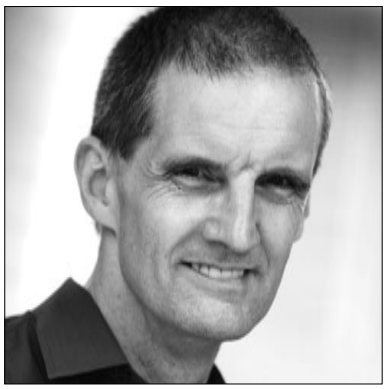
An introduction to behavioural finance



By **Dr Lester Wills**

Dr. Lester Wills' thesis was in the area of Personal Financial Preparation for Retirement and has presented material from his research at international conferences. He has also submitted papers for publication in a number of leading international journals and has had papers published by the Pensions Institute in London.

Dr Wills has experience in a number of fields, having started his professional life as a science teacher, a career that provided invaluable experience in effectively communicating with an audience. He then completed a degree in Psychology and went on to do an MBA, majoring in Economics and Marketing.

He spent a number of years working on dealing desks as an Investment Manager in Europe and Australia, managing equity and fixed interest portfolios and a range of derivatives. He then worked as a General Marketer, gaining experience in marketing and product development in both wholesale and retail environments.

I read a number of journals due to my professional affiliations, including "The Professional Investor" by virtue of being an Associate of the CFA Society of the UK.

A recent edition of this publication contain an article on Behavioural Finance by James Montier who, apart from being a global equity strategist for Dresdner Kleinwort Wasserstein in London, is also the author of "Behavioural Finance: Insights into Irrational Minds and Markets".

Montier's article starts off by pointing out that we all make mistakes (which may come as a shock to some).

Psychologists have spent years researching the types of errors people make and have found that the results are surprisingly universal across cultures and countries. It would appear that most of the mistakes people make could be traced to four common causes:

1. Self-deception
2. Heuristic simplification
3. Emotion
4. Social interaction

Montier has come up with ten guidelines for potential ways an individual can avoid some of the most perilous errors when making investment decisions. A person:

- Knows less than they think they do
- Should be less certain in their views and should aim for timid forecasts and bold choices
- Should not get hung up on one technique, tool, approach or view, they should remain flexible and pragmatic
- Should listen to those who don't agree with them
- Didn't know it all along, they just thought they did
- Should forget relative valuation, forget market price and instead work out what the stock is worth

- Should not take information at face value and should think carefully about how it was presented to them
- Should not confuse good firms with good investments, or good earnings growth with good returns
- Should remember that vivid, easy to recall events are less likely than they think they are; subtle causes are usually underestimated
- Should sell their losers and ride their winners

When I read the list I thought it made a great deal of common sense. None of guidelines are particularly earth shattering.

In fact when you consider them, they are pretty obvious. Unfortunately all too many things that are obvious are overlooked simply because people just don't think about them. Things can all too easily be 'obvious' in hindsight.

As Montier pointed out, simply being aware of the pitfalls is just not good enough.

A person needs to take steps to structure their thought processes in such a way that it becomes hard to fall back into old habits. Unfortunately not everyone learns from his or her mistakes.

I have been writing articles for financial services professionals for years and have constantly mentioned about how people get sucked into bubbles time and time again. The same old patterns just keep on emerging.

The sub prime crisis is merely a variation on the classic theme. Once again, the Gordon Gecko philosophy of "greed is good"[1] worked, for a time, and once again, the chickens eventually came home to roost.

One of my pet theories to explain such behaviour is that decision-making about money is predominantly emotive.

One of the strongest emotions is greed and this is one of the main drivers of such behaviour.

Whilst economists assume that people learn from past mistakes, psychologists claim that learning is actually not a simple process. The psychologists argue that many of the self-deception biases tend to limit a person's ability to learn.

The classic example of this relates to a person attributing their investment successes to their skill in stock picking and timing. When things go wrong however, it is the result of bad luck.

This is called self-attribution bias. It was always someone or something that was to blame. Such people are not able to recognise their own mistakes. Consequently, people who suffer from such a bias are not going to learn from their mistakes.

Biases on their own are bad enough, but when they appear in combinations, things can very easily get out of control. It would appear that not only are people overly optimistic, they are usually over confident as well.

Over-optimism and over confidence stem from the illusion of control and the illusion of knowledge.

The illusion of knowledge is the tendency for people to believe that the accuracy of their forecasts increases with more information.

This is an extremely dangerous misconception and one that led Daniel Boorstin[2] to declare that it was not ignorance that prevented discovery but the illusion of knowledge.

Many forget that more information does not necessarily mean better information. As James Montier argues, it is what you do with that information rather than how much you have accumulated that is really important. This forms the basis of the first guideline, namely, **a person knows less than they think they do.**

The illusion of control refers to a person's misguided belief that they have a degree of influence over the outcome of uncontrollable events.

We have all come across people who wear lucky socks or whatever when their team is playing as if this has some form of influence over events.

James Montier gives several examples to back this up:

- People are willing to pay more for a lottery ticket that contains numbers they choose rather than one that contains a random list of numbers. Yet in both instances the process of determining the winning combination is totally random and therefore cannot be influenced by the person purchasing the ticket.
- People are more likely to accept a bet on the toss of a coin before it has been tossed, rather than after it has been tossed and the outcome hidden. In both instances the person making the bet is unable to influence the spin of the coin in mid air.

Information plays a role in all such cases. The more information a person has, the more the illusion of control and the more comfortable they feel.

I am sure that many will have come across investors who consider themselves well informed as they have read various magazines and watched a number of television programs on investment.

They think they know a lot when in fact they know very little. In reality they quite simply don't know what they don't know. It is what's known as unconscious incompetence.

It is hard to refute the wisdom of the statement 'a little knowledge is a dangerous thing'[3] and I imagine many readers have experienced numerous examples of the phenomenon.

Unfortunately, over-optimism and overconfidence are a potent combination. They can lead a person to over estimate their knowledge, understate risk and exaggerate their ability to control the situation.

This usually leads to bold forecasts (i.e. over-optimism and over confidence) and timid choices (understating the risk). James Montier argues that in order to redress these biases a person should be less certain in their views and should aim for timid forecasts and bold choices.

It would appear that the two most common biases are **over-optimism and over confidence**. Montier provides a great example: If you ask a class of students who will finish in the top half after a test, on average around 80% of the class will think they will be in the top 50%. Unfortunately as we all know, a litre does not fit into a pint jug.

People also tend to cling to a stated view or forecast. Once they have made that view public, it can become hard to move away from. When such movement does occur, it tends to happen slowly. This is what psychologists call conservatism bias.

James Montier illustrates this by showing that analysts, when forecasting future earnings, are exceptionally good at telling you

what has just happened. They have usually invested heavily in their point of view and as a result are only likely to change it when presented with indisputable evidence of its falsehood.

This leads to his third rule, namely, **don't get hung up on one technique, tool, approach or view**. Remain flexible and pragmatic.

All too often people will look for information that supports their point of view and tend to ignore that which doesn't. This thirst for agreement rather than refutation is known as confirmatory bias.

Montier has a simple example to illustrate the point:

Consider four cards. Each card carries one alphanumeric symbol. The set comprises E, 4, K, 7. If you are told that if a card has a vowel on one side, then it should have an even number of the other, which card(s) do you need to turn over to see if the statement is true?

You should think this through before moving on, as it is a simple but powerful illustration of the point of seeking information that agrees with our point of view.

Most people go for E and 4.

The correct answer is E and 7, as only these two cards will demonstrate if the statement was false.

If the E is turned over and it had an odd number on it, then the statement must have been false. If the 7 is turned over and it contained a vowel, then the statement was false. By turning over the 4 nothing can be proved.

If it had a vowel it provided information that agreed with the statement but does not prove it. If the 4 is turned over and it had a consonant, it proved nothing. The statement said that a vowel must have an even number on the other side, it did not say and even number must have a vowel.

By choosing the 4 people would be deliberately looking for information that agrees with them. It is a natural tendency to listen to people who agree with our point of view. It feels good to hear our own opinions reflected back to us. It can produce a warm fuzzy feeling of contentment. The sad thing is that this is not the best way of making optimal decisions.

Consequently instead of listening to people who echo our own view we should listen to people who have a contrary point of view. Bulls should listen to bears and vice versa. As the Montier argues, such a strategy should be followed, not so you change your mind, but rather that you are aware of the opposite position.

Another bias relates to **self-deception**. Whilst we are aware that it is all too easy to look back at the past and think that it was simple, comprehensible and predictable, we are all guilty of hindsight bias.

This is the tendency to believe that we would have predicted the outcome at the time. We all realize that hindsight is a wonderful thing, but many are guilty of this bias. How many times have we all said that we knew what should have been done, looking back when the all the facts are known?

There are classic examples of such tendencies in the stock market.

Virtually all agree today that the US market rose in a bubble during the late 1990's. However, calling it a bubble in 1998/99/00 would have been much harder than it is now.

When a market is on an upward surge it is a brave person who calls it a bubble. Too many are all too willing to mock the messenger.

I can remember clearly the reaction to one major fund manager who pulled back their investment exposure in August & September 1987. They were mocked by their peers and the investing public and lost numerous superannuation fund mandates, as they were "missing out on all the gains in the market". They took a step back, looked at what had happened in the past and looked at what was happening in the market at that time and concluded that it was a bubble.

Guess what? They were correct and reaped the benefits for the following 10 years.

Those in the funds management community who had been mocking their actions were the ones with the red faces as they tried to explain why their investments had lost at least 25% of their value in a matter of hours (in a number of cases it was much, much more).

To quote Santayana, those who ignore the lessons of history are condemned to repeat them[4].

This faith in our ability to forecast the past leads to yet more bias towards overconfidence. This gives rise to one of his rules of behaviour, "you didn't know it all along, you just thought you did".

This is closely allied to one of my favourite expressions. People are frequently guilty of unconscious incompetence, i.e. they don't know what they don't know. I will leave readers to ponder that one.

Moving on from self-deception, James Montier goes on to talk about **heuristic simplification**. This is something I have talked about before, especially in the context of male and female approaches to decision making. Put simply, heuristics are rules of thumb that we tend to develop that enable us to deal with information overload. Heuristics provide us with sensible short cuts to the "correct" answer. However, they can also lead us to some quite strange decisions.

When faced with uncertainty, the normal reaction is to try and find some order, something we can hold onto so we can try and understand what is going on. In so doing people tend to grasp at almost anything in forming opinions and/or making judgments. This has been illustrated in many ways, one in particular.

In a famous experiment, Tversky and Kahneman[5] asked people to answer general knowledge questions, such as what percentage of the UN is made up of African nations?

A wheel was spun in front of the participants before they answered. The wheel was rigged so that it gave either 10 or 65 as the result of the spin. The subjects were then asked if they thought the answer was higher or lower than the number on the wheel, and also asked their actual answer.

The group that saw 10 on the wheel produced an average answer of 25. The group that saw 65 on the wheel produced an average answer of 45.

In other words, people were grabbing at what to them was a random number as an anchor, the fact that the anchor was totally irrelevant, was in itself, irrelevant.

They used this piece of information as an anchor when forming their opinion. This is anchoring and is something we all do without realizing it.

This is very relevant when investing.

By way of example, how much is a share or fund worth? In the absence of any reliable information, past prices are likely to act as an anchor to current prices.

According to Montier, the average analyst's price target is 28% above current market prices. Too many discounted cash flows (DCF) are anchored around current market prices.

Some analysts will even deliberately seek to arrive at a DCF target that is close to the current market price. So is the analysis really looking to the future or is it anchored in the past?

Is there a way of preventing this bias?

One method would be to work backwards. Using the current price working backwards through a DCF to see what it implies about future growth and then compare this with forecasts. This should help mitigate the anchoring bias.

Another issue to be aware of is **relative valuation**.

It is all too easy for an analyst to fixate on the sector average (the anchor) as the "correct" value.

In such circumstances, the valuation is compared to its peers when in fact the process reveals nothing about the "fair value" of that particular stock.

Are the forecasts really trying to predict the future, or are the analysts illustrating the classic sheep complex by staying with the crowd? I would suggest the latter based upon my practical experience when I was an investment analyst.

If you produced a forecast that stood too far out from the crowd, it was 'frowned upon' and often changed before public release.

This leads to another of, James Montier's rules, **forget relative valuations, forget market prices, work out what a stock is worth using methods such as reverse DCF's**.

We all rely on our memory far more than we realize. Yet, our memory is actually very unreliable. The police have to deal with this every time they try and take statements from witnesses to a crime.

They can often end up with a description of a short person who is over six feet tall, of athletic build, with a hunch back and a limp, is bald with short blond hair that reaches down to their shoulders and is black and tied in a ponytail etc.

When information is presented to us, we generally are not good at seeing through how it is presented. This is because the way the information is presented can have an effect on what we "see".

Years ago I tested this out in some psychological research I was involved in. I had recorded a scene from Romeo and Juliet (the fight scene where Tybalt kills Mercutio and then Romeo seeks vengeance on Tybalt). I had several groups of people set up who watched the scene.

Half the people were given some information about the 'bad guys' in the light clothing before watching the scene. After viewing the scene they had to answer a series of questions that were biased against this group (the Montagues).

The other half had the same treatment only their initial information and questionnaire was biased against the group in the dark clothing (the Capulets).

When I analysed the results, it was almost as if the two groups had watched two different scenes!

One section thought the people in the light clothing caused the fight and were to blame, whilst another had the totally opposite view. Yet they all "saw" exactly the same scene.

People tend to take things at face value rather than drill down to the detail. So, the initial introduction set their frame of mind and led them to "see" events in a particular light. Their mind set was then "confirmed" by the questionnaire.

This inability to see through the way things are presented is called narrow framing. It is what sales people do all the time. They set the scene and then feed information that enables the "punter" to draw the appropriate conclusions.

Companies can do this as well. How often do we get profit warnings from a company and then find that the result, when it finally comes, is not so bad and so we think it is actually good.

We can end up believing that the result is an improvement because our frame of reference was set so low, when in reality it is actually worse than what was previously achieved. George Orwell and Big Brother would be proud! So what is actually happening?

People tend to judge events by how they appear, rather than by how they are. This is called representativeness and has many applications in investment.

For example, do investors think good companies make good investments? Analysts can easily suffer from representativeness several times over. Companies that have seen high growth in the previous five years are forecast to continue to see high growth rates in the next five years and are therefore the areas where people should invest.

However, the high growth often does not continue over the next five years. Moreover, when high growth portfolios are compared with low growth portfolios, it has been found that the latter can generate almost as much long term earnings growth as the high growth portfolios.

Effectively, analysts can judge companies by how they appear, rather than how likely they are to sustain their competitive edge with a growing earnings base. Unfortunately people all too often confuse good firms with good investments, and good earnings growth with good returns.

Contrary to popular belief, the human mind is not a supercomputer. It is not even a particularly good filing cabinet. Montier suggests it is more like a series of post it notes that have been thrown into a bin, covered in coffee and then retrieved with a view to trying to read what was on them, despite the running and blurred ink.

The ability to recall information is usually tied to what impact that information had on us when we first encountered it.

Something that is unusual is likely to be recalled far easier than something that is mundane. Many of us who were alive at the time can remember where we were and what we were doing when we heard that JFK had been shot (I was very young at the time but I still remember it). By way of example, which is a more likely cause of death, being killed by a shark attack or being killed as a result of being struck by lightning?

Most people go for the shark attack due to the publicity such attacks generate. In fact a person is 30 times more likely to be struck by lightening than attacked by a shark!

Putting this in the context of stock selection, how do people select which stocks to buy, because they have heard about it or have read about it somewhere?

Perhaps a broker even sent them an email mentioning the stock! This is called front of mind and is a common advertising ploy. Decisions tend to be easiest when taken in small steps, therefore make something familiar and the decision to buy it becomes a smaller step compared to the larger step of buying something that you have no previous knowledge about.

But is press coverage a good guide for investors?

The relationship between stock returns and press coverage has been researched and guess what? It was found that stocks with the highest press coverage under-performed in the subsequent two years.

If there was an example of the expression "all that glitters is not gold", this is it.

As Montier points out, **easy to recall events are less likely than many people think they are**. The reason they are easy to recall is because they made an impact when the news first arrived. Things that are different or unusual are more likely to make an impact but over time this little fact tends to get forgotten.

If you were offered a bet on the toss of a fair coin with the proviso that if you lost you would have to pay out $200, what is the minimum amount that you would need to win in order to make the bet attractive?

There is of course no right or wrong answer as it is a matter of personal preference. However, the average tends to be around $400 to $500. In other words people tend to feel losses around 2.5 times more than they feel gains.

This is because people simply hate losses and find them uncomfortable to deal with in psychological terms.

As losses are hard to face, they are usually avoided whenever possible and is called loss aversion). Sometimes people go through all sorts of mental gymnastics to avoid the idea of a loss. For instance, how many times have you heard that a loss isn't really a loss if it is not realised. This perception of a loss not being a loss is off course pure nonsense; just ask anyone who looked after the books of almost any bank or property company!

This bizarre approach means that losses will be realized infrequently, in the hope that they will become winners (over optimism bias again) and thereby justify the investment.

This tendency to ride losers and sell winners is known as the disposition affect. However, even when the "investor" thinks they are right, they can often be wrong.

The opportunity costs can all too easily outweigh any realized gain. By holding on to the loser opportunities to buy winners are often missed. Not only that, when this strategy of holding losers goes on for a prolonged period, by the time the stock is finally sold, it is highly likely that the nominal gain, is actually minimal in real terms.

Behavioural Finance can make you realise that market efficiency is in reality nothing of the sort!

Who are the most vulnerable to all this? The average investor, who can so easily believe the hype and fall into the trap of believing the prevailing spin.

Who ends up trying to sort it all out? Quite often it is the financial planner.

1 Gordon Gekko, the infamous character from the 1987 film "Wall Street".

2 Daniel Boorstin was an American historian who said that the greatest obstacle to discovering the shape of the earth, the continents, and the oceans was not ignorance, but the illusion of knowledge.

3 This phrase was first used by Alexander Pope (1688 - 1744) in *An Essay on Criticism*, 1709 when he said, "A little learning is a dangerous thing; drink deep, or taste not the Pierian spring: there shallow draughts intoxicate the brain, and drinking largely sobers us again."

4 George Santayana, a Professor of History at Harvard University around 1900.

5 Daniel Kahneman and Amos Tversky established a cognitive basis for common human errors using heuristics and biases and jointly developed Prospect Theory. Kahneman won the Noble Prize for this latter work but as Noble prizes are not awarded posthumously, Tversky was not honoured.