

TRADER PSYCHOLOGY

WINNING THE MENTAL TUG OF WAR ON STOCK MARKETS



Paul Doggett

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Trader Psychology: Winning the Mental Tug of War on Stock Markets

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And

Simple Tactics, Profitable Trading (2006, 2017)

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Preface

Swedish investors are more likely to check the value of their portfolios on days when they know that the stock market has risen and they are also less likely to check their portfolios on those days when the market has fallen (Karlsson et al, 2005). It's called the ostrich effect and it's not just the Swedes who do it. People from all around the world are more inclined to look at the market on "up" days and avoid looking at the market on "down" days.

Why do we do this?

We do this because we want to experience the emotional euphoria of finding out that our personal wealth has increased on the "up" days and we avoid looking at the market on "down" days because we want to avoid experiencing the disappointment of seeing a decrease in our portfolio value.

Do these actions sound like the actions of an unemotional, analytical and rational investor or does it sound like the actions of a highly sensitive and emotionally driven investor?

We all know the answer to this question because it's a rhetorical question. People are typically sensitive and emotional. We get upset at our children and our parents, other drivers on the road, our boss, our partners and so on. Equally we get excited by many of the same people. You cannot take the emotional or the psychological out of the investor or the trader. It's deep seated within all of us. We feel the euphoria about a great profit and the depression of a large loss. The best we can do is learn to live with our emotions and try our hardest to control them. Then if you are really good, you might even be able to exploit it in others in the market.

Emotions underpin everything in the market. This is why I am a chartist or a technical based trader rather than a fundamental or value based investor. Price charts represent human behaviour and emotion much better and with more regular updates. Fundamental data doesn't factor in at all when it comes to the psychology of the market. Fundamental data is strictly business data. Charting data is strictly psychological data. They measure two very different things. One is chalk, one is cheese. One is east, one is west. If you are a chartist, you play the man if you are a fundamentalist you play the ball. Neither is right, neither is wrong. However, both are in pursuit of the same goal – maximising your return.

Any analytical approach to the market, be it a fundamental or technical one, comes to nothing if our mental approach is not right. We can acquire fundamental and technical skills through personal experience, by reading books, subscribing to newsletters and attending seminars. But it takes the right mental approach of the individual to use these skills in a meaningful way and to get a strong "read" on the market and the ability to exploit it.

Sports psychologists tell us that athletes who reach the pinnacle of their chosen sport often get there because of their mental strength in addition to their physical talents. Natural ability without mental strength does not get you all the way. The same is true with traders. A major difference between the top traders and the less accomplished traders is their mental strength.

Certain types of mental approaches help traders to tackle problems and improve their performance through greater motivation, hardiness, knowledge, emotional stability and competence. You can forget applying traditional economic theory, fundamental analysis,

contrarian strategies or even technical analysis if you do not have the right mental approach. The biggest difference between you and the next trader or investor is your mental approach to the market.

The market of course is made up of thousands of opinions, thousands of different experiences and consequently, thousands of approaches based on either a fundamental or technical approach. This makes trading a tough gig. It is a mental tug of war between the rational and irrational, the logical and illogical. It's a tug of war between our skill level and random acts of luck. It is the daily tug of war between our actions and our mental approach.

Personally, as a trader who trades some of the same markets that you trade, I know the sorts of anguish and exhilaration that comes with the territory. I am acquainted with the things that impact upon our stress levels, our anxiety, motivation and decision making, our performance and our emotions. I have felt them all as a trader and studied them as a student of psychology. I hope this gives you some confidence in me as the author of this book and what I've got to say.

With this book beside you on your desk or mobile device, I hope that you will feel armed with a greater understanding of the psychology of the broader market and of yourself. I hope this book helps you in your personal tug of war between your thoughts and your actions. I have every confidence that in time, you will win many battles and learn what it takes to win the mental tug of war on the Wall Streets of the world.

All the best

Paul Doggett

9 January 2017

Chapter One

Heuristics, biases and intuition

Behavioural finance is the study of the biases and heuristics, decision making and judgement models, and both rational and irrational behaviour of investors and traders. So it makes sense to begin this book by looking at heuristics, biases and intuition.

A cognitive heuristic is a psychological term used to describe a ‘rule-of-thumb’ or a mental short cut method of solving problems such as what is the probability, in percentage terms, of rolling a ‘six’ on a normal dice? In fact, why don’t you give me a figure as quick as you can right now? Got an answer? How about 13%, right? On one roll of a single dice, you have about a 13% chance of rolling a six – agreed? Ok.

In dealing with this problem you’re thought process might have gone something like this:

“What is the probability of rolling a six in percentage terms? Well, its one in six.....six into one hundred goes how many times? Um, well, 6 into 60 goes 10 times, so 6 into hundred is at least 10 plus a little more.....so you add a bit more than 10%.....5 is too much because that would make it 15%.....sounds a little too high, so lower it a little.....how about 13%? Yeah, that’s about right. I’d say about 13 percent.”

OK, so I’ve used a little bit of literary license here to generalise what *every reader’s* thought process might have been like. Looking past this over generalisation, what we do have here is an example of how we might use quick mental arithmetic to roughly calculate an answer for a relatively simple problem but one which we do not come across every day, so we don’t readily have an answer. It is an example of how heuristic short cuts can be applied in practice. They give us a quick way of calculating probability and chance events as well as other unusual and often difficult calculations. In this example, if we didn’t use heuristics, we would have had to use the real calculation for probability which is shown below:

$$\text{The probability of something happening} = \frac{\text{Successful outcomes}}{\text{Total number of outcomes}}$$

This calculation is not difficult in itself but ask yourself honesty, what would you rather use, a quick rule of thumb or the real probability calculation? Most people would say the rule of thumb because they believe, based on life experience, it often gives them an answer which is much faster than using a mathematical formula, plus its less mentally taxing than using statistics or a mathematical formula, and besides it often provides an approximate answer which is close enough to the exact answer and therefore is sufficient.

We become accustomed and confident to using heuristics in a variety of everyday tasks and psychologists have found that due to our life experiences, we learn how to estimate the likelihood of some things such as the probable results of football matches or baseball games between certain teams. From our life experience we know that fewer people are likely to die from falling aeroplane parts from the sky rather than shark attacks each year. Our life experience guides us in these types of comparisons. We hear of people being attacked by sharks in the news, but never of people dying from falling aeroplane parts. (You are unlikely to know that the United

States of America annual statistics in 1990 stated that a US citizen had 30 times more chance of being killed by falling aeroplane parts than from a shark attack.)

But the world is not a straight forward place and unfortunately the examples used here are not straight forward either. You see, two things occur when it comes to heuristics. Firstly, many of us don't even realise that we are using heuristics and biases and secondly, many of us become complacent and assume that the rules of thumb that we use routinely throughout our working day always yield accurate results, particularly when used to solve problems, make quick calculations and probability based comparisons. The problem with some of our heuristic judgements and mental calculations is that they are not always accurate. For example, the real probability of rolling a 'six' on a dice is closer to 16.6% rather than the 13%. Many readers however would have accepted that my initial calculation of 13% was correct because of several reasons, such as:

- they didn't think I would give them a bogus number in this book,
- they were too lazy to double check how accurate or inaccurate I was
- they don't like maths and took the easy route of not bothering to labour over the accuracy of my answer or,
- based on the rough mental accounting in their own head, my guess of 13% didn't seem too far off the mark (which it wasn't) so they readily accepted it.

So this is what heuristics do. They give us misleading base rate information and knowledge about some things which we then assume to be correct.

Try this: how many companies do you think are delisted from the Australian Stock Exchange (ASX) each year on average?

Don't know the answer? No worries. It is an obscure question and I've put it here precisely because it is obscure. But take a punt anyway before reading on.

The website www.delisted.com.au estimates that approximately 10,000 companies have been delisted for one reason or another (going into receivership such as Babcock and Brown or being delisted because the company did not pay its ASX listing fees) from the Australian stock exchange (including the now defunct State run stock exchanges) over the past 100 years. This works out to be around 100 companies a year on average. I have no doubt that this figure will astound many readers for being either too high or too low. It is only too high or too low compared to the mental figure you thought might be the right answer.

So we know that due to the difficulties of some calculations we typically turn to heuristics to simplify them. As part of our application of heuristics we often get blinded by something which we 'feel' we know has a higher probability of occurring versus something which has a lower probability of occurring. In fact Nobel Prize winners Amos Tversky and Daniel Kahneman argue that in a number of situations of judgemental uncertainty, such as intuitive statistical judgements and categorical predictions like the 'spinning a 6 on a dice' and the 'delisting' example shown above, people rely too heavily and too readily on heuristics to assess probabilities and predict values.

As Tversky and Kahneman discovered, many rule of thumb calculations are far off the mark and can lead us astray. In some situations it doesn't matter, but in other situations, such as in the stock market it can make a huge difference to our overall profit or loss. It's important therefore that we have a better understanding of heuristics and the way they shape or blur our thinking. So here are a small number of them listed below which we will explore in this chapter. We have selected a number of heuristics and biases which we believe are pertinent for traders and investors and we discuss them here as they may be applied in a stock market setting even though heuristics appear in all areas of life.

In this chapter we cover the following:

Self-attribution Bias

Self-affirmation bias

Irrational weighting

Anchoring

Availability bias

Regret Avoidance

Hindsight bias

Self-Attribution Bias

When something goes right for you in the market, it's because you planned it that way, right? When something doesn't go as you planned, it's because someone or something else screwed things up for you, right? This is self-attribution bias. Self-attribution bias refers to the way we attribute good things in our life, lucky turns and good fortune for example, to the personal effort we put in to achieve the good fortune. And when misfortune strikes, we blame it on everyone and everything else around us and we assume that the misfortune was in no way a result of anything that we personally may have done.

There are many studies which repeatedly demonstrate the existence of self-attribution bias, such as the Schlenker and Miller (1977) study which found that individuals and groups of successful people believed that any personal success was;

“...largely due to internal, personal factors, such as ability and effort, but they attributed any failures to external, non-personal factors, such as bad luck and task difficulty.”

Self-attribution bias serves as a self-protective measure, ensuring that our ego stays intact. In group activities for example, if the group as a whole fails to achieve any success on a group-based activity, then individuals within that group are highly likely to blame another individual from within it, as being the sole reason or sole cause of the group's failure to succeed. Individual's rarely see themselves as being the sole cause of failure.

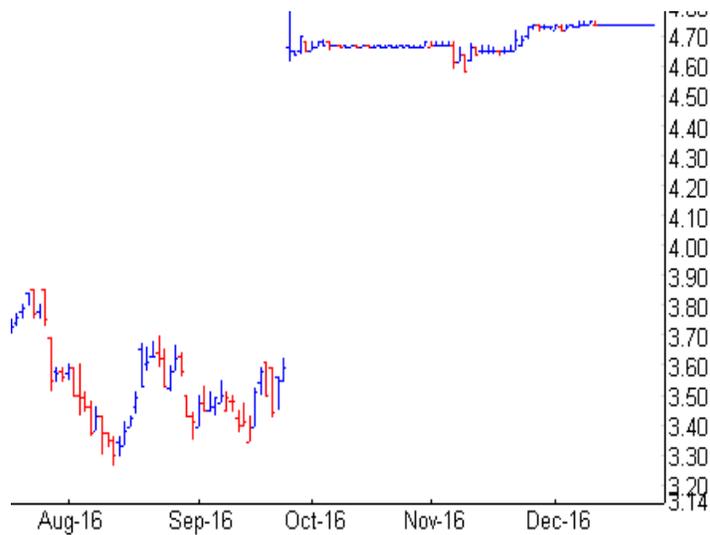
On the flip side however, we know that if a group achieves some success, it is highly likely that each member of that group will attribute a larger than valid weighting of personal attribution towards the overall success of the group.

We can see how the Self-Attribution Bias may be applied in the market in two examples. Firstly, with a trader who makes a profit and in these situations it is easy for the trader to revel in the immediate profit and to attribute this profit to their good judgement, strong analytical skills and stock picking ability. In other words, they attribute the profit solely to their own analytical skills rather than any other possible reason behind the profit.

Here is an example from the Australian market in September 2016.

A trader or investor buys into SAI at \$3.50 for no other reason than they believe the stock price is too low. Within two weeks, SAI is under takeover offer and the stock jumps to \$4.70. A nice quick profit. The trader who is susceptible to the self attribution bias will typically attribute this profit to his 'skills' as a stock picker, when in reality, the profit was generated by a third party whose intentions were unknown to the trader at the time he bought the stock.

Fig. 1.1



Alternatively, if a trader buys a stock and the stock immediately goes down in price self-attribution often kick in and the trader blames “the market”, “the crowd”, or the “day traders” for causing the stock price to be sold off. Self-attribution bias suggests that a trader is unlikely to look at themselves, their stock picking method or their lack of personal understanding about the market as the real cause for their loss.

Here is an example from the Australian market between September – December 2016.

TPM was trading at \$13 a share, then it fell to close at \$11.83, then overnight it closed at \$9.28 and continued to fall to low of \$6.45. In a case like this, it is not unusual for the trader or investor who suffers from the self attribution bias to place the blame for the loss squarely on other factors outside of his control. While it is true that the stock price free fall was due to announcements made by the company, there were technical alert signals advising the trader to exit the stock between August and

Fig. 1.2



September 2016 rather than buying the stock. But the trader who suffers from self attribution bias will typically refuse to accept that he or she could have acted on these signals. Instead, they much prefer to place the blame for their financial loss onto the shoulders of others.

Self-Affirmation Bias

The self-affirmation bias states that people are typically motivated to maintain a positive view of themselves. People are motivated to protect their ego which means that when their ego or their ‘good name’ comes under threat they make moves to protect and restore their ‘good name’. In the trading environment we see this after a trader has made a poor trading decision which has resulted in a loss. The trader feels determined to redeem themselves. They get back into the market with the view of gaining revenge on the market and avenging their recent financial loss to restore their sense of pride, reverse their loss of face and to boost their ego.

It is one of the regular mental tugs of war traders face in the market. After a poor trading result it’s possible that we are extremely keen to jump at the next trading opportunity without really giving it the full attention and research it deserves. If we are not careful, we may create a cycle of jumping from one bad trade into another. This is a strong signal that we are not dealing well with our mistakes. We are most likely complaining about our run of bad luck and about the market being “rigged” rather than taking an introspective look at ourselves to establish what might be the true cause for our string of losses.

We have to be careful that as we go from one bad trade into another, we don’t take on greater risks and trade with greater anger and a greater desire to avenge our recent run of poor form. The greater and more frequent the losses, the greater the stakes become to restore our image and to keep our ego intact. I would suggest that the better way to handle losses is for the trader to accept their losses rather than falling into the trap of believing that the market’s performance is a reflection of their own performance.

If you have a run of bad trades don't assume that it is a reflection of your self-image. Don't try to protect your ego. Your performance is separate from that of the market. Treat the market as an entirely autonomous beast which is volatile, often irrational, choppy, bullish, bearish or flat. It has nothing to do with you personally. Your trading performance should only be rated against the manner in which you research stocks to trade, act with discipline on your risk management techniques, act with discipline in taking profits and generally, following your own, private trading or investment rules.

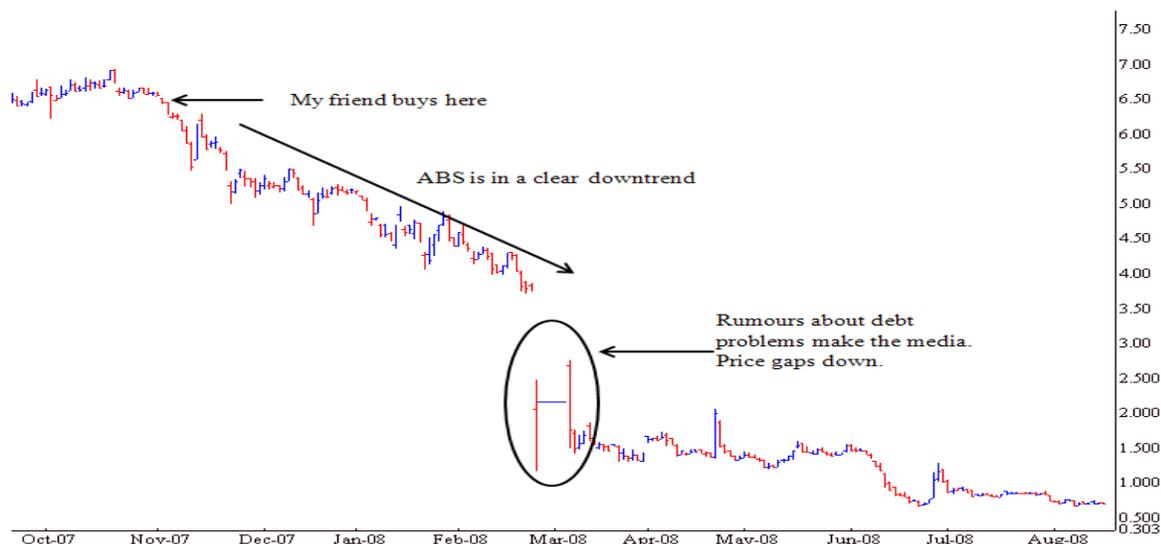
Irrational weighting of probable outcomes

The next bias we look at is the, irrational weighting of probable outcomes bias. Well known researchers Daniel Kahneman and Amos Tversky found that human decision making behaviour is biased with irrational weightings. They argue that we have a "natural" bias or tendency to irrationally overweight or underweight certain outcomes. In particular we tend to overweight small probability outcomes and underweight the moderate to higher probability outcomes. Here is a personal anecdote which will help illustrate exactly this type of thing occurring in the Australian market.

A friend of mine bought ABC Learning (ABS) in 2007 at \$7.00 a share (see Fig. 1.3). As the stock price began to drop and particularly as the rumours about the troubling debt levels of the company began to circulate, he asked me what he should do. I said he should sell. He thought about it. He got back to me several days later and said he had decided to hold. In his opinion, the stock would bounce back.

Given all known information about ABS at the time, I provided an answer which suggested a low probability weighting to the stock price rebounding higher once the long term support line at the \$6 level had broken to the downside. I also gave a higher probability weighting of further declines in the share price if the \$6 support didn't hold. My friend had exactly the opposite view. He thought that ABS had a high probability outcome of rebounding higher and a low probability outcome of falling lower.

Fig. 1.3 ABS



This anecdote is based on a real, personal story between me and a friend. I have not included it in this book simply to show that I was right and my friend was wrong. I include this story because it allows me to demonstrate how, as an outsider and not a holder of ABS stock I could make a rational judgement based on the technical and fundamental data. Unlike my friend who found it more difficult to correctly judge the high and low probability outcomes of ABS, based on all the information we both shared back in November 2007.

His ownership of the stock clouded his judgement. He pursued the low probability outcome of ABS surviving because it was in his best interest for ABS to survive while he was still a holder of this stock. His judgement was clouded by his desire for a positive and profitable outcome versus the cold hard facts. So this story is shown here as an example of the importance of looking at the evidence and being able to work out from the evidence at hand, which is the higher and lower probability outcome of a situation. Unfortunately irrational bias often tricks us into misreading the differing probabilities of the likely outcomes.

One way that we can avoid suffering from this irrational bias is to observe what the market is telling us. If a stock is in a prolonged down trend, then the market is telling us to avoid the stock. Unfortunately this is too simplistic for some investors and traders, so they overlook the signals transferred through price activity in a downtrend. If the company is in a prolonged uptrend then the market is telling us to consider buying this stock. But again unfortunately this is too simplistic for some investors and traders, so they overlook the signals transferred through price activity in an uptrend.

The same could be said for stocks whose year-on-year earnings per share growth is rising strongly versus those stocks whose year-on-year earnings per share growth is falling. Investors and traders often get themselves into all sorts of trouble by trying to predict a collapse in a stock performing well and predicting a turnaround in a stock performing poorly. It is precisely in these type of situations where traders and investors allow their irrational bias to get in the way of the accepting the clear cut data. It is in precisely these types of situations that investors and traders try to second guess the market by incorrectly applying a low probability outcome to a high probability event and by incorrectly applying a high probability outcome to a low probability event.

Anchoring

There is a famous Zen story about two travelling monks who come across a beautiful, well dressed young woman stranded on one side of a shallow river crossing. The older of the two monks picks up the woman and carries her across the river. Upon seeing this, the younger monk was very annoyed, but remained silent until they arrived back at the monastery. Eventually he lost his temper and said to the older monk, "How could you consider carrying that woman in your arms like that? It is against our teachings. It is tempting temptation itself." The older monk calmly replied, "I put her down on the other side of the crossing. It seems that it is you who is still carrying her."

Anchoring is the term used for the way that we often cling onto a particular reference point and the story about the Buddhist monk demonstrates the type of everyday anchoring that many of us experience. Anchoring is one of the most applicable to traders occurring in the market because they often get fixated or anchored at the price that they first notice that a stock was looking like a

good buy (but they didn't buy it) or they get anchored at the price at which they either did buy or sell a stock. That price becomes very personal to them and becomes their private reference point upon which they gauge whether the stock is currently cheap or expensive in the future.

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