Affective Forecasting

Knowing What to Want

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ABSTRACT—*People base many decisions on affective forecasts, predictions about their emotional reactions to future events. They often display an* impact bias, *overestimating the intensity and duration of their emotional reactions to such events. One cause of the impact bias is* focalism, *the tendency to underestimate the extent to which other events will influence our thoughts and feelings. Another is people's failure to anticipate how quickly they will make sense of things that happen to them in a way that speeds emotional recovery. This is especially true when predicting reactions to negative events: People fail to anticipate how quickly they will cope psychologically with such events in ways that speed their recovery from them. Several implications are discussed, such as the tendency for people to attribute their unexpected resilience to external agents.*

KEYWORDS—*affective forecasting; prediction; emotion; sense making*

Many cultures have myths in which people can make their wishes come true. The story of Aladdin and his lamp is best known to readers of the *Arabian Nights* (and to Disney fans); in Irish legends, it is leprechauns who make wishes come true; whereas in a Chinese fable it is an obliging dragon that has the head of a camel, the eyes of a hare, the neck of a snake, the claws of an eagle, and the ears of a buffalo (McNeil, 2003).

Common to these myths is the notion that if people (perhaps with the help of a genie) could make their wishes come true, they would achieve everlasting happiness. Sometimes, however, people are disappointed by the very things they think they want. Research on *affective forecasting* has shown that people routinely mispredict how much pleasure or displeasure future events will bring and, as a result, sometimes work to bring about events that do not maximize their happiness.

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These mispredictions can take a number of forms. People can be wrong about how positive or negative their reactions to future events will be, particularly if what unfolds is different from what they had imagined. Prospective dog owners might predict that Rover will bring nothing but joy because they picture a faithful companion who obediently fetches the newspaper each morning instead of an obstinate beast who chews shoes and demands 6:00-a.m. walks in the freezing rain. Generally, however, humans are adept at predicting whether events are likely to be pleasant or unpleasant. Even a rat can readily learn that pressing one bar will produce a food pellet and another an electric shock and will vote with its paws for the more pleasant option. People know that a root beer will be more pleasant than a root canal.

People are less adept at predicting the intensity and duration of their future emotional reactions. Occasionally they underestimate intensity and duration; this may happen, for example, when a person is in a "cold" emotional state at the time of prediction and is trying to imagine being in a "hot" emotional state in the future. Satiated shoppers underestimate how much they will want ice cream later in the week, and addicts who have just injected heroin underestimate how much they will crave the drug when they are deprived of it later (Gilbert, Gill, & Wilson, 2002; Loewenstein, O'Donoghue, & Rabin, 2003).

THE IMPACT BIAS

More common than underestimating future emotional reactions, however, is the *impact bias*, whereby people overestimate the intensity and duration of their emotional reactions to future events—even when they know what the future event is likely to entail and they are not in a particularly "hot" or "cold" emotional state at the time of making their forecast. This error has been found repeatedly in a variety of populations and contexts. College students overestimated how happy or unhappy they would be after being assigned to a desirable or undesirable dormitory (see Fig. 1), people overestimated how unhappy they would be 2 months after the dissolution of a romantic relationship, untenured college professors overestimated how unhappy they would be 5 years after being denied tenure, women overestimated how unhappy they would be upon receiving unwanted results from a

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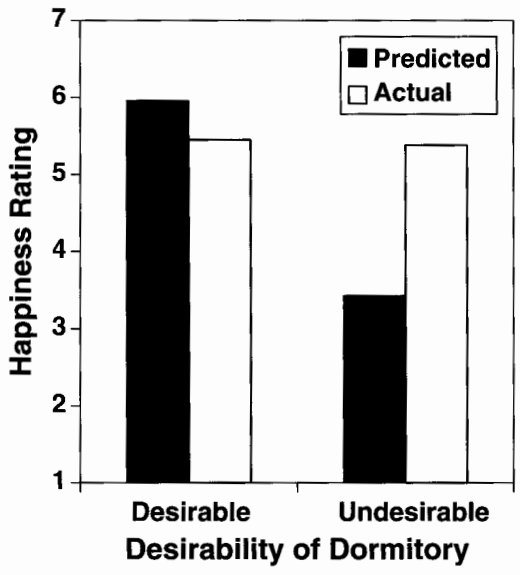

Fig. 1. College students' predicted and actual levels of happiness after dormitory assignments. Participants predicted what their overall level of happiness would be a year later if they were randomly assigned to a desirable or undesirable dormitory (on a 7-point scale, with 1 = *unhappy* and 7 = *happy*). Students predicted that their dormitory assignment would have a large positive or negative impact on their overall happiness (solid bars); but a year later, those living in undesirable and desirable dormitories were at nearly identical levels of happiness (open bars). Adapted from Dunn, Wilson, & Gilbert (2003).

pregnancy test, and so on (see Loewenstein et al., 2003; Mellers & McGraw, 2001; Wilson & Gilbert, 2003). The impact bias is important because, when deciding what to work for, people need to predict not only the valence (positivity or negativity) of their emotional reactions ("Will I feel good or bad?"), but also the intensity and duration of these reactions (e.g., "Will I feel good for a few seconds or a few months?"). If consumers overestimate the intensity and duration of the pleasure they will get from purchasing a new car, for example, they may be better off spending their money in some other way.

One cause of the impact bias is *focalism*, the tendency to overestimate how much we will think about the event in the future and to underestimate the extent to which other events will influence our thoughts and feelings (Schkade & Kahneman, 1998; Wilson, Wheatley, Meyers, Gilbert, & Axsom, 2000). When football fans think about how they will feel after their favorite team wins an important game, for example, they are likely to focus exclusively on the game and neglect to think about the many other things—such as upcoming deadlines at work, the need to get the car fixed, or a visit from old family friends—that will influence their thoughts and feelings. Focalism is a straightforward and, we suspect, quite common source of the impact bias. It can be corrected, to some degree, by asking people to think carefully about the many other events that will demand their attention in the future; studies have found that this exercise tempers people's predictions about the impact of a victory or loss by their favorite football team on their happiness (Wilson et al., 2000).

SENSE MAKING AND PEOPLE'S IGNORANCE OF IT

Another cause of the impact bias is that forecasters fail to recognize how readily they will make sense of novel or unexpected events once they happen. Research across a variety of fields suggests that such events trigger four processes in sequence: attention, reaction, explanation, and adaptation.

- First, people are especially likely to attend to events that are self-relevant but poorly understood. For example, a student who unexpectedly receives an *A* on an important exam will initially think about little else.
- Second, people react emotionally to self-relevant, poorly understood events. The student who receives an unexpected *A* will initially feel overjoyed.
- Third, people attempt to explain or make sense of self-relevant, poorly understood events. For example, the overjoyed student will begin to search for reasons why she received a better-than-expected grade.
- Fourth, by making sense of events, people adapt emotionally to them. Once the student has explained the reasons for her grade, she will think about her achievement less and experience less happiness when she does think about it. The event will come to be seen as more normal and inevitable then it actually was, and hence it will lose some of the emotional power that it had when it still seemed extraordinary.

These four processes may seem relatively uncontroversial to psychologists, but research suggests that people neglect to take them into account when forecasting their future emotions. In particular, because the processes by which people explain or make sense of unexpected events are often quick and nonconscious, people do not recognize beforehand that such processes will occur; thus they do not consider how quickly their tendency to explain events will reduce the impact of those events. When a student tries to predict how she will feel if she receives an unexpected *A*, she has little trouble imagining herself feeling overjoyed but a lot of trouble imagining herself explaining the event in a way that makes it seem ordinary and predictable.

The Pleasure of Uncertainty About Positive Events

If making sense of positive events reduces the duration of the pleasure they cause, then inhibiting the sense-making process should prolong people's pleasure. In one study, for example, students who were studying in a library were unexpectedly given an index card with a dollar coin attached, and results showed that they were in a better mood 5 minutes later if the text on the card made it difficult rather than easy for them to explain why they had received the money. Yet people did not anticipate this effect; in fact, "forecaster" participants predicted that they would be happier if the card made explanation easy rather than difficult (Wilson, Centerbar, Kermer, & Gilbert, 2005). People do not realize how quickly they will make sense of unexpected positive

events and how doing so will make their positive emotions dissipate.

A Pleasure Paradox

Most organisms avoid that which has previously caused them pain and approach that which has previously given them pleasure. Humans are better at this than most other animals because they do more than merely associate stimuli with their affective consequences. People are naive scientists who explain events to themselves, and the sophisticated causal theories people generate allow them to pursue pleasures and avoid pains with an unusual degree of success. But an ironic consequence of this inveterate sense making is that events tend to lose some of their hedonic impact as they become more sensible. People work to understand events so that they can repeat the good ones and avoid repeating the bad ones, but in understanding these events people may reduce their ability to be moved by them. True, some explanations of events make people feel better than other explanations do; taking credit for a major success is more pleasurable, for example, than attributing it to luck. Independent of the favorability of the explanation, however, sense making hastens emotional "recovery" from events. Things are rarely as good or bad as people expect them to be because people do not realize that by explaining the things that happen to them, they drain these things of the hedonic qualities that caused them to focus on the events in the first place.

NEGATIVE EVENTS: MOTIVATED SENSE MAKING

People are motivated to recover from negative emotional events, and the kind of sense making they engage in often involves coping, psychological defenses, and rationalization. Like the physiological immune system that fights threats to physical health, people have a psychological immune system that fights threats to emotional well-being. These defenses have been well documented by social and personality psychologists and include dissonance reduction, motivated reasoning, self-serving attributions, self-affirmation, and positive illusions.

A feature that all these defenses have in common is that they are largely unconscious, and in fact are more effective by operating behind the mental scenes. When trying to cope with a romantic breakup, for example, people usually will not be able deliberately and consciously to adopt a more negative view of their partner in order to make themselves feel better. Instead, the ex-partner will come to seem less suitable, with no awareness that one's own psychological immune system was responsible for this shift in view. Because people are generally unaware of the operation of these defenses, they tend not to take them into account when predicting their future emotional reactions—an oversight we have termed *immune neglect*.

In one study, for example, participants who failed to get a desirable job were less upset 10 minutes later when the failure was attributable to a single capricious interviewer (easy to rationalize: "The guy's a jerk") rather than to a team of interviewers (difficult to rationalize: "How could they all dislike me?"). In another study, participants were less upset when they received negative personality feedback from a computer (easy to rationalize: "Computers make mistakes") than from a clinician (difficult to rationalize: "How could I have scored so badly on the personality test?"). In both cases, people had stronger reactions when unexpected negative events were difficult to rationalize and explain, but in both cases they failed to anticipate that this would happen (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998).

Implications of Immune Neglect

People's failure to anticipate their natural tendency to make the best of bad outcomes has a number of consequences:

- Because people do not recognize that they have reduced the impact of negative events by explaining and rationalizing them, they sometimes attribute their unexpected resilience to the work of powerful, insightful, and benevolent external agents (Gilbert, Brown, Pinel, & Wilson, 2000). For example, employees who are transferred to undesirable locations might be surprised by how happy they are; by failing to recognize that they produced their own happiness with nonconscious coping and defensive processes, they might attribute their good fortune to the guiding hand of an external agent, such as God.
- When people make a decision that is difficult to reverse, such as buying a sweater from a store with a "no returns" policy, they are strongly motivated to rationalize the decision and make the best of it. When people can more easily undo a decision, such as buying a sweater they can return, they are less motivated to rationalize their choice, because they can always change their minds. Consequently people are often happier with irrevocable choices because they do the psychological work necessary to rationalize what they can't undo. Because people do not realize in advance that they will work harder to rationalize irreversible decisions, however, they often avoid the binding commitments that would actually increase their satisfaction (Gilbert & Ebert, 2002). For example, many people pay more to purchase clothing from stores with a liberal return policy, when they would more satisfied with clothes they bought that they could not return.
- Not surprisingly, people believe that major traumas will have a more enduring emotional impact than minor ones will. Because people are more strongly motivated to make sense of major traumas than minor ones, however, the pain of minor traumas can sometimes last longer than more serious ones. It seems like it would be worse, for example, to be insulted by a close friend than a stranger. Because people are more motivated to cope with (and perhaps rationalize) the insult from the friend, however, they may recover from it more quickly (Gilbert, Lieberman, Morewedge, & Wilson, 2004).

- It is well-known that people weigh potential losses more heavily than corresponding gains, which often leads to economically illogical decisions. Kermer, Driver-Linn, Wilson, and Gilbert (2005), for example, found that most people refused a gamble in which they had a 50% of winning $5 and a 50% chance of losing only $3, demonstrating classic loss aversion. Loss aversion seems to involve a faulty affective forecast: Although participants predicted that losing a gamble would have a larger emotional impact than winning, they were wrong; the magnitude of unhappiness caused by losing was no greater than the magnitude of happiness caused by winning (Kermer et al., 2005).

SUMMARY AND FUTURE DIRECTIONS

Affective forecasts are important because people base many decisions on them. Decisions about who to marry, what career to pursue, and whether to donate money to the local homeless shelter are based, at least in part, on predictions about how these decisions will make one feel. To the extent that people's predictions about what will make them happy are flawed, people fail at maximizing their happiness.

One unanswered question is whether the impact bias is advantageous in some way. It could be argued that exaggerating the impact of emotional events serves as a motivator, making people work hard to obtain things that they predict will have large positive consequences and avoid things that they predict will have large negative consequences. It may be, however, that overestimating the impact of negative events creates unnecessary dread and anxiety about the future. And there are other costs to affective-forecasting errors. People suffering from debilitating digestive disorders who underestimate how quickly they will adapt to an ostomy bag might make less-than-optimal treatment decisions. People who overestimate the positive emotional impact of undergoing cosmetic surgery might be too willing to get an extreme makeover. Finding ways to increase the accuracy of affective forecasts is a worthy enterprise—though not, we suspect, a particularly easy one (Ubel et al., 2001). It is difficult to place oneself in the future and imagine what it will be like to have made sense of an event that, in the present, seems extraordinary. Such mental time traveling, however, might ultimately lead to better decisions.

Recommended Reading

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