CHAPTER 6

Money Emotions

Clouded Judgment

Sometimes at social events, if I mention my occupation as "investment psychologist," people are curious. Often, their questions are market related ("Where do you see the market in 12 months?"), and sometimes they are personal ("Why is my spouse so hopeless with a budget?").

In early 2006, when Jodie heard my profession at a dinner, she asked me defensively, "Did someone send you to talk to me?"

"Uh, no," I answered.

"Are you sure?" She said, eyeing me sideways.

"Er, yeah." I was perplexed.

"Come over here. I need to talk to you." She motioned me to a quiet corner of the room.

"Um, okay," I said.

After some pleasant conversation, Jodie opened up. She told me that she'd been having nightmares about poor old people living under bridges. In many dreams she herself was destitute. When she saw commercials on TV about happy older couples in retirement, tears would come to her eyes. This had been happening for about a year, and she didn't really understand it, but she thought she might have a clue.

"What clue is that?" I asked.

"Well, I used to work at a major investment bank as a broker in the late 1990s. We were responsible for getting retirees to buy recommended investments in their private accounts. When I started in mid-1998, everyone wanted to buy Internet stocks. We'd call clients, offer a few shares in an IPO [initial public offering], and recommend some other stocks as well. They'd usually follow our advice without questioning, and they'd be much better off for it. In late 1999, we started offering these Internet mutual funds, and we would charge two points on the buy, in addition to our regular commissions."

"Wow, that's huge," I muttered.

"Yeah, my boss told us that we'd be fired if we couldn't sell the fund to 80 percent of our client accounts. It was my job to persuade dozens of mostly older retirees to buy shares in the Internet fund. Some of them wanted to put all their money in it, and I let them."

"What happened?"

"I left in early 2001, when clients were calling me wondering why their accounts were shrinking. I told them to hold on, that things would recover. . . ." She paused. "I feel so rotten now. People really trusted me." Jodie took a sip of her drink and her eyes inspected the faces in the room, as if looking for someone else to talk to.

It didn't seem like a fitting end for her story. "Then what?" I persisted.

"I got my real estate license, and now I'm a real estate agent."

"No, I mean what happened with the clients and the funds?"

"I don't know, I imagine the department was shut down. I think some of the clients lost most of their retirement savings. Right before I left, one of the clients told me that he was going to have to postpone retirement 10 years based on what I'd sold him." She studied her shoes.

"Have you talked about this before?"

"No, not really—why would I?"

"It seems like the whole episode scarred you pretty deeply."

She thought for a moment and then said matter-of-factly, "Yeah, I just feel so terrible about the whole thing."

Jodie was wracked by guilt. Some of her clients, whom she had meant to help, had to postpone retirement. She was harboring deep regrets about her actions, and they were starting to surface in unlikely situations—she was crying when watching retirees on television and seeing them in her dreams.

She told me she hadn't invested in the markets at all since 2000. All of her own retirement savings was in cash, almost as if she were paying penance for what she had done. The worst part of the episode, for her, was that she had thought the bubble would burst all along—she never bought the "new economy" hype, and she regretted blithely selling Internet funds to retirees when deep inside she knew the funds weren't in their best interest.

Regrets and feelings of guilt can stay with people for years. The attempt to avoid them leads people to wall off associated memories. But sometimes regrets won't be ignored, springing to the surface at inconvenient times or in unexpected ways. Jodie had never accepted and worked through her experiences, so the strong associated emotions sprang up whenever she had related experiences.

EMOTIONAL BIASES

The content of this book is treading on psychologically sensitive ground. Not only is there a social taboo around money, but there is also discomfort when emotion is openly discussed. Most people feel vulnerable during such conversations because the thing being addressed, emotion, lies protected underneath awareness.

Traditionally, emotions have been considered "messy," and they are assumed to be more damaging than constructive for judgment. Yet research has proven that emotion is central to both good and bad decision making. In the previous chapter you saw that excellent intuitive decision making is often based on gut "feel." However, at moderate to high levels, emotions overwhelm intuition rather than support it. This chapter describes the specific biases that arise from specific emotions.

Emotions can be short-term (lasting minutes to hours) or longer-term, such as *moods* (lasting hours to weeks). When emotions are chronic, they are called *attitudes*, and when they represent permanent ways of dealing with the world, they are *personality traits*.

The research literature has identified many ways in which emotions alter the brain's information processing and decision-making capacities.[1] Emotional decision makers often become attached to information that supports their emotional state while ignoring contradictory evidence.[2] Short-term emotions and moods (all called *emotion* henceforth) arouse an inclination to take action. If an action is not taken, then the emotion will linger. Subconscious emotions will bias judgment and decision making very subtly until they are appropriately discharged.[3] (Jodie is an excellent example of the lingering and inadvertent expression of unprocessed emotions).

It's human nature to react emotionally when events do (or do not) go one's way. Furthermore, nothing has to *happen* for someone to experience emotional reactions. The simple act of imagining possible outcomes, such as great successes or terrible losses, stimulates emotion. Virtually every investor has emotional reactions to market price action, especially when starting out. Most investors have felt nervousness during sideways markets, elation during bull markets, and intense doubt and fear during sharp market downturns. Each emotion uniquely alters how investors think and what they subsequently do with their capital.

What are some of the specific pitfalls of emotional biases in decision making? Table 6.1 summarizes the broad effects of emotion on processing and judgment.

TABLE 6.1 How Emotions Influence Decision Making

How Emotions Influence Decision Making[4]	Example
Current emotional state changes processing style.	Happy people are more confident in the accuracy of their decisions. Depressed investors are more detail oriented and indecisive.
Underlying disposition or personality biases perception.	Extraverted and optimistic individuals are predisposed to seeing less risk than neurotic (chronically anxious) people.
Gut feelings—when one asks himself, "How do I feel about it?"	Jack Welch decides "straight from the gut." George Soros's trades are influenced by somatic sensations.
Considering possible consequences induces an emotional reaction.	Worrying about the potential of a corporate bankruptcy filing provokes avoidance.
How one expects to feel after he or she receives a payoff.	Anticipating the joy of receiving a large royalty payment prompts anticipatory buying.
How one expects to feel after he or she experiences a loss.	Fearing the disappointment one will feel if an investment goes sour provokes deeper, more detailed analysis.
Emotions linger, affecting judgment, until they are discharged ("worked through").	Consider Jodie's case. Her regret drove her to avoid the stock market, cry when watching commercials about retirees, and eventual nightmares.
Projection bias—people estimate that they will feel the same in the future as they feel today.	Not saving for retirement because "I'm financially comfortable now." Fearful investors think the stock market will always be weak.
Motivated reasoning—people justify their current beliefs with illogical arguments in order to minimize negative emotion.	Pundits repeatedly advised investors to "dollar-cost average" into Internet stocks as the NASDAQ fell during 2000–2001.

THE DIFFERENCE BETWEEN POSITIVE AND NEGATIVE FEELINGS

Positive emotions signal that life is going well, goals are being met, and resources are adequate. In these circumstances, people are ideally situated to "broaden and build.[5] " Negative emotions, such as fear and sadness, are characteristic of a self-protective stance in which the primary aim is to guard existing resources and avoid harm. Each stance, optimism and pessimism, has characteristic effects on financial judgment.

Positive emotions prepare the individual to seek out and undertake new goals.[6] Positive emotions, such as happiness, contentment, satisfaction, and joy, are characterized by confidence, optimism, and self-efficacy. Happy people interpret their own negative moods and damaging life events with more optimism and respond to them in more positive, affirming ways than more pessimistic people.[7] There is a positive feedback effect of good mood on well-being. Chronically positive people have better immunity and physical health than others.

Researchers have found numerous effects of positive mood on judgment. Subjects in a positive emotional state tend to reduce the complexity of decisions by adopting a simpler process of information retrieval. Happiness is associated with the greater use of cognitive heuristics ("shortcuts") such as stereotypes.[8] Positive people disregard irrelevant information, consider fewer dimensions, recheck less information, and take significantly less time to make a choice than people who are feeling negative.[9,10]

During financial gambles, positive people choose differently than negative ones. When stakes are high, people in positive emotional states try to maintain their positive state and avoid substantial losses.[11] In contrast, if stakes are low, joyful decision makers become risk seeking in order to benefit from the gain (though without wagering so much as to risk their happiness). In terms of *behavior*, happy people act to avoid the possibility of a large loss in order to protect their positive emotional state.[12] So while happy people make more optimistic judgments, in situations where they foresee a reasonable likelihood of large losses, they avoid taking risk.

While positive emotions broaden one's focus, negative emotions narrow it.[13] Negative moods are associated with a more ruminative and vigilant (hyperalert) thought process.[14] Negative emotions predispose to excessive risk perception and overreaction to losses.

Professor Paul Slovic and colleagues at the Center for Decision Research measured subjects' personality propensities, either as "negatively reactive" or "positively reactive." They then asked these subjects to play a modified Iowa Gambling Task (IGT; see Chapter 2 for description). Slovic found that participants high in negative reactivity learned to choose fewer high-loss options (perhaps because they are more sensitive to loss), while those high in positive reactivity learned to choose more high-gain options. These characteristic choice behaviors led to less overall profit for positive people playing the IGT.

Table 6.2 provides a summary and comparison of positive and negative emotions on decision making, judgment, and behavior.

TABLE 6.2 Positive and Negative Emotion's Effects on Thought

People in a Positive Mood	People in a Negative Mood
Reduce the complexity of the decisions.	Detail-oriented.
Adopt a simpler process of information retrieval.	Vigilant and broad analysis.
Disregard irrelevant information.	Often excessively focused on minutiae.
Consider fewer dimensions.	Broad observations.
Recheck less information.	Repeat and double-check.
Take significantly less time to make a choice.	Slow and thoughtful, occasional "analysis paralysis."
Take more risk in low-stakes gambles.	Avoid small risks when possible.
Take less risk in high-stakes gambles.	More likely to spend excessive amounts of money on large purchases or risky bets.
Less reflective after a failure; more resilient after losses.	Ruminate about setbacks and have more trouble getting back on their feet.

REGRET AS A SELF-FULFILLING PROPHECY

Regret is an uncomfortable but intrinsic part of investing. Inevitably, some decisions are bound to go wrong, leading to losses. Those who can't "take a loss" objectively will experience regret. It is very experienced investors who can be detached from the emotional impacts of large losses. It is regret's discomfort that drives two of the most common behavioral biases.

In behavioral finance research, one of the most prevalent biases is the tendency to hold losing stocks longer than winning stocks. That is, most investors too frequently "let their losers run and cut their winners short." This is called the *disposition effect* (discussed in detail in Chapters 14 and 15). Many academics believe that the disposition effect is due to the "fear of regret."

Selling a losing stock is tantamount to admitting that one was wrong. Feeling wrong inspires painful regret. To avoid regret, investors hold on to losing stocks while hoping for a comeback that will vindicate their initial buy decision.

They sell winning stocks too soon because they fear that the stock will drop, giving back their gains, and they will regret not having taken their paper profits off the table while they had the chance. So whether one's stocks are up or down, investors often make biased decisions in order to avoid experiencing regret.

Professor Barbara Mellers at the University of California at Berkeley designed gambling experiments in which she found that the fear of regret leads to lower returns. After choosing a gamble and being hit with an unexpected loss, many subjects avoided subsequent higher-expected-value gambles that were offered. Regret about a recent loss, even a loss as a result of a random event (such as the flip of a coin), drove people to irrationally reduce their risk taking.[15]

The fear of regret also affects how investors make initial buy and sell decisions. Researchers conducted surveys and experiments with a large group of individual investors and undergraduate students in the U.S. Midwest. In the survey, investors were asked, "Thinking back to investment decisions you now regret, do you feel more regret for: (1) selling a 'winning' stock too soon or (2) not selling a 'losing' stock soon enough?"[16] Fifty-nine percent reported more regret for not selling a loser soon enough, and 41 percent for selling a winner too soon. Each side of the disposition equation (winners and losers) was provoked. Regret was more aroused by not selling a losing stock soon enough.

The same experimenters asked subjects to participate in a game where they made their own investment decisions (buy, sell, or hold) over several periods of a simulated market. During the experiment, they were intermittently given the option of following the recommendation of a hypothetical broker they met at a party.[17] After they purchased a stock, they watched its price performance over a period, and then had the option of making another decision. As the experiment progressed, participants were asked their level of satisfaction with their prior decisions.

Interestingly, subjects reported more overall satisfaction simply from owning a stock, regardless of the outcome. When the broker had given accurate advice, and the subjects had followed the good advice, they reported less overall satisfaction with the investment outcome than if they had made the buy decision independently. Making one's own investment decisions is more emotionally gratifying than following a broker's advice. However, if they lost money on a stock, they felt more regret if the initial decision to buy had been theirs alone. Following a broker's recommendation reduced the emotional impact of losses. Brokers' recommendations were emotional shock absorbers, attenuating reactions to both profits and losses.

This finding may explain why most investors are willing to pay a premium for actively managed funds and personal investment advisers. These professionals function as intermediaries between oneself and the outcomes of one's investment decisions. Investors feel less emotional when deferring some responsibility for financial outcomes onto another.

AN AMICABLE DIVORCE

Of every marriage performed this year in the United States, just over 40 percent will end in divorce.[18] Even when consensual, divorce has profound emotional effects on the couple. To comfort themselves during divorce, women often seek the solace of other friendships. Men generally have fewer intimate relationships than women, and they may be more socially and emotionally isolated during the transition into single life.

Doug came to my office seeking help with his investing. He explained that he had been unsuccessfully trading volatile biotech and mining stocks. He had done such trading in the past with modest profitability, but now he couldn't handle the downside swings. He felt compelled to sell out on declines and frenetically chase fast-moving stocks higher during rallies. He had never traded so rapidly or poorly in the past, and he wondered what was happening. Overall, he was losing money quickly. In fact, by the time he came to see me, Doug had lost *50 percent* of his retirement savings.

During our first interview, Doug casually mentioned that he was going through a divorce that had been initiated two months previously. According to Doug, the breakup was mutual and final, and he didn't think it was causing his investing problems. Yet during out conversation, it became apparent that Doug was deeply attached to his ex-wife and her family. Without her family and her circle of friends, he had few close relationships. He had no one to talk to about his emotional pain following the divorce. Now his deep hurt was impairing his judgment.

Without realizing it, Doug's sadness and grief were increasing his risk taking. Fortunately, recent studies have shed light on the role of sadness in risk taking. Psychologists think sadness creates the desire to change one's circumstances. Sadness-driven stock transactions are fueled by hopes of quick gains and offer a distraction from psychological pain.

SADNESS AND DISGUST

> *"The most common cause of low prices is pessimism—sometimes pervasive, sometimes specific to a company or industry. We want to do business in such an environment, not because we like pessimism but because we like the prices it produces. It's optimism that is the enemy of the rational buyer."*
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> —Warren Buffett, 1990 Chairman's Letter to Shareholders

All negative emotions, while of the same *valence*, do not affect decision making similarly. Researchers have performed studies to tease out the effects of specific negative emotions. Professor Jennifer Lerner at Carnegie-Mellon University induced states of sadness and disgust in subjects using short movie clips. She then studied how they priced their bids and offers in a simulated marketplace. For example, she asked participants to fill out a questionnaire in which they chose a price they would accept in exchange for an item they had been given (such as a pen highlighter set). In another condition, subjects without the item indicated how much they would pay for it.

Lerner found that participants in a disgusted emotional state were emotionally driven "to expel." That is, disgusted people want to "get rid" of items they own, and they do not want to accumulate new ones. As a result of the experimental subjects' disgust, they reduced both their bid and offer prices for the consumer items.

The "endowment effect" is a common cognitive bias in which people overvalue items they already own. The endowment effect causes the average seller to demand a higher price for an item than the average buyer thinks is reasonable. Inducing disgust led to the elimination of the endowment effect among both buyers (disgusted buyers lowered their average bids) and sellers (disgusted sellers lowered the average offer price).

In the case of sadness, Lerner noted that "sadness triggers the goal of changing one's circumstances, increasing buying prices [bids] but reducing selling prices [asks]." When the researchers provoked sadness in the subjects, the endowment effect was *reversed*.[19] That is, compared to people in neutral emotional states, people who had viewed sad movie clips subsequently valued items they owned less and items they did not possess more. Recall that disgusted people valued all items less, whether they owned them or not.

Based on the inversion of the endowment effect, sad people should be more likely to buy and sell items. Lerner speculated that this inversion is responsible for "shopping therapy" (in which people go shopping to lift their depressed spirits), and it may drive compulsive shopping, which is a type of psychiatric disorder. In fact, the best medication treatments for compulsive shopping are antidepressants. Lerner notes that compulsive shoppers tend to experience depression, that shopping tends to elevate the depressed moods of compulsive shoppers, and that antidepressant medication tends to reduce compulsive shopping.[20]

In the story of Doug, I speculated that the unacknowledged sadness around his divorce was driving excess transactions and risk taking in the stock market. In fact, Doug did well after he stopped trading and entered psychotherapy treatment. When he resumed investing nine months later, he was able to maintain a disciplined plan and he continues to trade successfully up to this writing.

FEAR AND ANGER

In another series of experiments, Professor Lerner examined the roles of anger and fear in driving financial risk taking. In advance of the experiment, she measured participants' dispositional levels of fear, anger, and "optimism about the future" using standard surveys. Interestingly, she found that as levels of both anger and happiness increase in people, they report increasing optimism about the future. For angry people this optimism is presumably because they feel in control. Fearful people report increasing pessimism as their level of anxiety increases. Again, two emotions of negative valence (fear and anger) have different effects on future expectations.[21]

According to Lerner, emotions characterized by a sense of certainty (such as happiness and anger) lead decision makers to rely on mental shortcuts, while emotions characterized by uncertainty (such as anxiety and sadness) lead decision makers to scrutinize information carefully.[22,23] Anger and fear, while negative, differ in their dimensions of control, certainty, and responsibility that accompany them. Angry people feel more certain about the nature of an infraction, they feel that they have more control over outcomes, and they feel that others are responsible for the provocation. Fearful people are uncertain where the source of danger lies, lack a sense of control over stopping it, and are unclear who or what is responsible for the threat.[24] In order to identify the danger, they investigate their surroundings and new information more thoroughly.

Fearful people are averse to risk, while angry people are as comfortable with risk as happy people. The decisive factor in risk taking is perception of control. Fearful investors feel insecure and out of control. As a result, during market declines, the fearful are more likely to sell out. Angry investors have identified the enemy and feel in control of the situation. They hold on to declining stocks because they are more certain of their position.

It is possible that the effects of fear and anger were seen in investor behavior after the September 11, 2001, terrorist attacks in New York City. For the first two weeks after the attacks, sad and fearful investors sold stock. Then, as no further threats materialized and the identities of the Al-Qaeda perpetrators became known, fear transformed into goal-directed anger, and the U.S. stock market rallied strongly for several months as the initial war against the Taliban was prepared, initiated, and successfully executed.

PROJECTION BIAS

Emotional individuals often have trouble predicting how they will feel in the future. They incorrectly assume that their future emotional state will resemble their current one. As a result, they imagine that their current preferences will remain constant into the future. Because they cannot accurately project themselves into the future and subsequently empathize with their condition, they have a bias of "projection" when planning for their future selves.

For example, someone who receives a financial windfall may have trouble setting aside part of it in retirement savings. He is feeling that he will always have enough money, and when the idea of retirement savings is broached, he feels, "Why worry about squirreling money away when I'm so flush?" Studies have found the projection bias in people in emotional states including anxiety,[25] pain,[26] and embarrassment.[27]

As a result of projection, most people underappreciate their powers of adaptation to unforeseen events.[28] For example, if investors anticipate that an international crisis might drive the U.S. dollar to all-time lows, they may extrapolate excessive damage to the American economy while underestimating the power of U.S. businesses to adapt.[29,30] They may invest less in equities, even if they are earning lower expected returns in bonds.

Another error caused by projection is the exaggeration of the impact of attention-grabbing events.[31] People generally assign a level of importance to events that is proportional to the frequency they are mentioned. For example, investors are likely to overestimate the importance of widely publicized world events (such as Middle East conflict) to their investment portfolio. Meanwhile, they overlook other, much more profoundly world-changing events such as the emergence of China as an economic and political power. Chapter 19 examines the nuances of this "attention effect" in detail.

One remedy for the projection bias lies in maintaining a healthy skepticism when attributing "moods" to the market. Another solution is to better appreciate how one's current and future emotional states alter one's perceptions of financial risk.

MANAGING FEELINGS

Most investors confuse emotion *management* with emotion *control*. Control often refers to repression, which is dangerous. As noted in Table 6.1, when an emotion is not discharged, its pressures on judgment linger until it is worked through. Unfortunately, efforts to control emotional experience meet with little success, and they often have the unintended effect of increasing sympathetic nervous system activity[32] (e.g., by raising blood pressure). High blood pressure can literally be a result of "bottling up" emotion.

Researchers have found that encouraging subjects to attribute their feelings to situational factors and neutral facts reduces the impact of current emotional state on judgment. For example, reading a sad story lowers most peoples' estimates of life satisfaction. However, when people focus on the cause of their sad feelings before rating life satisfaction, this effect is reduced.[33] People who understand why they are feeling sad (due to their reading of the sad story) are more satisfied with life.

Unfortunately, if one's emotional state matches his or her personality style, then it may be more difficult to manage. Neurotic people (with prominent anxious personality traits) will continue to rely on clues from their anxiety to direct future decisions, even after they have identified their anxiety as emanating from a neutral cause.[34]

When people first become aware of the emotional influences on their decision making, they often have difficulty with over- or undercompensation. Increased vigilance and self-awareness can be effective for reducing the effect of weak to moderate emotions on decision making. It is helpful if one sets up techniques for emotion management in advance for self-awareness interventions to be effective.[35] When in a particular emotional state, one cannot clearly see how their thinking patterns have changed.

Since emotions alter one's susceptibility to financial decision biases, an ability to forecast future feelings could be used for personal benefit. For example, the rare clients who tell their financial planners, "Don't let me sell if the market drops X percent," are requesting that an external enforcer help them plan in advance for periods when their financial anxiety is high.

SUMMARY

As seen in Chapter 5, low-level emotions underlie decision-making heuristics, such as the affect heuristic. Heuristics make possible a rapid, unconscious consolidation of complex information. The affect heuristic relies on subtle emotional "tags" that indicate the relative "goodness" or "badness" of a decision option. The affect heuristic is a process by which complex information is simplified and given meaning. When information that has been simplified using the affect heuristic is weighed and combined with other emotional cues, through a filter of experience, a "gut feeling" results.

A "gut feeling" refers to the subtle, unconscious emotional judgment that forms in response to an uncertain decision situation. If one has experience with such situations, then gut feelings can be quite accurate judgments. Optimal "gut feel" is the experienced interpretation of emotional cues.

Intuition relies on the rapid judgments that gut feel provides. Analytical decision making can often be improved with intuitive input.

While gut feel can contribute to more accurate analytical decisions, moderate or strong emotions often lead to biased decision making. Fortunately for those who want to improve their decision-making process, emotion can be detected and managed with the right psychological tools, primarily through the internal honing of emotional intelligence skills.

A lot of technical information about moderate to strong emotions was communicated in this chapter, and I'll quickly summarize the effects of specific emotions here. Regret, such as Jodie was feeling in the introductory story, prompts conservatism with existing assets and increased risk taking with money-losing ones (holding onto losers). Anger gives rise to mild optimism, a sense of control, and certainty about one's financial choices. Overall, angry investors have less stock turnover. Sadness (perhaps unusually) leads to increased investment risk taking and increased trading. When afraid, investors usually overestimate danger and are more likely to believe threat-related information. When happy, they underestimate risks and trust positive prognostications from similarly optimistic experts.

Chapters 7 through 10 detail the emotional states that most impair objective investing: fear, stress, greed, and hubris.