Cognition 115 (2010) 343–349

Contents lists available at ScienceDirect

Cognition

journal homepage: www.elsevier.com/locate/COGNIT

Brief Article

"End-of-life" biases in moral evaluations of others

George E. Newman [a,*], Kristi L. Lockhart [b], Frank C. Keil [b]

[a] School of Management, Yale University, 135 Prospect St., New Haven, CT 06511, United States
[b] Department of Psychology, Yale University, 2 Hillhouse Ave., New Haven, CT 06521, United States

ARTICLE INFO

Article history:
Received 22 October 2009
Revised 21 December 2009
Accepted 22 December 2009

Keywords:
Moral reasoning
Moral evaluations
Death
Heuristics
Biases

ABSTRACT

When evaluating the moral character of others, people show a strong bias to more heavily weigh behaviors at the end of an individual's life, even if those behaviors arise in light of an overwhelmingly longer duration of contradictory behavior. Across four experiments, we find that this "end-of-life" bias uniquely applies to intentional changes in behavior that immediately precede death, and appears to result from the inference that the behavioral change reflects the emergence of the individual's "true self".

1. Introduction

> "Men's courses will foreshadow certain ends, to which, if persevered in, they must lead... But if the courses be departed from, the ends will change" – Ebenezer Scrooge, (Dickens, 1843).

How do we evaluate the moral virtue of another person's life? Though subjective impressions of what constitutes "good" may vary, one reasonable way of answering this question may be to simply add up all of the good and bad actions that a person has engaged in over the course of his or her life. We might attach appropriate weights to the degree of goodness or badness of each action, the importance of the event involved, or the number of others affected. But in the end, a person's net impact on the world would seem to be simply the sum of those appropriately weighted positive and negative actions, and indeed, that final score may be a reasonable way of assessing how "good" or "bad" that person was overall.

Yet, we may not follow this seemingly reasonable strategy for assessing the overall morality of others. In fact, history and conventional wisdom seem to be filled with countless anecdotes that would suggest quite the opposite. We constantly hear stories of people who "turn over a new leaf" late in life, engaging in many generous actions in their final days. Such changes, even when they represent only a small fraction of a person's total life, are often described as acts of redemption that now cast the person's entire life in a much more positive manner. For example, Dicken's (1843) Ebenezer Scrooge seemed to have lived most of his life as a selfish, insensitive tyrant and yet his few acts of kindness at the end of his life make us feel that overall Scrooge was basically a good person. Similar positive interpretations are made of Dr. Seuss's Grinch (Geisel, 1959), or perhaps, various corporate titans such as Andrew Carnegie who turn from ruthless selfishness to charity in their final years (Sonnenfeld, 1988).

This "end-of-life" bias resonates with several related findings. For example, people rate a longer unpleasant experience that ends positively as better than a shorter negative experience that has no positive end (e.g., Fredrickson & Kahneman, 1993; Kahneman, Fredrickson, Schreiber, & Redelmeier, 1993). Such duration neglect is hypothesized to result from a more general peak-end memory bias whereby individuals form a global evaluation of an experience based on the most extreme "peak" event and the most recent event (Kahneman, 1999; Kahneman et al., 1993).

* Corresponding author. Tel.: +1 2034321046.
E-mail address: george.newman@yale.edu (G.E. Newman).

0010-0277/$ - see front matter © 2010 Elsevier B.V. All rights reserved.
doi:10.1016/j.cognition.2009.12.014

Peak-end effects have also been documented in evaluations of others' wellbeing. For example, people rate intensely happy lives that ended abruptly as preferable to intensely happy lives that were longer, but ended with mildly happy years, the "James Dean effect" (Diener, Wirtz, & Oishi, 2001). Finally, death itself appears to play a unique role in solidifying evaluative judgments. Evaluations of individuals who are believed to be dead are more resistant to change than are evaluations of the living, the so-called "Frozen in Time effect" (Eylon & Allison, 2005).

Taken together, previous research suggests that we are biased in how we aggregate across the events that make up our own experiences, and in how we form evaluations of others. Moreover, it appears that the ends of people's lives may have a special status in such evaluations. At the same time, prior work has not specifically focused on the question of whether people will override a relatively long period of one kind of behavior with a relatively short period of another kind just because it occurred at the end of one's life. Yet, in many ways this may be the most striking bias of all. If a person causes unrelenting misery for others for much of one's life and engages in beneficial activities only at the end, why would we think of them as being a good person?

The four studies described here explored this bias and the possible reasons for it. Study 1 demonstrates the basic effect while the remaining studies establish boundary conditions. Specifically, Study 2 demonstrates that this bias uniquely applies to changes in behavior that occur at the end-of-life, Study 3 demonstrates that the changes must be seen as "genuine" (i.e., both intentional and intrinsically-motivated), and Study 4 demonstrates that effect is unique to inferences surrounding a death. Additionally, the final study helps to identify potential mechanisms by examining whether individual differences in essentialism, belief in an afterlife, belief in the "outing" of hidden personality traits, or religiosity interact with this particular bias.

2. Study 1

2.1. Method

Eighty-five adults (M_{age} = 33, 29% male) were recruited while attending a state fair. Participants read one of four short scenarios involving a hypothetical individual named Jim (see Appendix A for all stimuli). Half of the participants read that for most of his life, Jim was extremely selfish and greedy. Participants in the "change to good" condition then read that Jim changed in his behavior and became generous 6 months before he died. Participants in the "all bad" condition read an identical scenario, except that the sentences describing the change to good were omitted. The other half of participants read scenarios in which Jim's dominant behavior was generous. Participants in the "change to bad" condition then read that Jim changed in his behavior and became selfish 6 months before he died, while for participants in the "all good" condition, the change to bad was omitted. At the end of the scenario, participants in all conditions read that Jim unexpectedly suffered a heart attack and died, which controlled for any judgments linked to changing one's behavior in anticipation of death.

After reading the story, participants were instructed to "*consider Jim overall as a person*" and rated him on a series of nine-point scales along the dimensions "*mean–kind, uncaring–caring, bad–good, immoral–moral, and selfish–generous,*" where higher numbers indicated more positive attributes.

2.2. Results and discussion

Items measuring Jim's moral character were highly correlated (α = 0.96) and were averaged to produce a single measure of perceived morality. Participants judged Jim to be significantly more moral when he briefly became generous at the end of his life (M = 5.00, SD = 1.79) compared to when he remained selfish throughout (M = 1.86, SD = 0.66), $t(42) = 7.06$, $p < 0.001$. Conversely, participants judged Jim to be significantly *less* moral when he briefly became selfish (M = 4.86, SD = 1.64), than when he remained generous throughout (M = 7.93, SD = 1.59), $t(39) = 6.09$, $p < 0.001$.

This result provided initial support for the end-of-life bias. Responses in the "all good" and "all bad" conditions established that people readily judge the generous and selfish behaviors presented here as occupying opposite extremes of moral valence, $t(36) = 15.02$, $p < 0.0001$. However, when Jim briefly changed his behavior (either to good, or to bad), he was rated as nearly the same, $p > 0.77$. This result is striking given that these changes were explicitly described as representing a small fraction of Jim's total lifetime (6 months), and in fact, subjects even showed a slight trend to judge a change to good as better than a change to bad – a pattern more robustly documented in subsequent studies.

3. Study 2

Results from Study 1 provided initial support for the end-of-life bias. However, perhaps these patterns were driven by the presence of *any* contradictory behavior. Study 2 controlled for the total duration of good and bad behavior by presenting the brief amount of contradictory behavior either at the beginning of Jim's adult life, or at the end. Additionally, the durations of both the majority behavior and the contradictory behavior were made explicit so that they could be more easily calculated – thereby providing a stronger test of the bias.

3.1. Method

A new group of 128 adults (M_{age} = 35, 33% male) were recruited through a Web service that hosts online studies for academic purposes. Participants read one of four scenarios. Two of the scenarios were nearly identical to the previous study: "good at end" (Jim was selfish for 29 years, then generous for one) and "bad at end" (Jim was generous for 29 years, then selfish for one). Two additional conditions were added: "good at beginning" (Jim was generous for one year, then selfish for 29), and "bad at beginning" (Jim was selfish for one year, then generous for 29). Partic-

Fig. 1. Comparison of the average moral evaluations of the target (±*SE*) across the different conditions in Studies 2 and 3.

ipants then rated Jim along the dimensions, *unethical–ethical, bad–good, uncaring–caring, immoral–moral, and reckless–conscientious* ($\alpha = 0.93$). The wording of the dependent measure was slightly different from Study 1 in order to focus greater attention on the entirety of Jim's life. Here we asked, "*Overall, what kind of person should Jim be remembered as?*"

3.2. Results and discussion

A 2 × 2 ANOVA revealed a significant interaction between the valence of the "change" behavior (good vs. bad) and its position (beginning vs. end), $F(1, 124) = 38.27$, $p < 0.001$ (Fig. 1). When Jim was selfish for 29 years, participants rated him as *more* moral when he was generous for one year at the end of his life ($M = 5.91$, $SD = 1.51$), than when he was generous at the beginning ($M = 3.56$, $SD = 1.45$), $t(63) = 6.35$, $p < 0.001$. Conversely, when Jim was generous for 29 years, participants rated Jim as *less* moral when he was selfish for one year at the end of his life ($M = 5.66$, $SD = 1.49$), than when he was selfish at the beginning ($M = 6.77$, $SD = 1.83$), $t(61) = 2.64$, $p = 0.01$. Thus, controlling for the total duration of good and bad behavior, participants placed a special emphasis on the behaviors engaged in at the end-of-life.

4. Study 3

Study 3 explored the effects of the target's intentions. Specifically, we hypothesized that this bias is driven in part by the inference that the individual has undergone a genuine change in moral character that is both intentional *and* intrinsically-motivated. Therefore, we contrasted "genuine" changes against unintentional changes (e.g., a personality change due to brain injury), or "extrinsically-motivated" changes (i.e., changes made because one knows that they will die soon). We hypothesized that whereas genuine changes should engender the end-of-life bias, both unintentional changes and 'extrinsic' changes should reverse the effect such that an individual who is good for the majority of life is judged as better than an individual who is bad.

4.1. Method

A new group of 188 adults ($M_{age} = 34$, 33% male) were recruited using the same Web service as Study 2.[1] Participants read one of six vignettes in a 2 (brief behavior: good vs. bad) × 3 (motivation) between-subjects design. Materials were identical to the previous study except that we manipulated whether Jim's brief change to good or bad was described as *genuine* (Jim had a moment of insight and decided to change his behavior), *unintentional* (Jim changed his behavior due to a localized brain injury), or *extrinsically-motivated* (Jim was told he had only one year to live).

4.2. Results and discussion

An omnibus analysis revealed a significant interaction between valence and motivation, $F(2, 182) = 16.06$, $p < 0.001$. Additionally, the planned comparisons between the genuine and unintentional conditions revealed a significant interaction, $F(1, 119) = 24.43$, $p < 0.001$, as did the planned comparison between the genuine and the extrin-

[1] In all studies, participation in a previous study eliminated eligibility for participation in future studies.

sic conditions, $F(1, 121) = 23.74$, $p < 0.001$. As predicted, when the behavioral change was genuine, the end-of-life bias was observed and participants rated the target as more moral when he changed to good ($M = 6.53$, $SD = 1.55$) than when he changed to bad ($M = 5.35$, $SD = 1.70$), $t(58) = 2.82$, $p = 0.007$. Conversely, when the behavioral change was unintentional, participants rated the change to good as *less* moral ($M = 5.66$, $SD = 1.49$) than the change to bad ($M = 7.37$, $SD = 1.76$), $t(61) = 4.19$, $p < .001$. Similarly, when the change was extrinsically-motivated, participants rated the change to good as *less* moral ($M = 4.92$, $SD = 1.61$) than the change to bad ($M = 6.50$, $SD = 1.47$), $t(63) = 4.12$, $p < 0.001$. Thus, results from Study 3 demonstrated that the end-of-life bias only holds for situations in which the behavioral change is both intentional and intrinsically-motivated.

5. Study 4

Study 4 examined the extent to which these patterns are unique to death. We contrasted brief changes in behavior that immediately preceded an unexpected death against scenarios in which the target was still alive. We predicted that changes in behavior that preceded death should be judged to be more dramatic (i.e., a larger change in 'goodness', or a larger change in 'badness') than changes in which the target continued to live. We additionally examined potential reasons for the effect by measuring individual differences along several dimensions including belief in essentialism, belief in an afterlife, belief in the "outing" of hidden personality traits, and religiosity.

5.1. Method

A new group of 141 adult participants ($M_{age} = 35$, 36% male) were recruited from the same web service. Participants read one of four vignettes in a 2 (brief behavior: good vs. bad) × 2 (ending: dead vs. alive) between-subjects design. Materials were identical to the previous studies except participants read that Jim's brief change to good or bad was followed by a car accident. Half of the participants read that Jim was killed in the car accident, while the other half read that Jim was not injured. The wording of the dependent measure was slightly different from previous studies in order to equate across conditions. Here we asked, "*Considering Jim's entire life up to this point, overall, what kind of person should he be thought of as?*" Additionally, participants responded to a series of items (see Appendix B), which assessed their belief in psychological essentialism (Levy, Dweck, & Stroessner, 1998), belief that a person's true nature may reveal itself, belief in an afterlife, and their degree of religiosity.

5.2. Results and discussion

A 2 × 2 ANOVA revealed a significant interaction between valence and ending, $F(1, 137) = 4.46$, $p = 0.036$. Consistent with the previous studies, we observed when Jim briefly changed to good and died he was judged as significantly *more moral* than when he briefly changed to bad and died, $t(66) = 2.41$, $p = 0.019$. However, there was no difference between the two "alive" conditions, $p > 0.65$. Moreover, when Jim changed to good and then died he was rated as more moral ($M = 6.24$, $SD = 1.39$) than when he changed to good, but did not die ($M = 5.69$, $SD = 0.98$), $t(68) = 1.95$, $p = 0.056$. Conversely, when Jim changed to bad and died he was rated as less moral ($M = 5.38$, $SD = 1.57$) than when he changed to bad, but did not die ($M = 5.83$, $SD = 1.65$), though this difference did not reach statistical significance, $t(69) = 1.19$, $p = 0.24$.

A series of regression analyses revealed that the only dimension that moderated these effects was agreement

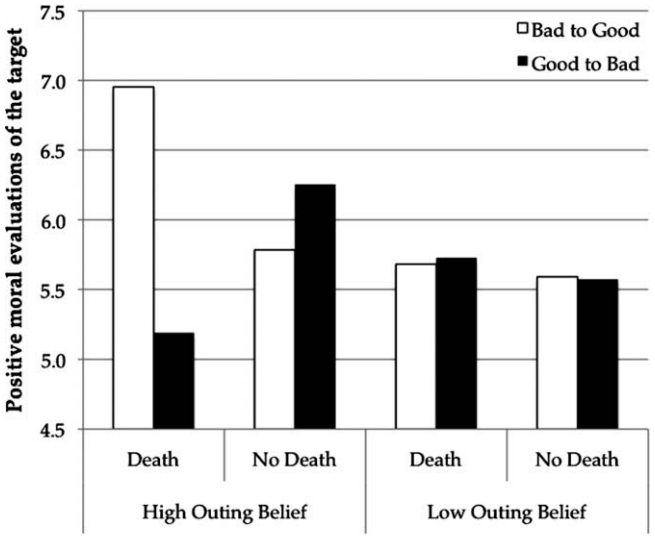

Fig. 2. The moderating effects of Outing Belief on ratings of the target in Study 4. *Note*: Low is one standard deviation below the mean, and high is one standard deviation above the mean.

with the belief that a person's true nature can reveal itself (hereafter "Outing Belief"). We observed a significant three-way interaction between valence, ending, and Outing Belief (mean-centered), $\beta = -0.20$, $p = 0.024$. We then compared the effects of the target's behavior change at plus and minus one standard deviation on the Outing Belief measure (Aiken & West, 1991). Participants who were higher on Outing Belief were more likely to show the end-of-life bias – that is, when Jim briefly changed to good and died they rated him as better than when he briefly changed to bad and died, $\beta = -0.58$, $p = 0.002$ (Fig. 2). Moreover, these participants showed a unique effect of death: in the change to good conditions, they rated Jim as more moral when he died compared to when he was still alive, $\beta = 0.48$, $p = 0.011$. Conversely, in the change to bad conditions they rated him as *less moral* when he died compared to when he was still alive, $\beta = -0.33$, $p = 0.044$. Participants who were low on Outing Belief showed no effect of behavioral change in both the death and no death conditions, $\beta = -0.01$, $p = 0.97$ and $\beta = 0.08$, $p = 0.94$, respectively.

6. General discussion

These studies provide the first empirical demonstration that people are willing to override a relatively long period of one kind of behavior with a relatively short period of another kind just because it occurred at the end of one's life. This end-of-life bias uniquely applies to changes in behavior that occur at the end-of-life (Study 2), changes that are seen as both intentional and intrinsically-motivated (Study 3) and changes that immediately precede death (Study 4). These patterns are informative not only because they illustrate the boundary conditions of this bias, but also because they help to rule out alternative explanations such as mere recency effects (Murdock, 1962). If, for instance, recency effects were the sole driving mechanism then we should *not* have observed effects of the individual's intentions (Study 3) or the ending type (Study 4), since the ordering of positive and negative information was held constant throughout.

Instead, the end-of-life bias seems to result from the inference that the person's "true self" has been revealed (Lockhart, Nakashima, Inagaki, & Keil, 2008; Swann, Rentfrow, & Guinn, 2002). This inference may be particularly strong for behavioral changes that precede death since it must be based on the most recent behavior. In the case of death, we can be sure that the most recent behavior was also the *last* behavior. However, in cases where the individual continues to live, it is more ambiguous whether or not the person will change back.

This explanation is supported by the findings from Study 3 that the effect does not hold for a person who changes their behavior unintentionally, or for an individual who changes their behavior because they know they will die soon. In these cases, participants continued to view the person as essentially bad, thinking that perhaps the change was made only because of the anticipated death, or in spite of their intentions to behave otherwise. Moreover, the importance of "genuine" changes is found across studies. In Studies 1 and 2, we did not observe differences between the "change to good" and "change to bad" conditions. However, in Studies 3 and 4, when the change was clearly genuine, a brief amount of good was rated as significantly *more moral* than a brief amount of bad. Finally, in Study 4, agreement with the belief that a person's true nature may reveal itself was the only individual difference measure that interacted with the end-of-life bias. Participants who were higher on the Outing Belief scale rated the target's behavioral change as more dramatic in the conditions where he died and were more likely to show the end-of-life bias.

In sum, people show a strong bias to more heavily weigh an individual's behavior at the end of their life, even when those behaviors arise in light of an overwhelmingly longer duration of contradictory behavior. The four studies presented here provide the first empirical demonstration of this effect, while also establishing important boundary conditions and potential underlying mechanisms.

Acknowledgement

This research was supported by NIH grant R37 HD023922 to Frank Keil.

Appendix A

A.1. Experiment 1 vignettes (text used in the change conditions)

A.1.1. Selfish to generous

For most of his life, Jim was considered an incredibly selfish and greedy person. As CEO of his company, Jim often made decisions that put his own financial interests before the wellbeing of his employees. He paid his employees far less than employees at other companies. He never gave his employees bonuses and often denied them healthcare benefits. Moreover, Jim never donated any money to charity.

Many years later, when Jim was close to retirement, (he had a change of heart and drastically changed his behavior. Jim became very generous and altruistic. He raised his employees' salaries, gave them large bonuses, and improved their healthcare coverage. He also started donating large amounts of money to various charities around the community. But, only 6 months later,) Jim suffered a massive heart attack and died instantly.

A.1.2. Generous to selfish

For most of his life, Jim was considered an incredibly generous and altruistic person. As CEO of his company, Jim often made decisions that put the wellbeing of his employees before his own financial interests. He paid his employees far more than employees at competitor companies. He gave his employees large bonuses and generous healthcare benefits. Moreover, Jim frequently donated large amounts of money to various charities around the community.

Many years later, when Jim was close to retirement, (he had a change of heart and drastically altered his behavior. Jim became very selfish and greedy. He lowered his employees' salaries, stopped giving them bonuses, and routinely denied his employees healthcare coverage. He also stopped donating any money to charity. But, only 6 months later,) Jim suffered a massive heart attack and died instantly.

A.2. Experiment 2 vignettes

A.2.1. Good at end

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put his own financial interests before the wellbeing of his employees. He paid his employees far less than employees at competitor companies. He never gave his employees bonuses and he often denied them healthcare benefits. Moreover, Jim never donated any money to charity.

Last year, however, Jim had a change of heart and vowed to drastically change his behavior. Shortly after, Jim became very generous and altruistic. He raised his employees' salaries, gave them large bonuses, and improved their healthcare coverage. He also started donating large amounts of money to various charities around the community.

But, only one year later, Jim suffered a massive heart attack and died instantly.

A.2.2. Good at beginning

Jim inherited his father's company 30 years ago. When Jim first inherited the company, he often made decisions that put the wellbeing of his employees before his own financial interests. He paid his employees far more than employees at other companies. He gave his employees large bonuses and generous healthcare benefits. Moreover, Jim frequently donated large amounts of money to various charities around the community.

However, after only 1 year, Jim had a change of heart and vowed to drastically change his behavior. Shortly after, Jim became very selfish and greedy. He lowered his employees' salaries, stopped giving them bonuses, and routinely denied his employees healthcare coverage. He also stopped donating any money to charity.

Twenty-nine years later, Jim suffered a massive heart attack and died instantly.

A.2.3. Bad at end

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put the wellbeing of his employees before his own financial interests. He paid his employees far more than employees at other companies. He gave his employees large bonuses and generous healthcare benefits. Moreover, Jim frequently donated large amounts of money to various charities around the community.

Last year, however, Jim had a change of heart and vowed to drastically change his behavior. Shortly after, Jim became very selfish and greedy. He lowered his employees' salaries, stopped giving them bonuses, and routinely denied his employees healthcare coverage. He also stopped donating any money to charity.

But, only one year later, Jim suffered a massive heart attack and died instantly.

A.2.4. Bad at beginning

Jim inherited his father's company 30 years ago. When Jim first inherited the company, Jim often made decisions that put his own financial interests before the wellbeing of his employees. He paid his employees far less than employees at competitor companies. He never gave his employees bonuses and he often denied them healthcare benefits. Moreover, Jim never donated any money to charity.

However, after only 1 year, Jim had a change of heart and vowed to drastically change his behavior. Shortly after, Jim became very generous and altruistic. He raised his employees' salaries, gave them large bonuses, and improved their healthcare coverage. He also started donating large amounts of money to various charities around the community.

Twenty-nine years later, Jim suffered a massive heart attack and died instantly.

A.3. Experiment 3 vignettes (text used to describe type of change)

A.3.1. Genuine change to good

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put his own financial interests before the wellbeing of his employees. He paid his employees far less than employees at competitor companies. He never gave his employees bonuses and he often denied them healthcare benefits. Moreover, Jim never donated any money to charity.

(Last year, however, Jim was driving to work one day when he was involved in a car accident. Jim was not physically injured in the accident, but in that brief instant, his life flashed before his eyes. He considered his life and the ways in which had been wrong, and he vowed to drastically change his behavior.) Shortly after, Jim became very generous and altruistic. He raised his employees' salaries, gave them large bonuses, and improved their healthcare coverage. He also started donating large amounts of money to various charities around the community.

But, only one year later, Jim suffered a massive heart attack and died instantly.

A.3.2. Genuine change to bad

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put the wellbeing of his employees before his own financial interests. He paid his employees far more than employees at other companies. He gave his employees large bonuses and generous healthcare benefits. Moreover, Jim frequently donated large amounts of money to various charities around the community.

(Last year, however, Jim was driving to work one day when he was involved in a car accident. Jim was not physically injured in the accident, but in that brief instant, his life flashed before his eyes. He considered his life and the ways in which had been a sucker, and he vowed to drastically change his behavior). Shortly after, Jim became very selfish and greedy. He lowered his employees' salaries, stopped giving them bonuses, and routinely denied his employees healthcare coverage. He also stopped donating any money to charity.

But, only one year later, Jim suffered a massive heart attack and died instantly.

A.3.3. Unintentional changes

Wording was identical to the genuine change conditions above, except the following text replaced the text in parentheses: Last year, however, Jim was driving to work

one day when he was involved in a car accident. In the accident, Jim suffered a significant head injury. After Jim regained consciousness, it was apparent that although Jim's cognitive functions were all intact, his personality had been drastically changed by the accident.

A.3.4. Extrinsically-motivated changes

Wording was identical to the genuine change conditions above, except the following text replaced the text in parentheses: Last year, however, Jim was diagnosed with a rare form of cancer and was given only a year to live.

A.4. Experiment 4 vignettes (text used to describe "alive" conditions)

A.4.1. Bad to good

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put his own financial interests before the wellbeing of his employees. He paid his employees far less than employees at competitor companies. He never gave his employees bonuses and he often denied them healthcare benefits. Moreover, Jim never donated any money to charity.

Thirty years later, however, Jim had a change of heart. He considered his life and the ways in which he had been wrong and he vowed to drastically change his behavior. Shortly after, Jim became very generous and altruistic. He raised his employees' salaries, gave them large bonuses, and improved their healthcare coverage. He also started donating large amounts of money to charity.

One year later, Jim was involved in a car accident and was killed (but he was not injured).

A.4.2. Good to bad

Jim inherited his father's company 30 years ago. As CEO of his company, Jim often made decisions that put the wellbeing of his employees before his own financial interests. He paid his employees far more than employees at other companies. He gave his employees large bonuses and generous healthcare benefits. Moreover, Jim frequently donated large amounts of money to various charities around the community.

Thirty years later, however, Jim had a change of heart. He considered his life and the ways in which had been a sucker and he vowed to drastically change his behavior. Shortly after, Jim became very selfish and greedy. He lowered his employees' salaries, stopped giving them bonuses, and routinely denied his employees healthcare coverage. He also stopped donating any money to charity.

One year later, Jim was involved in a car accident and was killed (but he was not injured).

Appendix B

B.1. Behavior that has revealed itself

People have a core personality that can be very different from what they show to others or even themselves.

People have a true, inner-nature that contrasts with their behavior.

Sometimes a person's true personality takes time to be revealed.

B.2. Essentialism

The kind of person someone is, something basic about them, and it can't be changed very much.

People can do things differently, but the important parts of who they are can't really be changed.

Everyone is a certain kind of person and there is not much they can do to change that.

B.3. Belief in afterlife

Something about people endures even after they are dead.

Even after a person dies, they continue to live on in the memories of others.

I have a sense that deceased friends and loved ones are looking over me.

B.4. Religiosity

I am a religious person. My religious beliefs provide meaning and purpose to life.

I am frequently aware of a higher power in a personal way.

Being a religious person is important to me.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Dickens, C. (1843/1997). *A christmas carol*. Austin, TX: Holt, Rinehart, & Winston.

Diener, E., Wirtz, D., & Oishi, S. (2001). End effects of rated life quality: The James Dean effect. *Psychological Science, 12*, 124–128.

Eylon, D., & Allison, S. T. (2005). The frozen in time effect in evaluations of the dead. *Personality and Social Psychology Bulletin, 31*, 1708–1717.

Fredrickson, B. L., & Kahneman, D. (1993). Duration neglect in retrospective evaluations of affective episodes. *Journal of Personality and Social Psychology, 65*, 45–55.

Geisel, T. (1959). *How the Grinch stole christmas*. New York: Random House.

Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation Press.

Kahneman, D., Fredrickson, B. L., Schreiber, C. A., & Redelmeier, D. A. (1993). When more pain is preferred to less: Adding a better end. *Psychological Science, 4*, 401–405.

Levy, S. R., Dweck, C. S., & Stroessner, S. J. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology, 74*, 1421–1436.

Lockhart, K. L., Nakashima, N., Inagaki, K., & Keil, F. C. (2008). From ugly duckling to swan? Japanese and American beliefs about the stability and origins of traits. *Cognitive Development, 23*, 155–179.

Murdock, B. B. (1962). The serial position effect of free recall. *Journal of Experimental Psychology, 64*, 482–488.

Sonnenfeld, S. A. (1988). *The hero's farewell: What happens when CEOs retire*. New York: Oxford University Press.

Swann, W. B., Jr., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary & J. Tagney (Eds.), *Handbook of self and identity*. New York: Guilford.