

Psychological Review

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Volume 102(2)

April 1995

p 379-395

The Experience of Regret: What, When, and Why [Articles]

Gilovich, Thomas^{1,2}; Medvec, Victoria Husted^{1,3}

¹Cornell University.

²Correspondence concerning this article should be addressed to Thomas Gilovich, Department of Psychology, Uris Hall, Cornell University, Ithaca, New York 14853.

³Correspondence concerning this article should be addressed to Victoria Husted Medvec, Johnson Graduate School of Management, Malott Hall, Cornell University, Ithaca, New York 14853.

Much of the research reported here was supported by Grants MH45531 from the National Institute of Mental Health and SBR9319558 from the National Science Foundation. We would like to thank Todd Bickford, Kirsten Blau, Ann Charlton, Theresa Buckley, Deborah Fidler, Nina Hattiangadi, Allison Himelfarb, Elena Jeffries, Danielle Kaplan, Dorie Katzer, Talia Korenbrot, Jennifer Lowe, Ken Savitsky, Marshall Schacht, Sarah Sirlin, Shane Steele, and Robin Winitsky for collecting much of the data reported here. Daryl Bem and Dennis Regan provided helpful comments on an earlier version of this article.

Received Date: June 24, 1994; Revised Date: October 31, 1994; Accepted Date: November 1, 1994

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Abstract

This article reviews evidence indicating that there is a temporal pattern to the experience of regret. Actions, or errors of commission, generate more regret in the short term; but inactions, or errors of omission, produce more regret in the long run. The authors contend that this temporal pattern is multiply determined, and present a framework to organize the divergent causal mechanisms that are responsible for it. In particular, this article documents the importance of psychological processes that (a) decrease the pain of regrettable action over time, (b) bolster the pain of regrettable inaction over time, and (c) differentially affect the cognitive availability of these two types of regrets. Both the functional and cultural origins of how people think about regret are discussed.

We have left undone those things which we ought to have done; and we have done those things which we ought not to have done. - —American Book of Common Prayer

Many people say they “regret nothing” or they “wouldn't do anything differently” if they could live over again. Although such statements are offered with sincerity, they can be difficult to accept at face value. Living a life with no mistakes and without any regrets is extraordinarily hard to accomplish. A lifetime of making choices brings with it the knowledge that at least *some* actions were ill-considered, some failures to act unwise. For most of us, it also brings with it the realization that some of these unfortunate outcomes could have been avoided. To live, it seems, is to accumulate at least some regrets.

Given that few of us are likely to be strangers to the experience of regret, one question that arises is how we can minimize the depth and frequency of this unpleasant emotional experience. How might we live our lives so as to keep the number and intensity of our future regrets close to some optimal level? To answer this question requires an understanding of what it is that people regret most in their lives and why. These issues are the focus of the present article.

Previous Approaches to the Study of Regret

Philosophical Approaches

Until recently, nearly all scholarly work on the subject of regret involved philosophical efforts

to define the term ([Bedford, 1957](#); [deSousa, 1987](#); [Hampshire, 1960](#); [Landman, 1987a](#); [Rorty, 1980](#); [Taylor, 1985](#); see also [Landman, 1993](#)). This work has tried to elucidate the nature of the internal state that accompanies or constitutes the experience of regret, specify the circumstances in which regret can properly be said to be experienced, and distinguish regret from related emotional states such as disappointment, guilt, remorse, and sadness.

These philosophical efforts have met with mixed success. On the plus side, there is general consensus that regret is an unusually cognitively-laden or cognitively-determined emotion. As [Hampshire \(1960\)](#) states, “Do you regret that decision?” is a question that requires me to *think* and to think practically, about the decision, and not merely to inspect my feelings” (p. 241). Judgment is more central, in other words, to the experience of regret than, say, the experience of jealousy or anger. At the same time, regret is more than a simple appraisal or judgment; it is typically loaded with *feeling* and therefore qualifies as a true emotion. When one contemplates a life of unfulfilled promise, the destructive things said in anger, or the failure to heed the “cries for help” from someone who later committed suicide, one feels “... a particular sort of painful feeling, a pang, a stab, waves of stabs” ([Rorty, 1980](#), p. 496).

There are other definitional issues, however, that are harder to resolve. For example, there appears to be little consensus as to whether one can properly be said to regret something that one would continue to do under similar circumstances in the future. [Hampshire \(1960\)](#) asserts that

If a man continues to make the kind of decisions that he claims that he regrets, he could not properly continue to describe his distress as regret. He would be compelled to describe it as a vague sense of guilt or anxiety, or perhaps as an unhappy wish that he had greater powers, or that he was placed in other circumstances (p. 241).

Others disagree ([Landman, 1993](#); [Rorty, 1980](#); [Taylor, 1985](#)), and it is unclear how these rival claims can be decided. Hampshire's contention—that we should differentiate between “regrettable” acts a person would and would not repeat—certainly has some appeal. At the same time, it is easy to generate examples in which someone could rightfully be said to regret an action that is repeated many times. For example, if Richard Nixon were the type to experience regret, he might genuinely regret Red-baiting his opponents and yet continue to do so in election after election in order to win votes.

Because debates such as this one about the nature of regret have not always been decisive, the conceptual edges of regret are not sharp, and so a rather inclusive definition is in order. Landman's definition seems to be the most suitably inclusive and appropriate, both in general and with respect to the empirical research we review in this article. According to [Landman \(1993\)](#)

Regret is a more or less painful cognitive and emotional state of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes. It is an experience of felt-reason or reasoned-emotion. The regretted matters may be sins of commission as well as sins of omission; they may range from the voluntary to the uncontrollable and accidental; they may be actually executed deeds or entirely mental ones committed by oneself or by another person or group; they may be moral or legal transgressions or morally and legally neutral.... (p. 36)

Economic Approaches [↕](#)

Another approach to the subject of regret, one that combines conceptual analysis with empirical investigation, comes from the field of economics. The impetus for this work was the

idea that certain violations of the axioms of rational choice, such as that revealed in Allais' paradox, can be explained by postulating that people will sacrifice monetary gain to ensure that they will not experience subsequent regret. Thus, the anticipation of future regret affects current choices (Bell, 1981, 1982, 1983, 1985; Loomes & Sugden, 1982, 1987a). These core ideas have considerable intuitive appeal, and they have received some support from empirical tests (Loomes, 1988; Loomes & Sugden, 1987a, 1987b; Simonson, 1992).

Unfortunately, economic theorists have defined or operationalized regret so narrowly that the applicability of their work is more limited than perhaps it could be. In particular, regret has been conceptualized as “the difference in value between the assets actually received and the highest level of assets produced by *other* alternatives” (Bell, 1982, p. 963). Although this difference is certainly an important determinant of the amount of regret experienced, other elements are also critical. For example, the path by which a particular alternative was decided on can have a tremendous impact on whether the choice is regretted, as can the way the alternatives or outcomes are framed (Harless, 1992; Thaler, 1980; Tversky & Kahneman, 1981). By defining regret as a reaction to the simple difference between the outcomes of a chosen and rejected alternative, economic regret theories cannot account for the fact that some rejected alternatives generate more regret than others because they are particularly salient, because they were “almost” chosen, or because they are the choices that others would make.

A number of economic theorists have also argued that regret does not arise if the outcomes of the rejected alternatives are never revealed (Bell, 1982, 1983; Kelsey & Schepanski, 1991; Sage & White, 1983). Thus, no allowance is made for the fact that individuals might be tormented by what they *imagine* to be the consequences of roads not taken.

Counterfactual Thinking and Regret

A number of the shortcomings of the economic models of regret have been directly addressed by psychological research on counterfactual thinking (Kahneman & Miller, 1986; Kahneman & Tversky, 1982b; Miller, Turnbull, & McFarland, 1990). This research begins with the observation that events are not evaluated in isolation, but are compared to alternative events that “could have,” “might have,” or “should have” happened. The work on counterfactual thinking has focused on two subtopics: (a) the rules by which counterfactual alternatives are generated (i.e., some alternatives to reality are more likely to be imagined than others) and (b) the consequences of comparing actual events with imagined events that might have happened.

Much of the work on the consequences of various counterfactual comparisons has focused on the phenomenon of *emotional amplification*, or the tendency for people to react more strongly to those events for which it is easy to imagine a different outcome occurring. For example, the fate of someone who dies in an airplane crash after switching flights seems more tragic than that of a fellow traveler who was booked on the flight all along (Miller et al., 1990). The former induces a stronger reaction because it is so easy to imagine the person surviving “if only” he or she had not switched flights. This phenomenon underlies a favorite technique of film directors. Whenever a character in an action film announces that “This is my last mission,” “I’m quitting the force,” or “I think we should turn back,” experienced moviegoers know that the character is unlikely to survive to the final scene. The death of such a character evokes particularly strong emotions because he or she “almost” made it out of harm's way.

The work on counterfactual thinking overcomes two of the biggest shortcomings of the economic models of regret. First, because the study of counterfactual thinking is concerned with

people's *imagined* alternatives to reality, regret is not thought to be restricted to those circumstances in which the outcomes of rejected alternatives are known. Second, in contrast to the economic models, the exact path by which a decision is made is seen as critically important: Different paths to the same outcome can lead to the consideration of very different counterfactual alternatives and thus induce very different levels of regret.

Regrets of Action and Inaction

One way that individuals can arrive at the same outcome via different paths is through action or inaction. The research on counterfactual thinking demonstrates that the distinction between omission and commission has considerable hedonic consequences. In what is perhaps the clearest and most frequently replicated finding in the entire literature on counterfactual thinking, it appears that people experience more regret over negative outcomes that stem from actions taken than from equally negative outcomes that result from actions foregone ([Gleicher et al., 1990](#); [Kahneman & Tversky, 1982a](#); [Landman, 1987b](#)). Consider 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. And who could argue with them? It is much easier to put oneself in Mr. George's position and imagine being tormented by thoughts such as “This need not have happened” or “I brought this on myself.” It is harder to imagine getting equally worked up if one were in Mr. Paul's position. Mr. George seems more likely to be plagued by thoughts of what might have or should have been in part 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](#)).

Nevertheless, as powerful and intuitively appealing as these results are, they do conflict—at least on the surface—with a common observation from everyday life. When people are asked about their biggest regrets in life, it seems that they tend to focus on things they *failed* to do in their lives: “I wish I had been more serious in college”; “I should have told my father I loved him before he died”; “I regret that I never went to Europe.” 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 greater grief.¹

How can this apparent conflict between the research on counterfactual thinking and the lessons of everyday life be resolved? We believe that both observations are valid reflections of important phenomena and that both reveal something significant about the experience of regret. In particular, we believe that together the two findings indicate that there is a temporal pattern to the experience of regret over actions and inactions ([Gilovich & Medvec, 1994, in press](#)). As the literature on counterfactual thinking suggests, people may be more upset by their unfortunate actions in the short run. Initially, regrettable actions may generate more counterfactual thoughts about “what might have been.” Over time, however, it may be those things that people have 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 interesting question, then, is why might such a temporal pattern exist. What is it about the way people think about actions and inactions

that makes failures to act more cognitively available in the long run and preserves their power to cause grief when the impact of regrettable actions has faded?

Our examination of these questions proceeds in three parts. First, we investigate whether, with time, people do indeed regret their failures to act more than their actions. Second, we review evidence indicating that this tendency is part of an overall time course in which actions are regretted more in the short term but failures to act are regretted more in the long run. Finally, we present a framework to organize the various psychological mechanisms that give rise to this temporal pattern to the experience of regret.

What People Regret Most in Their Lives [↗](#)

We are aware of no research that has directly examined the extent to which people's real-life regrets stem from action versus inaction. Nevertheless, some suggestive evidence can be found in the literature. For example, [Kinnier and Metha \(1989\)](#) asked samples of young (ages 20 to 29 years), middle-aged (35 to 55), and older (64 and above) respondents what they would do differently if they could live their lives over again. The most common regret across all three samples was an inaction—a wish that they had taken their “education more seriously and worked harder on it.” The same result was obtained in two Gallup polls conducted in 1953 and 1965 ([Erskine, 1973](#)). Inactions predominated in the other most frequently mentioned regrets reported by Kinnier and Metha's respondents as well—not being more assertive, not taking more risks, and not spending more time with family (see also [Metha, Kinnier, & McWhirter, 1989](#)).

This same question was also asked of the intellectually gifted individuals studied by Lewis Terman. In particular, 381 men and 339 women from his original sample were asked this question in 1986 when they were mostly in their 70s (mean age = 74 years). Their responses were coded by the Terman group into numerous categories, including the 50 shown in [Table 1.2](#). We obtained the coded data from the Terman archives and examined the extent to which the respondents listed an action or inaction as the first thing they would do differently if they had the opportunity ([Hattiangadi, Medvec, & Gilovich, in press](#)). Eight judges, unaware of the study's hypotheses, evaluated whether each of the 50 categories represented a regret of action, a regret of inaction, or was “indeterminate.” As the data in [Table 1](#) make clear, Terman's respondents reported many more regrets of inaction than regrets of action. Overall, 54% of the regrets appeared to be regrets of inaction, whereas only 12% appeared to be regrets of action (34% were ambiguous with respect to the action–inaction dichotomy).

Table 1

What Terman's "Geniuses" Would Do Differently If They Could Live Their Lives Over

Regret	<i>n</i>
Regrets of inaction	
Should have completed college or graduate school; not have interrupted education	39
Should have attended college; needed more education	21
Should have worked harder; not wasted college time; been more motivated	17
Should have pursued a career or a professional interest; aimed higher in career	16
Should have been more assertive; more selfish in developing own abilities	15
Should have emphasized social relationships	13
Should have prepared for a professional career or avocation	11
Should have tried harder to be married and/or have a family	10
Should have had a goal for self; should have had more choices of own	7
Should have spent more time in family relationships	7
Should have married earlier; married too late	3
Should have taken up a sport or exercise regimen	3
Should have been more involved in cultural pursuits and community affairs	3
Should have married again after first husband's death or after divorce	2
Should have pursued a career when children were older	2
Should have traveled more	2
Should have paid more attention to finances; should have saved more	2
Should have had more children; had too few children	2
Should have spent more time with children/grandchildren when they were young	2
Should have moved to a preferred location	2
Should have found an occupation/career; should have had paid employment	1
Should have divorced	1
Should have been more assertive in marriage	1
Should have paid more attention to social/nonwork life	1
Should have had children earlier; had children too late	1
Should have insisted children finish college	1
Should have been more affectionate to relatives	1
Total	186 (54%)
Regrets of action	
Shouldn't have married so early	12
Shouldn't have smoked; should have conquered alcoholism earlier	7
Shouldn't have stressed work so much	6
Shouldn't have participated in Terman study	4
Shouldn't have managed finances badly; made bad investments	3
Shouldn't have divorced	3
Shouldn't have made love and sex so important in choice of partner	2
Shouldn't have married	2
Shouldn't have retired so early	1
Shouldn't have returned to parents' home when marriage failed	1
Total	41 (12%)
Indeterminate	
Should have chosen different occupation/career or different company	37
Should have studied different subjects; should have had different major	29
Should have chosen different mate; chose badly, poor marriage	14
Should have been less self-centered; more giving, understanding, and outgoing	9
Should have gained more self-confidence; better self-image	9
Should have delayed admission to university or high school until older	7
Should have had more fun, been more flexible; too serious; too much housework	4
Should have chosen different college	3
Should have reared children differently	2
Should have prepared for a career in college; needed different kind of education	1
Should have retained own or family home	1
Should have continued to work when children were young	1
Should have recognized mother/son relationship after husband's death	1

Table 1 What Terman's 'Geniuses' Would Do Differently If They Could Live Their Lives Over

Although all of these results support our claim that people's biggest regrets involve their failures to act more than their actions, the data are limited in a number of respects. For one thing, the respondents were never actually asked about their *regrets*. Although asking people what they would do differently if they had another chance is likely to tap into some regrets, it need not. A person can look back and seize on something that should have been done differently without feeling any sense of regret or remorse. One might look back and wish one had bought shares of Microsoft stock instead of investing in TIAA-CREF, but one might do so without much emotion, or without a sense of self-recrimination that is characteristic of regret. In addition, asking people what they would *do* differently if they had the chance may have predisposed them to think of inactions. After all, inactions can only be overturned by doing something, whereas many actions are overturned by not doing something. Thus, to determine whether people really do tend to regret their inactions more than their actions, further research is needed.

Forced-Choice Responses [↑](#)

To overcome the limitations of previous research, we conducted telephone surveys that directly asked people about their regrets of action and inaction (Gilovich & Medvec, 1994, Study 1). In our initial survey, a random sample of 60 adults (M age = 40.3 years) selected from the Syracuse, New York, telephone directory was asked 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 across respondents in terms of the order in which the two types of regret were mentioned. The results were both clear and supportive of our hypothesis: Of the 60 respondents, 45 (75%) indicated that they experienced more regret over those things they did not do but wish they had done (binomial $p < .001$). The order in which the two alternatives were listed made no difference.

By themselves, these data do not establish unequivocally that people regret their inactions more than their actions. Indeed, it might even be the case that people actually feel more pain over their regrettable actions, but there may be fewer of them than regrettable failures to act. After all, the set of things one does has to be smaller than the set of things one does not do because for every action taken there are many options that are passed over. 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. Although asymmetries such as this may contribute to any differences in regrets over actions and inactions (and to any changes in relative regret with the passage of time), it is important to determine whether this is the *sole* explanation of our survey findings.

To examine this issue, we selected a random sample of 30 adults from the Chicago telephone directory (M age = 40.1 years) and asked them to think of their greatest regret of action and their greatest regret of inaction. We told each respondent 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 had done so, we asked them which they regretted more. Twenty-one of the 30 respondents (70%) expressed greater regret over their biggest failure to act (binomial $p < .05$).³ Thus, when directly asked, people

report that they regret their inactions more than their actions.

Free-Response Data. [↑](#)

What happens when people are asked to list specific regrets rather than to make a summary judgment about what they regret most? Do they report more regrets of inaction? To find out, we asked several groups of respondents to describe the biggest regrets in their lives (Gilovich & Medvec, 1994, Study 2). We did not mention the action–inaction distinction; instead, we had raters score each regret on this dimension afterwards. Because we were interested in obtaining the regrets of a wide range of people, we interviewed four groups of participants. Three of the groups were interviewed face-to-face: 10 professors emeriti at Cornell University, 11 residents of various nursing homes in upstate New York, and 40 Cornell University undergraduate students. The responses of individuals in each of these three groups were tape-recorded and later transcribed. In addition, a group of 16 clerical and custodial staff members at Cornell were given questionnaires that they returned anonymously through the campus mail.

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 prompted 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 respondents 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 circumstances beyond the person's control (e.g., “Having polio as a child”). The judges agreed on the scoring of 204 of the 213 regrets. The scoring of the remaining 9 was resolved by having a third judge, also unaware of the hypothesis, cast a decisive vote.[4](#)

It is interesting that only 10 of the 213 regrets involved outcomes caused by circumstances beyond the person's control. Thus, a sense of personal responsibility appears to be 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 provided strong support for our hypothesis: Regrettable failures to act outnumbered regrettable actions by nearly a 2 to 1 margin (63% vs. 37%).

A number of subsidiary issues were also examined. First, male and female respondents did not differ in terms of how frequently they mentioned regrets of action versus regrets of inaction. Second, there was some (not statistically significant) evidence that older individuals were more likely than younger respondents to regret things they failed to do. For instance, 74% of the regrets listed by our two oldest samples (the professors emeriti and the nursing home residents) involved things they did *not* do, as compared to 61% for our two youngest samples (the students and the staff members).[5](#)

A third issue concerns the precise content of individuals' regrets beyond the action–inaction dichotomy. What do people regret most in their lives? [Table 2](#) presents the regrets most frequently mentioned by our respondents. The taxonomy presented in [Table 2](#) was designed to be balanced with respect to the action–inaction dichotomy. For example, because “not pursuing interest in ‘X’” was a commonly mentioned regret, it appears as an inaction category along with its complementary action category “wasted time on ‘X’” (see Gilovich & Medvec, 1994, Study 2, for details on scoring)

Failures to act		Actions	
	<i>n</i>		<i>n</i>
Missed educational opportunity	21	Bad educational choice	3
Failure to seize the moment	21	Rushed in too soon	17
Not spending enough time with friends and relatives	15	Spent time badly	4
Missed romantic opportunity	13	Unwise romantic adventure	10
Not pursuing interest in "X"	11	Wasted time on "X"	0
Missed career opportunity; insufficient effort	7	Bad career decision; wasted effort	3
Not making financial transaction	2	Unwise financial action	6
Miscellaneous inaction	38	Miscellaneous action	32
Total	128	Total	75

Note. An additional 10 regrets dealt with events outside the person's control and thus lie outside the action-inaction dichotomy. From "The Temporal Pattern to the Experience of Regret," by T. Gilovich and V. H. Medvec, 1994, *Journal of Personality and Social Psychology*, 67, p. 360. Copyright 1994 by the American Psychological Association. Adapted by permission.

Table 2 Most Common Regrets

An examination of [Table 2](#) indicates that the most common regrets involved such inactions as missed educational opportunities, the failure to "seize the moment," and not devoting enough time and effort to personal relationships. The most common regret of action was to "[rush] in too soon." Sadly, it seemed to us that people's regrets reflect a trade-off between educational and career pursuits on the one hand and interpersonal relationships on the other: Those who spent time on interpersonal relationships regretted not achieving more professionally; those who spent time in professional pursuits regretted not devoting enough attention to friends and family.

[Table 2](#) also reveals that no one regretted spending time developing a skill or hobby, even when the skill lies dormant and the hobby is no longer pursued. No one reported any misgivings about spending their adolescence learning ballet or collecting coins, even though, as adults, they have given up dance and the coin collection no longer holds interest. Compare this to the 11 entries in the corresponding inaction category, "Not pursuing interest in 'X'." The difference within this pair of action-inaction categories 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.

The Temporal Aspects of Regret [↑](#)

Having established that people regret their failures to act more than their actions, we return to the conflicting pattern of results 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. However, surveys of people's greatest real-life regrets reveal that 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. People who have been asked about specific, short-term regrets may be evaluating fundamentally different kinds of events than those queried about the biggest regrets of their lives. In addition, there may be various subtle but important differences in what is meant by *regret* when applied to these two temporal perspectives.

Our thesis, however, is that these two different sets of results are manifestations of a temporal pattern to the experience of regret. Actions tend to generate more regret in the short term, but inactions tend to be more troubling in the long run. We have obtained evidence consistent with

this idea from two very different kinds of experiments (see [Gilovich & Medvec, 1994](#), Studies 3–5).

Intuitions About the Short-Term and Long-Term Regrets of Others [↗](#)

Consider the following scenario:

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.

Students who were presented with this scenario were then asked (a) “Who do you think would regret his decision the most upon learning that it was a mistake?” and/or (b) “Who do you think would regret his decision the most *in the long run*?”

Whether participants answered both questions in a within-subjects design or only one of the two in a between-subjects format, most (76%) thought that Jim, the person who regrets *doing* something, would experience more regret in the short term—that is, upon learning his action was a mistake. When asked about the long run, however, the majority (63%) thought that Dave, who regretted *not* doing something, would experience more regret ([Gilovich & Medvec, 1994](#), Studies 3 and 4).

These data suggest that people are familiar with both sides of the temporal profile we have proposed. People have apparently been exposed to the intense, immediate pain that stems from a regrettable action; at the same time, they are aware that in the long run it is often the failure to act that causes more distress.

Recent and Life-Long Regrets [↗](#)

To move beyond the scenario methodology and examine the temporal profile of people's own real-life regrets, we recruited a group of adults to fill out a questionnaire that asked them to recall (but not write down) their single most regrettable actions and inactions both from the past week and from their entire lives. Then, for each time period, they were asked to indicate which they regretted more, the action or the inaction. As anticipated, participants' responses depended on the time period under consideration. When focused on the last week, the respondents were rather evenly split between those who most regretted their actions (53%) and those who most regretted their failures to act. However, when looking back over their entire lives, a substantial majority (84%) reported greater regret for what they failed to do ([Gilovich & Medvec, 1994](#), Study 5). Although people's actions may be troublesome initially, it is their inactions that plague them most with long-term feelings of regret.

Why Regrets Shift Systematically With Time [↗](#)

We have argued that the discrepancy between past research and our more recent findings indicates that there is a consistent temporal pattern to the experience of regret. Actions produce

greater regret in the short term; inactions generate more regret in the long run. Several tests of this contention were supportive. Why might such a temporal pattern exist? What is it about the way people think about their choices and their lives that diminishes regrets of action but strengthens dismay over regrettable failures to act?

As with many complex psychological phenomena, there is unlikely to be a single answer. The temporal pattern to the experience of regret is no doubt multiply determined. Indeed, we propose that there are three distinct categories of mechanisms that together give rise to this temporal pattern. First, there are those elements that decrease the pain of regrettable actions. Second, there are those elements that bolster the pain of regrettable inactions. Finally, there are those elements that differentially affect the cognitive availability (Tversky & Kahneman, 1973) of a person's regrettable commissions and omissions. These latter elements 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.

Our explanatory framework is summarized in Table 3. Among the processes that reduce the pain of regrettable action is a tendency for people to take steps to undo or ameliorate their regrets of action more than their regrets of inaction. A person who regrets marrying Mr. Wrong will likely get divorced; someone who regrets passing up Mr. Right typically must cope with the fact that he is no longer available. Regrettable actions tend to be further diminished by the identification of "silver linings" that offset the pain they cause. A person who marries Mr. Wrong will often say, "But I have these wonderful children I would not have had otherwise"; someone who passes up Mr. Right typically finds less consolation. Finally, identifying silver linings is but one way of rationalizing or reducing dissonance for a bad decision. As we demonstrate below, there is reason to believe that regrettable actions tend to prompt more vigorous efforts to reduce dissonance than do regrettable failures to act, further reducing the pain of unfortunate actions relative to unfortunate inactions.

Table 3 <i>Causes of the Temporal Pattern to the Experience of Regret</i>	
1. Factors That Reduce the Pain of Regrettable Actions More Than the Pain of Regrettable Inactions	<i>Behavioral Repair Work:</i> More compensatory steps tend to be taken to ameliorate regrettable actions. <i>Psychological Repair Work I:</i> More silver linings tend to be associated with regrettable actions. <i>Psychological Repair Work II:</i> More dissonance reduction tends to be induced by regrettable actions.
2. Factors That Increase the Pain of Regrettable Inactions More Than the Pain of Regrettable Actions	<i>Inexplicable Inaction I:</i> The passage of time brings an increase in retrospective confidence that makes earlier failures to act inexplicable, and hence inexcusable. <i>Inexplicable Inaction II:</i> Because factors that inhibit behavior tend to be less salient than those that induce behavior, failures to act can seem inexplicable, and increasingly so with the passage of time. <i>What Was Versus What Might Have Been:</i> The consequences of regrettable actions tend to be finite; the consequences of regrettable inaction tend to be psychologically infinite.
3. Factors That Promote the Cognitive Availability of Regrettable Inactions More Than the Availability of Regrettable Actions	<i>The Zeigarnik effect:</i> Regrettable failures to act tend to be more memorable and enduring than regrettable actions.

Table 3 Causes of the Temporal Pattern to the Experience of Regret

Of course, the factors that serve to reduce the pain of regrettable action tend to do so for regrettable inaction as well—they just do so less consistently, less vigorously, or less successfully. For inactions, furthermore, such efforts at “damage control” are often undermined by several processes that conspire to bolster the pain of regrettable inaction. First, because the passage of time often brings with it increased confidence that one could have performed an earlier task successfully, the original reason for many inactions—a lack of confidence—can seem less than compelling with the passage of time. Someone might decline to marry Mr. Right out of fear that their religious differences would be insurmountable. Looking back, however, the person may increasingly come to believe that “we could have worked it out.” This tendency for inactions to seem inexplicable afterwards is accentuated by a tendency for causal factors that compel behavior to be more salient than those that inhibit behavior ([Dunning & Parpal, 1989](#); [Hansen & Hall, 1985](#); [Read, 1985](#)). The person who passes up Mr. Right often has trouble in retrospect thinking of a truly compelling reason why such a choice was ever made. In contrast, someone who mistakenly marries Mr. Wrong can nonetheless recall how much fun he was at one time, how responsible he seemed back then, or how much everyone liked him. Finally, there is an important asymmetry in the perceived negative consequences of regrettable actions and inactions: Regrets of action center around bad things that actually happened; regrets of inaction involve good things that one believes *would have* happened. Because of the open-ended nature of the latter, the perceived consequences of missed opportunities often grow in scope and importance with the passage of time. Someone who chooses not to marry Mr. Right may develop an unrealistic picture of the marital bliss that was foregone.

In addition to these mechanisms that alter the intensity of regrettable actions and inactions, there is reason to believe that, over time, regrets of inaction occupy the mind more often than regrettable actions. Many regrets of inaction involve unrealized ambitions and unfulfilled intentions that are more available in memory than those goals or tasks that have been successfully completed ([Seifert & Patalano, 1991](#); [Zeigarnik, 1935](#)).

None of this is to suggest that the processes we have briefly described always work in precisely this fashion. We view each of these as *tendencies* that, in general, give rise to the observed temporal pattern to the experience of regret. There are bound to be occasional exceptions, and no doubt many readers have been able to think of counterexamples in which, say, a particular inaction is accompanied by a powerful silver lining or a specific restraining force is unusually salient. Nevertheless, we believe that there is ample theoretical and empirical support for each of the mechanisms we have put forward. We now turn to a more in-depth look at the theoretical and empirical basis of each of these three classes of mechanisms.

Factors That Reduce the Pain of Regrettable Actions [+](#)

Behavioral repair work. [+](#)

When bad things happen, we sometimes sit idly by and bemoan our bad judgment or bad luck. Other times, however, we take decisive action to overcome, undo, or compensate for the negative outcome. If we sign on with the wrong organization, we switch companies or even careers; if we do something to hurt or offend someone, we apologize and vow to do better in the future. When our actions get us “off course” in some way, we endeavor to set ourselves right. The claim, in other words, is that people *do* things to alleviate the pain of their regrettable choices, and they are more likely to do so for their actions than for their failures to act. Their regrettable failures to act often just sit there, causing continued grief.

There are at least two reasons why people may be more inclined to rectify their regrettable

actions than their regrettable failures to act. First, as our earlier data make clear, the pain of regrettable action is often felt more quickly than that of regrettable inaction and, therefore, provides more of an impetus to immediate change. And, as everyday experience demonstrates, that which is not dealt with immediately is often never dealt with at all.

A second, related reason to expect people to do more about their regrettable actions than their regrettable inactions is best understood by thinking of behavior in Lewinian terms (Lewin, 1938, 1951). Lewin argued that various psychological and physical forces form a tension system that determines the behavior of the individual. Because the forces in the tension system tend toward equilibrium, people are subject to a fair amount of inertia. From a Lewinian perspective, then, whenever people act, they overcome whatever inertia had kept them in the position they were in beforehand, which upsets the balance of forces that existed previously. By acting, in other words, people alter the tension system in which they were embedded, creating a new situation in which the forces acting upon them are less likely to be in equilibrium. With the operative forces in flux, it is relatively easy to take steps to overcome whatever mistakes were made. It is often easiest to make a move when our bags are already packed, so to speak.

In contrast, when people fail to act, they are still held—by definition—in the grip of preexisting inertial forces. By not acting, in other words, individuals remain in the same situation as before with the forces acting upon them in equilibrium. Whatever it was that made it difficult to pull free of these forces initially often makes it difficult to pull free later on. 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.

To test this contention, we asked 60 adults recruited from various locations around Ithaca, New York, to recall (but not describe) their single most regrettable action in their lives and their single most regrettable failure to act. Once they had a specific instance of each category in mind, we asked them,

Have you done anything in an effort to overcome or compensate for your regrets? In particular, for which regret have you engaged in the most effective remedial action? By remedial action we mean any actions or life changes you made to offset the regret; we do not mean any psychological changes or strategies you have employed to try to think differently about the regret or cope better with it.

As expected, a substantial majority of the respondents (65%) indicated that they had made more significant changes to deal with their most regrettable action than their most regrettable inaction (binomial $z = 2.20, p < .03$).

Because of this difference in steps taken to ameliorate regrettable actions and inactions, unfortunate actions should be less bothersome over time. They become less troubling after the remedial steps have been taken. As a result, commissions may generate the most regret initially, but omissions may prove more troublesome in the long run.

Psychological repair work I: Identifying silver linings. [↑](#)

There are many ways to deal with negative events. Sometimes, one can cope by taking remedial action. Other times, however, there is no effective action to be taken, and so efforts to come to grips with the problem are confined to the psychological realm. People engage in “psychological work” designed to lessen the pain of the unfortunate event. Once again, we argue

that people are more likely to engage in effective psychological work for their regrettable actions than for their regrettable inactions.

Consider one of the most common ways people cope with negative events, by noting how much they have learned from the experience. In other words, people acknowledge that the outcome may have been regrettable, but they mentally offset the regret by identifying a silver lining that consists of how much they profited from the experience as well. Such a silver lining—“But I learned so much”—is obviously much more likely to apply to regrettable actions than regrettable inactions. People typically learn more by doing new things than by sticking to old patterns. In fact, for most inactions the claim that “I learned so much” hardly makes sense. (“I did not do anything, but I learned so much?”)

But taking stock of how much one learned from an unpleasant experience is not the only way to lessen the pain of a negative outcome. There are other silver linings that serve the same purpose. To examine whether people are generally more likely to identify offsetting positive elements for their unfortunate actions than for their unfortunate failures to act, we asked another group of 60 adults to think of their single most regrettable action in their lives and their single most regrettable failure to act. Once respondents had a specific instance of each category in mind, we asked them which regret was offset by the most significant silver lining. As expected, the vast majority (75%) cited their most regrettable action (binomial $z = 3.74, p < .001$).

Thus, in addition to making more material changes to overcome the negative ramifications of a regrettable action (see results above), people also engage in more psychological work directed toward the same end. What cannot be accomplished materially can be dealt with psychologically. The net effect of both of these processes is that the initial sting of a regrettable action tends to diminish with time, more so than the pain associated with a regrettable failure to act.

Psychological repair work II: Dissonance reduction.

Identifying a silver lining in a dark cloud can be one way to reduce the cognitive dissonance associated with a negative outcome brought on by a freely chosen action ([Aronson, 1969](#); [Cooper & Fazio, 1984](#); [Festinger, 1957](#); [Wicklund & Brehm, 1976](#)). Indeed, the statement that “I learned so much” can be thought of as a generic form of dissonance reduction that can apply to nearly any unfortunate course of action. As we have shown, people are more likely to use such a generic dissonance reduction technique for their regrettable actions than for their regrettable failures to act. Are people also more likely to use other modes of dissonance reduction for their regrettable actions than for their regrettable inactions—modes more precisely tailored to the specific behavior in question?

There are reasons to believe they might. First, as the literature on counterfactual thinking indicates, people initially find negative outcomes brought on by their actions more troublesome than identical outcomes brought on by inaction. The more aversive the outcome, in turn, the more motivation there is to reduce dissonance ([Cooper & Fazio, 1984](#); [Cooper & Worchel, 1970](#); [Nel, Helmreich, & Aronson, 1969](#)). Second, actions are typically more salient than inactions and therefore constitute a more noticeable target for psychological repair work than failures to act. As the extensive literature on the “feature positive effect” attests, what *does* happen has more psychological impact than what does *not* happen ([Fazio, Sherman, & Herr, 1982](#); [Newman, Wolff, & Hearst, 1980](#)). Finally, because inaction is often viewed as the status quo and action as a departure from the norm ([Kahneman & Miller, 1986](#)), people generally feel more personally responsible for their actions than for their inactions. With a greater sense of personal responsibility for the outcome comes a greater amount of dissonance to be reduced ([Cooper, 1971](#); [Cooper & Fazio, 1984](#); [Goethals,](#)

[Cooper, & Naficy, 1979](#); [Hoyt, Henley, & Collins, 1972](#)). Thus, because people's regrets of action are more salient, more painful initially, and engender more of a sense of personal responsibility, they should elicit more cognitive dissonance (and dissonance reduction) than corresponding failures to act. If people engage in more dissonance reduction for their regrettable actions than for their regrettable inactions, they might regret their actions more initially but end up regretting their inactions more in the long run.

A recent experiment verified this tendency for people to reduce dissonance more for commissions than for omissions ([Gilovich, Medvec, & Chen, 1995](#)). The experiment was a laboratory analog of the “Monty Hall” or “three doors” problem ([Engel & Venetoulis, 1991](#); [Tierney, 1991](#); [vos Savant, 1990a, 1990b, 1991](#)). Subjects were recruited for a study of group decision making and were told they would receive, depending on the decisions they made, either a grand prize or a modest prize for their participation. The prizes were hidden in three boxes and, as on Monty Hall's *Let's Make a Deal* television program, the subject's first task was to choose one of the boxes. Two of the boxes were said to contain modest prizes, and one was said to contain the grand prize. After the initial box was selected, the subject confronted a choice of whether to keep his or her unopened box or trade it in for one of the remaining boxes. However, before the choice was made, the experimenter (like Monty) opened one of the two remaining boxes and revealed a modest prize. The subject's choice, then, was whether to keep his or her box or exchange it for the remaining, unopened box.

Subjects made this latter decision in consultation with another “subject” who was their partner in the group decision task. In reality, the partner was a confederate whose job was to ensure that the subject chose in accordance with his or her randomly assigned condition—to *Stay* with the original choice or *Switch* to the other box. The confederate thus influenced the subject's choice when necessary (i.e., when the subject appeared inclined toward the “wrong” box), but did so in a sufficiently delicate way such that the subject was unaware of any influence.⁶

The experiment was arranged so that regardless of the subject's “choice,” he or she received a modest prize (a Cornell bumper sticker) and missed out on the grand prize (an expensive Cornell T-shirt). The experiment was designed to ascertain whether subjects who lost out on the grand prize because of an action (i.e., those who switched boxes) would reduce their dissonance over the outcome more than those who experienced the same fate after deciding not to act (i.e., those who kept their initial boxes). In particular, the experiment examined whether subjects in the Switch condition came to view the modest prize they received as more attractive than did subjects in the Stay condition. After learning about which prize they won, subjects were asked to specify how much money we would have to offer them to get them to sell back the bumper sticker to us.

The results are reproduced in [Figure 1](#). Subjects who switched boxes and ended up with the bumper sticker demanded a significantly higher price to sell it back than did those who received the same prize by sticking with their original choice. Regrettable actions seemed to induce more dissonance reduction than did regrettable failures to act. The responses of both groups of subjects were also compared to those of subjects in a control condition whose “decisions” were determined randomly. As dissonance theory would predict ([Cooper, 1971](#); [Cooper & Fazio, 1984](#); [Goethals et al., 1979](#); [Hoyt et al., 1972](#)), these subjects, who were not personally responsible for their outcomes, valued the bumper sticker least of all.

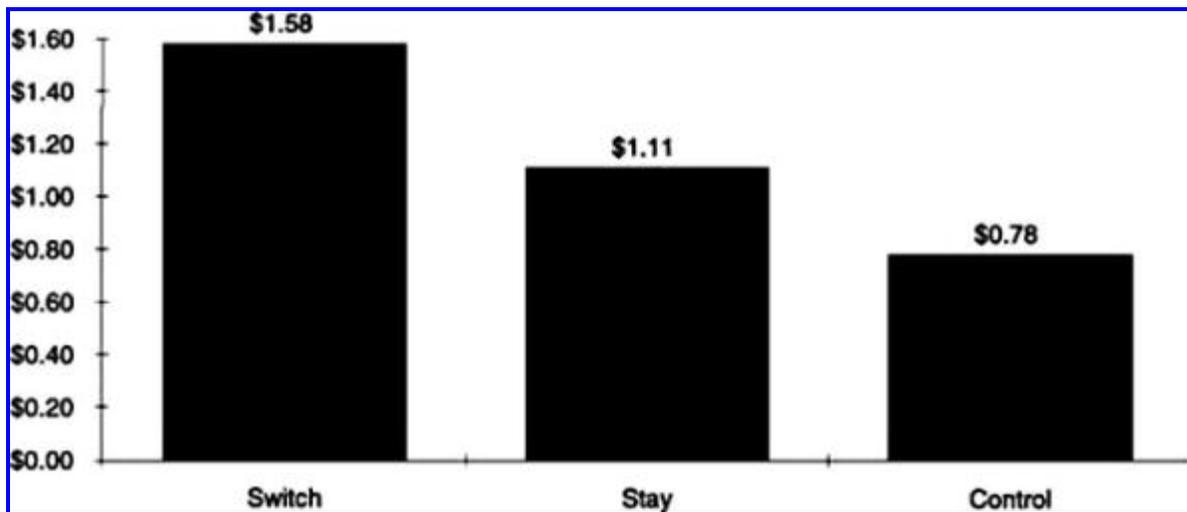


Figure 1. Mean amount of money subjects demanded to exchange bumper sticker, by condition. From “Omission, Commission, and Dissonance Reduction: Overcoming Regret in the Monty Hall Problem,” by [T. Gilovich, V. H. Medvec, S. Chen, 1995](#), *Personality and Social Psychology Bulletin*, 21, p. 186. Copyright by Sage Publications, Inc. Adapted with permission.

Summary. [↑](#)

We have demonstrated three ways in which people are able to reduce their regret over unfortunate actions with the passage of time. People make more life changes to cope with their regrettable actions than their regrettable inactions; they are more likely to find a silver lining that justifies such actions; and they engage in more dissonance reduction to reduce the pain of their errors of commission. Over time, these three processes collude to lessen the impact of mistaken actions. By comparison, regrettable failures to act seem more troublesome as time goes by. This latter tendency is accentuated by several psychological processes that serve to bolster the intensity of regrets of omission with the passage of time. It is to these processes that we now turn.

Factors That Bolster the Pain of Regrettable Inactions [↑](#)

Inexplicable inaction I: Confidence and temporal perspective. [↑](#)

Many regrets of inaction arise 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. We do not “let loose” or even venture out on the dance floor because we think we might look ungainly or out of fashion.

These concerns, however, which seem so pressing when the time to act is at hand, may diminish with the passage of time. The further removed we are from the occasion, the more convinced we become that we could have or would have done just fine. It is easy to be confident when the task is not imminent; it is hard to be so assured when the challenge is at hand.

Of course, any such tendency for confidence to soar with increasing distance from an event would tend to magnify the feeling of regret over a failure to act. If the fears that kept us from performing some action tend to diminish with time, the reasons we had for not acting will no longer seem compelling. With no compelling reason for failing to do something we wish we had done, we regret our failure to act even more ([Lecci, Okun, & Karoly, 1994](#)). We curse ourselves by asking “Why didn't I at least try?” and torment ourselves with accusations that “I'm just too timid” or “I'm too indecisive.”

A recent series of studies demonstrates that people are indeed more confident that they will do well at a task the further they are, either prospectively or retrospectively, from the time the task is to be performed (Gilovich, Kerr, & Medvec, 1993; see also Nisan, 1972, 1973). People feel much better about their chances of success well beforehand than right beforehand. Likewise, people are more convinced that they *would have* done well at a task long after, rather than right after, the critical moment was at hand.

It is this latter effect of retrospective temporal distance that is most relevant to the experience of regret. In the critical test of this effect, we asked Cornell students and alumni to consider the impact of adding a challenging course to their work load 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 course would affect their current semester. Finally, a third group consisted of students who were asked how much it would have affected them the previous semester.

The relevant data are presented in Table 4. As anticipated, participants' assessments of how well they could cope with an increased work load were directly related to their distance from the time the extra burden was to be faced. The alumni indicated that the extra work load would take less of a toll on their academic and social lives than did either group of current students. Furthermore, current students who were asked to consider the impact on a recently completed semester expressed less concern about disruption than did those making assessments for the current semester. It seems that the further away the challenge, the less threatening it appears.

Table 4
Mean Estimated Impact of Increased Work Load as a Function of Temporal Perspective

Dependent measure	Temporal perspective		
	Current	Recent	Distant
GPA (grade points lost)	0.33	0.24	0.18
Sleep (minutes lost)	61.4	45.2	24.5
Extracurricular activity (9-point rating scale)	4.2	3.3	2.9
Social life (9-point rating scale)	4.9	4.9	3.7

Note. The Current condition consisted of Cornell University students making assessments of the impact on their current semester. The Recent condition consisted of Cornell students making assessments of the impact on their most recently completed semester. The Distant condition consisted of Cornell alumni making assessments of the impact on a typical semester during their undergraduate years. From "The Effect of Temporal Perspective on Subjective Confidence," by T. Gilovich, M. Kerr, and V. H. Medvec, 1993, *Journal of Personality and Social Psychology*, 64, p. 555. Copyright 1993 by the American Psychological Association. Adapted with permission.

Table 4 Means Estimated Impact of Increased Work Load as a Function of Temporal Perspective

These data have obvious implications for the experience of regret. As our confidence that we could have done well at some task increases, the rationale for our original inaction fades. Not only might we now wish we had gone ahead and acted, but we find it difficult to sympathize with our previous failure to do so. Our regret intensifies because our failure to act now seems so inexplicable. This retrospective increase in confidence sometimes increases a person's regret over failing to act when the chances of success were in fact rather high. On other occasions, however, such revisionist tendencies may be sufficiently strong to convince a person of the feasibility of rather implausible, pie-in-the-sky wishes.

In either case, it should be clear how this process gives rise to the observed temporal pattern to the experience of regret. As many have noted ([Kahneman & Miller, 1986](#); [Kahneman & Tversky, 1982a, 1982b](#); [Miller et al., 1990](#)) regret is fundamentally a counterfactual emotion: It arises from the contrast between what has actually happened and an easily imagined alternative outcome that might have happened. As those working in the area of counterfactual thinking have shown, action tends to generate more regret than inaction (in the short term) because it is typically easier to “undo” an action than an inaction. However, the present results suggest that this may not be true in the long run. Because our confidence that we could have done something increases with the passage of time, it becomes progressively easier to psychologically “undo” a regrettable failure to act. Thus, the relative ease of undoing actions and inactions appears to reverse with the passage of time, with predictable consequences for the experience of regret.

Inexplicable inaction II: The differential impact of compelling and restraining forces. [↑](#)

The increase in confidence that occurs with the passage of time represents one way in which the elements that originally restrained a person's actions can lose their psychological impact over time and thereby intensify regret over inaction. There is reason to believe, moreover, that this may be but one aspect of a very general pattern: Forces that restrain human action may be inherently less salient than forces that compel action. As a result, it may be easy for individuals to get in touch with why they acted (thereby justifying regrettable actions), but more difficult for them to understand why they failed to act (thereby rendering regrettable failures to act rather mystifying).

[Kurt Lewin \(1951\)](#) was one of the first to point out that compelling forces are typically more salient than restraining forces. Lewin noted that when trying to induce another person to do something, people are generally tempted to increase the person's motivation for doing so—that is, they try to “push” the person in the direction they want him or her to go. However, Lewin also pointed out that it is often more effective to eliminate whatever has kept the person from behaving in the desired fashion in the first place. He argued that often one should devote more effort toward removing the barriers to change and less effort toward supplying additional reasons to change.

Lewin would not be credited with this idea if it were not to some degree counterintuitive. Thus, the fact that Lewin's advice was novel suggests that those factors that compel action loom larger in intuitive assessments of behavior than those factors that restrain action. People have known all along about how to induce behavior by increasing the pressures to change; their attention had to be drawn to the possibilities inherent in removing the impediments to change. This implies that reasons for refraining from doing something may typically be less accessible than reasons for doing something, and, as we argue below, this asymmetry may increase over time.

A number of recent experiments support this thesis. [Read \(1985\)](#) [described in [Kahneman & Miller, 1986](#)] taught students a simple card game and then showed them various hands of two hypothetical players. They were then asked to reverse the apparent outcome by changing the hand of one of the players. The students typically chose to change the outcome by strengthening the losing hand rather than by 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 had prevented it.

Similar results have been obtained in the domain of causal attribution ([Hansen & Hall, 1985](#)). When people were told about the outcome of various contests (e.g., hockey game, a tug-of-war), they were more inclined to attribute the outcome to the strength of the winning side than to the weakness of the loser. That which causes victory looms larger than that which prevents it. [Dunning and Parpal \(1989\)](#) obtained analogous results in their work on “mental addition” and “mental subtraction.” Participants in the mental addition condition 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 condition were asked questions such as “How many *fewer* questions will you get right if you do *not* study for an upcoming exam?” Participants indicated 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 impedes (e.g., not studying).

These various findings suggest that, after the fact, it may be easier to get in touch with why one did something that one should not have done than it is to fully comprehend why one failed to do something one should have done. This difference has obvious implications for the experience of regret. Knowing why one acted tends to lessen the self-recrimination and remorse that accompany regrettable actions. In contrast, the lack of a satisfying explanation for inaction intensifies the amount of self-recrimination and regret that is experienced over failures to act. Furthermore, this asymmetry in the accessibility of reasons for action and inaction may become more pronounced with the passage of time. In the short term, one can rely on relatively accurate “bottom up” processes that call up specific memories of the thought processes that led to action or inaction. Over time, however, one must employ less reliable “top down” processes that generate inferences about the kinds of reasons one must have had for one's actions or failures to act. It is when these more abstract inferential processes are engaged that the differential impact of compelling and restraining forces is likely to be most pronounced.

What was versus what might have been: Differences in the imagined consequences of regrettable actions and inactions. [↑](#)

There are systematic differences in the feedback people receive from acting and from not acting, and these differences tend to make regrettable omissions loom larger than regrettable commissions. What is troubling about a regrettable action is the set of bad things that *actually happened* as a consequence of the action taken. Thus, the consequences of regrettable actions are often finite: They are bounded by what actually happened. In contrast, what is troublesome about a regrettable inaction is the set of good things that *would have* happened had one acted. The consequences of inactions are therefore potentially infinite: They are bounded only by one's imagination.

To document this asymmetry in the perceived consequences of regrettable actions and inactions, we asked a group of 20 adults to think of their greatest regret of action and their greatest regret of inaction. Without describing their regrets, they then rated each one on a 10-point scale indicating how different “... your life would be or would have been had you *done*

what you regret not doing (not done what you regret doing).” It is interesting that 2 subjects stated that they could not think of any regrettable actions in their lives, and 2 other subjects indicated that their regrettable actions have, in the long run, actually *improved* their lives. Among the remaining 16 respondents, the average rating of how much their lives would change by undoing their regrettable inactions was significantly higher ($M = 6.8$, $SD = 2.1$) than their average rating of how much their lives would change by undoing their regrettable actions ($M = 4.8$, $SD = 2.6$), $t(15) = 2.39$, $p < .05$.

To pursue this further, we asked an additional group of 38 adults to likewise think of their biggest regret of action and their biggest regret of inaction. We then asked each of them to discuss why their action and inaction were regrettable—that is, to describe the unfortunate consequences, immediate or delayed, of each. Their comments were tape-recorded and later scored by judges unaware of our hypothesis. The judges determined how much time was spent discussing the consequences of each regret. Consistent with our earlier findings, the participants had more to say about the consequences of their regrettable inactions than their regrettable actions. On average, they spent 42 seconds talking about the consequences of their inactions and only 29 seconds talking about their regrettable actions, $t(37) = 3.33$, $p < .005$. When combined with the data from the study just described (in which participants rated how different their lives would have been had they acted differently), these results indicate that people tend to believe that more harm has come from their failures to act than from their actions.

Note that this difference in the perceived consequences of regrettable actions and inactions is likely to become increasingly pronounced over time. After all, one can always add elements to the list of good things that would have happened if one had acted. As this list grows, so too does the regret over a failure to act. People tend to idealize many aspects of their distant pasts, and lost opportunities are no exception. The cost of such distortion can be rather high, as people can end up tormenting themselves far beyond what is called for by the actual state of affairs.

There is a second way in which the perceived consequences of actions and inactions diverge, and it has similar effects. Because regret over action is due to 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, a phenomenon that we documented earlier. In contrast, many regrettable inactions are not tied as closely to a particular event or decision (see [footnote 1](#)). 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.

Factors That Promote the Cognitive Availability of Regrettable Inactions [↑](#)

We suspect that for some readers our analysis thus far may be less than completely satisfying. Some may be experiencing a recurrent and disquieting sense of incompleteness. Good. There is an additional mechanism we have yet to discuss, and, as it happens, it is one that derives from a similarly disquieting state of psychological incompleteness.

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. This phenomenon has come to be known as the Zeigarnik effect, after the person who first tested it empirically (Zeigarnik, 1935; see also Seifert & Patalano, 1991). The original interpretation of this 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 central idea, however, does not require that one accept the Lewinian metaphor of the mind as a tension system. All that is necessary is that one grant that people typically are more preoccupied by and persevere longer over incomplete tasks than completed ones (Martin & Tesser, 1989; Martin, Tesser, & McIntosh, 1993). The extra mental work that is devoted to unfulfilled intentions constitutes additional rehearsal time that makes them more memorable.

There are striking parallels between incomplete tasks and regrettable omissions. Many regrets over previous failures to act involve things we could still do at any time. We might regret never having learned to speak French, play the violin, or talk with real intimacy to those whose love and friendship we value, but these are all things we can still do whenever the sting of regret is felt. Our accent may never be as good, our ear never as developed, and our intimate moments not as numerous as they would have been if we had acted earlier, but much of the gratification we imagine such activities to bring could still be obtained whenever we choose to start. 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. For many other regrettable omissions, however, the opportunity and temptation to act still exists. Regrettable omissions often belong as much to the present as they do to the past. This sense of incompleteness and possibility that surrounds our failures to act keeps them alive longer.

This is in marked contrast to many regrettable actions, which 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 regrettable actions tends to be closed; the story of failures to act, open. Because regrettable inactions are more alive, current, and incomplete than are regrettable actions, we are reminded of them more often. And a regret that we are reminded of more often is a regret that we experience more often. Thus, this Zeigarnik-like aspect of regrettable omissions may not increase the *intensity* of the emotional pain of failures to act, but it does increase the *frequency* with which it is felt.

This idea was tested in a two-stage experiment in which adults were recruited from an outdoor shopping mall in Ithaca, New York, and asked to describe their three biggest regrets of action and their three biggest regrets of inaction. Three weeks later, they were contacted by telephone and asked to recall the six regrets they had mentioned during the first session. As anticipated, the participants recalled more of their regrettable inactions ($M = 64\%$) than their regrettable actions ($M = 39\%$), $t(24) = 3.76$, $p < .001$. This effect held up, furthermore, when the severity of each regret was controlled statistically. Holding the amount of regret constant, regrets of inaction seem to stay in the mind longer than regrets of action (Savitsky, Medvec, & Gilovich, 1994).

General Discussion

We reviewed evidence indicating that when people look back on their lives, it is mainly those things they did not do but wish they had done that generate the most regret. When combined with earlier results from the literature on counterfactual thinking, these data imply a temporal pattern to the experience of regret. Commissions generate greater regret initially, but over time it is omissions that dominate the experience of regret. We then reviewed additional evidence supporting the existence of such a temporal pattern. Finally, we introduced a number of

psychological mechanisms that appear to give rise to this temporal pattern and described the results of experiments designed to examine each of them. Some of the mechanisms we identified reduce the sting of regrettable action over time, others bolster the pain of regrettable inaction, and an additional mechanism differentially affects how often one is reminded of these two different sources of regret.

Multiple Mechanisms and How They Interrelate [↑](#)

To this point, we have largely discussed each mechanism separately, but they are, of course, interrelated in various ways. One connection we have already noted is that the tendency for people to offset the pain of regrettable action by identifying compensatory silver linings is but one specific version of a broader tendency for regrets of action to induce more dissonance reduction than regrets of inaction. We have also discussed how the relationship between confidence and temporal distance is connected to the relative invisibility and mild psychological impact of restraining forces. Whatever inhibited a course of action that now looks attractive often seems less and less compelling, and therefore less and less legitimizing, over time.

An important category of such inhibitory causes that we have yet to discuss explicitly is an action's "opportunity costs." Often one refrains from doing something because its pursuit would foreclose other attractive options. It would be nice to become an accomplished pianist, but at what cost? Such trade-offs may seem sufficient to stymie action at the time, but perhaps not when reconsidered from a much later vantage point. Over time, one may lose track of what the cost of a particular course of action may have been, or the costs may simply not seem as great. The extent to which people retrospectively downgrade opportunity costs remains an interesting topic for future research.

Another set of important links between the mechanisms we have described involves the factors that affect the magnitude of regret that is experienced and those that influence the extent to which a particular regret is thought about and obsessed over. The three mechanisms that diminish the pain of regrettable actions will, in turn, decrease their cognitive availability. Similarly, the three factors that increase the angst of regrettable inactions will tend to increase their availability.

Perhaps the best way to examine the similarities and differences among the various mechanisms we have proposed is to take a closer look at their temporal profile. As a first approximation, it appears that the mechanisms that diminish the regret of action tend to come into play relatively quickly. Mistaken actions are often corrected immediately, before one is trapped in a new web of inertial forces that take extra effort to overcome. Also, the tendency for errors of commission to induce greater dissonance reduction than errors of omission no doubt stems in part from the greater immediate discomfort that arises from regrettable actions. Indeed, the results of the one dissonance experiment that directly examined dissonance reduction after mistakes of commission and omission showed how quickly the relevant psychological repair efforts can be mobilized ([Gilovich et al., 1995](#)).

In contrast, the factors that reinforce the pain of regrettable inaction often take longer to develop, as does the tendency for regrets of inaction to remain more cognitively available than regrets of action. Differences in cognitive availability obviously cannot occur until sufficient time has elapsed for memory to decay and "ceiling effects" to disappear. Similarly, the increase in retrospective confidence with temporal distance has been shown to vary directly with the amount of time that has elapsed between the initial moment of opportunity and the subsequent

period of assessment ([Gilovich et al., 1993](#)).

Some readers may be troubled by our invoking so many distinct mechanisms to account for our primary results. All else being equal, it is surely more satisfying when a single mechanism explains a given phenomenon. However, for many complex social psychological phenomena, the search for a single cause is likely to be in vain. Indeed, we must confess that 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 seemed to us to be intriguing not just as an explanation of the regret results, but also 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. These phenomena are worthy subjects of investigation quite apart from their role in the experience of regret.

Cultural Influences [↑](#)

But we did not undertake this research because of the mechanisms alone, of course. Everyone has regrets, and yet, as we alluded to earlier, little is known about the underlying psychology of regret. This is unfortunate because our current cultural and 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 opportunities for regret. Marriages were arranged; stations in life were inherited; 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 choices comes increased opportunities for regret, and so a related problem with modern life is how to cope with the inevitable and increasingly common experience of regret.

This raises the question of whether the observed temporal pattern to the experience of regret is largely universal across cultures. Because it is our belief that many of the mechanisms that account for this pattern are universal, we would expect to observe some reasonable facsimile of these results everywhere. This is not to suggest that the findings presented here—both the greater regret of action in the short term and the greater regret of inaction in the long run—are immune to cultural influence. They almost certainly are not. For example, Western society seems to revere action and disdain inaction ([Farley, 1986](#)). The abundance of long-term regrets of inaction in our sample of respondents may be attenuated in people from a less action-oriented culture who may be less troubled by their failures to act. In addition, the overwhelming majority of our respondents' 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 their artistic talents. These regrets may be particularly prominent in Western cultures that stress self-actualization ([Lasch, 1979](#)). In contrast, our sample of regrettable actions, although also most often tied to failures of self-actualization, nonetheless were relatively more likely to be linked to moral transgressions in which harm was done to another person (e.g., “whipping my son when he was a boy,” “talking about a friend behind her back,” and “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 interdependent, communitarian cultures that stress duty and responsibility to others more than self-fulfillment.

Is Regret a Unitary Emotion? [↑](#)

Thus far we have largely discussed regret as if it were a unitary emotion. But clearly the rather broad definition we cited earlier ([Landman, 1993](#)) provides plenty of room for different flavors of regret. So too does the minimal constraint we imposed on our subjects when we asked them to recall their biggest regrets. Indeed, earlier we distinguished between regrets that stem from moral transgressions (which are likely to be tinged with guilt and shame) and those that derive from failures of self-actualization (which may involve strong feelings of sadness and yearning).

One particularly relevant distinction between different types of regret has recently been offered by [Kahneman \(in press\)](#). He proposes a distinction between “hot” and “wistful” regret. Hot regret, as the name implies, is the more intense of the two. It is the burning pain that accompanies thoughts of “What a disaster!” or “How could I have been so stupid?” and is usually evoked by events that are coded as outright losses. Wistful regret, in contrast, is typically evoked by thoughts of foregone gains and is less intense in flavor. It is the more pensive side of what “might have been.” Kahneman suggests that hot regret is more characteristic of the short-term experience of regret, whereas wistful regret is more associated with the long term.

Kahneman's proposal fits well with our data and offers an intriguing perspective from which to view the temporal pattern to the experience of regret. The regrets people have when looking back over their entire lives certainly include some of the wistful variety. As we suggested earlier, on occasion these regrets may even center around a fanciful, pie-in-the-sky wish, and thus can sometimes be quite mild. At the same time, it is important to note that many long-term regrets of inaction are anything but wistful. Among our participants' regrets, for example, one would not describe as wistful “not having helped someone escape from Hitler” or “not paying more attention to my son's heart condition before he died of a heart attack.”

In an effort to examine more extensively the wistfulness of our sample of long-term regrets of action and inaction, we had a group of raters examine the regrets of the two sets of respondents who looked back on their regrets from the most long-term perspective—the professors emeriti and the nursing home residents. The raters were asked to imagine that each regret applied to them and then to indicate on a 9-point scale how painful the thought of each regret would be. Interestingly, the regrets of inaction were just as painful as a whole as the regrets of action. These data are not decisive, of course, because they involve outsiders' judgments of the intensity of each regret, not the intensity as it actually was felt by the person experiencing it. Nevertheless, they suggest that a sense of wistfulness is not the whole story behind long-term regrets of inaction. It may be an important part of the story, however, and so the relationship between action and inaction, temporal perspective, and Kahneman's provocative distinction between hot and wistful regret clearly merits further empirical investigation.⁷

Normative Considerations

Another important question that arises from the present findings is whether they carry any implications for how people might minimize, or better manage, their regrets. The most obvious, perhaps, is the possibility that people should be encouraged to act on their impulses more often. Because people so often end up regretting things they failed to do, they might be encouraged to try to overcome the inertia that leads to inaction. People might profit from developing the will and courage to “seize the moment” whenever relevant opportunities present themselves. There is considerable evidence indicating that people are so heavily influenced by the immediate sting of regrettable action that they are prone to an “omission bias” in which inaction is favored over action ([Ritov & Baron, 1990, 1992](#); [Spranca, Minsk, & Baron, 1991](#)). Our research suggests that this concern with the short-term negative consequences of action blinds people to the more enduring

drawbacks of inaction. Predicting whether one's current preferences or evaluations will stand the test of time is no simple matter (Kahneman & Snell, 1990), in part because of the well-established tendency for people to weight current experience more heavily than anticipated future outcomes (Herrnstein, 1990; Loewenstein & Thaler, 1989). Perhaps, then, our research can encourage people to focus less on the short-term consequences of their actions, to be less subject to the omission bias, and to more often—in the words of a currently popular ad campaign—“Just do it.”

But isn't this recommendation a bit glib? After all, there may be important reasons why people are subject to an omission bias—reasons that are ignored at great peril. Indeed, when considered from an evolutionary perspective, the omission bias may constitute a very functional adaptation. *Ceteris paribus*, the status quo is probably safer than trying something new. Following the status quo has kept one alive at least until that point. An organism that pays attention to the short term and punishes itself with more immediate regret for unwise actions than for unwise inactions may engage in fewer activities that risk its existence. Such an organism is more likely to survive to experience the long term, and if being haunted by imagined lost opportunities is the cost, so be it.

These divergent considerations suggest that there may be no overall answer to the normative question of whether people should try to overcome the omission bias and take bold action more often, or whether they should maintain their current behavioral tendencies and suffer the long-term regrets of inaction that they currently do. Our research indicates that people would come to different conclusions about the wisdom of a given course of action depending on whether their assessments were elicited immediately or long after a choice was made. Although some would suggest that the long-term perspective is more meaningful and informative, there is no truly compelling reason to favor one over the other. Both represent authentic reactions to events at different points in time. The immediate perspective lacks the benefit of knowledge that is gained in the full measure of time, but the long-term perspective often lacks a full appreciation of the richness of prior emotional states. On what grounds can acute, short-term pain be deemed less significant than long-term angst?

Perhaps a more fruitful approach to the normative question is to examine the individual mechanisms that give rise to the temporal pattern to the experience of regret. By doing so, it becomes clear that at least some of the psychological processes that are engaged by mistakes of omission and commission can be called into question. It is hard to imagine, for example, that people are well served by a tendency to little notice nor long remember causal forces that restrain human action. Likewise, the tendency for confidence to increase with the passage of time rests on equally shaky normative ground. The only way such a tendency could be justified is if people are actually *under* confident when the time to act is at hand, a proposition that has been soundly refuted by empirical evidence (Dunning, Griffin, Milojkovic, & Ross, 1990; Kahneman & Lovallo, 1993; Vallone, Griffin, Lin, & Ross, 1990; Wagenaar & Keren, 1986).

The applied message of this research, then, is not a general one about being more bold in embracing various courses of action in everyday life. The lesson is more limited: People would profit from knowing about the various psychological processes that alter the evaluation of events with the passage of time. Knowing the ways in which evaluations of events are likely to be different in the future than they are now allows one to bring a bit of the future to the present, and therefore enables one to make current decisions (to venture forth or to hold back) with an increased awareness of *both* temporal perspectives.

In the final analysis, we are loathe to seize too quickly or too heavily on an apparent lesson of this research—that people should more frequently throw caution to the wind and act boldly more often. But we were worried about our own long-term regrets if we did not at least mention such

an implication.

References

- Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 1–34). New York: Academic Press. [\[Context Link\]](#)
- Bedford, E. (1957). Emotions. *Proceedings of the Aristotelian Society: 1956–1957*. London: Harrison & Sons. [\[Context Link\]](#)
- Bell, D. E. (1981). Explaining utility theory paradoxes by decision regret. In J. Morse (Ed.), *Proceedings of the Fourth International Conference on Multiple Criteria Decision Making* (pp. 28–39). New York: Springer. [\[Context Link\]](#)
- Bell, D. E. (1982). Regret in decision making under uncertainty. *Operations Research*, 30, 961–981. [\[Context Link\]](#)
- Bell, D. E. (1983). Risk premiums for decision regret. *Management Science*, 29, 1156–1166. [\[Context Link\]](#)
- Bell, D. E. (1985). Putting a premium on regret. *Management Science*, 31, 117–120. [\[Context Link\]](#)
- Black, M. (1958). Making something happen. In S. Hook (Ed.), *Determinism and freedom in the age of modern science* (pp. 15–30). New York: New York University Press. [\[Context Link\]](#)
- Cooper, J. (1971). Personal responsibility and dissonance: The role of foreseen consequences. *Journal of Personality and Social Psychology*, 18, 354–363. [\[Context Link\]](#)
- Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229–266). New York: Academic Press. [\[Context Link\]](#)
- Cooper, J., & Worchel, S. (1970). Role of undesired consequences in arousing cognitive dissonance. *Journal of Personality and Social Psychology*, 16, 199–206. [\[Context Link\]](#)
- deSousa, R. (1987). *The rationality of emotions*. Cambridge, MA: MIT Press. [\[Context Link\]](#)
- Dunning, D., Griffin, D. W., Milojkovic, J., & Ross, L. (1990). The overconfidence effect in social prediction. *Journal of Personality and Social Psychology*, 58, 568–581. [\[Context Link\]](#)
- Dunning, D., & Pappalardo, M. (1989). Mental addition versus subtraction in counterfactual reasoning: On assessing the impact of personal actions and life events. *Journal of Personality and Social Psychology*, 57, 5–15. [\[Context Link\]](#)