On April 18, 1775, Paul Revere took a fateful midnight ride to alert his fellow colonists to the impending march by the British Army—a ride that produced a sizable militia that stood down the superior British fighting force. Almost 200 years later, Fred Smith, the founder of FedEx, flew one fateful night in 1973 to gamble at a Las Vegas casino in a desperate attempt to help his then-foundering company meet payroll (Foust, 2004).

The United States and FedEx are both marked by strong commitment of their various stakeholders and by an almost fanatical devotion to their missions. Americans express more national pride than citizens from any other country (Smith & Kim, 2006), and FedEx is regularly included in Fortune magazine’s list of top companies to work for (Levering & Moskowitz, 2009). Indeed, research has long shown that commitment is a critical ingredient of successful institutions and relationships.

It buffers the relationship between stress and job displeasure (Begley & Czajka, 1993), drives job involvement and satisfaction, leads to better job performance (Mathieu & Zajac, 1990), and is negatively related to turnover (O’Reilly & Chatman, 1986). Similarly, interpersonal commitment leads to relationship satisfaction (Sprecher, 2001) and numerous economic benefits (Portes, 1998). In short, commitment can be a determining factor in success.

Not only do America and FedEx inspire patriotism and commitment, but both also possess origins that breed counterfactual reflection, or thoughts about how events might have and almost did turn out differently. It is easy to imagine how democracy might not have flourished without Revere’s ride or how FedEx might not exist today if Smith had not made his blackjack bet. These examples present origins that invite counterfactuals and involve employees and citizens who offer their devotion. In the research we report here, we sought to determine whether reflecting counterfactually about origins...
actually inspires patriotic expressions, commitment to companies, and behavioral investment in important social contacts.

**Counterfactual Reflection and Finding Meaning**

Counterfactual reflection can increase a sense of meaning (Galinsky, Liljenquist, Kray, & Roese, 2005). Kray et al. (2010) showed that when people thought about a particular turning point in counterfactual terms, that turning point became a more meaningful part of their lives. Similarly, Koo, Algoe, Wilson, and Gilbert (2008) found that individuals expressed greater satisfaction with positive life events when they imagined how those events might not have happened. Counterfactual reflection about events in one’s life highlights the opportunities, relationships, and achievements that would not have occurred without those key links in one’s life narrative (Davis, Nolen-Hoeksema, & Larson, 1998).

Here we report research exploring a much broader phenomenon: how reflecting counterfactually on the origins of countries and companies inspires increased commitment, which is defined as emotional attachment to, identification with, and involvement in an institution (Allen & Meyer, 1990). We hypothesized that the effects of counterfactual reflection extend not only to personally relevant events, but also to institutions. Our goal was not only to establish a robust relationship between counterfactual reflection on origins and commitment, but also to demonstrate the underlying processes.

Previous research suggests that when one perceives that something positive in one’s life will no longer be present, a mix of happiness and sadness—or poignancy—arises; realizing that a pleasurable activity is coming to a close brings its most positive qualities to the forefront of attention (Ersner-Hershfield, Mikels, Sullivan, & Carstensen, 2008; Larsen, McGraw, & Cacioppo, 2001). Thus, when graduating seniors think about the short time they have left in college, they feel more positively about their university (Kurtz, 2008). Theoretically, recognizing that something cherished could soon be gone fosters a greater sense of appreciation for it, much as thinking about how something might not have come into existence will increase its meaning (Kray et al., 2010). Thus, we hypothesized that thinking about how things could have been different (through counterfactual reflection) will evoke a “near loss” mind-set (Markman & McMullen, 2003), and that the resulting poignancy will produce commitment to the target of reflection, whether a company, country, or important social contact.

Also, on the basis of the work by Kray et al. (2010), we reasoned that perceptions that things were “meant to be” would help account for the effect of counterfactual reflection on organizational commitment. Thinking about how any one outcome (e.g., the successful start to an organization) has many possible alternative paths highlights how remarkable it is that events were connected and turned out the way they did. Ironically, thinking about these alternatives can enhance a sense of inevitability that the outcome could not have happened by chance alone, but must have been fated. By helping to forge connections and relationships between concepts (Kray, Galinsky, & Wong, 2006), counterfactual reflection reduces the perception that an otherwise discrete set of random events are connected, thereby enhancing their meaning. Because fate mediates the relationship between counterfactual considerations and finding meaning in an event (Kray et al., 2010), we predicted that reflecting on counterfactual origins would increase a belief that connections to an institution were predetermined and ultimately lead to greater commitment to one’s country or organization.

Koo et al. (2008) have also identified a third mediator—surprise—that links imagining how a positive event might not have happened to satisfaction with that event. We think that poignancy, fate, and surprise all represent a combination of wonder and coherence that counterfactual thinking produces. The sudden surprise at considering that an event almost did not occur, the prospective nostalgia for a hypothetical loss, and perceptions that an event was meant to be all give the event an internal coherence that seems remarkable. As a result, counterfactual reflection will make events seem more meaningful (Kray et al., 2010) and satisfying (Koo et al., 2008)—and, we hypothesize, will inspire greater commitment.

**Overview of the Research**

We sought to document whether counterfactually reflecting on the origins of institutions and social contacts will increase commitment to them. Study 1 explored whether counterfactual reflection can increase patriotic feelings. Study 2 extended this research to organizational commitment and examined two additional effects that link the past to the present and the future: the mediating role of poignancy and the tendency for counterfactual reflection to brighten the perceived future trajectory of one’s organization. Study 3 was designed to establish whether counterfactual reflection can have positive effects on behavior above and beyond the effects of other established commitment-enhancing factors. In addition, Study 3 examined whether fate, or a sense that things were meant to be, underlies the effect of counterfactual origins on organizational commitment. Finally, Study 4 extended the first three studies by temporally separating the counterfactual manipulation from the measure of commitment and by demonstrating that counterfactual reflection can affect a behavioral measure of commitment.

It is important to note that these studies are the first to investigate whether the origins of institutions, such as companies and countries, can be conceived in counterfactual terms, and whether counterfactually reflecting on these origins drives institutional commitment. In addition, they are the first to explore whether counterfactual reflection produces behavioral effects even when those effects are removed in time from the counterfactual manipulation. Finally, through this research, we develop a parsimonious understanding of the underlying processes that connect counterfactual thinking to increased...
meaning and commitment; we propose that multiple mediators represent a common underlying process—the wonder- and coherence-enhancing function of counterfactual thinking—that drives the effects of counterfactual reflection on commitment (but not the effects of other commitment-inducing manipulations). Ultimately, we add a shifting temporal perspective to the literature on counterfactual reflection and meaning by showing how coming to understand the past has important implications for present commitment and future forecasts.

**Study 1: Counterfactual Reflection and Patriotism**

In past work, researchers have attempted to increase patriotism by appealing to citizen participation (Boyte, 2003) or by making participants’ country more personally relevant and sentimental (Druckman, 1994). We tested the idea that reflecting counterfactually on one’s home country’s origins will produce greater feelings of patriotism toward that country. We asked all participants in Study 1 to reflect on how their country came into being, but had one group of participants reflect on what their world would be like if their country had not come into being (counterfactual reflection) and another group consider what their world is like because of their country’s existence (factual reflection). We predicted that counterfactual reflection would increase patriotic attitudes compared with factual reflection.

**Method**

Forty undergraduates (25 women, 15 men; 30 from the United States) were randomly assigned to the counterfactual- or factual-reflection condition. In the counterfactual-reflection condition, participants were asked to imagine their home country’s origins, “keeping in mind all of the key events and pivotal people that might have been different,” and to “write down what your country and world would be like if your country had not come into being (counterfactual reflection) and another group consider what their world is like because of their country’s existence (factual reflection). We predicted that counterfactual reflection would increase patriotic attitudes compared with factual reflection.

**Results and discussion**

As predicted, participants in the counterfactual-reflection condition demonstrated significantly higher patriotic attitudes toward their home countries than did participants in the factual-reflection condition, *t*(38) = 2.00, *p* = .053, *d* = 0.65 (see Table 1 for means). We also tested whether country of origin moderated the effect, and it did not, *F*(1, 40) < 1. In short, thinking about how one’s home country might not have existed produced greater feelings of commitment toward that country, regardless of the country in question.

**Study 2: Counterfactual Reflection, Organizational Commitment, and Poignancy as a Mediator**

Study 2 explored whether counterfactual thoughts would produce greater commitment to work organizations. Although previous research has bolstered feelings of organizational commitment by creating synergies between employees’ values and organizational values (Boxx & Odom, 1991) and by increasing the flexibility of work hours (Scandura & Lankau, 1997), we believe that another route to increased organizational commitment is counterfactual reflection on the organization’s origins. Accordingly, we asked participants to think of their present or most recent company and reflect on its origins in counterfactual or factual terms. We predicted that the participants in the counterfactual condition would score higher on a measure of organizational commitment.

Study 2 was also designed to test two additional effects. First, we assessed the mediating role of poignancy in the relationship between counterfactual reflection and organizational commitment. Because recognizing the scarcity of an entity increases appreciation for it (Cialdini, 1993; King, Hicks, & Abdelkhalik, 2009), we hypothesized that thinking about how one’s organization almost did not come into being would lead to poignant feelings, which would in turn increase feelings of commitment. Second, we examined the link between reflections on the past and perceptions of the future; we predicted that thinking counterfactually about the origins of one’s company would strengthen perceptions that its future trajectory will be positive.

**Table 1. Means for the Dependent Measures in Experiments 1 Through 4**

<table>
<thead>
<tr>
<th>Experiment and dependent measure</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counterfactual</td>
</tr>
<tr>
<td>Experiment 1</td>
<td></td>
</tr>
<tr>
<td>Patriotism</td>
<td>5.33 (0.77)</td>
</tr>
<tr>
<td>Experiment 2</td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>4.58 (1.11)</td>
</tr>
<tr>
<td>Poignancy</td>
<td>2.13 (2.30)</td>
</tr>
<tr>
<td>Experiment 3</td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>3.60 (1.01)</td>
</tr>
<tr>
<td>Fate</td>
<td>2.97 (1.49)</td>
</tr>
<tr>
<td>Experiment 4</td>
<td></td>
</tr>
<tr>
<td>E-mail contact</td>
<td>62%</td>
</tr>
</tbody>
</table>

Note: Standard deviations are given in parentheses.
**Method**

Participants were 97 part-time and full-time M.B.A. students (33 women, 64 men), who participated as part of an exercise prior to a lecture on organizational culture and were randomly assigned to a counterfactual- or factual-reflection condition. In the counterfactual-reflection condition, participants wrote down the story of their current or most recent company’s origins and described “all of the possible ways that the company might not have come into being, and the key events and pivotal people that may have been different.” In the factual-reflection condition, participants wrote down the story of their company’s origins and described “all the ways that the company came into being, and the key events and pivotal people that led to it existing.”

**Organizational commitment.** Participants completed the Affective Commitment Subscale of Allen and Meyer’s (1990) organizational-commitment scale (eight 7-point questions; α = .90). This subscale assesses how much employees work for their companies because they want rather than need to (e.g., “This organization has a great deal of personal meaning to me”).

**Poignancy.** Participants were asked to imagine the extent to which they would feel six different emotions (excited, happy, sad, proud, bittersweet, and nostalgic) on the last day that they would work at their company (part-time M.B.A. students) or the last day that they did work at their company (full-time M.B.A. students). Responses were made on 7-point scales. As in previous research (e.g., Ersner-Hershfield et al., 2008), poignancy was operationalized as the minimum rating for happiness and sadness (e.g., ratings of 3 for happiness and 5 for sadness would equal a poignancy score of 3).

**Assessment of company’s trajectory.** Participants were asked to choose which of five different drawings represented the most likely future trajectory for their company. Two drawings showed increasingly positive trajectories, one depicted a neutral trajectory, and two showed increasingly negative trajectories (see Fig. 1).

**Results and discussion**

Table 1 presents the means for organizational commitment and poignancy in this study. As predicted, participants in the counterfactual condition demonstrated higher commitment to their organizations than did participants in the factual condition, t(95) = 1.93, p = .056, d = 0.40.

To examine whether feelings of poignancy mediated the relationship between counterfactual reflection and organizational commitment, we first regressed poignancy scores on reflection condition (0 = factual reflection; 1 = counterfactual reflection) and found that participants in the counterfactual-reflection condition felt more poignancy than did participants in the factual-reflection condition, β = 0.23, t(95) = 2.29, p = .024. To test for mediation, we used bootstrapping procedures, which establish a confidence interval (CI) for the indirect effect of a predictor on an outcome; mediation is established when the CI does not include zero (Shrout & Bolger, 2002). As hypothesized, feelings of poignancy mediated the relationship between counterfactual reflection and organizational commitment (95% CI = 0.24, 2.84; see Fig. 2). Thus, thinking about how one’s organization might have been different led to greater poignancy, which in turn led to increased organizational commitment.

Finally, participants in the counterfactual-reflection condition saw their companies in more positive terms over time, picking one of the two positive trajectories (89%) more often than participants in the factual-reflection condition did (64%), χ²(1, N = 97) = 8.60, p = .003.

**Study 3: Pitting Counterfactual Reflection Against Prosocial Missions and Testing the Mediating Role of Fate**

Study 3 compared the effect of counterfactual reflection on organizational commitment with the effects of other factors that have been shown to increase commitment. Grant, Dutton, and Russo (2008), for example, found that employees’ commitment was enhanced when companies started employee support programs that emphasized how prosocial the companies were. To examine whether counterfactual reflection increases organizational commitment even in the face of other effective commitment-boosting strategies (such as prosocial missions), we subtly and orthogonally manipulated the inclusion of counterfactual origins and prosocial motivations in a hypothetical company’s mission statement to determine whether these factors have independent and interactive effects on commitment.
In addition, Study 3 tested whether perceptions that events were fated underlie the effect of counterfactual origins on organizational commitment. We hypothesized that thinking counterfactually would lead to an increased sense that things were meant to be (Kray et al., 2010), which in turn would bolster organizational commitment. In this particular study, we tested whether counterfactual origins would make participants feel that their own involvement in the company was fated, or meant to be. We did not, however, have a strong a priori prediction for whether a prosocial mission would interact with perceptions of fate in influencing organizational commitment.

Study 3 was also designed to rule out an alternative explanation of the previous studies’ findings. In Studies 1 and 2, participants generated idiosyncratic counterfactuals about their own countries or organizations. Although this procedure allowed for counterfactual reflection to be personally meaningful, it also created a situation in which participants in the counterfactual condition might have considered very different types of origins than participants in the factual condition did. Thus, in Study 3, rather than have participants generate idiosyncratic origins, we created and held constant the origins of a company and simply manipulated reflection on these origins.

**Method**

Participants were 60 undergraduate students (38 women, 22 men), who were randomly assigned to a 2 (company type: prosocial, procorporate) × 2 (origin of company: counterfactual, factual) between-subjects factorial design. All participants read about the origin of a fictional company (a computer manufacturer named Halinkray). The embedded origin story for all participants was based on the FedEx story in the introduction to this article: We mentioned that in 1973, Halinkray’s founder went to Las Vegas to play blackjack in a successful attempt to save the then-foundering company.

The company was described as being either prosocial (e.g., “our mission was to give everyone equal access to opportunities”) or procorporate (e.g., “our mission was to be the best computer processing company in the world”), and its origin was discussed in either counterfactual terms (e.g., “I often think back to the very beginning . . . what if our CEO hadn’t gone to the blackjack table . . . so many events and people would be different if he hadn’t taken that bet”) or factual terms (e.g., “I often think back to the very beginning, and all the people and events that have been a part of our company’s history”).

**Organizational commitment.** To assess organizational commitment, we modified Allen and Meyer’s (1990) organizational scale to make it more relevant to the hypothetical nature of our task. Our modified scale included four items (e.g., “I will not feel a strong sense of belonging to this organization,” reverse-coded; α = .64).

**Fate.** Our measure of fate, which was derived from Kray et al. (2010), contained two items (“If I ended up working here: it would seem meant to be, it would be fated”; α = .88).

**Results**

Table 1 presents the means for organizational commitment and perceptions of fate in this study. We conducted a 2 (company type: prosocial, procorporate) × 2 (origin type: counterfactual, factual) factorial analysis of variance on perceived organizational commitment. There was a significant main effect of company type; participants expressed more commitment to the prosocial company than to the procorporate company, $F(1, 56) = 9.67, p = .003, \eta^2_p = .147$. More important, there was a significant main effect of origin type; participants expressed more commitment when the company was described in counterfactual terms than when it was described in factual terms, $F(1, 56) = 4.15, p = .046, \eta^2_p = .069$ (see Fig. 3). The interaction between company and origin was not significant, $F < 1$.

To examine the mediating role of fate, we first regressed fate scores on origin type (0 = factual reflection; 1 = counterfactual reflection) and company type (0 = procorporate; 1 = prosocial). Results indicated that participants in the counterfactual
conditions were significantly more likely to believe that their future involvement with the organization would be fated than were participants in the factual conditions, $\beta = 0.30, t(57) = 2.43, p = .018$. There was a marginal effect of company type on perceptions of fate, with prosocial missions leading to higher fate scores than procorporate missions, $\beta = 0.23, t(57) = 1.82, p = .074$. We then regressed organizational-commitment scores on origin type, company type, and perceptions of fate. As hypothesized, when perceptions of fate were taken into account, counterfactual origins were no longer a significant predictor of organizational commitment, $\beta = 0.09, t(56) = 0.86, p = .396$, whereas perceptions of fate remained a significant predictor, $\beta = 0.53, t(56) = 4.91, p = .000$. However, perceptions of fate did not account for the relationship between mission and organizational commitment, as company type was now a stronger predictor, $\beta = 0.28, t(56) = 2.69, p = .009$. Bootstrapping confirmed that fate mediated the relationship between counterfactual reflection (origin type) and organizational commitment (95% CI = 0.08, 0.64).

In summary, counterfactual reflection was a significant predictor of organizational commitment, even when we controlled for whether or not the hypothetical company had a prosocial mission. Further, the relationship between counterfactual reflection and organizational commitment was mediated by a sense that one’s connection to the organization was fated and meant to be. This study also has an important practical implication by showing that organizations have a simple and elegant way to increase commitment: They can articulate their origin story in a way that highlights counterfactual possibilities.

**Study 4: Counterfactual Reflection and Behavioral Commitment**

Study 4 was designed to address two potential limitations inherent in all previous research on counterfactual reflection, including Studies 1 through 3: All previous work has assessed meaning and commitment (a) attitudinally and (b) immediately after the counterfactual manipulation. Accordingly, in Study 4, we separated the counterfactual manipulation from an assessment of behavioral commitment by a period of 2 weeks. We asked participants to reflect counterfactually about the origins of their relationships with important business contacts, and then, 2 weeks later, we assessed whether they had e-mailed their contacts, an indication of further investment in these relationships. We predicted that counterfactual reflection, relative to factual reflection, would increase participants’ behavioral commitment to their relationships.

**Method**

Participants were 40 full-time M.B.A. students (13 women, 27 men) who participated as part of a classroom exercise on social networks. Participants first listed six people who had contributed significantly to their professional and career development during the past 3 to 4 years. They then ranked these six business contacts head-to-head.

We contacted participants 2 days later and asked them to write about how they had gotten to know the third- and fourth-ranked members (to avoid ceiling effects) of their career-development network. A within-subjects design was employed, and participants were asked to write about one person in counterfactual terms (i.e., “Describe all the possible ways that you might not have met this person and how your connection could have turned out differently”) and the other person in factual terms (i.e., “Describe any details about the way you met that determined how your connection occurred”). We counterbalanced whether participants wrote about the third- or fourth-ranked social contact in counterfactual or factual terms. Two weeks after the completion of this writing exercise, we contacted participants and asked them whether or not they had contacted each of their six contacts via e-mail. Of the 40 M.B.A. students who completed the first survey, 21 completed this follow-up survey (11 had written about the third-ranked contact in counterfactual terms; 10 had written about the third-ranked contact in factual terms).

**Results and discussion**

We employed the nonparametric Cochran’s $Q$ test (for two related samples) to assess whether participants were more likely to contact the person about whom they reflected counterfactually than to contact the person about whom they reflected factually (for means, see Table 1). As predicted, counterfactual reflection nearly doubled the likelihood of contacting the target person, $Q(1, 21) = 4.50, p = .034$. Spending time thinking about how an important social connection might not have been a part of one’s life led to an increased likelihood of e-mailing that contact about 2 weeks later.
Counterfactual Reflection

General Discussion

These four studies demonstrate that counterfactual reflection, or thinking about how origins could have turned out differently, can produce increased feelings of commitment and behaviors aimed at strengthening commitment. Regardless of the target of reflection (company, country, or business contact), and regardless of whether participants were undergraduate or M.B.A. students, reflecting counterfactually on a target’s origins boosted commitment to that target. Counterfactual reflection even led to increased behavioral commitment 2 weeks later. Moreover, we obtained clear evidence of two underlying processes: Both a sense of fate and the experience of poignancy mediated the relationship between counterfactual reflection and increased commitment. These mediators, along with surprise (Koo et al., 2008), represent a combination of wonder and coherence that counterfactual thinking produces.

We found that when people reflect counterfactually on the past, they tend to think that the future will take on a more positive trajectory. It is possible, though, that there could be negative consequences from having a rosy perception of the future. Counterfactual reflection might lead to a Panglossian vision that causes people to stay too long on a sinking ship. For example, Richard Fuld, the former CEO of Lehman Brothers, maintained that the company’s future was “destined” because of the numerous ways that Lehman almost did not survive earlier financial crises (Sorkin, 2009). This overly optimistic commitment to his company led Fuld to refuse low-priced buyout offers, which ultimately led—in part—to Lehman’s and the worldwide economy’s collapse.

Conclusion

Longfellow (1861) penned a famous poem about the “midnight ride of Paul Revere,” highlighting that without this ride, America might not be a country today. But his poem also reminds readers of another truth. If citizens did not recognize America’s counterfactual roots, they might not be as committed to the United States as they are. Indeed, in the present research, we demonstrated that thinking about what might have been, rather than what was, can lead to increased commitment to countries, companies, and social connections. Reflecting on how important institutions might have not come into being can make people feel that those institutions are forever on the “sunrise side of the mountain” and inspire them to commit to an ever-brighter future.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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