Chapter Ten: *The Collective Error*

by Nathan Polackwich

You have to understand the minds of the people in our business. We all read the same newspapers and magazines and listen to the same economists. We're a very homogeneous lot, quite frankly. There aren't many among us who walked in off the beach. If there are any high school dropouts running an equity mutual fund, I'd be surprised. I doubt there are any ex-surfers or former truck drivers either.

– Peter Lynch, *One Up on Wall Street* (1989)

> The problem for investors is that we all think that we are independent in our thinking and our decision-making. No one says, "Invest with me because I think in a herd-like, sheep-like manner." But we all read the same magazines, newspapers, news releases and annual reports.
>
> — Bill Miller (2003)

The power of the wisdom of crowds, as shown by the stock market's reaction to the *Challenger* disaster, strongly suggests the stock market is informationally efficient. But if the stock market is so smart, you might wonder, why did investors pay 100 times revenue for Internet companies' stocks less than a decade ago and then refuse to pay less than the amount of cash on the balance sheet for many of the same companies' stocks not two years later? What about the Nifty-Fifty era in the early 1970s, or the late 1920s bubble and subsequent crash, or the Dutch Tulip bulb craze of the 17th century, or any of the other speculative booms and busts that have occurred throughout history?

Some academics argue that a crucial difference exists between the stock market and most decision markets like jellybean-guessing contests. Specifically, money makes people act irrationally. Take, for example, investors' reluctance to sell a stock that has fallen in value because it would "prove" a mistake was made. Instead, they wait to "get back to even" before selling, which, of course, it rarely does. This tendency is known in the relatively new field of behavioral finance as *loss aversion*. Similarly, investors often sell winning stocks prematurely to "lock-in" their profits, or confirm their success. This tendency is called *pride seeking*. Loss aversion and pride seeking are but two of a litany of investors' irrational behaviors uncovered by behavioral finance theorists.

But does money's effect on the psyches of individual investors imply that the stock market as a whole isn't wise? Might it hold the key to superior investment returns? Unfortunately, no. Recall that the Jellybean Effect works by canceling out the informational errors of individual investors. It has the same effect on the *behavioral* errors of individual investors. For instance, as long as the pride seeking of one investor cancels out the loss aversion of another, the stock market will remain wise.

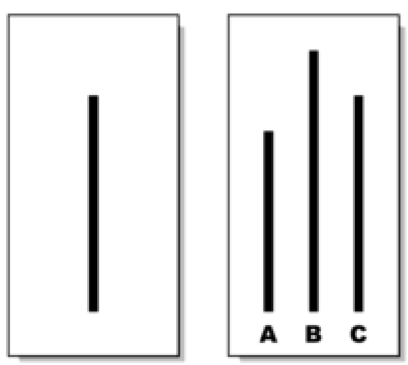
However, while the psychological impact of money on the individual level may not lead to stocks' mis-pricing, it can on the *collective* level. In other words, if investors make the same behavioral error en masse, stocks can become mis-priced, sometimes dramatically, as they were in the late 1990s. So the big question is – *What causes investors to collectively make the same mistake?*

To be wise, a market must satisfy one primary condition: diversity of opinion. Specifically, the greater the diversity of opinion in a marketplace, the greater the amount of information brought to bear on the problem the market is trying to solve.

How do markets achieve diversity of opinion? First, by having a sufficiently large number of participants, which the stock market certainly has in spades with respect to most companies' stocks. Second, market wisdom increases when participants come from a wide range of backgrounds and experiences. It's debatable whether the stock market satisfies this condition. I *still* surf, so there's at least one surfer out there picking stocks! But my guess is that most money today is managed by highly intelligent people with similar educational backgrounds that succeeded at many of the same things like taking college entrance exams, mathematics, and corporate networking. Those with other abilities, such as taking an engine apart or surviving in a rough neighborhood, are probably underrepresented.

Most critically, it's essential that market participants form their opinions independently, or without the influence of other participants. This hurdle is probably where the stock market most often falls short. The main reason is that people are social animals wired to prefer the comfort of a group to sticking out their proverbial necks.

In the 1950s the psychologist Solomon Asch conducted a series of experiments that proved quite conclusively that people often say obviously incorrect things when confronted with social pressure. In one experiment, subjects were asked which of the three lines on the right card was equal in length to the line on the left card.



Obviously, the answer is C. But if a subject was in a group where the other members purposefully gave the wrong answer, Asch found the subject conformed to that incorrect answer about 1/3rd of the time. And that was with an easy, unambiguous task! How much higher might the level of conformity be when people are confronted with a far more ambiguous question like whether the seemingly limitless growth of the Internet makes traditional stock valuation models obsolete?

Research has actually shown that when conforming to a group, activity in humans' prefrontal cortex – the area of the brain involved with planning complex cognitive behaviors – decreases. By contrast, going against the group stimulates our old friend the amygdala, the part of the brain that forms and stores memories associated with emotional events. In other words, going along with the group slows down the rational, or reflective, part of our brain. Conversely, acting independently is recognized by our brain as an emotional event. Stepping away from the herd is literally painful.

The best opportunities to score points in the Winner's Game, then, occur when: 1) Everyone believes the same thing, and 2) Everyone is wrong. This kind of error only happens when investors stop thinking independently. These situations are less rare than you might think.