

Chapter I

INTUITIVE MINDWARE



In this chapter I present the central idea of this book: that we each have two minds in one brain, an 'intuitive mind' and an 'analytical mind'. The chapter goes on to describe four distinctive features of the intuitive mind, namely that it speaks in the language of feelings; it's fast and spontaneous in its operation; it's a holistic 'pattern-recognition enabled system'; and it offers hypotheses rather than certainties.

Some years ago a man I'll refer to as 'Joe' featured in a BBC TV documentary called 'Brain Story'. Joe suffered from severe epilepsy which led to surgeons severing the connections between the left and the right hemispheres of his brain in order to treat his condition. After the surgery it soon became apparent that there had been an unintended consequence: as well as the beneficial outcome of his surgery Joe ended up, literally, with two separate brains. His party trick was to visualise two different shapes independently with each of his brains, for example a circle and a square, and draw one with each hand at the same time. Studies of Joe and hundreds more like him in a programme of scientific research that spanned half a century has revealed that the brain's two hemispheres control vastly different aspects of thought and action: for example, the left hemisphere is dominant for language and speech, while the right specialises in spatial tasks.¹

The evidence for *Homo sapiens*' 'two brains' design is unequivocal: but what about *mind*? Is there more than one mind lurking

inside our skulls? Can the ‘two minds model’ explain why reason (‘head’) and feeling (‘heart’) pull us in different directions, why we’re often ‘in two minds’ and unable to ‘make up our mind’? How can we reconcile and integrate these two systems of thinking and reasoning in a world where we can’t prevaricate forever, in which options have to be narrowed down, and where decisions have to be taken?

In Two Minds

The idea of the human psyche (which is taken from a Greek word meaning ‘soul’) as having two sides isn’t new. For example in ancient Greece – the god Apollo signified order, rationality and self-discipline alongside Dionysus – who represented the chaotic, instinctive and frenzied side of human nature. In ancient as well as modern-day Chinese wisdom the mental force of Yin signifies a ‘front-of-the-mind’ intellect which coexists alongside Yang – a ‘back-of-the-mind’ intuition.² Not only was this duality important to the ancient Greeks and Chinese, it also recurs throughout history. Humanity has witnessed the light and dark sides of political and business leadership and the two minds concept is a duality that’s reflected in many of our cultural icons, for example Shakespeare’s ‘thing of darkness’³ or R.L. Stevenson’s *Dr. Jekyll and Mr. Hyde*. It’s as relevant today as ever because:

1. it says something fundamental about the two-sidedness of human nature;
2. we can profit by balancing these two sides of our nature both in our professional and personal lives;
3. the analytical mind is no longer sufficient by itself in the face of the challenges that managers and business leaders are faced with.

The idea of two minds ('intuitive' and 'analytical'⁴) in one brain is a dominant theme in modern psychology. Apollo/Dionysus and Yin/Yang, not to mention the dark and mysterious sub-consciousnesses in the works of Sigmund Freud and Carl Gustav Jung, are old ideas that contain undoubted insights, but from the perspective of the 21st century they're the prehistory of the intuitive mind. Modern ideas about the two-sidedness of human consciousness draw on concepts ranging from evolutionary biology through to 'dual-mind' models from cognitive and social psychology; moreover for those interested in the micro-world of the intuitive mind the latest brain imaging techniques are beginning to pinpoint the neural geography of some of these processes. The modern view of *Homo sapiens'* two minds is summarised below:



Key Facts No. 1: The Modern View of the Two Minds

Evolved at different times	The analytical mind is a modern 'up-grade' that came on the scene perhaps no more than 50,000 years ago coinciding with developments in tool making, cave art and religion.
Are under different degrees of conscious control	The intuitive mind has a strong and sometimes a-rational (not <i>irrational</i>) will of its own. The analytical mind, on the other hand, is the rule maker and rule follower, it's a personal mental 'enforcer' which can check the excesses but also inhibit the potential of the intuitive mind, often to excess in bureaucratic and rule bound business organisations.

Complement and conflict	Sometimes the analytical mind and the intuitive mind work together in balance and harmony, at other times they contradict each other and compete for attention and for control of our thoughts, feelings and actions.
Exercise a major influence on career, personal and life decisions	This is especially true in business management where many of the best companies seem to have developed the knack of treading the fine line between the intellectual rigour and discipline of analysis and the creative freedom of intuition.

We're aware of the analytical mind not only because it's under conscious control, but also because it 'talks' to us as inner speech in the language we're most familiar with – words. We associate the idea of 'the mind' itself with logic and rational thought. Its workings are the epitome of human 'intellect' and reason. We're perhaps not so familiar with the idea of an intuitive mind because it's not under our conscious control (we're not aware of the processes that lead up to an intuitive moment); it works effortlessly (having an intuition is easy, we don't will it to happen) and it hasn't got a voice (it can't speak to us in the language of words, but it uses 'hunch' and 'gut feeling' instead). Some go as far as to imbue intuition with a 'sixth sense' of magic and mystery, but these ideas are dismissed by many in the scientific community as naïve and fanciful. We associate the idea of 'intuition' with the heart rather than the head, and in management 'going with your gut' is seen in many circles as the antithesis of rationality and, for that reason, undesirable and to be avoided if at all possible.

As *Homo sapiens*, literally 'wise man', we pride ourselves on our distinctive capacity to be rational – whether we are in practice is

a different matter. As many political psychologists will vouch for, when it comes to choosing a Prime Minister or President the heart often wins out over the head. In elections people tend to vote by going with their judgement of how a candidate makes them feel (in other words their 'gut'), and to many a candidate's cost the slightest slip of the tongue can undermine voters' feelings of trust. For example, in 1984 only a few months before the US elections President Ronald Regan was bidding for re-election. With an open microphone he prepared for a weekly radio address by doing a sound check with the following tongue-in-cheek assertion: 'My fellow Americans, I'm pleased to tell you today that I've signed legislation that will outlaw Russia forever. We begin bombing in five minutes'. Millions heard his words including the Russians who, not unreasonably, demanded an apology. Reagan's popularity plummeted; he won in the November election, but with a much-reduced margin of victory. Evolution has hard-wired human beings to gravitate to potential leaders who bring 'emotional dividends', those who inspire our hopes or assuage our fears.⁵ Nowhere was this more apparent than in post-George W. Bush America with the election of Barack Obama.

From a purely practical point of view we need an analytical and an intuitive mind to get by day-in day-out. Without two minds life would be so effortful and demanding that we'd end up being unable to function, overwhelmed by the number, range and complexity of the tasks we face. For example, on a quite basic level the intuitive mind makes it possible to do fairly complex, but everyday, tasks in personal and professional life on 'auto-pilot'. Getting home from work by walking, driving the car, or taking train or bus is quite a complex activity done without much conscious thought at all (think about the first time you made what is now a familiar home to work journey). Giving over some of the basic 'housekeeping' of our lives to the lower reaches of the

intuitive mind means we can devote our precious analytical thinking resources to other less mundane issues. But this is not to say that tasks completed on 'auto-pilot' use intuition as such; they don't, they're purely habituated responses that share some of the features of the type of intuition that is the focus of this book (for example, they don't take up much conscious thinking power).

It's the complex, informed intuitions which form the basis of managers' and leaders' business instincts and these work best when managers and leaders have the requisite amount of experience to draw on in order to be able to make judgements or come to decisions based on what worked well in the past. These judgements can manifest themselves in everything from how to close a sales deal or knowing when and where to invest on the stock market, to what's the right direction in which to take a business. The analytical mind is (re-)engaged:

1. when there's an unexpected turn of events, for example when an intuitive entrepreneur has to re-think when a business opportunity has suddenly become closed off;
2. if a manager needs to take decisions that haven't been encountered before, for example when moving into overseas markets where culture-specific intuitions may not work.


The intuitive mind comes into its own when we need to make complex personal and social judgements in all walks of life. Often the most complex decisions we face are people-related or job-related and many of these don't have a clear right or wrong answer at the time when they have to be taken. For example, what could be more important, or speculative, than deciding where to live, who to marry, who to hire, whether or not to take a job offer, or which business to invest in?

The Two Minds Model

The two minds model, which has been a dominant theme in psychology for several decades, has been given renewed impetus by scientific developments in a variety of areas, including evolutionary biology and cognitive neuroscience.

1. The analytical mind is a recently evolved powerful, general purpose system with the power to monitor, intervene and over-ride the intuitive mind – it’s a cognitive heavyweight that can solve some of life’s most demanding intellectual and computational problems.
2. The intuitive mind is a more ancient much nimbler, fleet-of-foot set of systems that operates effortlessly alongside the analytical mind. It’s especially potent when we’re faced with important social, aesthetic, creative and moral judgements – all of which are crucial aspects of decision-making in businesses that aspire to be people-centred, sustainable, responsible and ethical.

Research conducted by psychologists and others over the past decade and a half suggests that the differences between the intuitive and analytical minds can be summarised as follows:⁶

 Key Facts No. 2: The Two Minds Model	
Analytical Mind	Intuitive Mind
Narrow ‘band width’ (‘serial processor’)	Broad ‘band width’ (‘parallel processor’)
Controlled (effortful) process	Automatic (effortless) process
Works step-by-step	Works by whole pattern recognition

The Intuitive Mind

Conscious (processes open to direct introspection)	Non-conscious (processes not open to direct introspection)
'Talks' in language of words	'Talks' in the language of feelings
Faster formation (learns quickly)	Slower formation (learns slowly)
Slower operation	Faster operation
Evolutionarily recent (perhaps tens of thousands of years old)	Evolutionarily ancient (perhaps hundreds of thousands of years old)

The interplay between the analytical and the intuitive mind is an inherent tension in the human psyche. My experience of being 'me' is that my thoughts and actions are things which the conscious analytical 'me' determines and which I control. However, if I stick to this restricted view of 'me' I may in fact be fooling myself and operating under an illusion of control in spite of the fact that my non-conscious, intuitive mind may have its hand on the tiller guiding my thoughts, feelings and actions in ways that are unknowable to me.⁷ The analytical mind operates on the assumption, or perhaps under the delusion, that it's in charge, when actually the intuitive mind may have a greater say in what goes on than we prefer to think.

THE SCIENCE OF THE INTUITIVE MIND – WHO'S IN CHARGE?

Researchers working at the Max Planck Institute in Leipzig found that by monitoring people's brain signals in decision-making experiments they could predict which button-pressing option they'd take a full seven seconds before they consciously took the decision. Normally researchers are interested in what happens when a decision is made or shortly after, the Leipzig scientists were interested in what happens immediately *before* a conscious choice is arrived at. They gave participants the

freedom to choose whether they wanted to press a button with their left or right hand, and when to do so. Their aim was to find out what happens in the brain just before the person *felt* (was aware) they'd made their decision.

By scanning participants' brains the scientists were able to 'mind read' their intentions and able to predict participants' decisions seven seconds before participants themselves were aware they'd made a choice. The lead researcher John-Dylan Haynes commented that: 'Many processes in the brain occur automatically and without involvement of our consciousness. This prevents our mind from being overloaded by simple routine tasks. But when it comes to decisions we tend to assume they are made by our conscious mind'. The research has implications beyond simple decisions, for example it opens up the question of what is meant by 'free will' – and questions of who (the conscious analytical mind or the non-conscious intuitive mind) decides and when.

From the point of view of the two minds model the intuitive mind may sometimes unconsciously prepare a choice in advance. A big advantage of having two minds is that an intuitive choice can be reversed by the intervention of the analytical mind⁸ (or vice versa).

Source: Soon, C.S., Brass, M., Heinze, H-J. and Haynes, J.-D. (2008) Unconscious determinants of free decisions in the human brain. *Nature Neuroscience*, **11**: 543–5.

Even though the non-conscious intuitive mind is an important influence on our day-to-day living we're for the most part blithely unaware of just how much power it has. So how do we know it's there and what should we look for? Four things stand out as the hallmarks of the intuitive mind:

1. Speaks in the language of feelings.
2. Is fast and spontaneous.
3. Is holistic.
4. Can offer hypotheses, but not certainties.

The Intuitive Mind Speaks in the Language of Feelings

Because the intuitive mind can't 'talk' it needs a compelling way to get its message across. One of the most forceful arguments that nature has at its disposal to influence any organism's behaviour, including humans, is feeling. From our own personal experiences and the accounts other people give we know that intuition is visceral – it's driven by inward feelings rather than conscious reasoning. Howard Schultz of Starbucks had the visceral sense that he was onto a big idea when he reported physically shaking at the thought of bringing the Italian style coffee experience to the United States. Allegedly so did Ray Kroc when he took on the financial risk in starting the McDonalds empire on the basis of a 'feeling in his funny bone' that ran counter to the advice of his financiers.

The feelings that come with intuition can be so powerful as to convince us that an intuitive judgement is valid and correct even if we can't explain why ('intuitions are sometimes wrong, but never in doubt'). As a result intuitive judgements usually fall into two groups:

1. Compelling and accurate, and it would be very convenient if this were to be the case 100% of the time, sadly life isn't like that.
2. Compelling and inaccurate, and therefore an invaluable skill is to be able to weed out inaccurate and feeble intuitions from those intuitions that have something potentially useful to say to us.

One of the facts of intuitive life is that intuitions have evolved to be hard to ignore. The conviction they carry comes from the powerful hold that any kind of feeling can take on our thoughts and actions. That said there's an important distinction to be drawn: the feelings that come with intuition are different from the feelings that come with a 'passionate' emotion like anger, love or hate:

1. When was the last time you experienced a really strong emotion, such as anger? What was it like? How intense was it? How long did the feeling of anger itself last for – seconds, minutes, hours, days, weeks, years?
2. Think about the last time you experienced a strong 'gut feeling' – you felt that you knew something but you couldn't explain why. What was it like? How intense was it? How long did the gut feeling last for?

Fast emotionally-driven responses can create intense anger, sadness, happiness, fear or disgust, but fortunately they tend to be short-lived (for example, most people are physically incapable of going around in a rage for days on end – it would simply be emotionally exhausting). Whilst emotions are fleeting, the subtle feelings that come with intuitive judgements are less intense but they can linger on and, once experienced, be called-upon again and re-imagined. Intuitions differ from emotions, and mixing them up can be perilous. For example, if we feel a romantic attraction to another person, or are passionately committed to what we feel is a great business venture our emotions may overwhelm our intuitive, and perhaps better, judgement. Given the fact that intuitions are charged with feelings but aren't emotionally-charged, a vital skill is to be able to disentangle intuition's subtle feelings from intense emotional feelings and the attachment and cravings that strong emotions bring.

THE SCIENCE OF THE INTUITIVE MIND – EMOTIONS AND FEELINGS

Psychologists often use the broad term ‘affect’, meaning a feeling, emotion or desire, from the Latin *affectus* meaning ‘disposition’ (not to be confused with ‘effect’). The English word ‘emotion’, on the other hand, is derived from the French word *émouvoir* meaning ‘excite’. As the world-renowned neurologist Antonio Damasio reminds us, emotions and feelings are not equivalent: an emotion is a pattern of chemical and neural responses produced by the brain; a feeling is a subjective mental representation of the physiological changes that come with an emotion. This is a nuanced distinction: emotions are targeted at the body (for example to enable ‘flight’ or ‘fight’), whereas feelings are an awareness of the emotional state. The feeling of an emotion alerts the brain to threats and challenges,⁹ or even opportunities, faced by the organism. We experience feelings as changes in the ‘body landscape’. Human consciousness buys, in Damasio’s words, an ‘enlarged protection policy’ because it enables us to not merely respond to threats and opportunities (as an animal might) but also to project, plan ahead and imagine.

Source: Damasio, A.R. (1994) Descartes’ Error: emotion, reason and the human brain. New York: HarperCollins (p.133).

Intuition arrives in conscious awareness tagged with either a positive feeling or a negative feeling, and this affective ‘tag’ can work in two different ways:

1. Negatively-tagged intuitions are a signal for avoidance.
2. Positively-tagged intuitions are a signal for attraction.

Because intuition probably evolved to help our savannah-dwelling ancestors survive the natural and social hazards of Pleistocene life it errs on the side of caution and avoidance. Like biological reflexes, instincts and emotions, the intuitive mind ‘kicks-in’ on the basis of a snap-shot perception, before the analytical mind has the chance to intervene. After all, mistaking an innocent stranger on the savannah for a potentially life-threatening foe and therefore treating them with caution would have improved our ancestors’ chances of survival, even if it eventually turned out that the stranger posed no threat.

Whether we like it or not some of these hangovers from our evolutionary past come into play in personal and professional life, the difference is that in the modern world we don’t have to contend with the life-or-death situations that faced our ancestors. Therefore I can’t, or don’t need to, simply ‘trust my gut’ no matter how powerful the feeling is – I have an analytical mind which also may have something useful, if not vital, to say. For example, what does a manager do with two potential job hires – both with equally good résumés, great scores on a battery of psychometric and aptitude tests and work simulations, and excellent track records – one ‘feels’ right, the other doesn’t but it’s hard to say exactly why?

In this situation ignoring intuition might lead to a bad and very expensive decision, but blindly following it might lead to rejecting a good hire or legal trouble. So what to do? Following-up gut feeling by getting more objective data, for example from written references or making a phone call to a candidate’s previous boss can help you to decide if gut-feeling is the basis for a good or bad judgement call.¹⁰ Intuitions are invaluable early warning signals and filtering devices that can be combined with analysis to enable managers, leaders and business venturers to project the future and plan ahead.

In business organisations many of the situations that managers and leaders encounter are complex, messy and fluid, and high stakes judgements have to be taken on a daily basis. Unfortunately two of the inconvenient facts of intuitive life are that: firstly, we can never know what another person's intuition is like, for example how intense or compelling it is; and secondly, even people with highly-tuned intuition can find it difficult to convince others why they find their personal gut feeling compelling and important.



Key Facts No. 3: The Significance of Gut Feeling

Feelings speak volumes

Feelings are the language of the intuitive mind; words are the language of the analytical mind.

Words aren't the whole story

Words, even though they're good for putting together a logical argument, are only an approximation of a feeling – they aren't the feelings themselves.

Our intuitions affect others

As social beings we often have to share our intuitions with our family, friends and colleagues to give them a window into our thoughts, feelings, motivations and intentions.

When we use words to express gut feeling they may fall a little way and sometimes a long way short, and unfortunately things can get lost in translation.

INTUITION WORK OUT NO. 1: WHAT HAPPENS WHEN YOU INTUIT?

The phenomenon of intuition is unique, personal and subjective. I can't know what intuition is like for someone else because I can't inhabit their body. The account I or anybody else, for that matter, offers of intuition is inherently subjective.

Have you ever experienced a situation in which you arrived at a compelling judgement about a person, object or situation but were unable to say *how* or *why* you arrived at that view? If you've had such an experience the chances are that it was your intuitive mind that was speaking to you.

Stop for a moment: what was the situation and what was the judgement that you arrived at?

How would you express the way the intuitive judgement presented itself if you had to explain it to another person? What was it like? Where was the intuition? Did you have any particular feelings? Did any particular metaphor or image come to mind?

Thinking more broadly, are there any aspects of your work or personal life where your intuition has proven to be particularly effective?

- Cast your mind back to intuitive episodes in your life, try to recall the experiences. What happens when you intuit?
- Has your intuition been friend or foe? Has it helped or hindered in judgement and decision-making?

Reflecting on 'what happens when you intuit?' and 'what happened when you followed your intuition?' are the two most important building blocks of intuitive intelligence.

The Intuitive Mind is Fast and Spontaneous

I've yet to meet anyone who can will an intuition into being on demand and on the spur of the moment. Intuition is something that happens involuntarily and unexpectedly. For example, on meeting someone for the first time we may have an instantaneous reaction to whether we like them, feel we can trust them, or feel

attracted to or repelled by them – it can happen within seconds. Intuition's spontaneity is useful because there are many complex situations where we need to make fast judgements, for example whether to engage with someone socially, whether to grasp a business opportunity that's available momentarily, or what action to take when a quick-fire decision is needed.

In social domains such as management and leadership intuitive snap-shots of people's behaviour convey a wealth of information and, often unwittingly, we give away a great deal about ourselves in the first few seconds of any social interaction. These snap-shots, sometimes called 'thin slices' (the subject of Malcolm Gladwell's best selling book *Blink*), can be uncannily accurate. But we need to be vigilant and intelligent about such instinctive responses because fast intuitive judgements about a particular person, object or event may be influenced not only by emotions but also by our personal prejudices, expectations or moods.

One example is stereotyping. Whether we like it or not, stereotypes affect the way many people see others and especially how people who aren't in the same social group as ourselves (the 'out group') are judged.¹¹ One of the perils of poorly-developed social intuition is that it can lead to people being evaluated in terms of social categories that we personally happen to approve or disapprove of. Poorly developed social intuition is feeble because it's biased and prejudiced. Preferring or favouring someone because they're in our own social class, race or gender isn't intuition, it's race, class or gender prejudice and discrimination. Judging a situation in the hope of an outcome we desire or that we feel is deserved isn't intuition, it's wishful thinking. On top of this our general emotional tone also complicates the picture – if we're in a positive mood we're likely to put greater faith in intuition.

One way to weed out good intuition from bad intuition is to consciously reflect on your motivations and moods, and if in serious doubt deploy the safety net of the analytical mind, or ask someone else to act as a sounding board. The tempting and easy reaction to a gut feeling might be to follow it unthinkingly, but often this can be a dumb way to use intuition. On the other hand, if an intuition can stand up to your own and other people's scrutiny this should give you more confidence in it. Before you 'go-with-your-gut' you can ask yourself if it's really an intuitive judgement or is it one of the four enemies of intuition:



Application No. 1: The Four Enemies of Intuition

An emotional judgement?	If it's emotional what are the tell-tale signs (for example, intense, short-lived)?
A prejudiced judgement?	If it's prejudiced who are you being prejudiced against and why (for example, gender, class, ethnicity)?
A biased judgement?	If it's biased what's the source of your bias (for example, are you seeing what you want to see, ignoring the facts)?
Un-warranted wishful thinking?	If it's wishful thinking what's behind it (for example, desire, hope, and craving)?

There's also an important paradox at work: the intuitive mind is fleet-of-foot, but it's a slow learner and, unless we're hard-wired to be able to perform certain skills intuitively, it requires repeated exposure, experience and feedback in order to develop good intuitions. While some people may be naturally gifted, many have good social intuitions because it's a skill they've been developing all of their lives. Work-related intuitive judgements, on the other hand, are acquired in adulthood. If we change the direction of our careers we may need to unlearn old intuitions and develop

new ones. Unlike the intuitive mind, the analytical mind, even though it's relatively slow and deliberate in its workings, can absorb new knowledge very quickly, from listening, reading, watching and so forth. In the work situation learning and practice inside and outside one's comfort zone, allied to feedback on performance, build what the psychologist Robert J. Sternberg refers to as 'street smarts' – the practical intelligence that is the bedrock of informed intuition.

The Intuitive Mind is Holistic

The intuitive mind is 'holistic' in two ways: firstly, its broad 'bandwidth' means that it can handle the bigger picture; secondly, it's a body-mind process in which thinking and feeling work together rather than separately.

For experienced professionals working in areas ranging from management to medicine or golf to gambling, the overall 'gist' of a situation can flag up when something is out of kilter, and whether or not a closer look is called for. For example, many experienced law enforcement officers put faith in their ability to recognise when something doesn't fit – sometimes referred to as a 'JDLR' – 'just doesn't look right'. This drug bust story illustrates the power of the JDLR:¹²

Picture a summer evening in a large American city where undercover narcotics officers are on a 'buy-bust' operation purchasing illegal substances from street dealers. Having successfully 'bought' they alert their colleagues, waiting in unmarked vehicles, of the dealers' descriptions. The unmarked cars approach the street corner to arrest the dealers. In the ensuing bust Officer A for some reason yells to his colleagues to 'get the one in the red shirt, he's got a gun' – not one of the individuals is identified as

a dealer – but to Officer A he's a 'JDLR' for sure. The guy in the red shirt begins to run down the sidewalk; he's chased, surrounded by narcotics officers, and has no choice but to surrender. Sure enough, underneath his red shirt is a .357 revolver.

But how did the officer 'know' the guy had a gun? In recalling these events later under detailed questioning it was clear that the officer had actually noticed-without-noticing a number of unusual but unobvious things which by themselves didn't amount to that much, but which taken as whole were instantly picked-up on by his intuitive mind. The suspect:

1. stood up and adjusted his waistband;
2. had a long sleeve shirt with the tails hanging out even though it was a warm summer evening;
3. turned away to walk in the opposite direction;
4. grabbed his waistband as if to secure a heavy object.

Not one of these four things amounted to very much in itself, but their combined effect was enough for the officer's intuitive mind to extract the gist of the situation as being: 'the guy in the red shirt may be armed and dangerous'. His gut feeling was swift, spontaneous, negatively-tagged and erred on the side of caution. It was only afterwards that his analytical mind, under questioning, had the time to make sense of events that had unfolded swiftly, spontaneously and holistically. This JDLR was an 'intuitive hit', but as we're all only too well aware it's possible for there to be tragic intuitive misses as well.

Good intuitive judgement in complex and time pressured situations often requires a great deal of information to be taken in all at once and parallel processed. Experience enables decision makers to sift relevant information from irrelevant information,

making the parallel processing task easier. Decision makers with the experience to sort relevant from irrelevant information, even though they may not be able to explain fully what or how they do so (but simply 'feel'), are at a distinct advantage over novices and are less likely to make errors of judgement which may have serious consequences.

The archetypal view of the analytical mind is of a cool, calm, calculating machine unaffected by feelings. Machines, such as computers, process information dispassionately – affect is completely alien to them. The humble human being, by comparison, is a complex concoction of thoughts and feelings not designed for purely analytical thought, moreover the human mind and body aren't separate, they work together as one. If human beings had only an analytical mind to rely on for solving problems, making decisions and coming to judgements in many aspects of our lives would be much easier. It would be great to have a computer for a brain if all we ever had to do was compile spreadsheets, fill-out expense claims or do tax returns. But we don't, and whilst an analytical mind may be enough to get by with if you're a robot, it isn't enough for you or me. Our lives are much more varied, richer, passionate and complicated than the life of any calculating machine could ever be.

THE SCIENCE OF THE INTUITIVE MIND – MEMORY AND EMOTION

Memories are stored in our brains as separate components which are linked together in networks of associations to form an intricate web of interconnected facts, ideas, stories and feelings some of which are more easily available to our conscious mind than others. For one of these 'memory objects' to come into conscious awareness the level of activation of this across the web of associations has to reach a threshold level.

The different elements of the web each have ‘weights’ of varying strengths attached to them and some are tagged with feelings (they’re affectively ‘tagged’). The weight can be related to many things, including our emotional state when the memory was laid down. Emotional memories are often beneath the level of conscious awareness and not easily retrieved (Freud talked about them as ‘repressed’), but they may be activated so that they exceed the threshold level in the presence of relevant cues from the environment. For example when you visit a certain place that has particularly fond or unpleasant feelings associated with it, memories of past events that took place there may be activated by any of the five senses and the scene vividly comes into conscious awareness.

Source: Le Doux, J.E. (1996) The emotional brain: the mysterious underpinnings of emotional life, New York: Simon and Schuster.

Emotional memories are strongly imprinted and once they’re unleashed can have a fast and very powerful effect on our recall (for example, many people can remember exactly where they were and what they were doing when the news of Princess Diana’s death was announced or on 9/11) and our judgement of a person, object or situation (we tend to feel good about and view favourably those places where we’ve spent happy times and feel bad about and be unfavourably disposed towards places where we’ve been less happy). If we experience a person, place, object or situation when we’re in a highly emotional state it’ll be remembered more vividly and the association will live on with the potential to be activated under the right conditions. Some have gone as far as to argue that the human gut, in which there are millions of nerve cells, has a ‘mind of its own’. Even though gut feelings may manifest themselves in our bodies (including the

gut) they don't originate there, they emanate from the brain as a result of the unconscious associative processes that take place in the complex web that is the basis of the intuitive mind.¹³

Contrary to what might be expected, having two minds, far from hindering us in making-up our mind, is not only beneficial, it's essential. The intuitive mind works together with the analytical mind in coming to a decision.



Key Facts No. 4: The Interplay of Intuition and Analysis

Infusion	Sending out 'gut feelings' that feed back into the brain and influence the way in which the analytical mind consciously weighs up the alternatives.
Anticipation	Influencing decision choices before the analytical mind is consciously aware or has time to weigh up the pros and cons – something which is indispensable in complex, people-related and time-pressured situations.

Visceral (bodily) experiences, including gut feelings, have a strong hold on how we think, judge and decide. The billionaire financier George Soros claimed that his body sends him an early warning signal when investment decisions may be about to go wrong:

I used the onset of acute pain as a signal that there was something wrong in my portfolio. The backache didn't tell me *what* was wrong ... but it did prompt me to look for something amiss when I might not have done so otherwise.¹⁴

Intuition is the operation of a holistic system in which the body and the brain together process information – in this sense the 'intuitive mind' is actually a misnomer, but an acceptable one A

better term might be the 'intuitive body-mind system'. This idea is found in a number of Eastern traditions such as Ayurveda, a medical system which integrates physical, mental, social and spiritual well being; and Buddhism in which mind and body are like 'two bundles of reeds supporting each other' and the 'self', if it exists at all, is nothing more or less than a series of impermanent cognitive (thinking) and affective (feeling) processes.¹⁵ In a thought-provoking contribution to the debate about the nature of human consciousness the cognitive scientist Douglas Hofstadter considers 'I' to be a myth, but nonetheless indispensable, and the 'self' to be nothing more or less than 'a hallucination *hallucinated* by a hallucination'¹⁶ and analogous to a video camera watching itself on a monitor with infinite regression of the images.

Along with the analytical mind, the intuitive mind isn't 'out there' disembodied from the brain or indeed other neural structures. It's not merely – to use a term from Descartes – 'lodged' in the body, it's a part of a highly-evolved and integrated psycho-physiological (body-mind) system. By accepting this and attuning ourselves to and being mindful of subtle changes in our 'body landscape'¹⁷ or body-mind system it's possible to notice intuitions more lucidly, develop a heightened awareness of them, embrace them and use them more effectively.

The Intuitive Mind Offers Hypotheses

Benjamin Franklin's technique of 'moral or prudential algebra' is the forte of the analytical mind. Franklin offered it in his famous letter of 1772 to his nephew Joseph Priestly in order that young Joe should avoid any 'rash' steps. It goes like this:

Take a decision that currently vexes you; write it at the top of a piece of paper; divide the paper into two columns; head one

column 'pro' and the other 'con'; over a three or four days' consideration make an exhaustive list of 'pros' and 'cons'; weigh them up, and where a 'pro' and a 'con' seem of equal value cross them both out; what's left in the balance sheet at the end of this process is the best answer.

You might like to try Ben Franklin's moral algebra next time you're faced with a complex, personal or people-related decision. As a many-time house hunter I've often been tempted to take his advice in order to help me to choose where to live. I'm naturally averse to cheating of any kind, but whenever I've tried formally weighing up the pros and cons I'm tempted to add in a 'fudge factor' so as to swing the balance of my evaluation towards my favoured option – the one I *like*. In house hunting and many other complex, judgemental decisions I often come to an instantaneous 'gut feeling' for what's right or wrong, and I'm not the only one, as this quote from a banking executive employed in an organisation that was largely immune from the excesses of the credit crunch testifies: 'I usually have a feeling before I start and when I try and analyse by putting down the pros and cons I tend to try and sway it towards my gut feeling'.¹⁸ Whether it's right or wrong, or whether we like it or not, feelings figure prominently in decision making in spite of our best endeavours to be logical and analytical and the exhortations of others to be so.

Human beings in general have an aversion for uncertainty, and even though we may find it frustrating that we can't know if a decision will pay off it's a fact of life that we end up taking gambles of varying degrees of risk almost on a daily basis. This is true for many of life's major decisions – educational and career choices, marriage decisions, major purchases, family matters – we can never know for sure how things will turn out. Indeed, it's salutary to reflect on the fact that some of our most important

decisions, although we may experience a feeling of certainty at the time, amount to little more than high-risk ‘hypotheses’ woven from the interplay of the intuitive and analytical minds.

Intuitive judgements, like any other hypothesis, are tested out only in the fullness of time as events unfurl and circumstances change. Managers who spend their professional lives confronted by choices are well aware of the risks associated with intuitive decision making, as another quote from a very experienced banking executive illustrates: ‘I’d say that nearly all my decisions at work to a greater extent are based to some degree on gut feeling. There isn’t always a right and a wrong answer; there are usually some answers which are definitely wrong and some which are definitely right, but there’s usually never one right answer. The best answers tend to go on a gut feeling for which one you like the *feel* of.’¹⁹

THE SCIENCE OF THE INTUITIVE MIND – THE MAGIC AND MYSTERY OF THE INTUITIVE MIND

Psychologists examined whether or not a person’s faith in intuition was related to their mood and their susceptibility to believing in ghosts and UFOs. In an experiment in which participants were shown seventeen-second video clips purportedly of UFO sightings and ghostly apparitions the researchers found that a more positive mood and greater faith in intuition together led participants to believe that the UFO or ghost in the video was real (tested by using a simple questionnaire). Too much faith in intuition may predispose people to interpret their experiences in paranormal ways especially when they’re in a positive mood.

Non-rational beliefs (in things such as UFOs, ghosts and ‘sympathetic magic’ – making simple associations between objects and people, for example voodoo dolls, crystals, charms) may

be rooted in a biologically ancient intuitive mind which learns about the world through powerful images and meaningful stories (such as fairy tales and myths) and simple intuitively appealing associations. Because they are intuitive such beliefs are difficult to counter with logic and rational argument²⁰ – a fact of life we see time and time again in superstitious behaviours and rituals, for example what possible direct effect can a ‘lucky charm’ bracelet or a superstitious ritual have on physical events? This might also help to explain why many people associate intuition with magic, clairvoyance, precognition, remote viewing and other psychic phenomena.

Source: King, L.A., Burton, C.M., Hicks, J.A. and Drigotas, S.M. (2007) Ghosts, UFOs and Magic: positive affect and the experiential system, *Journal of Personality and Social Psychology*, **92**(5): 905–19.

We’re fortunate that we have two minds at our disposal and doubly fortunate that our analytical mind – the cognitive heavy-weight – is consummate in not only formulating penetrating questions to interrogate how we feel about a particular choice but also in looking ahead:

1. Questioning can expose the reasons why a situation just didn’t ‘add up’ in the intuitive mind’s eye, and with insightful questioning the reasons might become clear.
2. Intuitive judgement can also be bolstered by hypothetically ‘fast-forwarding’ and inwardly watching the action unfold in your own Hollywood epic or TV soap opera in which you’re the principal character.

But mental simulation on its own isn’t enough. Mental simulations rely on consciously envisioning future states and upon the

intuitive mind to provide an affective reaction to the envisioned future state. Experiment by running a mental simulation of a decision scenario you're faced with and watching events unfurl, in doing so ask yourself important questions such as: 'Can I imagine myself living in this place?', or 'How might I feel if I were to take this job offer?'. The skilful interweaving of thought and feeling, of the intuitive and analytical minds, is the foundation of an intelligent approach to intuition.

INTUITIVE INTELLIGENCE PRINCIPLE No. 1: ACKNOWLEDGE THE INTUITIVE MIND

We're one being with two minds – one analytical the other intuitive – both are products of our evolution. The intuitive mind extracts the 'gist' of a situation in order to produce judgements – 'intuitions', 'hunches' or 'gut feelings' – that are rapid, holistic, non-conscious and affective. At the end of the day neither the intuitive mind nor the analytical mind offers any guarantee for the accuracy of the 'advice' it offers in relation to the judgements and decisions that leaders and managers have to take. We're not forced to heed the intuitive mind's advice. The better we understand the 'back stage' processes the better-informed our intuitive judgements are likely to be. To get the best of both minds we need to be able to know when and how to use them. In complex judgemental situations we can combine informed intuitive judgement with mental fast-forwarding of the scenario, asking penetrating questions, and sensing how different outcomes might feel – how realistic and viable they are. The cornerstones of intuitive intelligence are the questions of 'what happens when you intuit?' and 'what happened when you intuited?'

NOTES

- ¹Gazzaniga, M.S. (2005) Forty-five years of split-brain research and still going strong, *Nature Reviews: Neuroscience*, **6**: 653–9; ‘The man with two brains’ retrieved on 4th September 2008 from <http://news.bbc.co.uk/1/hi/health/870311.stm>.
- ²Anthony, C.K. (1998) *The Philosophy of the I Ching*, Stow, MA: Anthony Publishing Company; Wilhelm, R. (2000) The book of changes. In W. Bloom (Ed.) *Holistic Revolution: the essential reader*. London: Allen Lane, The Penguin Press, pp. 331–4.
- ³From *The Tempest* (Act V Scene 1), the magician Prospero’s reference to his ‘demi-devil’ Caliban.
- ⁴‘Dual process’ theories use various names for the two minds depending upon their focus; my preferred terms are the ‘intuitive mind/analytical mind’. See: Chaiken, S. and Trope, Y. (Eds) (1999) *Dual-process theories in social psychology*, New York: Guilford Press; Stanovich, K.E. and West, R.F. (2000) Individual differences in reasoning: implications for the rationality debate? *Behavioral and Brain Sciences*, **23**: 645–65.
- ⁵Begley, S. (2008) When it’s head versus heart, the heart wins, *Newsweek*, February, retrieved on 4th September 2008 from <http://www.newsweek.com/id/107601/page/1>; ‘Famous political faux pas’, retrieved on 13th September 2008 from <http://wcco.com/slideshows/political.faux.pa.20.688643.html>.
- ⁶Epstein, S. (1994) Integration of the cognitive and the psychodynamic unconscious, *American Psychologist*, **49**: 709–24; Epstein, S., Pacini, R., Denes-Raj, V. and Heier, H. (1996) Individual differences in intuitive-experiential and analytical-rational thinking styles. *Journal of Personality and Social Psychology*, **71**, 390–405; Evans, J. St. B.T. (2003) In two minds: dual process accounts of reasoning, *Trends in Cognitive Sciences*, **7**(10): 454–9; Sloman, S.A. (1996) The empirical case for two systems of reasoning. *Psychological Bulletin*, **199**, 3–22; Smith, E. R. and DeCoster, J. (1999) Associative and rule based processing. In S. Chaiken and Y. Trope (Eds), *Dual-process theories in social psychology*, pp. 323–36. New York: Guilford Press; Stanovich, K.E. and West, R.F. (2000) ‘Individual differences in reasoning: implications for the rationality debate?’ *Behavioral and Brain Sciences*, **23**: 645–65.

- ⁷Bargh, J.A. and Ferguson, M.J. (2000) Beyond behaviourism: on the automaticity of higher mental processes, *Psychological Bulletin*, **126**(6): 925–45.
- ⁸Soon, C.S., Brass, M., Heinze, H-J. and Haynes, J-D. (2008) Unconscious determinants of free decisions in the human brain. *Nature Neuroscience*, 13th April 2008.
- ⁹Damasio, A.R. (2001) Fundamental feelings, *Nature*, **413**: 781.
- ¹⁰Luecke, R. (2007) When your gut speaks, should you listen? *Harvard Business Review: Harvard Management Update*, February: 3–4.
- ¹¹Hinton, P.R. (2000) *Stereotypes, cognition and culture*. Hove: Psychology Press.
- ¹²Pinizzotto, A., Davis, E.F. and Miller, C.E. 'Intuitive policing', retrieved on 17th April 2009 from http://www.fbi.gov/publications/leb/2004/feb2004/feb04leb.htm#page_2.
- ¹³Flora, C. (2007) Gut almighty, *Psychology Today*, May/June: 68–75.
- ¹⁴Soros, G. (1995) *Soros on Soros: staying ahead of the curve*: 21, Chichester: John Wiley & Sons; Stewart, T.A. (2002) How to think with your gut, *Business 2.0*: **3**(11): 98–104 (emphasis added)
- ¹⁵Jayasinghe, S. (2003) Medical professionals in Asia have subscribed to Western thought, *British Medical Journal*, **326**(7389): 601.
- ¹⁶Hofstadter, D. (2007) *I Am a Strange Loop*. New York: Basic Books.
- ¹⁷The term 'body landscape' is from Damasio, A.R. (1994) *Descartes' error: reason, emotion and the human brain*, New York: HarperCollins.
- ¹⁸Hensman, A. and Sadler-Smith, E. (2008) Intuitive judgement in the banking industry. Proceeding of the British Academy of Management Annual Meeting, Harrogate, UK, September 2008.
- ¹⁹Hensman, A. and Sadler-Smith, E. (2008) Intuitive judgement in the banking industry. Proceeding of the British Academy of Management Annual Meeting, Harrogate, UK, September 2008.
- ²⁰Why do some individuals treat intuitions as true and absolute, whilst others are more wary? One possible reason why some people treat intuitions as hypotheses to be supported or disconfirmed may be because of differences in working memory capacity (WMC). Individuals low in WMC may be more confident about the validity of their intuitions, treating them as facts; even where they detect uncertainty in their intuitions they may lack the cognitive resources to do the necessary

analysis. On the other hand, people higher in WMC may have the mental capacity to treat their intuitive beliefs as beliefs not certainties. See Feldman Barrett, L., Tugade, M.M. and Engle, R.W. (2004) Individual differences in working memory capacity and dual process theories of mind, *Psychological Bulletin*, **130**(4): 553–73. Researchers at the University of Georgia found that lower levels of working memory capacity amongst police officers increased the likelihood of shooting unarmed people among those officers who had higher levels of negative emotionality, see: Georgia State University (2009, April 1). Police with higher multitasking abilities less likely to shoot unarmed persons. *Science Daily*. Retrieved 14th April 2009, from <http://www.sciencedaily.com/releases/2009/03/090330123223.htm>. It should also be noted that the level of faith placed in intuitions may be attributable to individual differences in thinking styles that are independent of WMC (see Chapter 2).