

Behavioural Investing

A practitioner's guide to applying behavioural finance

James Montier



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To Connor
The best nephew a proud uncle could hope for

Contents

Preface	xvii
Acknowledgments	xxi
SECTION I: COMMON MISTAKES AND BASIC BIASES	1
1 Emotion, Neuroscience and Investing: Investors as Dopamine Addicts	3
Spock or McCoy?	5
The Primary of Emotion	5
Emotions: Body or Brain?	6
Emotion: Good, Bad of Both?	7
Self-Control is Like a Muscle	11
Hard-Wired for the Short Term	13
Hard-Wired to Herd	14
Plasticity as Salvation	15
2 Part Man, Part Monkey	17
The Biases We Face	19
Bias #1: I Know Better, Because I Know More	19
The Illusion of Knowledge: More Information Isn't Better Information	20
Professionals Worse than Chance!	21
The Illusion of Control	22
Bias #2: Big \neq Important	23
Bias #3: Show Me What I Want to See	23
Bias #4: Heads was Skill, Tails was Bad Luck	24
Bias #5: I Knew it all Along	25
Bias #6: The Irrelevant has Value as Input	25
Bias #7: I Can Make a Judgement Based on What it Looks Like	27
Bias #8: That's Not the Way I Remember it	28
Bias #9: If you Tell Me it Is So, It Must be True	29
Bias #10: A Loss Isn't a Loss Until I Take It	30
Conclusions	35

3	Take a Walk on the Wild Side	37
	Impact Bias	39
	Empathy Gaps	40
	Combating the Biases	44
4	Brain Damage, Addicts and Pigeons	47
5	What Do Secretaries' Dustbins and the Da Vinci Code have in Common?	55
6	The Limits to Learning	63
	Self-Attribution Bias: Heads is Skill, Tails is Bad Luck	67
	Hindsight Bias: I Knew it All Along	69
	Skinner's Pigeons	71
	Illusion of Control	72
	Feedback Distortion	73
	Conclusions	76
	SECTION II: THE PROFESSIONALS AND THE BIASES	77
7	Behaving Badly	79
	The Test	81
	The Results	82
	Overoptimism	82
	Confirmatory Bias	83
	Representativeness	84
	The Cognitive Reflection Task (CRT)	85
	Anchoring	87
	Framing	87
	Loss Aversion	89
	Keynes's beauty contest	90
	Monty Hall Problem	92
	Conclusions	94
	SECTION III: THE SEVEN SINS OF FUND MANAGEMENT	95
8	A Behavioural Critique	97
	Sin city	99
	Sin 1: Forecasting (Pride)	99
	Sin 2: The Illusion of Knowledge (Gluttony)	100
	Sin 3: Meeting Companies (Lust)	100
	Sin 4: Thinking You Can Outsmart Everyone Else (Envy)	100
	Sin 5: Short Time Horizons and Overtrading (Avarice)	101
	Sin 6: Believing Everything You Read (Sloth)	101
	Sin 7: Group-Based Decisions (Wrath)	101
	Alternative Approaches and Future Directions	102

<i>Sin 1: Forecasting (Pride)</i>	103
9 The Folly of Forecasting: Ignore all Economists, Strategists, & Analysts	105
Overconfidence as a Driver of Poor Forecasting	109
Overconfidence and Experts	110
Why Forecast When the Evidence Shows You Can't?	114
Unskilled and Unaware	115
Ego Defence Mechanism	115
Why Use Forecasts?	119
Debasing	120
10 What Value Analysts?	123
<i>Sin 2: Illusion of Knowledge (Gluttony)</i>	131
11 The Illusion of Knowledge or Is More Information Better Information?	133
<i>Sin 3: Meeting Companies (Lust)</i>	141
12 Why Waste Your Time Listening to Company Management?	143
Managers are Just as Biased as the Rest of Us	145
Confirmatory Bias and Biased Assimilation	148
Obedience to Authority	151
Truth or Lie?	153
Conclusions	157
<i>Sin 4: Thinking You Can Outsmart Everyone Else (Envy)</i>	159
13 Who's a Pretty Boy Then? Or Beauty Contests, Rationality and Greater Fools	161
Background	163
The Game	163
The Solution	164
The Results	165
A Simple Model of Our Contest	168
Comparison with Other Experiments	170
Learning	173
Conclusions	174
<i>Sin 5: Short Time Horizons and Overtrading (Avarice)</i>	177
14 ADHD, Time Horizons and Underperformance	179
<i>Sin 6: Believing Everything You Read (Sloth)</i>	187
15 The Story is The Thing (or The Allure of Growth)	189
16 Scepticism is Rare or (Descartes vs Spinoza)	197
Cartesian Systems	199
Spinozan Systems	199
Libraries	200
A Testing Structure	200

The Empirical Evidence	200
Strategies to Counteract Naïve Belief	203
<i>Sin 7: Group Decisions (Wrath)</i>	207
17 Are Two Heads Better Than One?	209
Beating the Biases	215
SECTION IV: INVESTMENT PROCESS AS BEHAVIOURAL DEFENCE	217
18 The Tao of Investing	219
PART A: THE BEHAVIORAL INVESTOR	223
19 Come Out of the Closet (or, Show Me the Alpha)	225
The Alpha	228
The Evolution of the Mutual Fund Industry	229
Characteristics of the Funds	231
The Average and Aggregate Active Share	231
Persistence and Performance	231
Conclusions	233
20 Strange Brew	235
The Long Run	237
Death of Indexing	238
Getting the Long Run Right	238
The Short Run	239
Tactical Asset Allocation	239
Equity Managers	240
Break the Long-Only Constraint	242
Add Breadth	244
Not Just an Excuse for Hedge Funds	245
Truly Alternative Investments	245
Conclusions	246
21 Contrarian or Conformist?	247
22 Painting by Numbers: An Ode to Quant	259
Neurosis or Psychosis?	261
Brain Damage Detection	262
University Admissions	263
Criminal Recidivism	263
Bordeaux Wine	263
Purchasing Managers	264
Meta-Analysis	264
The Good News	267
So Why Not Quant?	268

23 The Perfect Value Investor	271
Trait I: High Concentration In Portfolios	273
Trait II: They Don't Need to Know Everything, and Don't Get Caught in the Noise	276
Trait III: A Willingness to Hold Cash	276
Trait IV: Long Time Horizons	277
Trait V: An Acceptance of Bad Years	278
Trait VI: Prepared to Close Funds	278
 24 A Blast from the Past	 279
The Unheeded Words of Keynes and Graham	281
On the Separation of Speculation and Investment	281
On the Nature of Excess Volatility	282
On the Folly of Forecasting	283
On the Role of Governance and Agency Problems	284
On the Importance (and Pain) of Being a Contrarian	285
On the Flaws of Professional Investors	286
On the Limits to Arbitrage	286
On the Importance of the Long Time Horizon	287
On the Difficulty of Defining Value	288
On the Need to Understand Price Relative to Value	288
On Why Behavioural Errors don't Cancel Out	289
On Diversification	289
On the Current Juncture	289
On the Margin of Safety	290
On Beta	291
On the Dangers of Overcomplicating	291
On the Use of History	291
 25 Why Not Value? The Behavioural Stumbling Blocks	 293
Knowledge \neq Behaviour	295
Loss Aversion	296
Delayed Gratification and Hard-Wiring for the Short Term	297
Social Pain and the Herding Habit	300
Poor Stories	301
Overconfidence	301
Fun	303
No, Honestly I Will Be Good	303
 PART B: THE EMPIRICAL EVIDENCE: VALUE IN ALL ITS FORMS	 305
 26 Bargain Hunter (or It Offers Me Protection)	 307
<i>Written with Rui Antunes</i>	
The Methodology	308
Does Value Work?	309
The Anatomy of Value	310
The Siren of Growth	311
Growth Doesn't Mean Ignoring Valuation	311

The Disappointing Reality of Growth	313
Analyst Accuracy?	314
Value versus Growth	316
Key points	317
Regional Tables	318
Global	318
USA	320
Europe	323
Japan	325
27 Better Value (or The Dean Was Right!)	329
<i>Written with Rui Antunes</i>	
28 The Little Note that Beats the Market	337
<i>Written with Sebastian Lancetti</i>	
The Methodology and the Data	339
The Results	340
The <i>Little Book</i> Works	340
Value Works	341
EBIT/EV Better than Simple PE	341
Quality Matters for Value	341
Career Defence as an Investment Strategy	342
What About the Long/Short View?	343
The Future for the <i>Little Book</i>	344
Tables and Figures	345
Regional Results	345
29 Improving Returns Using Inside Information	355
Patience is a Virtue	357
Using Inside Information	357
A Hedge Perspective	359
Risk or Mispricing?	359
Evidence for Behavioural Errors	360
Evidence Against the Risk View	361
European Evidence	363
Conclusions	365
30 Just a Little Patience: Part I	367
31 Just a Little Patience: Part II	375
<i>Written with Sebastian Lancetti</i>	
Value Perspective	377
Growth Perspective	380
Growth and Momentum	381
Value for Growth Investors	382
Value and Momentum	383
Implications	383

32 Sectors, Value and Momentum	387
Value	389
Momentum	389
Sectors: Value or Growth	390
Stocks or Sectors	391
33 Sector-Relative Factors Works Best	395
<i>Written with Andrew Laphorne</i>	
Methodology	398
The Results	398
Conclusion	403
34 Cheap Countries Outperform	405
Strategy by Strategy Information	409
PART C: RISK, BUT NOT AS WE KNOW IT	423
35 CAPM is CRAP (or, The Dead Parrot Lives!)	425
A Brief History of Time	427
CAPM in Practice	427
Why Does CAPM Fail?	431
CAPM Today and Implications	432
36 Risk Managers or Risk Maniacs?	437
37 Risk: Finance's Favourite Four-Letter Word	445
The Psychology of Risk	447
Risk in Performance Measurement	447
Risk from an Investment Perspective	448
SECTION V: BUBBLES AND BEHAVIOUR	453
38 The Anatomy of a Bubble	455
Displacement	457
Credit Creation	457
Euphoria	459
Critical Stage/Financial Distress	459
Revulsion	463
39 De-bubbling: Alpha Generation	469
Bubbles in the Laboratory	471
Bubbles in the Field	472
Displacement: The Birth of a Boom	473
Credit Creation: Nurturing the Boom	473
Euphoria	476
Critical Stage/Financial Distress	477
Revulsion	483

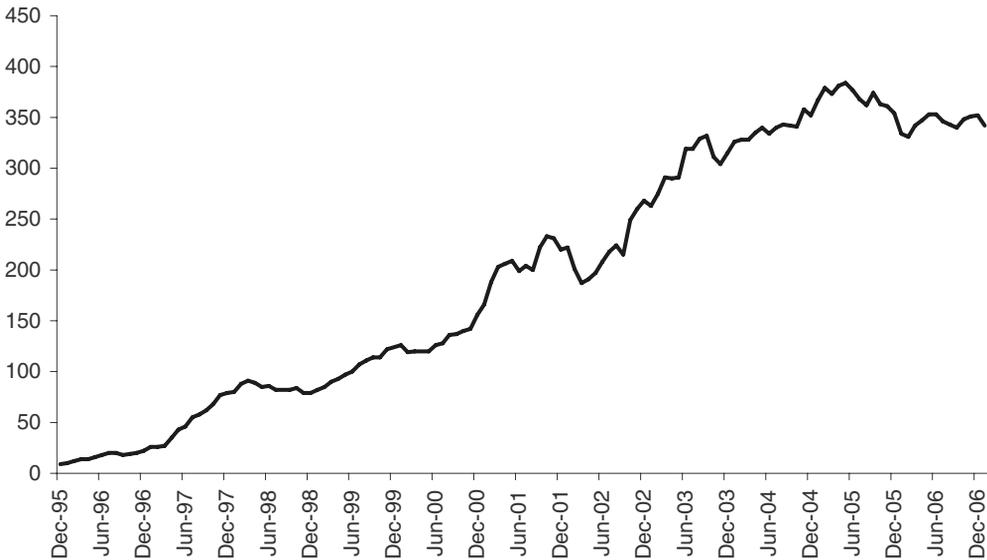
Applications	487
Asset Allocation	487
Alpha Generation	488
Balance Sheets	489
Earnings Quality	489
Capital Expenditure	490
Long-Only Funds	491
Summary	491
40 Running with the Devil: A Cynical Bubble	493
The Main Types of Bubble	496
Rational/Near Rational Bubbles	496
Intrinsic Bubbles	498
Fads	499
Informational Bubbles	499
Psychology of Bubbles	500
Composite Bubbles and the De-Bubbling Process	500
Experimental Evidence: Bubble Echoes	503
Market Dynamics and the Investment Dangers of Near Rational Bubbles	503
Conclusions	505
41 Bubble Echoes: The Empirical Evidence	507
Conclusions	516
SECTION VI: INVESTMENT MYTH BUSTERS	519
42 Belief Bias and the Zen Investing	521
Belief Bias and the X-System	524
Confidence Isn't a Proxy for Accuracy	528
Belief Bias and the Zen of Investing	528
43 Dividends Do Matter	529
Conclusions	540
44 Dividends, Repurchases, Earnings and the Coming Slowdown	541
45 Return of the Robber Barons	549
46 The Purgatory of Low Returns	563
47 How Important is the Cycle?	573
48 Have We Really Learnt So Little?	581
49 Some Random Musings on Alternative Assets	587
Hedge Funds	589

Commodities	590
Which Index?	590
Composition of Commodity Futures Returns	591
The Times They are A-Changin’	591
Conclusions	595
SECTION VII: CORPORATE GOVERNANCE AND ETHICS	597
50 Abu Ghraib: Lesson from Behavioural Finance and for Corporate Governance	599
Fundamental Attribution Error	601
Zimbardo’s Prison Experiment	602
Milgram: The Man that Shocked the World	604
Conditions that Turn Good People Bad	608
Conclusions	609
51 Doing the Right Thing or the Psychology of Ethics	611
The Ethical Blindspot	613
The Origins of Moral Judgements	614
Examples of Bounded Ethicality and Unconscious Biases	617
Implicit Attitudes (Unconscious Prejudices)	617
In-Group Bias (Bias that Favours Your Own Group)	619
Overclaiming Credit (Bias that Favours You)	620
Conflicts of Interest (Bias that Favours Those Who Can Pay You)	621
Mechanisms Driving Poor Ethical Behaviour	627
Language Euphemisms	628
Slippery Slope	628
Errors in Perceptual Causation	628
Constraints Induced by Representations of the Self	629
Combating Unethical Behaviour	629
52 Unintended Consequences and Choking under Pressure: The Psychology of Incentives	631
Evidence from the Laboratory	635
Evidence from the Field	638
Child Care Centres	638
Blood Donations	638
Football Penalty Kicks	639
Basketball Players	640
Back to the Laboratory	640
Who is Likely to Crack Under Pressure?	641
Conclusions	643
SECTION VIII: HAPPINESS	645
53 If It Makes You Happy	647
Top 10	653

54 Materialism and the Pursuit of Happiness	655
Aspiration Index	657
Materialism and Happiness: The Evidence	658
Problems of Materialism	660
What to Do?	660
Why Experiences Over Possessions?	663
Conclusions	665
References	667
Index	677

Preface

This book represents the first six years of an ongoing research project. The aim of this project was to truly understand the psychology of finance and investing and explore its implications for practitioners. There can be little doubt that behavioural finance has never been more popular among professional investors. Certainly, if my diary is any guideline, the subject is still in much demand. The chart below shows the number of times in a rolling 12-month period the words behavioural (or behavioral) finance appear in the press.



I reached the conclusion that I was a natural pessimist while looking at this chart, as the first thing that entered my mind was – it's a bubble. An optimist would presumably conclude that it was a growth industry! I certainly hope the latter interpretation holds true.

My first book on the subject (*Behavioural Finance*, Wiley, 2002) was really the result of a series of lectures I had given to students. This book draws together research written for a

professional audience whose time for reading research is highly limited. For this reason each chapter is written to ‘stand alone’ to allow the reader to dip in and out at will. Each chapter also aims to deal with a practical issue of relevance to the professional investor. However, despite the independent nature of the chapters, I have chosen to group them together into themes, representing the seven major thrusts of my ongoing research project.

I Common Mistakes and Basic Biases

The title here gives the gist. In many ways one of the most powerful insights offered by the literature on judgement and decision making is that we are all prone to the potential pitfalls that psychologists have spent years documenting. Indeed, when I give a lecture to professional investors, those who probably get the most out of the talk are those who identify themselves as the perpetrators of behavioural mistakes. The chapters in this section aim to explore some of the most common biases, and suggest some simple ways in which we might be able to mitigate our susceptibility.

II The Professionals and the Biases

Among some there is a view that the individual investor is the source of all behavioural mispricing. However, I suspect this is far from true. Indeed there are now a number of papers (such as Jackson, Glushkov) that argue convincingly that the professionals may well be the noise traders. The aim of this section is to demonstrate that professional investors are just as likely to suffer behavioural biases as the rest of us. Indeed, in as much as they are experts in their field, they may well be even more overconfident and overoptimistic than lay people.

III The Seven Sins of Fund Management

The aim of this section was to examine a typical large institutional fund management organization and assess its vulnerabilities to psychological critique. The first step on the road to reform is to be able to identify the areas of weakness in the current structure. Issues such as an overreliance on forecasting, the illusion of trading, wasting time meeting company managements, and the dangers of overtrading are covered here.

IV An Investment Process as a Behaviour Defence

If the previous section represented a long list of don’ts, then this section is an attempt to provide a list of dos. It is concerned with investment philosophy/process. Since we cannot control the return on an investment (much as we would like to be able to do), then the best we can do is create a process that makes sense. Here we explore contrarian strategies and value investing as a framework for mitigating behavioural biases. As I am also an empirical sceptic, this section contains many empirical chapters based on demonstrating the principles discussed.

V Bubbles and Behaviour

Of all the areas of behavioural finance none captures the public’s imagination like bubbles. This section explores a paradigm for analysing and assessing bubbles and their paths. It is a

good demonstration of the constancy of human behaviour. Every bubble in history has been slightly different, but the underlying characteristics and processes are amazingly similar.

VI Investment Myth Busters

A popular TV show concerned two ‘mad’ scientists who loved nothing more than to explode urban myths. This section represents my attempt to do something similar in finance. We have a bad habit of accepting theories as fact within finance, and of accepting statements as if they were truths. The chapters here try to expose some of the believable but incorrect beliefs that many investors seem to share.

VII Corporate Governance and Ethics

We often interpret other actions as evidence of their underlying nature. However, when people find themselves in a situation, we fail to understand the impact that has on their behaviour. So, rather than bad apples it is more often than not bad barrels, and the chapters here explore how social psychological insights can improve our understanding of corporate governance. We also explore one of economics’ most cherished beliefs – that incentives work – from a psychological perspective, and the results are intriguing, suggesting that optimal incentives are more difficult to design than many economists would have us believe.

VIII Happiness

This section deals with two of the most popular and most controversial notes I have written. They tackle the heresy of money not equalling happiness, which is clearly anathema to many who work in finance. These chapters explore the issue of what makes us happy, and what we can do to increase our level of happiness. These may seem like unusual topics for a researcher employed by an investment bank, but they were borne out of a belief that some of the most miserable people in the world seem to work in the field of finance.

Only you as reader will be able to judge how well I have achieved my aim of applying behavioural finance. Your comments and feedback would be most welcome and I can be contacted via my e-mail address: James.Montier@Gmail.com

Acknowledgments

I am never sure who reads acknowledgements. Notwithstanding, there are several people to whom I owe a debt of gratitude. Firstly, my friend and colleague Albert Edwards. It was Albert who had the foresight to see that behavioural finance would be of interest to professional investors, and was prepared to support me in pushing the boundaries of what might be regarded as acceptable research. He also read most of the papers contained herein, and provided many useful suggestions to improve them, and challenge me.

Next, I must thank my co-authors on numerous of the empirical chapters in Section IV, Rui Antunes and Sebastian Lancetti of the Dresdner Kleinwort Quant team. Both gentlemen have more skill at dealing with data and quant models in their little finger than I have in my entire being. They both helped to take my ideas and turn them into raw hard numbers, to satisfy even the most demanding of empirical sceptics.

The head of the Quant team, Andrew Laphorne, not only graciously allowed me to publish one of his papers (as Chapter 33) but also read almost every paper in the collection and commented on all of them. Andy has been a great sounding board for my ideas over the years, and I thank him very much.

Kathy Alexandrou deserves special mention. She is responsible for taking my work and turning it into the notes that Dresdner Kleinwort clients have been reading. She is a true wizard of turning charts into works of art, and keeping me on track with my notes.

I am also grateful to the research management at Dresdner Kleinwort who have allowed me to publish research that I believe no other bank would have permitted. They also very kindly allowed me to reproduce the notes you will read between these covers.

Amanda Keogan, Jane Atterbury and Cally Smith deserve applause for managing to get me everywhere on time, and back again. At one time or another all these ladies have had the responsibility for looking after my travel and diary. They have all done a sterling job, and I thank them all.

The many academics who provided the papers (both from finance and psychology) that are quoted within these pages also merit a huge thank you. Without their work this book would not have been possible. As Newton said: "If I have seen further it is by standing on the shoulders of giants."

Jenny Ward of the Dresdner Kleinwort EMIS team has managed to unearth a large number of weird and wonderful papers that I have requested over the years, and I thank her for all her help.

Also, a huge thank you to all the clients who have expressed their interest in my work over the last six years. Without your support I am under no illusion that I would have been dispensed

with years ago. It is your interest in behavioural finance that has kept me employed. Long may it continue!

On a personal note, I would also like to thank my friends and family. They have to put up with me dashing off to scribble down notes and ideas at the oddest of times. A special thanks goes to my parents and my nana for their unconditional love, and to Wendy who encouraged me to write this book and put up with me while I did so. She also read many of the chapters, corrected my English, and questioned me thoroughly. Thanks babes, couldn't have done it without you.

To anyone I have forgotten to mention, my apologies and thanks. All errors and omissions remain the sole responsibility of the author.

SECTION I

Common Mistakes and Basic Biases

Emotion, Neuroscience and Investing: Investors as Dopamine Addicts*

Understanding what happens in our brain when we make decisions may help us to learn to overcome some of the mistakes we make. Emotions are key. Our ability to exercise self-control over such impulses is limited and decreases with use! Too often we succumb to our hard-wired tendencies to focus on the short term and herd.

- Emotional decision-making is the default option for our brains. However, we all like to think that we only use logic to arrive at our decisions. In fact without emotion we would be largely incapable of making any decisions, but all too often we allow emotion to rule unchecked. Welcome to the human condition!
- Neuroscientists have recently uncovered two particular traits of significance to investors. The first is that we are hard-wired for the short term. We tend to find the chance of short-term gains very attractive. They appear to stimulate the emotional centres of the brain, and release dopamine. This makes us feel confident, stimulated, and generally good about ourselves.
- The second is that we appear to be hard-wired to herd. The pain of social exclusion (i.e. betting against everyone else) is felt in exactly the same parts of the brain that feel real physical pain. So pursuing contrarian strategies is a little bit like having your arm broken on a regular basis!
- Self-control over these impulses is very hard. Psychologists have found that self-control is a limited resource. The more we use it, the less we have left to deal with the next occasion when self-control is required.
- The good news is that we continue to make brain cells pretty much throughout our lives. And our brains aren't fixed forever, we can rearrange the neurons (a process called plasticity). We aren't doomed, we can learn, but it isn't easy!

*This article appeared in *Global Equity Strategy* on 20 January 2005. The material discussed was accurate at the time of publication.

What goes on inside our heads when we make decisions? Understanding how our brains work is vital to understanding the decisions we take. Neuroeconomics is a very new field that combines psychology, economics and neuroscience. That may sound like the unholy trinity as far as many readers are concerned, but the insights that this field is generating are powerful indeed.

Before I head off into the realms of neuroscience I should recap some themes we have explored before that provide the backdrop for much of the discussion that follows. One of the most exciting developments in cognitive psychology over recent years has been the development of dual process theories of thought. All right, stay with me now, I know that sounds dreadful, but it isn't. It is really a way of saying that we tend to have two different ways of thinking embedded in our minds.

SPOCK OR McCOY?

For the Trekkies out there, these two systems can, perhaps, be characterized as Dr McCoy and Mr Spock. McCoy was irrepressibly human, forever allowing his emotions to rule the day. In contrast, Spock (half human, half Vulcan) was determined to suppress his emotions, letting logic drive his decisions.

McCoy's approach would seem to be founded in system X. System X is essentially the emotional part of the brain. It is automatic and effortless in the way that it processes information – that is to say, the X-system pre-screens information before we are consciously aware that it even made an impact on our minds. Hence, the X-system is effectively the default option. The X-system deals with information in an associative way, and its judgements tend to be based on similarity (of appearance) and closeness in time. Because of the way the X-system deals with information it can handle vast amounts of data simultaneously. To computer nerds it is a rapid parallel processing unit. In order for the X-system to believe that something is valid, it may simply need to wish that it were so.

System C is the "Vulcan" part of the brain. To use it requires deliberate effort. It is logical and deductive in the way in which it handles information. Because it is logical, it can only follow one step at a time, and hence in computing terms it is a slow serial processing unit. In order to convince the C-system that something is true, logical argument and empirical evidence will be required, and Table 1.1 provides a summary of the main differences between the two systems.

This dual system approach to the way the mind works has received support from very recent studies by neuroscientists who have begun to attach certain parts of the brain to certain functions. In order to do this, neuroscientists ask experiment participants to perform tasks while their brains are being monitored via electroencephalograms (EEG), positron emission topography (PET) or, most often of late, functional magnetic resonance imaging (fMRI). The outcomes are then compared to base cases and the differences between the scans highlight the areas of the brain that are being utilized.

Table 1.2 lays out some of the major neural correlates for the two systems of thinking that we have outlined in Table 1.1. There is one very important thing to note about these groupings: the X system components are much older in terms of human development. They evolved a long time before the C-system correlates.

THE PRIMACY OF EMOTION

This evolutionary age helps to explain why the X system is the default option for information processing. We needed emotions far before we needed logic. This is perhaps best explained

Table 1.1 Two systems of reasoning

System One/X-system/Reflexive/Intuitive	System Two/C-system/Reflective
Holistic	Analytic
Affective (what feels good)	Logical?
Associative – judgements based on similarity and temporal contiguity	Deductive
Rapid parallel processing	Slow, serial processing
Concrete images	Abstract images
Slower to change	Changes with speed of thought
Crudely differentiated – broad generalization	More highly differentiated
Crudely integrated – context-specific processing	More highly integrated – cross context processing
Experienced passively and preconsciously	Experienced actively and consciously
Automatic and effortless	Controlled and effortful
Self-evidently valid: “Experiencing is believing” or perhaps wishing is believing	Requires justification via logic and evidence

Source: Modified from Epstein (1991).

Table 1.2 Neural correlates of the two reasoning systems

X-system	C-system
Amygdala	Anterior cingulate cortex
Basal ganglia	Prefrontal cortex
Lateral temporal cortex	Medial temporal lobe

Source: DrKW Macro research.

by an example using fear, which is one of the better understood emotions.¹ Fear seems to be served by two neural pathways. One fast and dirty (LeDoux’s low road), the other more reflective and logical (the high road), and the links to the two systems of thinking outlined above are hopefully obvious.

Imagine standing in front of a glass vessel that contains a snake. The snake rears up, the danger is perceived, and the sensory thalamus processes the information. From here two signals emerge. On the low road the signal is sent to the amygdala, part of the X system,² and the brain’s centre for fear and risk. The amygdala reacts quickly, and forces you to jump back.

However, the second signal (taking the high road) sends the information to the sensory cortex, which, in a more conscious fashion, assesses the possible threat. This is the system that points out that there is a layer of glass between you and the snake. However, from a survival viewpoint, a false positive is a far better response than a false negative!

Emotions: Body or Brain?

Most people tend to think that emotions are the conscious response to events or actions. That is, something happens and your brain works out the emotional response – be it sadness, anger,

¹ Largely thanks to the work of Joseph LeDoux, see his wonderful book the *Emotional Brain* (1996) for details.

² Also known as the limbic system.