

# Insufficient Emotion: Soul-searching by a Former Indicter of Strong Emotions

George Loewenstein

Department of Social & Decision Sciences, Carnegie Mellon University, USA

## Abstract

Contrary to the many accounts of the destructive effects of strong emotions, this article argues that the most serious problems facing the world are caused by a deficiency rather than an excess of emotions. It then shows how an evolutionary account of emotion can explain when and why such deficiencies occur.

## Keywords

decision making, emotion

At that moment I was fully aware for the first time how far advanced the process of paralysis already was in me – it was if I were moving through flowing, bright water without being halted or taking root anywhere, and I knew very well that this chill was something dead and corpse-like, not yet surrounded by the foul breath of decomposition but already numbed beyond recover, a grimly cold lack of emotions.

(Stefan Zweig, 1922 / 2004, p. 19)

Do emotions help or hurt decision making? This question has been the focus of much implicit and explicit debate. The main argument on the detrimental side is that emotions cause people to lose control of their behavior (e.g., Baumeister, Heatherton, & Tice, 1994). The main argument on the beneficial side has been that emotions serve as important inputs into decision making, providing useful information about the value of alternatives that “pure reason” is by itself incapable of providing (e.g., Damasio, 1994; Wilson & Schooler, 1991).

There is, in fact, no contradiction between the two positions. As Baumeister, De Wall, and Zhang (2007) argue in a book chapter entitled “Do Emotions Help or Hinder the Decision Making Process?,” the answer to the question is “it depends,” and specifically on what type of “emotions” one has in mind.

On the positive side are the types of weak, automatic, emotional signals that Damasio calls “somatic markers”, and Russell and Barrett (1999) dub “core affect” (as contrasted with “prototypical emotional episode”). Robert Zajonc’s (e.g., 1984) work, showing that people learn to like things without even consciously recognizing them, focuses on this type of emotion. Many

researchers have argued that these types of emotions are beneficial, based on the finding that their absence, whether due to brain damage (Damasio, 1994) or experimental intervention (e.g., Wilson & Schooler, 1991) tends to degrade the quality of decision making. Representing a similar perspective, there are myriad stories, presented in books such as *The Gift of Fear: Survival Signals That Protect Us From Violence* (De Becker, 1997), of people who report having survived against the odds as a result of paying attention to subtle emotional cues. (Unfortunately, we lack balancing testimony from those who paid attention to such cues but experienced less favorable outcomes.)

More of a mixed bag are what Baumeister and co-authors refer to as “full-blown, subjectively conscious, mind-and-body emotional states” (Baumeister et al., 2007). Certainly, conscious emotions play a variety of essential roles; it is unlikely that they would have evolved if they did not. But, it is also well documented that conscious emotions introduce a wide range of biases, both in information processing (e.g., Forgas, 1995) and behavior (Frijda, 1986; Frijda & Mesquita, 1994). A very extensive literature going back to the ancient Greeks and earlier has cataloged negative consequences of excesses of conscious emotions, such as crimes of passion, sexual misconduct in the “heat” of the moment, panic, and a variety of other impulsive, out-of-control, behaviors (cf., Baumeister et al., 1994). Indeed, I have contributed to this literature, in papers with titles such as “Out of Control: Visceral Influences on Behavior” (Loewenstein, 1996) and “Emote Control: The Substitution of Symbol for Substance in Foreign Policy and International Law” (Lobel & Loewenstein, 2005).<sup>1</sup>

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*Corresponding author:* George Loewenstein, Department of Social and Decision Sciences, Carnegie Mellon University, Pittsburgh, PA 15213, USA. Email: GL20@andrew.cmu.edu

**Table 1.** Varieties of disproportionate emotion

	Automatic emotions	Conscious emotions
Excessive emotion	I	II
Insufficient emotion	III	IV

These two main thrusts in the existing literature are depicted in cells II and III of Table 1. Cell II designates situations in which people make suboptimal, typically impulsive, out of control, decisions as a result of being overcome by conscious emotions. Cell III captures situations in which people make suboptimal decisions because they lack automatic emotions, or lack access to them, robbing them of a vital input to decision making.

While not denying the validity of either of these positions, in this article I draw attention to a different problem associated with emotions that has received less attention than either of these. Reflecting on some of the most critical problems facing humanity at present, and drawing on an evolutionary perspective on emotion, I question whether the most pervasive and important problems associated with emotions may be characterized not by either cell II or III, but instead by cell IV, i.e., an insufficiency of conscious emotions. Like the proverbial dog that didn't bark, the absence of strong emotions doesn't naturally come to mind as a major problem. Once one begins thinking along such lines, however, I believe the argument becomes compelling.

If one assembles one's own list of the most severe problems currently facing the world, I venture that most of the problems on most people's lists will be better described as resulting from a deficit of strong emotion than from a surplus of it. My own list would begin with global climate change and world hunger and disease. None of these are obviously caused by excessive emotions. Instead, each can be understood as resulting, at least in part, from a deficiency of emotion.

Global warming, for example, threatens to submerge huge populated regions of the planet, cause widespread drought and other severe weather problems, and generally to create human misery on a massive scale—not to mention its impact on species other than humans. Given the severity and imminence of the catastrophe, one would think that global warming should be causing widespread fear and anxiety. Most parents would react with profound and extended horror to the news that their child had a genetic disorder, even if that disorder would only manifest itself when the child became an adult. Yet a comparably disastrous outcome is unfolding before our eyes, and not just to our own children but to almost everyone's, and the vast majority of people seem to be remarkably nonplussed.

Hunger and disease fit a similar pattern. As Unger (1996) writes in his classic *Living High and Letting Die*, if we were to directly confront the tradeoffs we make implicitly in our daily lives, we would very likely make different decisions than we do. Suppose, for example, that one could save the life of a sick or starving individual in a distant country for \$100, and we are

facing a choice between a practical but unexciting car for \$20,000 and a superior car for \$30,000. If the 100 people we could save by purchasing the less expensive car evoked almost any degree of sympathy, the decision would be straightforward. The fact that the vast majority of affluent people indulge themselves in luxuries of about this magnitude, but fail to make equivalent charitable donations, suggests that such sympathy is lacking. Again, the problem is too little emotion; not too much.

The next item on my own list of the most important problems facing the world—ethnic and international conflict—at first blush might appear to be a counterexample; a problem characterized by too much emotion, and specifically hatred, rather than too little. Yet even this, seemingly best case for excessive emotions isn't actually so straightforward. If one examines cases of war, genocide, and ethnic conflict, it is undoubtedly true that hatred figures prominently, but lack of empathy for the victims of the conflict may be equally, or even more, important. Jonathan Glover (2001), in his profound treatise *Inhumanity: A Moral History of the 20th Century*, illustrates, in case after case, the reasons for such indifference—from the physical separation of perpetrators and victims (e.g., the separation of the British military personnel who instituted the naval blockade of Germany in World War I from the starving German population, or of the U.S. pilots who dropped napalm bombs from 40,000 feet in Vietnam from the victims of those bombs) to the “dehumanization” of victims of genocide (e.g., the Jews in Germany or the Tutsis in Rwanda). Paul Slovic (2007), in a moving paper on genocide, reaches a similar conclusion to Glover, and to the one I espouse here. Slovic argues that “the statistics of mass murder or genocide, no matter how large the numbers, fail to convey the true meaning of such atrocities. The reported numbers of deaths represent dry statistics, ‘human beings with the tears dried off,’ that fail to spark emotion or feeling and thus fail to motivate action” (Slovic, 2007, p. 1; see also Power, 2003).

An insufficiency of emotion causes problems not only for humanity as a whole, but also for individuals. People engage in a wide range of self-destructive behaviors, and for many of these excessive emotions are commonly seen as playing a contributing role. Unprotected sex in the “heat of the moment,” “road rage,” and craving-driven drug abuse are obvious cases that come to mind; but again under close scrutiny these “obvious” cases become less so. It is true that in each case an excess of emotion seems to provide the impetus for the behavior. Yet most of us manage to avoid such patterns of behavior most of the time, and part of the reason is that we experience contrary emotions—fear of sexual disease and unwanted pregnancy, of physical harm and legal sanctions, and of the loss of control and ravages of addiction. Are these problems caused by an excess of drive or an insufficiency of fear? The answer is by no means obvious.

Emotional insufficiency can also be a problem in close relationships. In research with Tamar Krishnamurti, we examine frequency of sex, feelings of desire, and enjoyment of sex for people involved in relationships. Controlling for age, we find that duration of relationship has a precipitously negative impact on all three variables. This might seem surprising, since relationships that survive a long time are naturally close. Whatever its benefits, however, closeness may in fact be the problem

when it comes to wanting, and enjoyment of, sex. As advice books for singles consistently articulate (e.g., Fein & Schneider, 1995), scarcity and insecurity spur desire; what is out of reach is more exciting than what is freely available. Likewise, mystery and surprise are far more exciting than the deep understanding that comes from long-term intimacy. Certainly, excessive negative emotions can cause problems in long-term relationships; members of couples do sometimes flare up in anger and say or do things that cause lasting damage. But, for most long-term relationships, the biggest threat is probably not an excess of negative passion but rather an insufficiency of positive passion—cell IV rather than cell II.

## An Evolutionary Account of When and Why We Experience Inadequate Emotions

Why would we experience an insufficiency of emotions in certain situations? Elsewhere (Loewenstein, 2007), I have argued that a conceptualization of emotions proposed by evolutionary psychologists (Cosmides & Tooby, 2004) is helpful for understanding many of the essential properties of emotions, from their ability to transform us as people to our inability to imagine how we will feel and behave in emotional states other than the one we are in (Loewenstein, 1996). The evolutionary account of emotions can also help to explain when and why we might experience emotional deficits.

According to the evolutionary account, emotions are “superordinate programs” that orchestrate a concerted psycho-physiological response to recurrent situations of adaptive significance in our evolutionary past, such as fighting, falling in love, escaping predators, and experiencing a loss in status. Emotions, according to this perspective, are not reducible to effects occurring in specific parts of the brain, specific feelings, motivations or appraisals, but involve a wide array of physiological and psychological changes, including effects on perception, attention, inference, learning, motivation, and physiology; different emotions, it could be said, effectively reprogram us into effectively different people.

Our emotional programming was undoubtedly adaptive when it evolved, which, for many emotions, was well before the emergence of humans. However, humans, thanks in part to our extra-emotional capabilities, have developed cultures and technologies, changes which have vastly outstripped any evolutionary adaptation (see Cohen, 2005). Cultural and technological changes have themselves, to some degree, taken account of our relatively static emotional constitution; consider, for example, the frequent and profound discussions of emotions by the so-called “founding fathers” of the United States, who designed the U.S. Constitution to deal with problems caused by the excessive emotions that flare up periodically (see, e.g., Holmes, 1995). But cultural and technological change—for example, the development of nuclear weapons—does not necessarily benefit the survival of the individual or species.

That our emotional apparatus is imperfectly adapted to our current environment—for example, to the existence of plentiful food supplies (Power & Schulkin, 2009) or injectable drugs—is a valid and important point. But most thinking along such lines

has focused, again, on the problem of destructive affective motivation. Much less of the discussion has focused on how evolution has left us with an emotional apparatus that, in certain predictable situations, generates insufficient emotions for the needs of modern life.

To understand when and why we experience emotional deficits, it is helpful to think about some of the evolved properties of our emotional apparatus. In what follows, I review some of these properties and catalog some of their negative consequences.

### *Adaptation*

Most emotions are adaptive. If a stimulus that evokes an emotion is maintained over time, one’s emotional response tends to decline (Frederick & Loewenstein, 1999). This property makes evolutionary sense at an individual level (cf., Rayo & Becker, 2007); the continuing presence of a stimulus that evokes a negative emotion is a fairly reliable sign that there is nothing the individual can do about it. Since emotions exist, in large part, to motivate us to take specific types of actions, there is no point in experiencing emotions in response to things that we are powerless to change.

The diminution of emotion caused by adaptation undoubtedly provided, and even now provides, great benefits. Were it not for adaptation, most people would fail to move past, and hence become immobilized by, the myriad setbacks that accumulate in life. Yet as society has developed, the downsides of adaptation have become increasingly apparent. Many if not most of the most severe problems currently facing humanity—most prominently global climate change—unfold gradually. The consequences of climate change don’t happen all at once. A species disappears, a forest burns down, a verdant area turns to desert. If all of these consequences occurred simultaneously, there would be mass panic and an urgent call to action. But the pace at which consequences unfold is sufficiently slow that by the time a new adverse effect occurs, we have already adapted to the one before.

### *Tangibility*

As already acknowledged, if one examines situations in which people commonly engage in self-destructive behaviors, many, such as eating and smoking, do seem to involve intense emotional states (see Rick & Loewenstein, 2008). However, the same behaviors often have another feature: the impact of any one indulgence tends to be miniscule and difficult to identify. No one soda will make you obese; no one cigarette will give you lung cancer; no one missed pill will cause you to have a stroke or a heart attack. Although self-control problems are often attributed to an excess of passion, or to the excessive sway of immediate temptations, when one looks across the range of classic self-control problems, it is striking how many have the property that the adverse consequences of one’s behavior are intangible because they are small and/or unlikely. Why do these types of tradeoffs give us problems? One possible reason is that, due to their intangibility, these negative consequences fail to

trigger sufficient affect. Situations in which negative consequences of behavior are intangible, it seems, present another case in which we often experience an insufficiency of affect.

### *Other Properties of Emotion, Illustrated by Sympathy*

Humans, apparently like other “higher” animals (e.g., Preston & de Waal, 2002) evolved to experience sympathy—emotional pain experienced in response to the plight of others. The degree to which we do so, however, depends powerfully on the who, what, where, and when of the situation. For example, we have evolved to be more sympathetic to people who are part of our familial or social group, a pattern that Choi and Bowles (2007) refer to as “parochial altruism” and argue is inextricably connected to hostility between groups. We are also much more sympathetic toward people who are present in our immediate vicinity, and people who are similar to us on one or more dimensions, such as appearance, beliefs or origins, a pattern that can also be observed in other species (Preston & de Waal, 2002). The expression “out of sight, out of mind” might be more aptly paraphrased “out of sight, out of heart” to indicate the profound indifference we experience to the vast number of needy people who are different and distant, for example AIDS orphans, the incarcerated, and victims of starvation, floods, earthquakes, and wars. We are also more sympathetic toward identified victims—for example, a baby who falls in a well—than toward so-called “statistical” victims—the myriad babies who will die in car accidents in the upcoming year (Small & Loewenstein, 2003; Small, Loewenstein, & Slovic, 2007). And we are more sympathetic to things that have a tangible manifestation—for example, an obviously broken limb, or a gruesome wound—than to things that might be equally bad but leave no visible trace—for example, unobservable internal trauma, migraine headaches, or depression. Although I have illustrated all of these properties with the case of sympathy, the same principles apply to most emotions, such as anger, gratitude, and fear.

### **Emotions as Ends in Themselves**

Emotions are not only instrumental inputs into decision making, they are also ends in themselves. And, as ends, their absence can be as telling as it is in decision making. Experiencing a range of emotions is an important—perhaps the most important—aspect of what it means to live a rich and meaningful life. As the opening quote expresses, to be emotionally paralyzed is to not be fully alive.

Treating emotions as ultimate ends, one could, again, debate the balance of problems caused by excessive or insufficient emotions. Indisputably, certain negative emotions, such as fear, anger, or sorrow, can undermine health and detract substantially from the subjective quality of life, especially when they are prolonged. Negative emotions, it cannot be denied, are a major source of misery. However, even negative emotions have their place in the ecology of a normal life; there is truth to the cliché that one can’t experience true happiness without also experiencing one’s share of sadness. Indeed, there is a growing backlash, delivered in books with titles such as *The Loss of Sadness: How*

*Psychiatry Transformed Normal Sorrow into Depressive Disorder* (Horwitz & Wakefield, 2007) and *Shyness: How Normal Behavior Became a Sickness* (Lane, 2007), against new trends in “positive psychology” and recent efforts to persuade the public that conditions such as sadness and shyness, rather than inevitable aspects of life, are medical problems that need to be treated with drugs.

That we crave emotions, whether positive or negative, may help to explain why people spend so much time seeking out negative emotions—fear on roller coasters; fear, anger and sadness in scary, anger-inducing or tragic movies; disgust at children’s Halloween parties. Addressing the paradox of why people seek out negative emotions, Andrade and Cohen (2007) propose that negative emotions are often sought in situations in which the outcomes that the emotions typically signal are absent. If we can divorce fear from actual danger, as is the case on a roller coaster or in bungee jumping; if we can decouple disgust from the possibility of sickness and disease, as is true when, on Halloween, children consume grapes that they imagine to be eyeballs; and if tragic movies and plays can decouple sadness from the real negative consequences that tend to produce it; then all of these negative emotions can, in some situations, become reinforcing. If one takes this perspective to the extreme, one could posit that all emotions, positive and negative, are desirable, and that it is not negative emotions per se that we avoid, but the negative outcomes that produce the negative emotions. As Kafka ([1904] 1993) eloquently mused in a letter to a friend, “We need the books that affect us like a disaster, that grieve us deeply, like the death of someone we loved more than ourselves, like being banished into the forests far from everyone, like suicide. A book must be the axe for the frozen sea inside us.”

### **Concluding Comments**

In the midst of crises, Roosevelt’s rousing caution that “we have nothing to fear but fear itself” is frequently brought into play. One heard it most recently, and with great frequency, in connection with the cataclysmic collapse of financial markets beginning in late 2008, with the implication being that markets were brought down by irrational fear. Yet there is, in fact, very little direct evidence that irrational fear played an important role in the crisis, beyond the somewhat circular inference that, for such major events to have occurred, strong emotions *must* have been at play. Investors who decided to sell their stocks, and lenders who decided to stop making risky loans *may* have been motivated in part by irrational fear, but they just as likely were making dispassionate decisions in a financial setting that seemed profoundly changed from a year earlier.

If the role of excessive fear during the days of the market meltdown is debatable, the impact of insufficient fear in the period leading up to it is not. Only a decade prior to 2008, people had experienced a stock market bubble and crash. They had been persuaded that the old rules of stock valuation didn’t apply, and then were rudely disabused of this wishful thinking. Yet, less than a decade later, people seemed perfectly willing to believe the same unlikely line when it was applied to the housing market.

What can be done about the problem of insufficient emotion? At an individual level, a first step would be to introduce, or bolster, regulatory mechanisms that substitute for the fears that people don't have but should have, for example, government agencies that protect us from the Madoffs of the world, regulations to prevent people from taking on mortgages they can't afford, and automobiles that won't let us drive drunk or succumb to the temptation to text while driving.

At an aggregate level, it could be argued that if public policy—for example, in response to global climate change—were based on a dispassionate evaluation of costs and benefits, whether emotion were excessive or insufficient would be irrelevant. Indeed, this is exactly what Sunstein (2000) has advocated in a compelling essay arguing for greater use of cost-benefit analysis in public policy. Sunstein motivates the use of cost-benefit analysis in part on the basis of “a set of data [which] now suggests that people are subject to alarmist bias,” from which he concludes (p. 1071) that:

The role of cost-benefit analysis is straightforward here. Just as the Senate was designed to have a cooling effect on the passions of the House of Representatives, so cost-benefit analysis might ensure that policy is driven not by hysteria or unfounded alarm but by a full appreciation of the effects of relevant risks and their control. If the hysteria survives an investigation of consequences, then the hysteria is fully rational, and an immediate and intensive regulatory response is entirely appropriate. (p. 1071)

Although Sunstein argues that cost-benefit analysis is needed to address the problem of excessive emotion—the “alarmist bias”—it could also, and equally compellingly, be justified on the basis of an insufficiency of emotion. Cost-benefit analysis, I would venture, would give global warming a higher priority than it has received to date, and certainly a higher priority than other problems on which the U.S. has spent vast sums of money.

I am skeptical, however, of whether cost-benefit analysis can really substitute for the emotions we don't feel but should. Cost-benefit analysis can provide us with guidance about sensible priorities, but it can't provide the motivation to act. It can conclude that global warming is a more serious problem than others we have devoted far greater resources to, but, unless we can get viscerally upset about the problem, it is unlikely that we will mobilize the collective will required to make the sacrifices that are needed—the types of sacrifices that emotions are so successful in eliciting.

Ultimately, although Roosevelt may have been correct that excessive fear is to be feared, the absence of fear (and other strong emotions) may pose an even greater threat to humanity.

## Note

1 After publishing a variety of papers lamenting the negative consequences of strong emotions, I began to perceive cracks in the arguments I had been making. At a legal conference I attended after publishing the “emote control” paper mentioned above, I encountered Eric Posner, a legal scholar who had, in fact two years before Lobel and I wrote our piece, published a paper (Posner & Vermeule, 2003)

making almost the exact opposite argument, i.e., that emotions rarely distort foreign policy and that, when they do, the damage is generally relatively minor and mistakes are corrected fairly quickly. Posner challenged me to come up with a single compelling example of Lobel's and my central thesis—that strong emotions caused nations to act in ways that aren't in their own self-interest, and I had trouble doing so. My confidence in the position that Lobel and I had taken was shaken, though it took several more years to shift beyond Posner's position that strong emotions aren't bad to the even more extreme reverse conclusion that emotions aren't strong enough (which I suspect Posner would also disagree with).

## References

- Andrade, E. B., & Cohen, J. B. (2007). On the consumption of negative feelings. *Journal of Consumer Research*, *34*, 283–300.
- Baumeister, R. F., De Wall, C. N., & Zhang, L. (2007). Do emotions improve or hinder the decision making process? In K. D. Vohs, R. F. Baumeister & G. Loewenstein (Eds.), *Do emotions help or hurt decision making? A hedgefoxian perspective*. New York: Russell Sage Foundation Press.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego, CA: Academic Press.
- Choi, J. K., & Bowles, S. (2007). The coevolution of parochial altruism and war. *Science*, *318*, 636–640.
- Cohen, J. D. (2005). The vulcanization of the human brain: A neural perspective on interactions between cognition and emotion. *Journal of Economic Perspectives*, *19*, 3–24.
- Cosmides, L., & Tooby, J. (2004). Evolutionary psychology and the emotions. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed.). New York: Guilford Press.
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: G.P. Putnam.
- De Becker, G. (1997). *The gift of fear: Survival signals that protect us from violence*. Waltham, MA: Little, Brown and Co.
- Fein, E., & Schneider, S. (1995). *The rules: Time-tested secrets for capturing the heart of Mr. Right*. Clayton, Victoria: Warner Books.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, *117*, 39–66.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302–329). New York: Russell Sage Foundation Press.
- Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51–87). Washington, DC: American Psychological Association.
- Glover, J. (2001). *Inhumanity: A moral history of the twentieth century*. New Haven, CT: Yale University Press.
- Holmes, S. (1995). *Passions and constraint: On the theory of liberal democracy*. Chicago: University of Chicago Press.
- Horwitz, A. V., & Wakefield, J. C. (2007). *The loss of sadness: How psychiatry transformed normal sorrow into depressive disorder*. Oxford: Oxford University Press.
- Kafka, F. ([1904] 1993). Letter to Oskar Pollack, 27 Jan., 1904. In *Penguin dictionary of twentieth-century quotations*, 1993, p. 201, #6. Harmondsworth: Penguin.
- Lane, C. (2007). *Shyness: How normal behavior became a sickness*. New Haven, CT: Yale University Press.
- Lobel, J., & Loewenstein, G. (2005). Emote control: The substitution of symbol for substance in foreign policy and international law. *Chicago Kent Law Review*, *80*(3), 1045–1090. In symposium volume: “Must We Choose Between Rationality and Irrationality?”

- Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65, 272–292.
- Loewenstein, G. (2007). Defining affect (commentary on Klaus Scherer’s “What is an emotion?”). *Social Science Information*, 46, 405–410.
- Posner, E. A., & Vermeule, A. (2003). Accommodating emergencies. *Stanford Law Review*, 56, 605–644.
- Power, M. L., & Schulkin, J. (2009). *The evolution of obesity*. Baltimore, MD: Johns Hopkins University Press.
- Power, S. (2003). *A problem from hell: America and the age of genocide*. New York: Harper.
- Preston, S. D., & de Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral & Brain Sciences*, 25, 1–72.
- Rayo, L., & Becker, G. S. (2007). Evolutionary efficiency and happiness. *Journal of Political Economy*, 115, 302–337.
- Rick, S., & Loewenstein, G. (2008). Intangibility in intertemporal choice. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 363, 3813–3824.
- Russell, J. A., & Barrett, L. F. (1999). Core affect, prototypical emotional episodes, and other things called *emotion*: Dissecting the elephant. *Journal of Personality and Social Psychology*, 76, 805–819.
- Slovic, P. (2007). If I look at the mass I will never act: Psychic numbing and genocide. *Judgment and Decision Making*, 2, 1–17.
- Small, D. A., & Loewenstein, G. (2003). Helping a victim or helping the victim: Altruism and identifiability. *Journal of Risk and Uncertainty*, 26, 5–16.
- Small, D. A., Loewenstein, G., & Slovic, P. (2007). Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes*, 102, 143–153.
- Sunstein, C. (2000). Cognition and cost-benefit analysis. *Journal of Legal Studies*, 29, 1,059–1,104.
- Unger, P. (1996). *Living high and letting die*. New York: Oxford University Press.
- Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, 60, 181–192.
- Zajonc, R. B. (1984). On the primacy of affect. *American Psychologist*, 39, 117–123.
- Zweig, S. (2004). *Fantastic night and other stories*. London: Pushkin Press. (Original work published 1922)