states. This should resemble the stimuli from previous studies and therefore replicate the basic effect.

After reading, perceivers reported how inspired they were by the writer on the Inspiration Index ($\alpha = .91$), and rated their perceptions of the effort required of the writer to improve upon [successfully avoid] the bad behavior on the Effort Index ($\alpha = .86$).

Results and Discussion

Manipulation checks and covariates. The manipulation was successful. Bad-to-Good essays were more likely to describe change ($M = 6.05$, $SD = .91$) as compared with the Always-Good essays ($M = 3.42$, $SD = 2.03$), $t(113) = 8.81$, $p < .001$, $d = 1.66$.

Bad-to-Good essays also described behaviors that were more destructive ($M = 4.29$, $SD = 1.26$) than did the Always-Good essays ($M = 3.64$, $SD = 1.21$), $t(113) = 2.84$, $p = .005$, $d = .53$, and also described experiences that seemed less common ($M = 4.49$, $SD = 1.06$) than did the Always-Good essays ($M = 4.84$, $SD = .79$), $t(113) = 2.03$, $p = .045$, $d = .38$. These results suggest that behaviors provided in the Always-Good and Bad-to-Good conditions differed on dimensions other than the intended manipulation, as would be expected when asking people to provide their own accounts of their inevitably varied and idiosyncratic behaviors. We therefore replicated all of the subsequent analyses while entering rated destructiveness and commonness as covariates. This did not meaningfully alter the subsequent analyses, so we present the results without entering these measures.

Actual inspiration (the basic effect). The yoked design of this experiment means that each pair of participants were exposed to idiosyncratically different stimuli: Readers A and A' were exposed to Essay Writer 1, Readers B and B' are exposed to Essay Writer 2, and so on. This was done to test a wide range of real-world experiences. However, this also means that the ratings of any pair of readers are confounded with whatever the essay writer yoked to them wrote. To account for this substantial variance in essay content from pair to pair, we treated Access to Internal States as a repeated measure in our analyses, which controls for any absolute differences from essay to essay by assessing only the critical *within*-essay differences across conditions (see Wells & Windschitl, 1999).

An ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on Inspiration revealed no main effect of Change, $F(1, 113) = .21$, $p = .648$, $\eta_p^2 = .00$, a marginal main effect of Access to Internal States, $F(1, 113) = 3.11$, $p = .081$, $\eta_p^2 = .03$, and the hypothesized interaction, $F(1, 113) = 8.51$, $p = .004$, $\eta_p^2 = .07$ (see Figure 2, Panel A). Pairwise comparisons reveal that without access to actors' internal states and reading only about behaviors, perceivers were more inspired by writers who improved upon a bad past ($M = 5.87$, $SD = 1.45$) than by writers who avoided a bad past ($M = 5.29$, $SD = 1.85$),

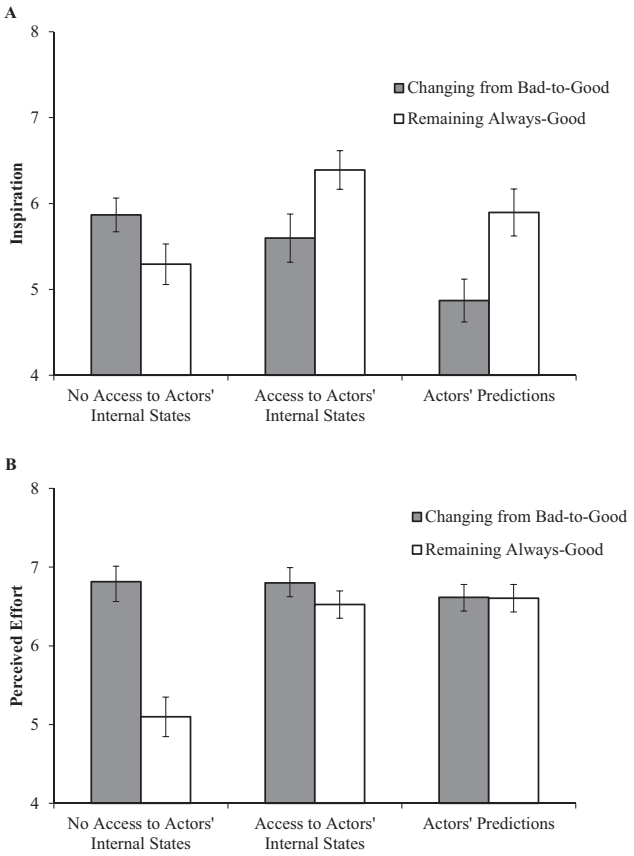

Figure 2. Experiment 3: Predicted and actual inspiration (Panel A) and perceived effort (Panel B) from improving versus avoiding bad behavior as a function of access to actors' internal states.

$F(1, 113) = 3.37$, $p = .069$, $\eta_p^2 = .03$. This result is marginal but broadly replicates our basic effect: change is more positively than stability, even in a naturalistic design in which each example of change or stability freely varied.

In contrast, having access to actors' internal states by reading the original essays in full flipped this effect. As hypothesized, perceivers *with* access to writers' internal states were actually less inspired by those who improved upon a bad past ($M = 5.60$, $SD = 2.06$) than by those who avoided a bad past ($M = 6.39$, $SD = 1.76$), $F(1, 113) = 4.98$, $p = .028$, $\eta_p^2 = .04$; in fact, improvement was evaluated *less positively* than never having to improve to begin with. Access to actors' internal states eliminated the power of personal change.

Perceived effort (mediator). We next turn to perceptions of the writers' effort. An ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on Perceived Effort revealed a main effect of Change, $F(1, 113) = 23.97$, $p < .001$, $\eta_p^2 = .18$, a main effect of Access to Internal States, $F(1, 113) = 11.07$, $p = .001$, $\eta_p^2 = .09$, and the same critical interaction, $F(1, 113) = 11.58$, $p = .001$, $\eta_p^2 = .09$ (see Figure 2, Panel B). Pairwise comparisons reveal that perceivers without access to writers' internal states perceived change as more effortful ($M = 6.81$, $SD = 1.44$) than stability ($M = 5.10$, $SD = 1.96$), $F(1, 113) = 28.11$, $p < .001$, $\eta_p^2 = .20$. This replicates our previous experiments. In contrast, perceivers who had access to writers' internal states viewed stability as just as effortful ($M = 6.52$, $SD = 1.36$) as change, ($M = 6.80$, $SD = 1.43$), $F(1, 113) = 1.11$, $p = .294$, $\eta_p^2 = .01$, consistent with the intended effect of our manipulation.

We next conducted mediation analyses among perceivers without access to writers' internal states using Change as the independent variable, our Inspiration Index as the dependent variable, and our Effort Index as the mediator (SPSS PROCESS Model 4; 5,000 iterations). We cannot conduct a unified moderated mediation analysis within a single model because of the interdependent nature of the essays that perceivers evaluated, but this specific analysis nonetheless provides the critical test of interest: whether the observed boosts in inspiration were indeed mediated by inferences about the actor's effort (as in previous experiments). The indirect effect of Change on Inspiration, via Effort, was indeed significant (indirect effect = 1.08, $SE = .19$; 95% *CI* [.72, 1.47]), and the conditional direct effect of Change on Inspiration was again statistically reduced when controlling for Effort (conditional direct effect = −.50, $SE = .27$; 95% *CI* [−1.03, .026].

Writers' predictions (exploratory). Beyond these central findings, we also asked essay writers to predict the extent to which the perceivers would find their experiences both inspiring and effortful. See Figure 2 (both panels) for reference. First, purely in terms of predictions, writers predicted that they would be more inspiring to others when successfully avoiding a bad behavior ($M = 5.90$, $SD = 2.01$) compared with improving on a bad behavior ($M = 4.87$, $SD = 1.96$), $t(113) = 2.76$, $p = .007$, $d = .52$. Second, writers did not predict any difference in how others would perceive the effort required for avoiding a bad behavior ($M = 6.60$, $SD = 1.36$) compared with improving on a bad behavior ($M = 6.62$, $SD = 1.20$), $t(113) = .05$, $p = .963$, $d = .01$.

Notice that these predictions are in the opposite direction of what actually inspired participants in our previous experiments. This is consistent with the general mechanism that the lack of access to another person's internal states prevents people from seeing the effort required for stability. Because writers themselves had intimate access to their own internal states and experiences, they were less likely to predict that improving upon a bad past would inspire others over and above avoiding a bad past (the writers actually predicted that avoiding a bad past would be more inspiring, effort being equal).

Prediction accuracy (inspiration). An ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on predicted and actual Inspiration revealed a main effect of Change, $F(1, 113) = 4.07$, $p = .046$, $\eta_p^2 = .04$, a main effect of Access to Internal States, $F(1, 113) = 6.21$, $p = .014$, $\eta_p^2 = .05$, and no interaction, $F(1, 113) = .22$, $p = .639$, $\eta_p^2 < .01$. As Figure 2 (Panel A) shows, writers' predictions were closer to perceivers who had access to their internal states than perceivers who did not have access. Writers tended to underestimate how inspiring they were to perceivers with access (significantly so when perceivers had full access to writers' internal states, $F(1, 113) = 6.21$, $p = .014$, $\eta_p^2 = .05$, and nonsignificantly so when perceivers did not have access to writers' internal states, $F(1, 113) = .64$, $p = .427$, $\eta_p^2 = .01$). Nevertheless, writers' predictions were largely calibrated: they predicted that avoiding a bad behavior would be more inspiring than improving upon a bad behavior, precisely what perceivers who received the complete descriptions thought. In contrast, perceivers who

read only about the writers' behaviors found change more inspiring than stability.

These results highlight the importance of access to others' internal states. When actors and observers had similar access to actors' internal states—actors by virtue of knowing themselves and observers by virtue of reading the complete accounts written by actors—evaluations and predictions were in the same direction. But when observers did not have access to actors' internal states (often the case in daily life, where we do not get full descriptions of others' motives and histories), predictions were opposite to reality.

Prediction accuracy (effort). Finally, in terms of writers' predictions of how their efforts would be perceived, an ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on predicted and actual Perceptions of Effort revealed a main effect of Change, $F(1, 113) = 15.50$, $p < .001$, $\eta_p^2 = .12$, and no other main effect or interaction, Fs $\leq .65$, ps $\geq .421$, η_p^2s $\leq .01$. As Figure 2 (Panel B) shows, writers' predictions of how effortful perceivers would find their behavior were more accurate when perceivers had access to writers' internal states than when perceivers lacked access. Like writers' predictions of inspiration, this again suggests that a lack of access to internal states accounts for the power of change to inspire. Actors may fail to realize that mere summaries of their currently desirable standing may be perceived as easily attained, and therefore fail to make their intended impact on inspiring others.

In sum, Experiment 3 provides evidence that the power of personal change to inspire others is rooted in people's lack of access to the effort required for stability. For actors, the hardships and difficulties of simply avoiding a bad behavior are readily apparent and strongly felt. But unless observers are given access to these internal states, they cannot fully appreciate actors' struggles and effort and are therefore relatively uninspired when actors successfully avoid bad behavior. By gaining better access to actors' internal states via a simple naturalistic manipulation—learning about the person's experiences in their own rich, full words—observers find inspiration in the struggle to stay "always-good."

Experiment 4: Having Full Access to a Person's Hidden Effort (Self-Assessment)

So far, observers were granted more direct access into the minds of others either by learning explicit details that were provided by an experimenter (Experiment 2) or by reading others' own personal accounts of change or stability (Experiment 3); consistent with our proposed framework, this access then influenced how inspired observers felt.

There remains one and only one way to gain *full* direct access into a mind: by looking inward into one's own. By definition, people have the most intimate access to their own struggles, hard work, and past experiences that may have contributed to their current circumstances. One interesting question is the extent to which people feel inspired by their own experiences of change versus stability. If access to effort predicts inspiration, then the asymmetry should be attenuated when people evaluate themselves: one's own experiences of avoiding a bad behavior should be at least no less inspiring than one's own experiences of improving upon a bad behavior. The predictor data among the writers in Experiment 3 come close to this idea, but our next study was designed to test it directly.

In Experiment 4, participants were again recruited to generate personal essays about their change or stability. However, essay writers also rated their own reactions to these experiences. We adapted the Inspiration Index in order to better capture these feelings in a self-oriented way (e.g., feeling *proud* of oneself, just as one might be inspired by others). We hypothesized that essay readers may exhibit the same asymmetry that we have observed in previous experiments: without access to others' efforts, a person's change is more inspiring than a person's stability. Essay writers, however, may not show this asymmetry because of their intimate access of the underlying efforts involved in both cases: they may evaluate stability as no less inspiring than change.

Method

Stimuli generation (prestudy). Similar to Experiment 3, we first recruited a sample of essay writers to provide open-ended responses regarding their own actual change or stability over time. Participants ($N = 99$; 55.45% women; $M_{age} = 33.82$, $SD_{age} = 10.33$) recruited from Amazon.com's M-Turk participated for nominal payment (101 participants were initially recruited, but two participants provided nonsensical responses and so were excluded). The procedure in this part of the experiment was identical to Experiment 3. Participants were asked to write about behaviors in their lives that reflected either successfully stopping or successfully avoiding a bad behavior.

Perception of stimuli (actual study). For the actual study, participants were then recruited to read a version of the essay and report how inspired they felt. Procedures were identical to Experiment 3, except that we included self-assessment conditions (the writer's own reactions). Hence, the study followed a 2 (Change: Bad-to-Good vs. Always-Good) × 3 (Access to Internal States: Full [own reactions to essay] vs. Some [read full essay] vs. None [read condensed essay]) between-subjects design (full sample of study participants: $N = 297$; 46.5% women; $M_{age} = 35.53$, $SD_{age} = 11.13$).

For "own reactions" conditions, the original essay writers ($N = 99$) were asked upon completion of writing their essay to assess their current good condition on 6 dimensions (how *proud of yourself do you feel, much praise do you give yourself for this, do you admire yourself for this, impressed by yourself does this make you feel,* and *motivating is this to you for your own future behavior*). All responses were given on scales ranging from 1 (*not very much*) to 9 (*extremely*). These measures were averaged into a (Self-Oriented) Inspiration Index ($\alpha = .96$). Writers then rated their effort involved in arriving at their currently good condition on the Effort Index from previous experiments ($\alpha = .82$).

The remaining conditions were identical to Experiment 3. We recruited a new sample of outside perceivers to rate their reactions to these essays. Participants ($N = 198$; 41.41% women; $M_{age} = 36.45$, $SD_{age} = 11.43$) recruited from Amazon.com's M-Turk participated for nominal payment (sample size was determined based on the prestudy). All participants read that in another study, other M-Turk workers wrote about a past bad behavior that they improved upon [successfully avoided]. Each perceiver was then randomly assigned to read one of these essays and rate their

reactions to the writer's experiences. As in Experiment 3, we also manipulated the amount of information provided in the essay, serving as our manipulation of "access" into the writer's internal experiences. Some perceivers read the complete original essays as the writers had written them, receiving full access to writers' internal states. Other perceivers simply read a summary of the essay that included two statements (as in Experiment 3): the behavior the actors stopped [avoided] engaging in, and an affirmation that actors have really changed [stayed the same] and no longer [still do not] engage in that behavior. After reading, perceivers assessed their inspiration on 6 dimensions that directly matched the questions asked of essay writers (how *inspired by this do you feel, much praise do you give this person for this, much do you admire this person for this, impressed by this person does this make you feel,* and *motivating is this to you for your own future behavior*). Reponses were given on scales ranging from 1 (*not very much*) to 9 (*extremely*), and these measures were averaged into an (Other-Oriented) Inspiration Index ($\alpha = .97$). These participants also then completed the same full Effort Index ($\alpha = .93$).

Results and Discussion

Inspiration (the basic effect). An ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on Inspiration revealed no main effect of Change, $F(1, 97) = .29$, $p = .589$, $\eta_p^2 < .01$, a main effect of Access to Internal States, $F(1, 97) = 13.95$, $p < .001$, $\eta_p^2 = .13$, and an interaction, $F(1, 97) = 6.05$, $p = .016$, $\eta_p^2 = .06$ (see Figure 3, Panel A). Pairwise comparisons reveal that inspiration depended on how closely one was to the actor's internal experience, in ways that are consistent with our hypothesis.

First, in terms of the outside observers: perceivers with no access to writers' internal states (those who read a summary of writers' essays) were more inspired by writers who stopped bad behaviors ($M = 5.41$, $SD = 2.16$) than by writers who avoided bad behaviors altogether ($M = 4.54$, $SD = 2.19$), $F(1, 97) = 3.97$, $p = .049$, $\eta_p^2 = .04$. This replicates the basic effect, again in a noisy design that set few constraints in essay content. In contrast, perceivers with access to writers' internal states (those who read writers' original essays) were no more inspired by writers who stopped bad behaviors ($M = 5.77$, $SD = 2.31$) than by writers who avoided bad behaviors altogether ($M = 6.27$, $SD = 2.24$), $F(1, 97) = 1.22$, $p = .273$, $\eta_p^2 = .01$. This again suggests that lack of access to internal states may lead people to react with relative indifference when others remain "always-good."

Second, in terms of self-assessments: writers themselves (who have *complete* access to their own internal states and experiences) felt more inspired by the times they avoided bad behaviors altogether ($M = 6.74$, $SD = 1.61$) than the times when they stopped bad behaviors ($M = 5.91$, $SD = 2.06$), $F(1, 97) = 5.04$, $p = .027$, $\eta_p^2 = .05$. The basic effect was again attenuated (and here even significantly flipped) when one's full experiences to remain "always good" are made accessible—indeed, no more accessible than when people reflect on their own experiences with change and stability.

Perceived effort (mediator). An ANOVA testing the effects of Change and Access to Internal States (treated as a repeated measure) on Perceived Effort revealed a main effect of Change, $F(1, 97) = 8.08$, $p = .005$, $\eta_p^2 = .08$, a main effect of Access to Internal States $F(1, 97) = 47.00$, $p < .001$, $\eta_p^2 = .33$, and an interaction, $F(1, 97) = 6.62$, $p = .012$, $\eta_p^2 = .06$ (see Figure 3, Panel B). Pairwise comparisons reveal that outside observers with no access to writers' internal states (those who read a summary of writers' essays, reflecting people's "default" assumptions about change and stability) believed that improving bad behavior required more effort ($M = 6.45$, $SD = 1.72$) than avoiding bad behavior altogether ($M = 4.96$, $SD = 2.12$), $F(1, 97) = 14.64$, $p < .001$, $\eta_p^2 = .13$; however, outside observers *with* access to writers' internal states (those who read writers' original essays in full) found an actor's stability to require just as much effort ($M = 6.93$, $SD = 1.72$) as an actor's change ($M = 7.34$, $SD = 1.20$), $F(1, 97) = 1.92$, $p = .169$, $\eta_p^2 = .02$. Likewise, this "default" belief was also attenuated among writers, who have full access to their own efforts: writers themselves reported that their own stability required similar amounts of effort ($M = 6.89$, $SD = 1.53$) as their own change ($M = 6.87$, $SD = 1.42$), $F(1, 97) = .01$, $p = .946$, $\eta_p^2 = .00$. These findings replicate and extend Experiment 3: by default, people assume that change is more effortful than stability, but they no longer express this belief when they have better access into an actor's underlying efforts to remain "always good."

We next conducted mediation analyses among perceivers without access to writers' internal states using Change as the independent variable, our Inspiration Index as the dependent variable, and our Effort Index as the mediator (SPSS PROCESS Model 4; 5,000

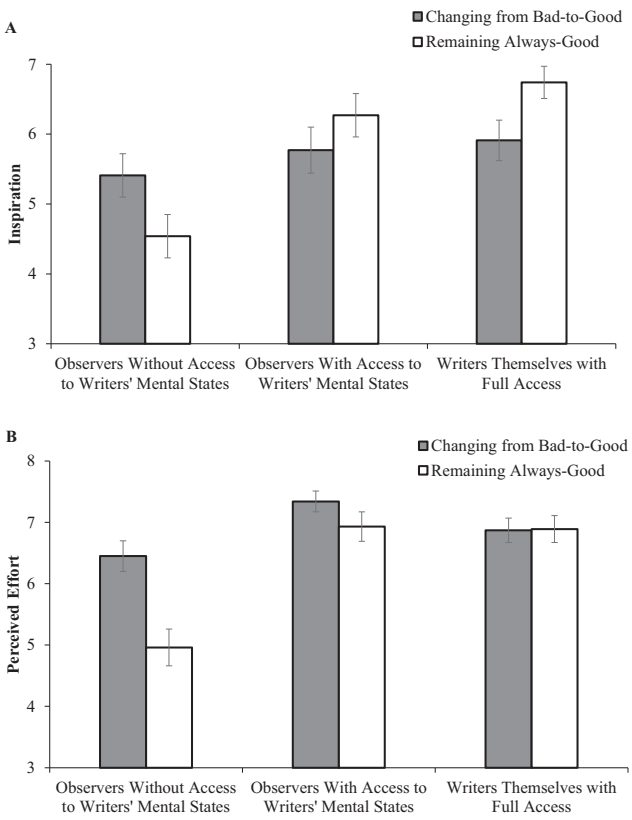

Figure 3. Experiment 4: Inspiration (Panel A) and perceived effort (Panel B) in improving versus avoiding bad behaviors as a function of access to actors' internal states.

iterations). As in our previous experiment, we cannot conduct a unified moderated mediation analysis within a single model because of the interdependent nature of the essays that perceivers evaluated, but this specific analysis nonetheless provides the critical test of interest: whether the observed boosts in inspiration were indeed mediated by inferences about the actor's effort. The indirect effect of Change on Inspiration, via Effort, was again significant (indirect effect = 1.00, SE = .29; 95% CI [.52, 1.64]), and the conditional direct effect of Change on Inspiration was again statistically reduced when controlling for Effort (conditional direct effect = −.13, SE = .38; 95% CI [−.88, 63].

Experiment 4 further supports our overall framework. With no information otherwise, people assume that others who change from bad-to-good have exerted more effort to live well than others who have consistently avoided a bad past to begin with. However, when effort is made accessible— whether by learning rich details about an actor's experiences in his or her own words, or when people look inward to evaluate themselves—this basic effect is attenuated. When perceived effort is equalized, change may not be any more inspiring than stability, and sometimes it may even be less inspiring.

Experiments 5–7: The Limits of Personal Change

In a final set of experiments, we explore one possible boundary to the basic effect. The proposed process of "change = effortful = inspiring" likely has important caveats: the *content* of a person's past also ought to matter for eliciting inspiration, over and above perceived effort to change from it. In Experiments 3–4, for example, note that inspiration was higher for people who were "always good" compared with people who improved from "bad-to-good" even though perceived effort was *equalized* (not higher itself) as a result of being exposed to writers' internal states. Reasons other than perceived effort may be contributing to the effect. One such possible reason for this pattern is that the essay writers were not limited in content and could have written about any number of domains, some of which may have described a bad past that was overly extreme or "unredeemable," despite being effortful to change from. Some kinds of bad pasts may "stick" with a person more than others.

In Experiments 5–7, we test one possible characteristic of "unredeemable" bad pasts: social harm. While shedding self-destructive behaviors might be received positively, shedding *socially*-destructive behaviors might be seen as no better than successfully avoiding those behaviors given the special role that social-harms (vs. self-harms) play in norms for basic decency (Batson et al., 1981; Crockett et al., 2014; Gilbert et al., 2004; Singer et al., 2004). We explored this idea in a variety of ways: by testing how observers evaluate actors who have committed harms in self-oriented domains (being an ex-drug abuser or ex-gambler) as compared with other-oriented domains (being an ex-bully or ex-cheater: Experiment 5); by testing past bad actions within the same single domain, either targeted toward the self (being an ex-drug *user*) or others (being an ex-drug *dealer:* Experiment 6); and by framing the same exact bad past, in terms of emphasizing its impact on the self versus others (how it affected friends and family: Experiment 7).

Experiment 5: Ex-Bullies and Ex-Cheaters

In Experiment 5, we assessed a variety of concrete domains that varied the nature of the target's past. We tested whether targets who convey effortful change over time, but from socially harmful pasts (bullying and cheating others), may *not* inspire in the present.

Method

Participants (N = 324; 57.41% women; M_{age} = 37.95, SD_{age} = 12.95) were recruited from Amazon.com's M-Turk in exchange for nominal payment. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 4 (Behavior: Gambling, Drugs, Bullying, Cheating) between-subjects design. Participants learned that they would be reading a few facts about a man named "Karl" and providing their opinion about him.

The materials and procedure were adapted from Experiment 1a. Participants read that Karl either used to engage in behaviors that harmed himself (gambling or using drugs) or that Karl used to engage in antisocial behaviors that harmed others (bullying or cheating). In this experiment, we removed allusions to the actor's mindset (e.g., "Karl now isn't involved in such things and doesn't think about them much") and instead focused only on the actor's behavior (e.g., "Karl used to be a bully and has now stopped bullying"). Our language about "no longer thinking about it" in previous studies might be read in the context of social harms as if the target feels no remorse, rather than reformed. This might pose an added confound for why inspiration would stay flat as predicted (the "present positive state" is not actually very positive in such a case), which is why we excluded this language.

We predicted that the self-harmful behaviors would replicate the basic effect, such that Karl will be more inspiring having once harmed himself but later reforming as compared with never having harmed himself in the first place. In contrast, we expected that the antisocial behaviors will moderate this asymmetry: no longer being a bully or a cheater may *not* inspire relative to never having been a bully or cheater in the first place.

Each participant read about one behavior. Inspiration was measured with the Inspiration Index (α = .96). Effort was measured with the Effort Index (α = .93). Finally, as a manipulation check, all participants rated each of the 4 behaviors used in this experiment on the extent to which engaging in it hurts the actor and the extent to which engaging in it hurts other people, each on a scale from 1 (*not very much*) to 9 (*extremely*).

Results and Discussion

Manipulation check. To validate the self/other manipulation, a difference score was calculated by subtracting other-ratings from self-ratings ([self-harm] − [social harm]), such that higher scores reflect a greater perception that the self (rather than others) was or would have been harmed by the actor's actions. As expected, both cheating and bullying were rated as more harmful to other people than to the self ($M_{cheating}$ = −1.12, $SD_{cheating}$ = 2.83; $M_{bullying}$ = −2.54, $SD_{bullying}$ = 2.90), as evidenced by significantly negative ratings, *one-sample* ts ≥ 7.11, $p \leq .001$, ds ≥ .79. Conversely, both gambling and using drugs were rated as more harmful to the self than to other people ($M_{gambling}$ = .26, $SD_{gambling}$ = 1.51; M_{drugs} = .34, SD_{drugs} = 1.11), as evidenced by significantly positive ratings, *one-sample* ts ≥ 3.10, $p \leq .003$, ds ≥ .34. The manipulation was successful.

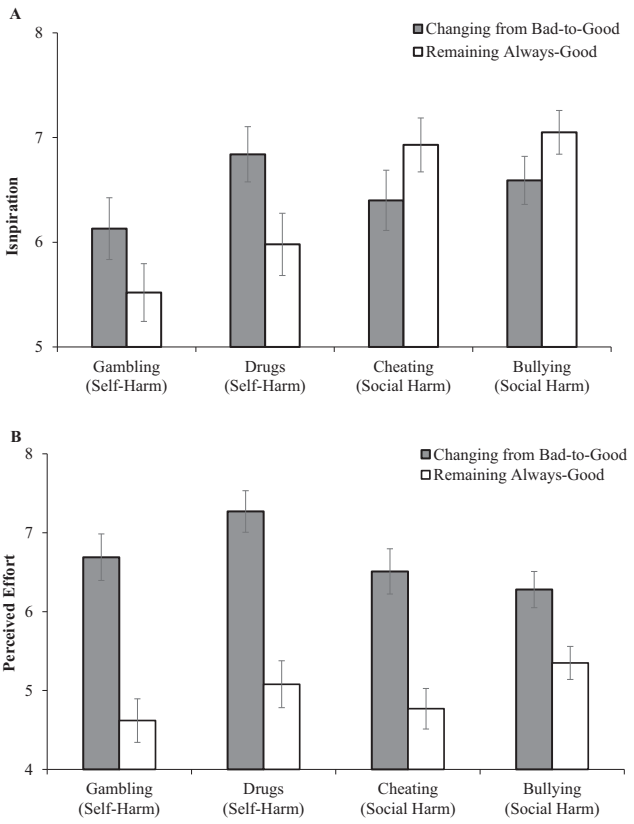

Figure 4. Experiment 5: Inspiration (Panel A) and perceived effort (Panel B) as a function of bad behaviors that harm the self and bad behaviors that harm other people.

Inspiration (the basic effect). An ANOVA testing the effects of Change and Behavior on Inspiration revealed no main effect for Change, $F(1, 316) = 0.41$, $p = .521$, $\eta_p^2 = .00$, a main effect for Behavior, $F(3, 316) = 5.33$, $p = .001$, $\eta_p^2 = .05$, and the critical interaction, $F(3, 316) = 3.68$, $p = .013$, $\eta_p^2 = .03$ (see Figure 4, Panel A). Replicating previous experiments, pairwise comparisons reveal that improving upon a self-harming behavior was generally more inspiring than never having engaged in that behavior. A person who used to use hard drugs but has reformed was more inspiring ($M = 6.84$, $SD = 1.71$) than a person who has never used hard drugs in the first place ($M = 5.98$, $SD = 1.88$), $F(1, 316) = 5.36$, $p = .021$, $\eta_p^2 = .02$. Likewise, a person who used to have a gambling problem but has reformed was directionally more inspiring ($M = 6.13$, $SD = 1.84$) than a person who has never had a gambling problem in the first place ($M = 5.52$, $SD = 1.70$), $F(1, 316) = 2.49$, $p = .116$, $\eta_p^2 = .01$, although this result did not reach statistical significance.

In contrast, self-improvement was not more inspiring than stability in the domains that involved social harm. A person who used to cheat but has since reformed was no more inspiring ($M = 6.40$, $SD = 1.82$) than a person who never cheated in the first place ($M = 6.93$, $SD = 1.65$), $F(1, 316) = 1.98$, $p = .160$, $\eta_p^2 = .01$. A person who used to bully others but has since reformed was no more inspiring ($M = 6.59$, $SD = 1.49$) than one who never bullied in the first place ($M = 7.05$, $SD = 1.35$), $F(1, 316) = 1.56$ $p = .213$, $\eta_p^2 = .01$. In fact, both of these patterns are in the *opposite* direction as the robust boost of change we have observed across all experiments so far: others seem directionally worse when they have improved upon past cheating and bullying behaviors as compared to never having cheated or bullied others in the first place. In terms of social harms, changing from bad-to-good may be *less* inspiring than being always-good.

Perceived effort (mediator). An ANOVA testing the effects of Change and Behavior on Perceived Effort revealed no main effect of Behavior, $F(3, 316) = 1.86$, $p = .136$, $\eta_p^2 = .02$, an incidental interaction, $F(3, 316) = 2.49$, $p = .060$, $\eta_p^2 = .02$, and the critical main effect of Change, $F(1, 316) = 89.25$, $p < .001$, $\eta_p^2 = .22$ (see Figure 4, Panel B). Pairwise comparisons reveal that, across all behaviors, participants assumed changing from bad-to-good was more effortful than being always-good: for drugs, change was seen as more effortful ($M = 7.27$, $SD = 1.15$) than stability ($M = 5.08$, $SD = 1.73$), $F(1, 316) = 36.24$, $p < .001$, $\eta_p^2 = .10$; for gambling, change was seen as more effortful ($M = 6.69$, $SD = 1.81$) than stability ($M = 4.62$, $SD = 1.97$), $F(1, 316) = 30.36$, $p < .001$, $\eta_p^2 = .09$; for cheating, change was seen as more effortful ($M = 6.51$, $SD = 1.74$) than stability ($M = 4.77$, $SD = 1.94$), $F(1, 316) = 22.58$, $p < .001$, $\eta_p^2 = .07$; and for bullying, change was seen as more effortful ($M = 6.28$, $SD = 1.18$) than stability ($M = 5.35$, $SD = 1.54$), $F(1, 316) = 6.58$, $p = .011$, $\eta_p^2 = .02$. In other words, the fact that change from bad-to-good in the social domain failed to inspire cannot be explained by a failure of our proposed mediator; ceasing cheating and ceasing bullying still seemed highly effortful for the actor to make happen. These life changes failed to inspire *despite* their high effort.

Next, we conducted a mediation analysis using Change as the independent variable, our Inspiration Index as the dependent variable, our Effort Index as the mediator, and Behavior as the moderator (1 = the two self-harming behaviors treated as a single category; 2 = the two socially harming behaviors treated as a single category; SPSS PROCESS Model 5; 5,000 iterations). First, replicating the mediation in previous experiments, the indirect effect of Change on Inspiration via Effort was significant (indirect effect = .64, $SE = .16$; 95% *CI* [.36, .97]). In addition, we observed moderation at the level of conditional direct effects (moderator = −.93, $SE = .35$; 95% *CI* [−1.62, −.24]). For self-harmful behaviors, the conditional direct effect of Change on Inspiration was statistically reduced when controlling for Effort (conditional direct effect = −.05, $SE = .27$, 95% *CI* [−.59, .49], suggesting that perceptions of effort indeed mediated inspiration when participants read about change from self-harm. However, for socially harmful behaviors, the conditional direct effect of Change remained when controlling for Effort (conditional direct effect = −.98, $SE = .26$, 95% *CI* [−1.48, −.48]), suggesting that participants drew upon something else rather than effort when reading about change from social-harm. As hypothesized, inspiration was *not* boosted by higher perceived effort when targets used to hurt others but no longer hurt others.

Experiments 5 provides initial evidence for an important boundary to the power of personal change. Change is inspiring, but only so long as one's bad past mainly hurt the self and not others (even if changing from a socially harmful past still seems effortful).

Experiment 6: Drug Using Versus Drug Dealing

One limitation of the previous experiment is that the domains used across conditions were substantively different, perhaps going beyond our intended self/other manipulation. In Experiment 6, we sought to conceptually replicate these findings in the same domain.

Method

Participants ($N = 200$; 36.0% women; $M_{age} = 33.27$, $SD_{age} = 10.09$) were recruited on Amazon.com's M-Turk and participated for nominal payment. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 2 (Target of Harm: Self vs. Other) between-subjects design. Participants learned that they would be reading a few facts about a man named "Bill" and providing their opinion about him.

Some participants read that Bill used to do harm to *himself*: that he knowingly abused hard, dangerous drugs last year, but that these days he no longer uses drugs and is no longer involved with this at all (Self, Bad-to-Good). Others read that Bill never used drugs during this period, still does not use drugs, and thus has consistently avoided harming himself like this in the first place (Self, Always-Good). Here we expected to replicate the basic effect, such that Bill is perceived as more inspiring after improving upon rather than avoiding drug abuse, because of inferences about effort.

Other participants read that Bill used to do similar harm to *others*: that he knowingly sold hard, dangerous drugs last year, but that these days he no longer sells drugs and is no longer involved with this at all (Other, Bad-to-Good). Others read that Bill never sold drugs during this period, still does not sell drugs, and thus has consistently avoided harming others like this in the first place (Other, Always-Good). Here we tested whether social harm moderates the effect, such that reforming from being an ex-drug *dealer* rather than user—despite still being seen as a highly effortful life change—no longer inspires.

After reading about their respective Bill, participants in all conditions completed the Inspiration Index ($\alpha = .95$) and Effort Index ($\alpha = .91$). All participants also completed 2 manipulation check items at the end of the study: one for the extent to which the actor himself was or would have been the target of his actions, and one for the extent to which others were or would have been the target of his actions, each on scales ranging from 1 (*not at all the target*) to 9 (*precisely the target*).

Results and Discussion

Manipulation checks. To validate the self/other manipulation, a difference score was calculated by subtracting other-ratings from self-ratings, such that higher scores reflect a greater perception that the self (rather than others) was or would have been harmed by the actor's actions. For social harm this difference score was indeed significantly negative ($M = -2.32$, $SD = 3.64$), *one-sample* $t(97) = -6.30$, $p < .001$, $d = 1.28$, and for self-harm this difference score was indeed significantly positive ($M = 2.80$, $SD = 3.03$), *one-sample* $t(101) = 9.34$, $p < .001$, $d = 1.86$, suggesting that dealing drugs was perceived as *mostly* harming the others whereas using drugs was perceived as *mostly* harming the self. The manipulation was successful.

Inspiration (the basic effect). An ANOVA testing the effects of Change and Target on Inspiration revealed no main effect for Change, $F(1, 196) = 2.23$, $p = .137$, $\eta_p^2 = .01$, no main effect for Target, $F(1, 196) = 1.66$, $p = .199$, $\eta_p^2 = .01$, and the critical interaction, $F(1, 196) = 6.22$, $p = .013$, $\eta_p^2 = .03$. Pairwise comparisons reveal that participants were significantly more inspired by a person who used to use hard dangerous drugs himself but no longer does ($M = 6.68$, $SD = 1.76$) than by a person who has never used drugs at all ($M = 5.56$, $SD = 2.12$), $F(1, 196) = 8.12$, $p = .005$, $\eta_p^2 = .04$. This replicates the basic effect, here in terms of a past bad behavior described as directly harming the self. As hypothesized, however, this boosting effect of change disappeared when targets improved upon past bad behavior described as directly harming *others*: a person who used to deal hard dangerous drugs to others but no longer does was no more inspiring ($M = 5.62$, $SD = 2.21$) than a person who had never dealt drugs in the first place ($M = 5.90$, $SD = 1.82$), $F(1, 196) = .49$, $p = .485$, $\eta_p^2 = .002$.

Perceived effort (mediator). An ANOVA testing the effects of Change and Target on Inspiration revealed the critical main effect of Change, $F(1, 196) = 98.26$, $p < .001$, $\eta_p^2 = .33$, a main effect of Target, $F(1, 196) = 10.98$, $p = .001$, $\eta_p^2 = .05$, and no interaction, $F(1, 196) = 2.50$, $p = .115$, $\eta_p^2 = .01$. Pairwise comparisons reveal that participants inferred high effort for all forms of change, regardless of the target of harm. Improving upon one's past drug using was perceived as more effortful ($M = 7.63$, $SD = .94$) than avoiding it all together ($M = 5.01$, $SD = 1.86$), $F(1, 196) = 67.41$, $p < .001$, $\eta_p^2 = .26$; likewise, improving upon one's past drug dealing was perceived as more effortful ($M = 6.51$, $SD = 1.43$) than avoiding it all together ($M = 4.61$, $SD = 2.01$), $F(1, 196) = 34.02$, $p < .001$, $\eta_p^2 = .15$. As in Experiment 5, the fact that socially harmful change did not boost inspiration cannot be explained by a lack of perceived effort to change this behavior.

Next, we conducted a mediation analysis using Change as the independent variable, our Inspiration Index as the dependent variable, our Effort Index as the mediator, and Target as the moderator (SPSS PROCESS Model 5; 5,000 iterations). First, replicating previous experiments, the indirect effect of Change on Inspiration via Effort was indeed significant (indirect effect = 1.14, $SE = .21$; 95% *CI* [.76, 1.58]). In addition, we observed moderation at the level of conditional direct effects (moderator = −1.04, $SE = .52$; 95% *CI* [−2.06, −.02]). For self-harmful behaviors, the conditional direct effect of Change on Inspiration was statistically reduced when controlling for Effort (conditional direct effect = −.19, $SE = .42$, 95% *CI* [−1.01, .63]. However, for socially harmful behaviors, the conditional direct effect of Change remained when controlling for Effort (conditional direct effect = −1.23, $SE = .40$, 95% *CI* [−2.01, −.44]). Inferences about effort again mediated the effect of change on inspiration; but despite seeming effortful to have changed from a *socially*-harmful past, observers were no more likely to feel inspired.

These results provide further evidence that not all change is viewed equally: shedding socially harmful behavior is less inspiring than shedding bad behavior that harms the self, here within the same domain.

Experiment 7: Framing the Same Change

Last, we sought to further match the content of self/other conditions, not only within the same domain but using the same exact behavior. In Experiment 7, we held behavior constant and instead manipulated self/other at the level of *consequences*: we highlighted either the harm caused to the actor or the harm caused to other people in the actor's life.

Method

Participants ($N = 401$; 42.60% women; $M_{age} = 34.30$, $SD_{age} = 11.27$) were recruited on Amazon.com's M-Turk and participated for nominal payment. They were randomly assigned to a 2 (Change: Bad-to-Good vs. Always-Good) × 2 (Frame of Consequences: Harm to Self vs. Harm to Others) × 2 (Domain: Drugs vs. Drinking) between-subjects design. Participants learned that they would be reading a few facts about a man named "Karl" and providing their opinion about him.

Similar to previous experiments, the Domain conditions determined which behavior participants read about: either doing illicit drugs or engaging in excessive drinking. We included different behaviors simply to better generalize across stimuli. Also like previous experiments, participants read that Karl had either changed over time and shed a past bad behavior (e.g., that Karl used to have a problem with drugs or drinking, but that he no longer does; "bad-to-good" conditions) or that Karl has remained good over time with no bad past to improve upon (e.g., that Karl has never had a problem with drugs or drinking; "always good" conditions).

However, unlike previous experiments, we also manipulated consequences to focus either on how Karl himself was harmed or on how other people were harmed as a result of his actions. In the "self harm" conditions, Karl's drug or drinking problem was described as seriously hurting his own mind and body, leading him to experience great pain and suffering (or that he would have been harmed in this way if he had started to abuse these substances). In contrast, "social harm" conditions used identical behaviors but emphasized their consequences on others: how Karl's drug or drinking problem seriously hurt his family, friends, and loved ones as they watched from afar, leading these others to experience great pain and suffering (or that others would have been harmed in this way if he had started to abuse these substances). Note that participants ultimately read and respond to the exact same bad behavior across targets; we simply emphasize different consequences within the stimulus text.

After reading about their respective Karl, participants in all conditions completed the Inspiration Index ($\alpha = .95$) and Effort Index ($\alpha = .94$). All participants also completed 2 manipulation check items at the end of the study: one for the extent to which the actor himself was or would have been affected by the behavior as it was described, and one for the extent to which others were or would have been affected by the behavior as it was described, each on scales ranging from 1 (not very much) to 9 (extremely).

Results and Discussion

Manipulation checks. Regardless of scenario, all participants rated the behavior as posing equally high harm to the actor himself (among scenarios that emphasized self-harm: $M = 6.22$, $SD = 2.89$; among scenarios that emphasized other-harm: $M = 6.04$, $SD = 2.95$), $F(1, 393) = .51$, $p = .475$, $\eta_p^2 = .00$. This reflects the inherently self-dependent nature of the behaviors used in this experiment: drugs and drinking problems necessarily and directly affect the self regardless of other additional affected parties. Thus, a self-other difference score is uninformative. Instead, the critical check of the manipulation is whether participants were more likely to appreciate other-oriented consequences when others were emphasized within the stimulus text. The manipulation was indeed successful (among scenarios that emphasized self-harm: $M = 5.22$, $SD = 2.78$; among scenarios that emphasized other-harm: $M = 6.09$, $SD = 2.91$), $F(1, 393) = 11.26$, $p = .001$, $\eta_p^2 = .03$.

Inspiration (the basic effect). An ANOVA testing the effects of Change, Frame, and Domain on Inspiration revealed the two critical effects: a significant main effect of Change, $F(1, 393) = 8.97$, $p = .003$, $\eta_p^2 = .02$, qualified by a significant 2-way interaction between Change and Frame, $F(1, 393) = 4.69$, $p = .031$, $\eta_p^2 = .01$. There were no other main effects or interactions beyond an incidental marginal effect of Domain, $F(1, 393) = 3.20$, $p = .074$, $\eta_p^2 = .01$ (all other effects: Fs ≤ 2.27, ps ≥ .133, ηs$_p^2$ ≤ .00).

Changing from bad-to-good was again evaluated more positively than being always-good—except when perceivers reflect on the harm that one's bad past behavior caused to others (as hypothesized). When harmful consequences for the self were emphasized, overcoming a past drug problem was significantly more inspiring ($M = 6.89$, $SD = 1.50$) than avoiding a drug problem altogether ($M = 5.96$, $SD = 1.71$), $F(1, 393) = 7.10$, $p = .008$, $\eta_p^2 = .02$. Likewise, overcoming a past drinking problem was significantly more inspiring ($M = 6.98$, $SD = 1.45$) than avoiding a drinking problem altogether ($M = 6.10$, $SD = 1.78$), $F(1, 393) = 6.34$, $p = .012$, $\eta_p^2 = .02$. These findings again replicate our basic effect. In contrast, when harmful consequences for *others* were emphasized, these boosts no longer emerged: overcoming a past drug problem was no longer more inspiring ($M = 5.90$, $SD = 2.26$) than avoiding it ($M = 6.02$, $SD = 1.75$), $F(1, 393) = 0.12$, $p = .725$, $\eta_p^2 < .00$; just as overcoming a past drinking problem was no longer more inspiring ($M = 6.68$, $SD = 1.79$) than avoiding a drug problem altogether ($M = 6.26$, $SD = 1.67$), $F(1, 393) = 1.43$, $p = .232$, $\eta_p^2 = .00$. Thus, even when using identical behaviors as stimuli, ceasing social harm did not elicit the basic boost in inspiration.

Perceived effort (mediator). An ANOVA testing the effects of Change, Frame, and Domain on Perceived Effort revealed only the critical main effect of Change, $F(1, 393) = 293.38$, $p < .001$, $\eta_p^2 = .43$. There were no other main effects or interactions (Fs ≤ 1.22, ps ≥ .271, ηs$_p^2$ ≤ .00). Pairwise comparisons reveal that participants assumed change was more effortful than stability across *all* conditions. When self-harm was emphasized, ceasing drugs was seen as more effortful ($M = 7.71$, $SD = 1.08$) than avoiding them ($M = 5.40$, $SD = 1.86$), $F(1, 393) = 56.12$, $p < .001$, $\eta_p^2 = .13$, just as ceasing drinking was seen as more effortful ($M = 7.62$, $SD = 1.06$) than avoiding it ($M = 4.95$, $SD = 1.71$), $F(1, 393) = 74.89$, $p < .001$, $\eta_p^2 = .16$. Importantly, these results for perceived effort again remained the same when other-harm was emphasized: ceasing drugs was still seen as more effortful ($M = 7.78$, $SD = 1.35$) than avoiding them ($M = 4.80$, $SD = 1.97$), $F(1, 393) = 89.40$, $p < .001$, $\eta_p^2 = .19$, just as ceasing drinking was

seen as more effortful ($M = 7.65$, $SD = 1.12$) than avoiding it ($M = 5.00$, $SD = 1.87$), $F(1, 393) = 74.66$, $p < .001$, $\eta_p^2 = .16$.

Next, we conducted a mediation analysis using Change as the independent variable, our Inspiration Index as the dependent variable, our Effort Index as the mediator, and Frame as the moderator (SPSS PROCESS Model 5; 5,000 iterations). First, replicating previous experiments, the indirect effect of Change on Inspiration via Effort was indeed significant (indirect effect = 1.40, $SE = .17$; 95% *CI* [1.08, 1.77]). And we again observed moderation at the level of conditional direct effects (moderator = −.93, $SE = .31$; 95% *CI* [−1.54, −.31]). For self-harmful behaviors, the conditional direct effect of Change on Inspiration was statistically reduced when controlling for Effort (conditional direct effect = −.42, $SE = .25$, 95% *CI* [−.91, .08]. However, for socially harmful behaviors, the conditional direct effect of Change remained when controlling for Effort (conditional direct effect = −1.34, $SE = .26$, 95% *CI* [−1.85, −.83]). Perceived effort generally mediated inspiration, as in all of our experiments; but replicating the results of Experiments 5 and 6, ceasing socially framed behaviors failed to inspire *despite* their high effort.

Experiments 5–7 provide consistent, convergent evidence for an important boundary to the inspiring power of change. To the extent that one's bad past behavior harmed others and not just oneself, improving upon this bad behavior may not inspire others in the present. Here the basic effect that we have observed across all previous experiments is attenuated, even via mere framing of an objectively identical behavior. Doing harm to others may uniquely "stick" with a person even if s/he has since changed for the better.

General Discussion

Other people provide a powerful source of inspiration. Eight experiments reveal that others who improve from 'bad to good' are evaluated more positively than others who only and always have been 'good.' While previous research examined a similar dynamic in restricted domains (Rodin & Price, 1995), we substantially expand the domains in which personal improvement is shown to inspire. Further, we reveal a novel mechanism that accounts for this effect: people believe that change (improving from a bad past) is more effortful than stability (avoiding a bad past altogether). This result is more broadly rooted in people's lack of access to others' thoughts and feelings as the reason for valuing improving from bad-to-good over always being good. Because people are typically not privy to the hard work and effort that others commonly have to exert in order to avoid a bad behavior, improvement appears more effortful and therefore more inspiring. Finally, we highlight one important moderator to the effect: shedding a bad past that caused harm to *others* is not perceived positively in the present, suggesting that not all change is viewed equally (even when such change is perceived as effortful to have accomplished).

Insights and Implications

Our findings raise at least four important implications. First, one interesting implication relates to self-presentation. Does disclosure of a bad past benefit or harm one's reputation? People may intuitively recoil at the notion of disclosing their undesirable pasts (e.g., if a date stumbles upon photographs of one's overweight past self). However, the effects of such disclosure may be even *more* beneficial than this impulse to conceal. People might not intuitively appreciate that a bad past conveys effortful change in the present, which in turn invites positive evaluations. Indeed, people may generally misperceive the conditions under which social stigma (Goffman, 1963; Jones et al., 1984) will versus will not emerge.

Second, how might our framework bear on evaluations of *negative* end-states? If changing from 'good to bad' is also perceived as more effortful and intentional than 'always being bad,' then people might evaluate 'always-bad' actors more *positively* than 'bad-to-good' actors. Such an effect is quite paradoxical, as people who have acted badly for a long time should (rationally) be seen as worse than people who have only recently turned bad. Our findings suggest the opposite.

Third, to what extent is the basic effect an "error"? After all, change may truly require more effort than stability in many cases, especially in the short term (e.g., the most recent push to overcome a major challenge as opposed to a lifetime of sustained effort). But this will not always be the case. More cases of effortful stability may exist than assumed. This is directly evidenced by our writers in Experiments 3 and 4, who spontaneously described the hard work and effort that they indeed had been exerting to maintain their positive states. In daily life, however, observers rarely have access to this private information and are left to judge others only by surface-level features (Epley & Dunning, 2000; Gilbert & Malone, 1995; Klein & Epley, 2016; O'Brien, 2015). Therefore, observers' "default" assumptions about change and stability (lacking sufficient knowledge of a person's life experiences behind the scenes) likely reflect an overgeneralized heuristic—valid in many cases, but unwittingly applied to others even when it is a poor approximation of reality (Baron, 1990).

Another standard for rationality relates to consistency between how people judge themselves and how they judge others. If people provide social judgments that they then do not endorse for themselves, they in effect negate their own logic (Hsee, Loewenstein, Blount, & Bazerman, 1999; Irwin, Slovic, Lichtenstein, & McClelland, 1993). Here we find that people find change more inspiring in others but find stability more inspiring in themselves, an apparent inconsistency. However, our mechanism suggests that people may simply lack the information needed to recognize the effort involved in others' stable behaviors and therefore infer that it does not exist (see Pronin, 2009). When people are given access to others' internal states, self- and social judgments become far less discrepant. This again suggests that people are missing key information rather than expressing a more motivated form of biased social judgment, but this lack of information might sometimes lead observers astray.

Fourth, the current research raises novel theoretical nuances in casting social inspiration as a response to a person's internal motivations rather than outcomes. Researchers and practitioners alike understand the power of others to inspire, not least evidenced by the fact that the people asked to speak to aspiring students, scientists, managers are indeed *other people* who are highly successful, accomplished, and powerful themselves. However, inspiration in such contexts is typically construed as requiring upward comparisons to an objectively "superior" person—ostensibly, one must be exemplary to be inspirational (Pleiss, & Feldhusen, 1995; Tjas et al., 1997). Moreover, past research suggests these role models must highlight their similarity to the audience (Lockwood

& Kunda, 1997). In contrast, the present research suggests that inspiration can come not only from looking "up" to exemplary targets, but also from looking "down" toward someone who has experienced past problems. Nor is it necessary for actors to highlight their similarity to observers—indeed, some of the behaviors we examined here are relatively rare and therefore few of our participants have experienced them (hard drug abuse, excessive gambling). The key to inspiration seems to lie not in being exemplary per se, but in being able to communicate the effort necessary to live well (which can be easier to communicate if one has saliently changed from a bad past). This insight may also partly explain why people who share redemptive life stories (e.g., about overcoming major life obstacles like substance abuse or criminal behavior) have been found to be so highly *generative*: compared to others, they tend to be more effective parents, teachers, mentors, and wield other forms of social influence (Dunlop & Tracy, 2013; Maruna, 2001; McAdams, 2013; McAdams et al., 2001). If change is more inspiring than stable positivity because of the hard work and effort that it conveys, then individuals who emphasize these redemptive themes in their own life narratives indeed should be more successful at encouraging others and having a generative impact on their communities.

Future Directions

The basic effect raises various outstanding questions for follow-up research. One set of questions pertains to expanding the basic effect beyond the parameters tested here. For example, the inspiring boost of change might extend to behavioral measures previously associated with inspiration, such as altruistic behavior and increased motivation on work tasks. Judgments of inspiration and these behavioral outcomes tend to go hand in hand (Schnall, Roper, & Fessler, 2010; Thrash & Elliot, 2003). Future research should also integrate nonsocial sources of inspiration into our framework. People may be more inspired by art, architecture, literature, and other entities if they took hard work to create than if they were created quickly and easily (Kruger et al., 2004; Thrash et al., 2016). Still other research should examine whether the boost is amplified when others adopt actively positive behaviors following their change. In our studies, changed targets were depicted as simply ceasing a bad behavior (e.g., "X no longer uses extreme drugs") rather than adding to it (e.g., "X is now a drug addiction advocate"). We did this to be more conservative and not to artificially elevate changed others, but such compensatory behavior is not uncommon. To the extent that such behaviors reinforce the "true" nature of one's change, we suspect that a person would become even more inspirational (but see also Klein & Epley, 2014, who find that people are increasingly *insensitive* to marginal increases in improvement). This may be especially relevant for improving one's reputation following social harms, which proved quite difficult to recover from in our studies. For example, perhaps not merely ceasing bullying, but also then becoming an antibullying advocate, might help people recover from these extreme behaviors.

A different set of questions pertains to when and why the basic effect is attenuated rather than amplified. What moderates the power of personal change to inspire, and why? As hinted at above, claims of improvement may encounter suspicion and disbelief among observers (Fein, 1996). People might be more skeptical in believing that others have truly reformed than our study participants, who were given objective information about change that is often lacking in daily life (though Experiments 3–4 suggest that people can indeed be persuaded). Future research should explore the conditions under which change is less likely to be "believed" and therefore inhibit the effect. A related moderator is the kind of attribution elicited by a person's past bad behavior. For example, extreme norm-violating behavior (e.g., social harm) elicits dispositional attributions (Fiske, 1980; Kelley, 1973). In turn, the more that observers make dispositional attributions about an actor's past bad behavior, the more s/he may seem "villainous" (and thus hard to redeem, as in our social harm studies) rather than as a sympathetic person simply caught in bad circumstances (and thus more redeemable, such as falling into drugs, unhealthy eating, and other self-oriented problems). One interesting way to manipulate such attributions may be through identity framing (e.g., describing a person as one who "used to be a gambler" vs. "used to gamble": Bryan, Adams, & Monin, 2013). Last, all of these potential moderators likely interact with cultural norms regarding personal change and stability (Heine et al., 2001; Ji, Nisbett, & Su, 2001; Norenzayan, Choi, & Nisbett, 2002). Change may be especially likely to inspire American participants (as in our studies) because of the prevalent cultural emphasis on self-improvement and "pulling oneself up by the bootstraps" (Furnham, 1984; Tugend, 2011). Although the mechanism of lacking access to others' internal states may apply cross-culturally, the magnitude of the effect of personal change on inspiration (and in general, the highly positive associations with change observed in our studies) likely varies by culture.

One final, but perhaps most fruitful, direction for future research pertains to other drivers of the basic effect. Our findings suggest that additional mechanisms apart from perceived effort must underlie the effect of change on inspiration. When perceived hard work was matched in Experiment 2, this indeed equalized the inspiring power of change and stability. When perceived effort was matched in Experiments 3 and 4, however, stability was *more* inspiring than change. And in Experiments 5–7, changing from socially harmful behaviors was perceived as very effortful, but this did not translate into higher inspiration (as hypothesized). This suggests a more complex story for why change inspires more than stability and conversely why stability may sometimes inspire more than change.

In addition to our earlier comments, it could be that others who remain "always good" (even if done effortfully) may seem overly disconnected from the human experience, which involves many first-hand experiences with pain, struggle, and loss (Haslam, 2006; Hofmann et al., 2012; O'Brien & Klein, 2017). Not only the recovery but also the mere taste of shared badness may foster initial connections between observers and actors. Likewise, avoiding badness altogether may evoke envy or simply feel unfair as a matter of principle regardless of effort (Alicke, 2000; Weiner, 1985), or promote inferences that the actor possesses other undesirable traits that negate their high efforts (e.g., a 'holier-than-thou' or judgmental attitude: Minson & Monin, 2012; Monin, Sawyer, & Marquez, 2008). To take a concrete example from the world of sports, we suspect that discovering that perennially successful teams like the New England Patriots or New York Yankees work very hard to

maintain constant success does not persuade many fans to see them in any better of a light, perhaps for such reasons. By the same logic, such reasons might explain why stability can sometimes inspire more than change if these factors are flipped. For example, the self-evaluators in Experiment 4 likely do not infer negative traits or attitudes about *themselves* for having remained always good, allowing them to feel quite inspired by those experiences. As another example, observers may assume it is more "normal" or "human" in the context of social harm to be *naturally* good toward others. Here effort might actively hurt for the same reasons as why it helps for the self: someone who has to work hard to be kind or empathetic toward others may not be especially inspiring, unlike self-directed outcomes like professional success and personal health.

Concluding Thoughts

In many domains in life, people intuitively strive for stability. Dieters, investors, and people who swear off alcohol all seek to maintain a record of success in their endeavors, just as students and employees strive to put only their best foot forward and hide the other one. However, in the eyes of others, perfection may have a drawback—it masks the effort necessary to maintain it. Being consistently good might come at the cost of perfection seeming too "easy." In contrast, when hearing about a successful dieter who once overate, a successful investor who once lost money, and a former drinker who once fell off the wagon, people can notice the effort necessary to change. For those who seek to make a good impression on others, it may seem wise to emphasize consistent excellence, whether it be in leadership, business, or more broadly in life. But in many cases it may be wiser to do precisely the opposite—showcase your past stumbles, and then your recovery.

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