

The Temporal Pattern to the Experience of Regret

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Through telephone surveys, written questionnaires, and face-to-face interviews, it was found that people's biggest regrets tend to involve things they have failed to do in their lives. This conflicts with research on counterfactual thinking that indicates that people regret unfortunate outcomes that stem from actions taken more than identical outcomes that result from actions foregone. These divergent findings were reconciled by demonstrating that people's regrets follow a systematic time course: Actions cause more pain in the short-term, but inactions are regretted more in the long run. Support for this contention was obtained in 2 scenario experiments that assessed people's beliefs about the short- and long-term regrets of others and in an experiment that asked Ss about their own regrets of action and inaction from 2 time periods. Several mechanisms that can account for this temporal pattern are discussed.

Regrets are like taxes: Nearly everyone must suffer them. In today's world in which people arguably exercise more choice than ever before in human history, it is exceedingly difficult to choose so consistently well that regret is avoided entirely. How then can people keep their regrets to a minimum? What courses of action or inaction should be avoided in order to ward off the experience of regret? In other words, what is it that people tend to regret most in their lives?

Until recently (Houston, Sherman, & Baker, 1991; Kahneman & Tversky, 1982b; Kinnier & Metha, 1989; Landman, 1993; Metha, Kinnier, & McWhirter, 1989) little was known about the determinants of regret. Most research on the subject dealt not with the questions of when and why regret is experienced, but with how the anticipation of future regret affects current choices (Bell, 1981; Loomes & Sugden, 1982). Recently, however, research on the subject of counterfactual thinking (Kahneman & Tversky, 1982b; Miller, Turnbull, & McFarland, 1990) has shed some light on the issue of what people regret most in their lives and why. Numerous studies seem to show that people experience more regret over negative outcomes that stem from actions taken than from identical outcomes that result from actions foregone (Gleicher et al., 1990; Kahneman & Tversky, 1982a; Landman, 1987). Perhaps the clearest illustration of this tendency comes from an oft-cited scenario experiment by Kahneman and Tversky (1982a):

Mr. Paul owns shares in company A. During the past year he considered switching to stock in company B, but he decided against it. He now finds out that he would have been better off by \$1,200 if he had switched to the stock of company B. Mr. George owned shares in company B. During the past year he switched to stock in company A. He now finds that he would have been better off by \$1,200 if he had kept his stock in company B.

Who feels greater regret? (p. 173)

A rather stunning 92% of the respondents thought that Mr. George, whose misfortune stems from an action taken, would experience more regret. The intuitions revealed in this and other studies (Gleicher et al., 1990; Landman, 1987; see also Spranca, Minsk, & Baron, 1991) are extremely powerful and reliable. Because "it is usually easier to imagine oneself abstaining from actions that one has carried out than carrying out actions that were not in fact performed" (Kahneman & Miller, 1986, p. 145), the person who takes an action seems more likely to be tortured by thoughts of what might have been than the person who failed to act. Taking an action that leads to an unfortunate event is more likely to produce a sense that "I brought this on myself" or "this need not have happened."

However, as powerful and intuitively appealing as these results are, they conflict—at least on the surface—with an observation from everyday life. When people are asked to describe their biggest regrets in life, it seems that they most often cite things they failed to do. "I wish I had been more serious in college." "I regret that I never pursued my interest in dance." "I should have spent more time with my children." As troubling as regrettable actions might be initially, when people look back on their lives it seems to be their regrettable failures to act that stand out and cause the most grief.

This apparent conflict between the findings of laboratory research and the lessons of everyday life could stem from either of two sources. First, either element of this conflict may simply be incorrect and misleading. Scenario experiments like the one

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This research was supported by Research Grant MH45531 from the National Institute of Mental Health to Thomas Gilovich. We thank Kirsten Blau, Dorie Katzer, Jennifer Lowe, Marshall Schacht, Sarah Sirlin, and Robin Winitzky for serving as coders and experimenters and Dennis Regan for commenting on a draft of the article.

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just cited only examine people's *intuitions* about regret, not the experience of regret itself. Perhaps if the actual emotional experience of regret were examined, people would manifest more regret over things undone. Alternatively, the claim that people's greatest regrets involve things they have failed to do in their lives is only that—a claim that has not been adequately tested.

The other explanation of these divergent findings is more intriguing: There may be a systematic time course to the experience of regret over actions and inactions. As the literature on counterfactual thinking suggests, people may be more upset by their unfortunate actions in the short run. Initially, regrettable actions may prompt more counterfactual thoughts about what "might have" or "should have" been and therefore generate more regret. Over time, however, it may be those things that a person has failed to do that stand out and cause the most grief. Regrettable failures to act, in other words, may have a longer half life than regrettable actions. The research we report here was designed to investigate this intriguing possibility. First, we report the results of two studies that examined what it is that people tend to regret most in their lives. Then we describe three studies that investigated whether there is a consistent time course to the experience of regret. We end with a discussion of the psychological mechanisms that could give rise to such a temporal pattern.

Study 1: Regret Surveys

Perhaps the best way to determine what people regret most is simply to ask them.¹ Accordingly, we selected a random sample of 60 adults (Mean age = 40.3 years) from the Syracuse, New York, telephone directory and asked them the following question:

When you look back on your experiences in life and think of those things that you regret, what would you say you regret more, those things that you did but wish you hadn't, or those things that you didn't do but wish you had?

The question was counterbalanced in terms of which type of regret, that of action or inaction, was listed first. Overall, 45 of the 60 respondents (75%) indicated that they experienced more regret over those things they did not do but wished they had done (binomial $z = 3.75$, $p < .001$). The order in which the two alternatives were listed made no difference, nor did the sex of the respondent.

There is a viable alternative interpretation of these data, however. People might actually feel more pain over their regrettable actions, but there may be fewer of them than regrettable failures to act. Thus, when summed over a larger number of regrettable inactions, people may report greater regret for their failures to act, even though individually they are not as potent.

To examine this alternative interpretation, we conducted another telephone survey, this time of 30 adults in the Chicago metropolitan area (Mean age = 40.1). We asked them to think of their greatest regret of action and their greatest regret of inaction. We told them not to tell us the content of each regret, but to be sure to have a specific instance of each type in mind. Once they indicated that they had retrieved an example of each type, we asked them which they regretted more. Twenty-one of the 30 respondents (70%) expressed greater regret over their

biggest failure to act (binomial $z = 2.01$, $p < .05$). As before, neither the sex of the respondent nor the order in which regrets of action and inaction were mentioned had any effect on the results.

Thus, contrary to what one might conclude from the literature on counterfactual thinking, people's biggest regrets are not dominated by actions they wish they could take back (Gleicher et al., 1990; Kahneman & Miller, 1986; Kahneman & Tversky, 1982a; Landman, 1987). When directly asked, people report that they most regret something they failed to do.

Study 2: Regret Interviews

Does this same tendency reveal itself when people's regrets are elicited through a different methodology? To examine this question, we asked several groups of adults to describe the biggest regrets of their lives. No mention was made of the action-inaction distinction. Instead, we had raters score each regret on this dimension afterward. Because we were interested in obtaining the regrets of a wide range of people, we interviewed four groups of subjects. Three of the groups were interviewed face-to-face. One was a sample of 10 professors emeriti at Cornell University. A second was a group of 11 residents of various nursing homes in upstate New York. A third group consisted of 40 Cornell undergraduate students. The responses of subjects in each of these three groups were tape-recorded and later transcribed. Finally, a group of 16 adult clerical and custodial staff members at Cornell were given questionnaires that they returned anonymously through the campus mail.²

All respondents were asked (either in person or by questionnaire), "When you look back on your life to this point, what are your biggest regrets?" Those interviewed in person were asked after each response, "Is there anything else you regret?" Those filling out written questionnaires found space marked off for as many as five regrets.

Overall, the 77 subjects described 213 regrets. Each of these regrets was scored by two judges who were unaware of our hypothesis. The judges determined whether each regret stemmed from an action taken, an action foregone, or some circumstance beyond the person's control (e.g., "having polio as a child"). The judges agreed with one another on 204 of the 213 regrets. The

¹ Landman (1993) defined regret as "a more or less painful cognitive and emotional state of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes" (p. 36). This seems to us to be a suitably inclusive and appropriate definition, both in general and with respect to the research reported here. We never provide our subjects with a definition of regret; instead we allow them to arrive at their own definition and respond accordingly. Surely, then, the experiences of regret that subjects call up are sometimes tinged with elements of related emotional states such as remorse and disappointment.

² We used the two response modes of face-to-face interviews and anonymous questionnaires to determine whether they were differentially effective in eliciting "deeper," more personal regrets. They were not. Those responding in person were remarkably willing to open up to our interviewers, and those who filled out our questionnaire wrote about equally troublesome aspects of their lives. Furthermore, we detected no difference between the two response modes on any of the dependent measures reported below.

scoring of the remaining 9 was resolved by having a third judge, also unaware of the hypothesis, cast a decisive vote.

We thought initially that the regrets might be difficult to score. After all, every action implies a corresponding inaction, and vice versa. When people say, "I regret that I joined the Navy when I was 18," we might wonder whether they regret the action itself or whether they regret not doing all the things that joining the Navy prevented them from doing. We decided to code each regret according to what the subjects themselves emphasized (in this case the Navy, not the lost opportunities caused by joining the Navy), and, by doing so, the scoring was not at all difficult, as the very high interrater reliability attests. Follow-up questions addressed to a subset of our subjects indicated that whatever the subjects chose to emphasize in their initial statement was indeed the true source of their regret.

Interestingly, only 10 of the 213 regrets involved events considered beyond the person's control. It thus seems that a sense of personal responsibility is central to the experience of regret. People might bemoan or curse their bad fate, but they rarely *regret* it in the sense that the term is typically understood. As for the events people do regret, the results were as predicted: Regrettable failures to act outnumbered regrettable actions by nearly a 2 to 1 margin (63% vs. 37%; binomial $z = 3.65$, $p < .001$).³

Beyond this anticipated preponderance of regrettable failures to act, there are a number of additional issues worth addressing. First, men and women did not differ in the tendency to report actions or inactions as their biggest regrets. Second, there was some evidence that older individuals were more likely than younger subjects to mention things they failed to do, but the trend did not reach statistical significance. For instance, 74% of the regrets listed by our two oldest samples, the professors emeriti and nursing home residents, involved things they did not do, as compared with 61% for our two youngest samples, the students and staff members ($z = 1.40$, $p = .16$).⁴

The third issue concerns the precise content of subjects' regrets beyond the action-inaction dichotomy. What exactly do people list as the biggest regrets of their lives? To address this question, all sets of data were reviewed, and common themes discerned. Three distinct categories of regrettable actions and six distinct categories of regrettable failures to act were mentioned with some frequency. As a result, we created a coding scheme consisting of each of these categories and their complements from the opposite side of the action-inaction dichotomy. In other words, because there were many examples of the inaction category, "not pursuing an interest in x ," it was included in the coding scheme along with its contrast category, "wasted time on x ". The coding scheme appears in Table 1.

Two judges who were unaware of our action-inaction hypothesis assigned each regret to 1 of the 17 categories listed in Table 1 (8 actions, 8 inactions, and 1 outside of person's control). Because there were so many categories, the level of agreement between raters was bound to be less than that obtained for the simple judgment of action or inaction. Nevertheless, the two raters made exactly the same category assignments for 137 of the 213 regrets. A third judge, also unaware of our hypothesis, then reviewed each of the remaining 76 regrets. Her judgments agreed with one of the initial judges on 62 of the regrets, thus

determining the category to which they were assigned. Finally, for the 14 regrets that each of the three judges assigned to a different category, Thomas Gilovich determined which one seemed most appropriate.

An examination of Table 1 indicates that the most common regrets involved missed educational opportunities and a failure to "seize the moment." Missed opportunities for romance, not devoting enough time to personal relationships, and "rushing in too soon," were also frequently mentioned. Another interesting aspect of Table 1 is that no one regretted spending time developing a skill or hobby, even when the skill was no longer used or the hobby no longer pursued. No one reported any misgivings about a youth spent learning how to golf or collecting stamps, even when they had since given up golf and the stamp collection was no longer of interest. Compare this with the 11 entries in the corresponding category "not pursuing an interest in x ." This comparison captures our main finding with particular clarity: When people look back on their lives it is the things they have *not* done that generate the greatest regret.

Our findings with respect to the specific content of people's regrets closely match those obtained by previous investigators. For instance, the most common regret mentioned by subjects surveyed by Kinnier and Metha (1989; Metha et al., 1989) was that they did not take their education more seriously and work harder at it—the most common regret listed by our respondents as well (see also Cantril, 1965, for a similar finding). Their subjects, like ours, also expressed concern about the lack of time spent with family and about their reluctance to take risks ("seize the moment"). There are important methodological differences, however, between our work and that of Kinnier and Metha. Most important, they never asked their subjects about their regrets *per se*; instead, they asked "If you had your life to live over again, what might you do differently?" (p. 184). Although this question may elicit some genuine regrets, it need not. It is entirely possible to look backward and seize upon

³ Because most respondents described more than one regret, the data are not all independent and thus the simple binomial test with individual regrets as the unit of analysis is not strictly appropriate. To adjust for this, we also performed a test that compared the number of *respondents* who listed a majority of inactions versus the number who listed a majority of actions. This analysis also revealed a reliable tendency for inaction to loom larger in people's regrets (binomial $z = 3.23$, $p < .002$).

⁴ One reason we may not have observed a statistically significant effect of age is that our set of respondents did not represent the entire lifespan. No one under college age was included. Our results may have been different had we included adolescents and children because it is likely that at that age people are less likely to regret the things they have not done. Because the future seems limitless to the young, things undone are likely to be assigned to a less troublesome category of things "yet to be done." Also, it is part of the "job" of being a child to act in ways that lead to trouble in order to determine the limits of the social and physical world. Negative outcomes that stem from their actions are therefore likely to be highly available. In support of these suppositions, we asked a group of junior high school and high school students the same forced-choice question we asked our telephone survey respondents (described above). Unlike our adult subjects, a majority of whom expressed greater regret over their failures to act, the adolescent respondents were equally divided between those who felt worse about their actions and those who felt worse about their failures to act.

Table 1
Most Common Regrets

| Failures to act | | Actions | |
|-----------------|---|----------|------------------------------------|
| <i>n</i> | Regret | <i>n</i> | Regret |
| 21 | Missed educational opportunities | 3 | Bad educational choice |
| 21 | Failure to seize the moment | 17 | Rushed in too soon |
| 15 | Not spending enough time with friends and relatives | 4 | Spent time badly |
| 13 | Missed romantic opportunity | 10 | Unwise romantic adventure |
| 11 | Not pursuing interest in <i>X</i> | 0 | Wasted time on <i>X</i> |
| 7 | Missed career opportunity; insufficient effort | 3 | Bad career decision; wasted effort |
| 2 | Not making financial transaction | 6 | Unwise financial action |
| 38 | Miscellaneous inaction | 32 | Miscellaneous action |

Note. An additional 10 regrets dealt with events outside the person's control and thus lie outside the action-inaction dichotomy.

something that could have been done differently without experiencing any feeling of true regret. One might look back and think that the best thing one could have done differently was to have invested in Apple Computer stock in the late 1970s, but one can have this feeling without engaging in any of the self-recrimination characteristic of regret. Kinnier and Metha's study also differed from ours in that their subjects were not free to describe any regrets they might have; they could only check those regrets contained in a list provided by the investigators. As far as we can tell, then, our study is the only one in which subjects were asked to describe their actual, most pressing regrets in their own words.

Nevertheless, our main concern was not with the specific content of subjects' regrets, but with how they aligned with the action-inaction dichotomy. In this respect, the results could hardly have been more clear: The subjects described nearly twice as many regrets of inaction as regrets of action. This finding thus brings us back to the conflicting pattern of data with which we began. Scenario experiments like the stock market example of Kahneman and Tversky (1982a) indicate that commission looms larger than omission in the experience of regret. In contrast, our results indicate that from a more distant retrospective vantage point people are more troubled by their omissions. Of course, there are important differences in the types of data on which these contradictory findings are based, and it may be these differences that are responsible for the divergent results. These discrepant findings may represent mere methodological artifact rather than any "real" underlying conflict. Alternatively, this pattern of results may reflect something important about the experience of regret. Perhaps actions do generate more regret than inactions in the short-term, but over time the pain of regrettable actions diminishes, whereas that of regrettable failures to act grows. It may be, in other words, that the divergent results observed in these very different types of studies are a reflection of a temporal pattern to the experience of regret. The following three experiments were designed to test whether this is so.

Studies 3 and 4: Intuitions About Short-Term and Long-Term Regrets

To determine whether the intensity of regret over action and inaction varies systematically with temporal perspective, two

scenario experiments were conducted. In the first, 80 Cornell undergraduates read the following story:

Dave and Jim do not know each other, but both are enrolled at the same elite East Coast University. Both are only moderately satisfied where they are and both are considering transferring to another prestigious school. Each agonizes over the decision, going back and forth between thinking he is going to stay and thinking he will leave. They ultimately make different decisions: Dave opts to stay where he is and Jim decides to transfer.

Suppose their decisions turn out badly for both of them: Dave still doesn't like it where he is and wishes he had transferred, and Jim doesn't like his new environment and wishes he had stayed.

Each subject was then asked two questions: (a) Who do you think would regret his decision more on learning that it was a mistake? (b) Who do you think would regret his decision more in the long run?

As in previous scenario experiments of this type (Kahneman & Tversky, 1982a; Landman, 1987), a vast majority of the subjects (76%) thought that Jim, the person who regrets doing something, would experience more regret initially (Binomial $z = 4.59$, $p < .0001$). Commission generates more regret, at least in the short-term. When asked about the long run, however, subjects' intuitions were reversed. A sizable majority (64%) thought that Dave, who regretted not doing something, would experience more regret down the road (Binomial $z = 2.35$, $p < .02$).

Because each subject answered both questions, there is the concern that subjects may have felt some implicit demand to give different answers to the two questions, and this may have contributed substantially to the observed results. To test this possibility, we replicated the experiment (once again with Cornell undergraduates as subjects) using a between-subjects design in which one group of subjects answered only the question about short-term regret and another answered only the question about the long-term. The results were virtually identical to those obtained in the within-subjects version, thus ruling out the artifactual interpretation of the results. Seventy-six percent of the 34 subjects who were asked whether Dave or Jim would experience more regret in the short-term indicated that they thought Jim, who transferred schools, would regret his decision more. In contrast, 62% of the 42 subjects who were asked about the long run thought that Dave, who chose not to switch

schools, would experience more regret. The difference between the responses of the two groups is highly significant, $\chi^2(1) = 11.2, p < .001$.

The intuitions revealed in these two scenario studies provide support for the temporal profile we have proposed. People anticipate feeling greater regret in the immediate aftermath of a regrettable action than a regrettable failure to act. At the same time, people seem able to get in touch with how readily things can turn around in the long run. With some distance, it is often a person's failures to act that cause more distress.

Study 5: Recent and Life-Long Regrets

The previous studies suffer from the same defect as all such scenario experiments: They examine people's intuitions about emotional states, not the emotional states themselves. To determine whether the same temporal pattern would emerge when people are asked about their own real-life regrets, an additional study was conducted. Thirty-two adult subjects were recruited from various public places in Ithaca, New York (e.g., bus stops and laundry rooms), and asked to fill out a brief questionnaire. In counterbalanced order, the questionnaire asked subjects to recall (but not write down) their single most regrettable action and inaction from both the past week and from their entire lives. Then, for each time period, the subjects were asked to indicate which they regretted more, the action or the inaction.

Consistent with all of the data presented thus far, subjects' responses depended on the time period under consideration. When focused on the past week, subjects were rather evenly split between those who most regretted their actions (53%) and those who most regretted their failures to act. Looking back over their lives to that point, however, a substantial majority of the subjects (84%) reported greater regret for what they failed to do. This difference in the pattern of responses across the two time periods was statistically significant ($z = 2.94, p < .01$).⁵ Thus, people's regrettable actions are more troublesome in the short-term than in the long run; but for their inactions, the opposite pattern holds true.

General Discussion

We obtained consistent evidence from our first two studies that people tend to experience more regret for things they have not done in their lives than for things they have done. These results stand in marked contrast to the findings reported in the literature on counterfactual thinking that reveal a pronounced tendency for commissions to generate more regret than omissions (Gleicher et al., 1990; Kahneman & Tversky, 1982a; Landman, 1987). We propose that the discrepancy between these two sets of data is due to a consistent temporal pattern to the experience of regret: Actions produce greater regret in the short-term, whereas inactions generate more regret in the long run. Three additional studies strongly supported the existence of such a reversal with the passage of time.

Of course, the extent to which a given claim is to be believed should depend not only on the empirical data mustered to support it but also on whether the putative effect makes theoretical sense. This is why, for example, few psychologists believe in ESP despite the existence of empirical results that, on the surface,

might appear to support it (Bem & Honorton, 1994). Unless a truly compelling mechanism for such effects is proposed, many people will remain skeptical about the existence of "psi" regardless of the evidence reported—and they are perfectly justified in doing so.

What about the present case? Are there compelling theoretical reasons to expect a temporal pattern to the experience of regret? We believe there are. Indeed, we believe that the temporal pattern to the experience of regret, like many complex social psychological phenomena, is an overdetermined result that stems from the joint operation of several distinct mechanisms. In particular, we propose that there are three classes of mechanisms at work. First, there are mechanisms that, over time, diminish the regret due to unfortunate actions. Second, there are mechanisms that enhance the regret over unfortunate failures to act. Finally, there are mechanisms that differentially affect the cognitive availability (Tversky & Kahneman, 1973) of regrettable actions and inactions. These latter mechanisms do not affect the *intensity* of regret over actions and inactions, but they do affect how *often* one is reminded of such regrets and therefore how often they are experienced. We discuss each set of mechanisms in turn.

Factors That Diminish the Regret of Action

Asymmetries in ameliorative behavior. When bad things happen, people typically try to overcome, undo, or compensate for the negative outcome. If an individual marries the wrong person, he or she gets divorced; if someone takes a job with the wrong company, he or she switches organizations or even careers. When people's actions get them "off course" in some way, they endeavor to set themselves right.

What we suggest is that there is an asymmetry in how readily and effectively people engage in such ameliorative behavior for their actions and inactions. We believe that people are more likely to take remedial steps to alleviate the pain of their regrettable actions than their regrettable inactions. Why might this be?

The answer is easiest to see when one thinks of behavior in Lewinian terms (Lewin, 1938, 1951).⁶ From a Lewinian perspective, whenever people act, they overcome whatever inertia had kept them in the position they were in beforehand, and they

⁵ Because each subject responded twice, the data are not independent and the most direct statistical test, the chi-square, is inappropriate. To overcome this problem, we conducted an analysis using only those subjects who gave different responses for the two time periods. Our hypothesis, after all, is one that involves change from the 1-week to the lifetime perspective, and such a hypothesis is tested most directly by the data from those subjects who exhibited variability in their responses across the two time periods. Ninety-three percent of these subjects conformed to the predicted pattern of regretting the past week's action more than the past week's inaction, but regretting their lifetime's most regrettable inaction more than their lifetime's most regrettable action. Only 7% exhibited the opposite pattern, and it is this imbalance that yielded the binomial p of .01 reported above.

⁶ Our argument does not require that one accept all of Lewin's field theory. All that is necessary is to entertain Lewin's central metaphor of the psychological tension system in which behavior is the product of the numerous psychological forces acting on the individual.

upset the balance of forces that existed previously. By acting, in other words, people change their world (and the tension system in which they are embedded) and enter a new world in which the forces acting on them are less likely to be in equilibrium. With the operative forces in flux, it is less difficult to behave in ways designed to overcome whatever initial mistakes were made. It is relatively easy to follow initial action with further action.

In contrast, when people fail to act they are still held in the grip of preexisting inertial forces. By not acting, in other words, individuals remain in their old world where the forces acting on them are likely to be in equilibrium. As a result, it is relatively difficult to change from initial inaction to subsequent action. Like many other things in life, behavior is subject to momentum.

We recently obtained evidence that people are indeed more likely to take ameliorative steps to deal with their regrettable actions than their regrettable inactions (Gilovich & Medvec, 1994). Subjects were asked to think of their biggest regret of action and their biggest regret of inaction from their entire lives and to indicate for which regret they engaged in more vigorous ameliorative behavior. As expected, a substantial majority (65%) indicated that they had made more significant changes to deal with their most regrettable action than their most regrettable inaction.

Differential dissonance reduction. Of course, there are other ways to deal with negative events beyond taking decisive action to undo the harm. Indeed, there are times when effective action is not possible and people must engage in "psychological work" to lessen the pain of the unfortunate event. What cannot be accomplished materially, in other words, can be dealt with psychologically. Moreover, because people's regrets typically involve only those negative outcomes for which they feel partly responsible, the effort to come to grips with their disappointment often takes the form of attempts to reduce dissonance for the event in question (Aronson, 1969; Cooper & Fazio, 1984; Festinger, 1957; Wicklund & Brehm, 1976). Significantly, we have shown elsewhere that people are indeed more inclined to reduce dissonance for negative events that stem from actions taken than for those that stem from actions foregone (Gilovich, Medvec, & Chen, in press).

The net result of these dual tendencies to engage in more vigorous dissonance reduction for regrettable actions than regrettable inactions, and to follow up mistakes of commission with more effective ameliorative action, is that the sting of a regrettable action will diminish sharply with time. As the counterfactual thinking literature suggests, negative outcomes brought on by commission typically generate more immediate regret than negative outcomes that stem from omission. However, precisely because people's unfortunate actions generate more initial regret, they may call forth more repair work—of both the material and psychological sort—and thus lose much of their emotional punch. People may therefore regret their actions more initially but end up regretting their failures to act more in the long run.

Factors That Enhance the Regret of Inaction

Confidence and temporal perspective. Many of our failures to act stem from an inability to conquer our fears or overcome

our doubts when the moment of truth is at hand. We fail to make a career change because we are unsure of what the outcome will be. We do not ask someone for a date because we are afraid of rejection. Nevertheless, these concerns—which seem so pressing when the time to act is at hand—may tend to diminish with the passage of time. The further removed we are from the occasion, the more convinced we may become that we could have or would have done just fine. It may be easy to be confident when the task is not imminent; it may be harder to be so assured when the challenge is at hand.

Such a tendency for confidence to soar with increasing distance from an event would obviously serve to magnify a person's feeling of regret over a failure to act. If the fears that kept an individual from performing some action tend to diminish with time, the reasons she or he had for not acting will no longer seem compelling. And, with no compelling reason for failing to do something one wishes one had done, the regret over failing to act is intensified. One becomes cursed by such questions as "Why didn't I at least try?" and by thoughts that "I'm just too timid" or "I'm too indecisive."

We have recently shown that people are indeed more confident that they would have done well at a task long after the time to perform has passed than either just before or just after the critical moment (Gilovich, Kerr, & Medvec, 1993). In particular, we asked Cornell students and alumni to consider the impact of adding a challenging course to their workload during a typical semester. How much would it affect their grade point average for the semester? The amount of sleep they got? Their extracurricular and social lives? One group of respondents consisted of Cornell alumni who had been out of college for an average of 3.5 years. Another was a group of current students who were asked how much the extra class would affect their current semester. Finally, a third group of students indicated how much it would have affected them the previous semester.

As anticipated, subjects' confidence that they could cope with an increased work load was directly related to their distance from the time the extra burden was to be faced. The alumni indicated that the extra work would take less of a toll on their academic and social lives than did either group of current students. Furthermore, subjects who were asked to make assessments for a recently *completed* semester expressed less concern about disruption than did subjects making assessments for the current semester. The farther one is from some challenge, the less threatening it appears. Thus, from the vantage point of hindsight, one might not only wish one had gone ahead and acted, but may frequently fail to understand why one never acted in the first place. People's regrets intensify because the failure to act (now) seems so inexplicable.

Asymmetrical impact of compelling and restraining forces. The increase in confidence with temporal perspective constitutes one way in which the elements that originally restrained a person's actions can lose their force over time and therefore intensify regrets of inaction. There is reason to believe, however, that this may be but one aspect of a more general pattern: Forces that restrain human action may be inherently less salient than forces that compel action. As a result, it may be easy to get in touch with why one acted (thereby justifying regrettable actions) but more difficult to understand why one failed to act (thereby rendering regrettable failures to act rather mystifying).

The results of several experiments support this thesis. Read (1985; described in Kahneman & Miller, 1986) taught subjects a simple card game and then showed them various hands of two hypothetical players. The subjects were asked to reverse the apparent outcome by changing the hand of one of the players. The subjects typically chose to change the outcome by strengthening the losing hand rather than weakening the winning hand. In other words, they apparently found it more natural to add elements that would compel a victory than to delete elements that prevented it. Similarly, when subjects are told about the outcome of various contests (e.g., a hockey game or a tug-of-war) they are more inclined to attribute the outcome to the strength of the winning side than to the weakness of the loser (Hansen & Hall, 1985). That which causes a victory looms larger than that which fails to prevent it. Finally, in Dunning and Pappal's (1989) work on "mental addition" and "mental subtraction," subjects in the mental addition conditions of their experiments were asked questions such as, "How many more questions will you get right if you study for an upcoming exam?" Those in the mental subtraction conditions were asked questions such as, "How many fewer questions will you get right if you do not study for an upcoming exam?" Subjects' responses indicated that they thought that adding a bit more studying time would help their performance more than subtracting an equal amount of studying time would hurt it. That which compels (e.g., studying) has a greater impact than that which restrains or impedes (e.g., not studying).

These various findings suggest that people may have a relatively easy time getting in touch with why they did something that in retrospect they would prefer not to have done. Knowing these reasons, furthermore, should lessen the self-recrimination and remorse that tend to accompany such negative outcomes. In contrast, these findings also suggest that people may have difficulty understanding why they failed to do something they now wish they had done. And, without a satisfying explanation for their inaction, self-recrimination and remorse intensify. This asymmetry in the accessibility of reasons for action and inaction, furthermore, may become more pronounced with the passage of time. In the short-term, one can rely on relatively accurate "bottom-up" processes that recruit specific memories of the thought processes that led to action or inaction. Over time, however, one must rely on less reliable "top-down" processes that generate inferences about the reasons one must have had for one's actions or inactions. It is when these more abstract inferential processes are engaged that the differential impact of compelling and restraining forces are likely to be most pronounced.

Asymmetries in perceived consequences. There are systematic differences in the feedback people receive from acting and not acting, and these differences tend to make regrettable omissions loom larger than regrettable commissions. What troubles people about a regrettable action is the set of bad things that actually happened as a consequence of what they did. Thus, the regrettable consequences of actions are often finite: They are bounded by what actually happened. In contrast, what troubles people about a regrettable inaction is the set of good things that *would have* happened had they not failed to act. The consequences of inactions are not only generally unknown, they are

also potentially infinite: They are bounded only by the imagination.

More important, this difference in the perceived consequences of regrettable actions and inactions is likely to become more pronounced over time. After all, one can always add elements to the list of good things that would have happened if one had acted. Regrets of inaction are something of an open book. As the list of negative consequences grows, so too does the regret over one's failure to act. People tend to idealize many aspects of the past, and lost opportunities are no exception. In contrast, the "book" on regrets of action is typically closed. The negative consequences therefore do not accumulate, and the amount of regret levels off or even diminishes.

There is a second way in which the perceived consequences of actions and inactions diverge, and it has similar effects. Because regret over action stems from the bad things that actually happened as a result of the action, the consequences are tied to a particular event or decision. Although the consequences on the whole may be bad, often there is some good that stems from the action as well. Thus, when people think of their regrettable actions, they often think of compensatory "silver linings." In contrast, many regrettable inactions are not tied as closely to a particular event or decision. Often it is not the failure to act in a particular moment that is regrettable, but one's accumulated failure to, say, get closer to one's parents, spend more time with one's children, or more diligently pursue one's career aspirations. As a result, inactions are less likely to prompt thoughts about compensatory gains. Regrettable omissions, in other words, tend to be remembered in the long-term only for being regrettable, whereas regrettable commissions are more likely to be remembered for a number of qualities—qualities that only on the whole are unfortunate.

The Differential Cognitive Availability of Regrettable Action and Inaction

The open-ended nature of regrets of inaction and the closed nature of regrets of action also have implications for how frequently each type of regret is brought to mind. There have been suggestions since at least the 1920s that people tend to remember incomplete tasks and unrealized goals better than those that have been finished, accomplished, or resolved (Zeigarnik, 1935). The original interpretation of this "Zeigarnik" effect was that the intention to carry out a task generates a state of psychological tension that keeps the issue alive until the task is complete and the tension is released (Lewin, 1935, 1951). The extra mental work that is devoted to unfulfilled intentions constitutes additional rehearsal time that makes them more memorable.

There are obvious parallels between incomplete tasks and regrettable omissions. Many regrets of inaction involve things that could still be accomplished at any time. One might regret never having learned to speak French, play the violin, or talk with real intimacy to friends and family, but these are all things that can still be done whenever the sting of regret is felt. One's accent may never be as good, one's ear never as developed, and one's intimate moments not as numerous as they would have been if one had acted earlier, but much of the gratification such activities might bring can still be obtained. To be sure, many regrettable inactions involve failing to seize a moment that is

long past. For these, there is no second chance. The case is closed. However, for many other regrets of omission, the opportunity and temptation to act still exist. Regrettable omissions often belong as much to the present as they do to the past. This sense of incompleteness and possibility that surrounds failures to act keeps them alive longer.

This is in marked contrast to most regrettable actions. These belong almost entirely to the past. We messed up. We might worry about it now and vow to do better in the future, but the event itself lies entirely in the past. The story of our regrettable actions tends to be closed; the story of our failures to act, open. Because regrettable inactions are more alive, current, and incomplete than regrettable actions, one is reminded of them more often. A regret that one is reminded of more often is a regret one experiences more often. Thus, this Zeigarnik-like aspect of regrettable omissions may not increase the intensity of the emotional pain over the failure to act, but it does increase the frequency with which one feels it.

Final Thoughts

One question that awaits further research is the extent to which the findings examined here—both the greater regret of action in the short-term and the greater regret of inaction in the long run—are influenced by cultural norms. Western society seems to revere action and disdain inaction, and so the abundance of long-term regrets of inaction in our sample of respondents may be attenuated in people from a less action-oriented culture. In addition, the overwhelming majority of our subjects' regrets of inaction stemmed from failures of self-actualization—not getting enough education, not adequately fulfilling the role of parent or child, or not developing some talent. These regrets may be particularly prominent in Western cultures that stress self-actualization (Lasch, 1979). In contrast, regrets of action, more often than regrets of inaction, involve moral transgressions in which harm is done to another person (e.g., “whipping my son when he was a boy,” “talking about a friend behind her back,” “breaking off a relationship in an unkind way”). Thus, it is possible that regrets of action may be more prominent, and more psychologically enduring, in more communitarian cultures that stress duty and responsibility to others more than self-fulfillment.

It is also important to note that the observed tendency for regrets of omission to increase in prominence with the passage of time is only that—a tendency. Surely not all regrettable omissions follow this pattern. For example, one might be so frustrated by one's “progress” through the supermarket checkout line that one contemplates switching to an adjacent line (Miller, 1991). Suppose one decides not to switch, but then watches in annoyance as the line one had eyed does indeed move more rapidly. One can truly be said to regret the decision, but this is not the type of regret that is likely to intensify over time. The consequences are too minor for the event to occupy one's mind for very long and so the psychological mechanisms we have outlined to account for this temporal pattern are unlikely to be engaged. Regrets such as these either level off or, more likely, diminish. Nevertheless, because several distinct mechanisms appear to give rise to the observed temporal pattern to the experience of regret, one would expect—indeed we have shown—

that there is no shortage of the type of regrettable omissions that do intensify with the passage of time.

In fact, some may be troubled by our invoking so many distinct mechanisms to account for our results. Indeed, all else being equal, it is surely more satisfying when a single mechanism explains a given phenomenon. However, for many complex psychological phenomena there simply is no single underlying mechanism, and so this concern is not always compelling. In fact, we were initially drawn to this research topic in part *because* so many mechanisms seemed to be involved. Each of the psychological processes that we identified seem to us to be intriguing, not just as an explanation of the regret results, but as a psychological phenomenon in its own right. The relationship between confidence and temporal distance, the amount of dissonance reduction devoted to errors of omission and commission, and the relative impact of compelling versus restraining forces all tell us something potentially significant about the human condition and therefore represent worthy subjects of investigation quite apart from their role in the experience of regret.

But we did not undertake this research because of the mechanisms alone, of course. Everyone has regrets, and yet, as we mentioned earlier, little is known about the underlying psychology of regret. This is unfortunate because our current cultural-historical context is one that is likely to maximize the experience of regret. In earlier times and in cultures with more rigid behavioral prescriptions, there were fewer decisions to be made and therefore less potential for regret. Marriages were arranged; stations in life were inherited; the choices among various material goods were much narrower. Things could hardly be more different today: One of the difficulties of modern life is coping with all of the choices that are available. With a greater range of choice comes increased opportunities for regret, and so a related problem with modern life is how to minimize or cope with the experience of regret. We offer the present results as something to keep in mind when trying to accomplish these goals.

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Received October 18, 1993

Revision received February 4, 1994

Accepted February 7, 1994 ■