

# EYES WIDE OPEN

**How to Make Smart Decisions  
in a Confusing World**

Noreena Hertz



WILLIAM  
COLLINS

By the Same Author

*Russian Business Relationships in the Wake of Reform*

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‘Witty, well-researched and practical ... an invaluable guide  
for anyone facing tough decisions in today’s  
complex world’

Dominic Barton, Global Managing Director of McKinsey & Co.

‘With 10 sensible steps to take, Noreena Hertz charts  
a sound decision-making route for us through a world  
in hyper-drive. I’d recommend a prudent first step –  
get this book’

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We face momentous decisions with important consequences throughout our lives. Fortunately, we have never had better access to information and expertise, but the data deluge has become a double-edged sword. Which sources of information are credible? How can we separate the signal from the noise? Whose advice can we trust?

All the more reason for us to become empowered decision-makers, capable of making high-stakes choices ourselves.

Whether you are a politician, a business-person, a professional, or a parent, it's time to take a radically different approach. In ten clear steps, this game-changing book empowers readers to become confident, independent, and wise decision-makers – savvy to how our emotions, moods and habits can trip us up. It's time to make decisions with our eyes wide open – for the sake of our health, our wealth, our relationships and our future security.

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## STEP ONE

# Get to Grips with a World in Hyper-Drive

*It's Monday morning.*

*In Washington, the President of the United States is sitting in the Oval Office assessing whether or not to order a military strike on Iran.*

*In Idaho, Warren Buffett is deciding whether to sell his Coca-Cola shares or buy more.*

*In Madrid, Maria Gonzalez, a mother, is trying to work out whether to let her baby continue crying until he falls asleep, or pick him up and soothe him.*

*I am sitting by my father's bedside in hospital, trying to decide whether I should let the doctor operate, or wait another twenty-four hours.*

We face momentous decisions with important consequences throughout our lives. Difficult and challenging problems that we are given the sole responsibility to solve.

On top of this, we have to make up to 10,000 trivial decisions every single day,<sup>1</sup> 227 just about food.<sup>2</sup> Caffeinated or decaf? Small, medium, large or extra large? Colombian,

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Ecuadorian, Ethiopian? Hazelnut, vanilla or unflavoured? Cream or milk? Brown sugar or sweetener?

If you make the wrong choice when it comes to your coffee, it doesn't matter very much. You make a face and move on.

But make the wrong choice when it comes to your finances, your health or your work, and you could end up sicker or poorer, or lose your job. And if your decisions relate to others – your parents, your children, your country or your staff – the choices you make can irreversibly impact the direction *their* lives will take too. Not only today, but in the months and years ahead.

Errors in decision-making lead young people to under-save for retirement, doctors to miss tumours, CEOs to make catastrophic investments, governments to engage in needless wars, and parents to irreversibly traumatise their children.

This book is about how to make better choices and smarter decisions when the stakes are high and the outcome really matters – whether you are a politician, a businessperson, a professional or a parent.



## STEP TWO

# See the Tiger and the Snake

### The Tiger and the Snake

In 2005, the prominent American cognitive psychologist Professor Richard Nisbett began an extraordinary experiment.

After some careful planning, he showed a group of American students and a group of Chinese students a set of images for just three seconds each. The images were pretty varied: a plane in the sky, a tiger in a forest, a car on the road – you get the idea.

How would the American and Chinese students view these images, the Professor wondered. Would they see them differently? Would they see the same things? If there was a snake on the ground, say, would the Americans or the Chinese notice it?<sup>1</sup>

The Professor's methods were clinical. Upon entering the room, the students were placed in a chair, with their chins in a chin rest at a distance of precisely 52.8cm from the screen. They were then strapped in to 120Hz head-mounted eye-movement trackers. Nisbett could track every squint, glance or flicker of attention.

The differences between the two sets of students were immediately apparent.

The Americans focused on the focal object: the plane, the tiger, the car. They pretty much fixated on these, and barely looked at the background.

The Chinese, on the other hand, took longer to focus on the focal object – 118 milliseconds longer. And once they had done that, their eyes continued to dart around the image. They took in the sand, the sunlight, the mountains, the clouds, the leaves.

So if there was a snake on the ground behind the tiger, it would be the Chinese, not the Americans, who would see it.

### **All That Glitters ...**

In a complex world of hidden dangers and fleeting opportunities we *all* need to be able to see snakes as well as tigers.

We have to understand that the picture we see at first may not give us all the information we need to make the best possible decision. We need to learn to see beyond what is obvious, beyond what we are culturally or conventionally attuned to focus on.

Of course, this doesn't mean that we shouldn't ever act until we've gathered every single piece of information out there that may be relevant to our decision. That would be excessively time-consuming, and our brains wouldn't be able to cope with all that data anyway.<sup>2</sup>

But what the tiger-and-the-snake experiment tells us is that the information we're most prone to focus on may only give us a very partial story, a fragment of the truth, and therefore risks misleading us. Being aware of this, and adjusting accordingly, will make a profound difference to the decisions you make.

Take internet dating. Studies show that men are most attracted to photos of women with large eyes, a big smile and high cheekbones.<sup>3</sup> Glossy hair, full lips and smooth skin are also a big draw.<sup>4</sup> It's also the case that women who describe themselves as 'voluptuous' or 'portly', or 'large but shapely', are contacted far less online than women who are slightly underweight.<sup>5</sup>

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That's how it goes with a lot of male browsers. What about women? Well, women seem to focus more on height. Men listed as between six foot three and six foot four receive about 60 per cent more first-contact emails than men in the five foot seven to five foot eight category.

But are superficial features such as the fullness of a woman's lips or a man's height really the best things to focus on if you're looking to choose the right partner?

The answer, unsurprisingly, is a categorical 'no'. Studies of successful long-term relationships point to less superficial qualities such as sense of humour, shared interests and common values as being much better indicators of whether a couple are well matched.<sup>6</sup> Deep down, most of us know this, yet the majority of online daters only focus on one part of the picture.

Politicians, economists and investors can easily fall in to the same trap.

They tend to focus overwhelmingly on economic growth as the ultimate indicator of how well a country is doing. Yet growth indicators tell us nothing about *how* that growth was achieved.

If you cut all your trees down to sell the wood for kindling, that would be good for growth; but would it really be a measure of how successful you were as a nation? Clearly not. Think of all the problems that the destruction of the rainforests has caused to local habitats as well as its contribution to global warming. Then add to that the very significant associated future economic costs of this kind of short-term thinking.

'Growth' also does not tell us anything about how spoils are shared, about inequality levels, or gender differences, or the rumblings of discontent that can mutate into revolution. It yields, in reality, relatively little information on how a country is actually faring, or will fare in the future. In Russia, the economy has been growing at the same time as life expectancy has been falling.<sup>7</sup> In the United States, during the noughties

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there was growth, but at the same time median family income declined, and there was no net job creation.<sup>8</sup> So if you are a prime minister or an investor, or just a concerned citizen, the modern economic obsession with digits of growth can end up being the tiger that means you don't see the snake creeping up on you on the forest floor.

Think also of the doctor who no longer carries out a physical examination or takes a detailed case history, but instead focuses overwhelmingly on blood tests or scan results – you've probably come across the type.

While blood tests and scans can of course yield important, often life-saving information, in many cases these static findings cannot on their own determine what is wrong with you. The best doctors are still those who listen to you, touch you and try to establish the individual characteristics of your situation. Such doctors use the static readings of your test results as potential clues to what's wrong, but not as the sole way of defining and diagnosing you.<sup>9</sup> As Dr Athina Tatisoni, of the prestigious Tufts University School of Medicine, remarks:

*Usually what happens is that the doctor will ask for a suite of biochemical tests – liver fat, pancreas function, and so on ... The tests could turn up something, but they're probably irrelevant. Just having a good talk with the patient and getting a close history is much more likely to tell me what's wrong.<sup>10</sup>*

Doctors, like investors, like dating-site users, like all of us, need to get better at thinking about the whole picture. We need to look beyond what is immediately obvious or easy to see. For if we are to see a snake as well as a tiger, if we are to see what it is we *need* to see, we must remember that the information that glitters most brightly may not actually be what will serve us best.

## The Unicycling Clown

Sometimes we are so focused on one thing in particular that we actually stop seeing the other things we need to take into account.

Just ask Dustin Randall.

One might think that, dressed in a vivid purple-and-yellow outfit, with large shoes and a bright-red nose, Dustin the clown would be pretty impossible to miss.

Especially when he was riding a unicycle around a small university campus square.

But researchers at the University of Washington discovered otherwise. When Dustin rode by people who were crossing the square while using their mobile phones, the vast majority completely failed to notice him.<sup>11</sup> It was as if the unicycling clown simply wasn't there.

This is an example of a phenomenon known as 'inattention blindness',<sup>12</sup> and it's what happens when we're very focused on one thing in particular – in this case a telephone conversation or an important text message. When we are focused like this, we typically don't register new data points, new things that may come in to our sensory orbit. We can even miss highly visible objects we are looking directly at, because our attention is elsewhere.<sup>13</sup> One professor rather brilliantly describes it as being 'as if while the eyes "see" the object, the brain does not'.<sup>14</sup>

This is something we are all likely to have experienced. Have you ever bumped into a lamp-post while walking and texting? Or somehow missed seeing an important email in your inbox during a particularly busy week? If so, you can blame inattention blindness.

There are times, of course, when tunnel vision clearly pays off – think of your hunter-gatherer ancestors, seeking out food

and doing everything they could to avoid mortal danger. Once they heard the lion's roar, there would only be two things to think about: working out where that roar was coming from, and running in the other direction. They would not have wanted to be distracted by anything else – the pain in their muscles as they ran, the sound of birds singing above, the sight of their favourite snack hanging from a tree – these would all have been irrelevant to their immediate survival.

But fast-forward a few millennia, and if you don't want to get knocked over by a unicycling clown, miss a critical email or fail to spot a wrong charge on your credit-card statement, you'll need to take your blinkers off and with eyes wide open improve your powers of attention and perception.

Think about what it is that is consuming your focus. At work, this may be your latest sales figures, or your company's current stock price. At home, it may be the football scores. How many times a day do you check these? What might this mean you're not paying attention to? Could you spend a day (or even a few hours) without looking at them? What would you notice that you hadn't previously? And who around you could bring the unexpected to your attention? More on this point to come.

### **From PowerPoint to Hypnotised Chickens**

Sometimes it is not our fault that we've only got partial vision.

Edward Tufte (pronounced tuff-TEE), an American statistician and Professor Emeritus of Political Science, Statistics and Computer Science at Yale University, knows this all too well.

A man of many talents, Tufte was hired by President Obama in 2010 to keep an eye on how his \$787 billion stimulus package was being spent.<sup>15</sup> He also has a sideline gig as an exhibiting sculptor. But in his academic career he has undertaken

substantial research into how informational graphics impact on decision-making.<sup>16</sup>

One case he has looked at in real depth is the *Columbia* Space Shuttle disaster of February 2003. Seven astronauts lost their lives when their NASA spacecraft disintegrated shortly before the conclusion of a successful sixteen-day mission.

It is now well-known that a briefcase-sized piece of insulation foam from the Shuttle's external fuel tank collided with its left wing during take-off, meaning that the Shuttle was unable to shield itself from the intense heat experienced during re-entry to the earth's atmosphere.

But the official investigation also revealed a story that is both fascinating and curiously everyday in its nature.

A key underlying factor that led to the disaster was the way in which NASA's engineers shared information.

In particular, the *Columbia* Accident Investigation Board singled out the 'endemic' use of a computer program. A program we more usually associate with corporate seminars or high-school classrooms: Microsoft PowerPoint.

The investigators believed that by using PowerPoint to present the risks associated with the suspected wing damage, the potential for disaster had been significantly understated.

As the *Columbia* circled the earth, Boeing Corporation engineers scrambled to work out the likely consequences of the foam striking the thermal tiles on the Shuttle's left wing. Tragically, when they presented their findings, their methods of presentation proved to be deeply flawed. Information was 'lost', priorities 'misrepresented', key explanations and supporting information 'filtered out'. The 'choice of headings, arrangement of information and size of bullets ... served to highlight what management already believed', while 'uncertainties and assumptions that signalled danger dropped out of the information chain'.<sup>17</sup>

In other words, the very design tools that underpin the clarity of PowerPoint had served to eclipse the real story. They had

distracted its readers. They had served to tell a partial, and highly dangerous, story.

Tufte, applying his expertise in information design, investigated these claims further, and found even more to be concerned about.

He analysed all twenty-eight PowerPoint slides that had been used by the engineers to brief NASA officials on the wing damage and its implications during *Columbia's* two-week orbit of the earth, and discovered that some were highly misleading.

The title of a slide supposedly assessing the destructive potential of loose debris, 'Review of Test Data Indicates Conservatism for Tile Penetration', was, in Tufte's words, 'an exercise in misdirection'. What the title did not make clear was that the pre-flight simulation tests had used a piece of foam 640 times smaller than that which slammed against the Shuttle. This crucial information was buried towards the bottom of the PowerPoint slide. Nobody seemed to take any notice of it – they were too focused on the headline at the top, and did not take in the full picture.<sup>18</sup>

Tufte found that the limited space for text on PowerPoint slides led to the use of compressed phrases, with crucial caveats squeezed into ever smaller font sizes. This created a reliance on 'executive summaries' or slide titles that lost the nuance of uncertainties and qualifications.

In cases such as this, in other words, oversimplification leads to the loss of vital detail.

Complexity, a reality of executive decision-making, is something the medium of PowerPoint dangerously disregards.

It's not just NASA or professors who are concerned about the potential of PowerPoint to blinker our vision.

General James N. Mattis, who served as Commander of the United States Central Command after taking over from the subsequently disgraced General David Petraeus in 2010, has



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always had a way with words. He once advised his marines in Iraq to ‘Be polite. Be professional. But have a plan to kill everybody you meet.’<sup>19</sup> Mattis’s assessment of PowerPoint was equally merciless: ‘PowerPoint makes us stupid,’ he said in 2010, at a military conference in North Carolina.

This is a feeling corroborated by his military colleagues. Brigadier General H.R. McMaster, who banned PowerPoint when leading the successful assault on the Iraqi city of Tal Afar in 2005, said, ‘It’s dangerous, because it can create the illusion of understanding and the illusion of control.’ Indeed, so aware is the US Army of the medium’s powers of evasion that it intentionally deploys PowerPoint when briefing the media, a tactic known as ‘hypnotising chickens’.<sup>20</sup>

Of course, this is not to say that we don’t ever need information to be summarised for us. There are times when we clearly do. But if we’re making decisions on the basis of summaries, we need to remind ourselves of the significant risk that in the process key details and subtleties may well be overlooked. Or be written in such small font size that you don’t pay attention to them.

We must also take a moment to remind ourselves that what someone else has deemed important may not be what matters most to us, or what will really make a difference to the decision we make.

So next time you’re looking at a PowerPoint presentation, or indeed any type of executive summary, look beyond the large font and the bold headline points. The information you actually need may be somewhat more buried. Or it may not even be on the slides at all. Do also put your presenter on the spot. If it matters, ask them to clarify and expand, and provide more information.

If you don’t, you risk being shown only tigers, and never snakes.

## The Cult of the Measurable

It's not only particular forms of presentation that can blinker our vision.

One *type* of information often dominates our attention – numbers. This in itself can be problematic.

Numbers can give us critical information – if we want to know whether to put a coat on, we'll look at the temperature outside; if we want to know how well our business is doing, we'll need to keep an eye on revenues and expenditures; and if we want to be able to compare the past with the future, we'll need standard measures to do so.

But the problem is that the Cult of the Measurable means that things that can't really be measured are sometimes given numerical values.<sup>21</sup>

Can a wine really be 86 per cent 'good'? That doesn't sound right to me, but one multi-billion-dollar industry doesn't agree. Robert Parker, probably the most famous wine critic in the world, ranks wines on a scale between fifty and one hundred. And winemakers prostrate themselves before him, praying for a rating of ninety-two or above, because such a number practically guarantees commercial success, given how influential Parker's ratings have become with wine drinkers.<sup>22</sup>

Yet what really is the difference between a rating of ninety-two and an eighty-six? How can we tell what that six-point difference means?

And are someone else's tastes necessarily going to correlate with yours? I've already raised the question of whether Joe from Idaho on TripAdvisor is really the best person to steer your choice as to where to go on holiday. We also need to ask ourselves whether what I mean by four stars is what you mean by four stars. Whether my Zagat score of twenty means the same as yours. As the *Financial Times's* wine critic Jancis

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Robinson points out on the subject of Parker's influence, 'Make no mistake about it, wine judging is every bit as subjective as the judging of any art form.'<sup>23</sup>

*So, before you make a decision based on a number, think about what the number is capturing, and also what it is not telling you.*

Risk is another area where our attempts to assign clear measures are often bound to fail. While it's true that there are some areas where we can meaningfully quantify risk – such as engineering, where we can come up with a number for how likely a building is to withstand an earthquake, say; or medicine, where we can estimate a patient's chance of responding to a particular drug – this approach doesn't work effectively in all spheres. Indeed, in our turbocharged world, in which changes happen quicker and less predictably than ever before, many of our attempts to assign probabilities to future events are likely to be pretty meaningless. As President Obama said, reflecting on the huge range of probabilities that various senior intelligence folk had proffered back in March 2011 as to whether Osama bin Laden was the 'high value target' spotted within a high-walled compound in Abbottabad in Pakistan – with confidence levels that ranged between 30 and 95 per cent – 'What you started getting was probabilities that disguised uncertainty as opposed to actually providing you with more useful information.'<sup>24</sup>

In our desire to reduce everything to some sort of standardised measure, to create universal meanings for things that will always be subjective, and to create the illusion of certainty when uncertainty is in fact what prevails, do we not risk making decisions on the basis of what may seem intelligence-rich information, but is in truth pretty meaningless?

Not everything can be measured, not everything can be compared, especially in a world as complex as ours. Indeed, Obama, realising this, responded to the various probabilities

he'd been presented with, 'Look guys, this is a flip of the coin. I can't base this decision on the notion that we have any greater certainty than that.'<sup>25</sup> A flip of the coin which we now know that President Obama won and Osama bin Laden lost.

## **All That Counts**

Another danger of putting the measurable on a pedestal is that what cannot be measured often ends up being discarded, or dismissed. But just because something can't be quantified, it doesn't mean that we should ignore what it is telling us.

A conversation with a senior director of a multi-billion-dollar international children's charity brought this point home to me in a stark way. Huddled in a Cambridge University ante-chamber, encircled by six of her colleagues, Ms Broun explained that the key problem children now face in many middle-income countries was domestic violence.<sup>26</sup> She and her colleagues knew this, because they had personally witnessed countless cases of children bearing marks of physical abuse alongside symptoms of mental strain. They'd heard their stories, seen their scars, and noted their teachers' and community leaders' corroborating stories.

Domestic violence, however, is hard to measure. What do you record? The number of bruises? How can you capture in numbers how terrified a child feels? As a result, Ms Broun had been unable to convince the organisation's head office that domestic violence was something vital for them to target. Instead she was told to focus her efforts on addressing problems for which they could collect numbers, and thereby easily gauge progress on – problems such as under-attendance at school, or children without sufficient vaccinations.

These instructions were given to Ms Broun despite the fact that in middle-income nations, such measurable and easily

trackable problems had to a great extent been resolved, whereas domestic violence was active and growing.

In many ways it's hard to accept this story. It speaks of bureaucratic intransigence and rigidity, and it's also symptomatic of the way in which the Cult of the Measurable can overshadow what really needs to be seen, and what really needs doing. In this case it is incredibly painful, because the happiness and welfare of children is at stake. If the over-importance of numbers can become embedded in this kind of situation, where in your business or personal life could the Cult of Comfortable Measurement be adversely affecting your decisions?<sup>27</sup>

By devaluing that which cannot be measured, we risk not only making poorer decisions, but also distorting our priorities and goals. As was once said, 'Not everything that counts can be counted, and not everything that can be counted counts.'<sup>28</sup>

## **Glass Half Full**

So we need to be careful about focusing excessively on numbers, or on things in bold typeface, or on the information that others deem most relevant for us, or that glitters most brightly. We also need to start paying more attention to people's stories and testimonies, even if they cannot be quantified.

Beyond this, there's another type of information we should watch out for that is prone to draw us in – information we want to hear, over information we don't.

Neuroscientist Tali Sharot explored this theme by putting volunteers in a brain scanner and asking them what they believed the chances were of various unpleasant events occurring to them in their lifetime. She asked questions like how likely are you to get burgled? How likely are you to contract

genital warts? How likely are you to develop Parkinson's disease? That sort of thing.<sup>29</sup>

After each answer, she immediately told her volunteers what the real chances were of such an event happening. So, if someone thought they had a 10 per cent chance of developing cancer, she would reveal that the real probability was 30 per cent – or quite a lot worse.

What Sharot discovered was that when her subjects were given bad news, news that should have led them to be more concerned than they were previously, the part of their brains that should have fixed the mismatch between their prediction and the true chance of disaster showed only low-level activation.

However, when a subject was given information that was *better* than expected – for example, if someone thought they had a 50 per cent of being burgled, but was then told that their real chance of being burgled was only 30 per cent – the part of their brain that processed the information went wild. What's more, when the volunteers were asked to go through the list of unpleasant events again, they actively changed their beliefs when the information they had been given improved their prospects. For example, if they found out that they were actually less likely to suffer from infertility than they had thought, they adjusted to the new risk percentages presented. But if the new information pointed to there being an even higher chance of something bad happening to them, they simply ignored it.

When it comes to things that affect us directly, it seems that many of us dismiss information that suggests that bad things will happen to us, and only pay attention to the good stuff. It doesn't matter what we throw at them, unconscious processes in our brains are determined to show us a rosy glow.

There are obvious dangers to this when it comes to making decisions. If your unconscious belief is that you won't get lung cancer from smoking, then you're unlikely to choose to quit.

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For every warning from an anti-smoking campaigner, your brain will be giving a lot more weight to that story of the ninety-nine-year-old lady who smokes fifty cigarettes a day but is still going strong. You're not doing this consciously, but it *is* happening.

Similarly, if you're a trader buying and selling stocks and shares, or an investor looking to buy another property, you'll be paying more attention to evidence of sustained growth and stories of rising prices than to the nay-sayers who predict a crash – a partial explanation for financial and housing bubbles.<sup>30</sup>

The inability to properly process news that suggests something bad may happen to us is clearly a dangerous trait for nearly all decision-makers – not just traders or smokers or property speculators. Dr Sharot's research reveals that 80 per cent of us are very vulnerable to this mental lapse.<sup>31</sup> Interestingly, however, there is one group of people who it turns out update their beliefs in a more balanced way: people with mild depression appear to be better at balancing the good and the bad when they receive information.

If you're not depressed yourself, however, don't despair. Being aware that you're prone to this thinking error is a start – it means you can challenge your immediate reactions and reflect upon how your decisions would be affected if your optimism *were* overstated. You might also, now that you are cognisant of your ability to trip yourself up, want to take out insurance against the worst happening. As Sharot advises, do carry an umbrella even if you're sure the sun will shine, and do buy health insurance even if you're certain nothing bad could ever happen on you.<sup>32</sup>

## How Not to Spot Aspirin Poisoning

It's not just bad news that we have a tendency to unwittingly dismiss.

Take what happened to Dr Harrison J. Alter, then an emergency-room physician in Tuba City, Arizona, a small town in the Painted Desert just a sixty-mile drive from the Grand Canyon National Park.<sup>33</sup>

Alter isn't your usual medical-school type. Born in Chicago, he attended the prestigious Francis Parker prep school before heading off to Brown to get an undergraduate degree in comparative literature and art history.<sup>34</sup> He still lists reading among his interests, along with his children,<sup>35</sup> but his area of professional expertise is medical, and in particular the hulla-baloo of the emergency room.

Alter's emergency room was a focal point of medical care for the Navajo Nation, and during the winter of 2003 he took a routine admission in: Blanche Begaye, a Navajo woman in her sixties. Blanche explained that she was having trouble breathing. At first she just thought she just had 'a bad head cold', and did what most of us would do: she drank lots of orange juice and tea, popped a few aspirin, and expected that to be the end of it. But it wasn't. She got worse.

Dr Alter knew that Blanche worked in a grocery store on the reservation. He also knew that something was amiss within her community. Lately, his emergency room had been full of people with similar symptoms to Blanche's. He'd diagnosed them all with viral pneumonia, a nasty lung infection that can knock you out for weeks. Alter couldn't help noticing that Blanche had quite similar symptoms.

After Blanche was admitted, Alter went through the normal procedures. First came the observations. He noticed that her respiratory rate was almost twice normal. On top of that, she



had a low-grade fever – her temperature was up, but it wasn't through the roof. Next came the tests – in particular, the bloods. The first thing he checked was the white-blood-cell count, a typical marker of infection. It wasn't actually raised, but her blood chemistry showed that the acid-base balance of her blood was now weighted towards acid, a red flag for a major infection.

Alter totted up the signs, and plumped for a diagnosis of 'subclinical viral pneumonia'. Mrs Begaye's X-ray showed that she didn't have the classic white streaks across her lungs, but he reasoned that this was because her illness was in its early stages. From here on it was routine: admit her, work on getting that fever down, and keep an eye on her heart rate. He had her hooked up to some intravenous fluids and medicine, and put her under observation. Then he moved on to the next bed.

Case closed.

Or so he thought.

A few minutes after Alter had begun evaluating his next patient, the junior doctor to whom he had passed Mrs Begaye's case attracted his attention. Thankfully for Mrs Begaye, this wasn't the type of subordinate who was too scared to speak up when he disagreed with his boss. 'That's not a case of viral pneumonia,' he told Alter. 'She has aspirin toxicity.'

How could Dr Alter, who had not only studied medicine at the prestigious University of California at Berkeley, but following his residency had gone to the University of Washington in Seattle to study medical decision-making, have got his diagnosis so wrong? As the always open-to-learning doctor later reflected, 'Aspirin poisoning, bread-and-butter toxicology ... She was an absolutely classic case – the rapid breathing, the shift in her blood electrolytes ... and I missed it.'

It wasn't that he hadn't been asking the right questions, or conducting the right tests to get to this diagnosis. He had.

Dr Alter had all the information he needed to make the correct diagnosis right in front of him. The trouble was that

even though the information had been plain to see, he hadn't taken it in. And he hadn't taken it in because when he saw Mrs Begaye, what came to mind were all the recent cases of pneumonia he'd been seeing.

This meant that instead of treating her story as an independent one, and focusing on all the information she gave him, he had zoomed in on the symptoms that fitted the pneumonia diagnosis, and ignored or reasoned away the information that didn't.

This is a common thinking error we are *all* prone to. In fact, it turns out that we actually get a dopamine rush when we find confirming data, similar to the one we get if we eat chocolate, have sex, or fall in love.<sup>36</sup> Having jumped to a particular conclusion, we focus on information that supports it, and ignore everything that contradicts or doesn't conform to our initial analysis. We're especially prone to being overly swayed by what we've most recently seen. It's as if once we've decided that the only danger we can face is tigers, even if we see a snake in the grass we don't process that it could be a danger to us too.

That is what famously happened in 1940 when French intelligence, arguably the best service of its kind in the world at that time, made a catastrophic error. Having undertaken sophisticated analysis of German blitzkrieg tactics earlier that year, the intelligence service came to the conclusion that the brunt of the German attack would come through the plains of Belgium. Growing evidence that the Nazis were planning to invade through the Ardennes Forest instead was ignored, despite information gleaned on the pattern of German reconnaissance flights (which closely mirrored the later invasion route) and aerial photography of German pontoon-bridge construction in the area. Even 'hard information', it seems, will be sidelined unless it is received by open eyes *and* open minds.<sup>37</sup>

What should we take from all of this, from these stories and insights?

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Well, if we are to make smarter decisions, we need to make sure that we are not overly swayed by what we've seen most recently, or by the information that's most easily available, or by our initial assessment, or by what it is we most want to hear.

We should consciously practise being more observant. Take a raisin. Rub it between your hands. How does it feel? Look at it, examine its contours. Smell it. Lick it – how does it feel against your tongue?<sup>38</sup> Practising mindfulness techniques like this helps us to get better at opening our eyes to what we might otherwise overlook.

We must also force ourselves to actively search for information that challenges our preconceived ideas.

We have to treat each new situation as independent, and each new piece of information as potentially game-changing.

And when making assessments, we must question not only whether things are as we think, but also *what else they could possibly be*.

We can do this on our own, but it's often easier if we have someone who can help. Who could you deploy to help you interrogate your own ways of thinking, help force you to see everything in the jungle, not just what you're most drawn to? So you don't make the same kind of cognitive mistakes as Dr Alter, or Tali Sharot's volunteers, or the French intelligence services. So you don't get consumed by your confirmation dopamine buzz.

The head of one of Europe's leading hedge funds – a fund that succeeds or fails on the basis of its analysts' assessments of the industries and companies they decide to invest in – tells me that he sees one of his primary roles as that of 'Challenger in Chief', as the person who niggles his staff to focus not only on the evidence that confirms their initial assessment or that they want to hear, but also to actively look for data that will contradict or refute it. He believes he must challenge his staff

to consider how they could be wrong, and then assess how this might impact on their decision-making.<sup>39</sup>

Who, at work or at home, can serve as Challenger in Chief for you?

## **Detach from the Past – Lessons from Hollywood and Helsinki**

As well as challenging what it is we see before us right now, we also need to consider how the past might be affecting our present-day choices.

For although our past experiences, good or bad, provide us with split-second cues which can often be very useful – I don't put my hand on the gas hob if it's switched on, because I know, having burnt my finger in the past, that it would be the wrong decision – experience, as we will see, can be a double-edged sword.

Richard Zanuck was one of the most successful film producers of recent times. His hits included such classics and box-office juggernauts as *Jaws*, *Cocoon*, *Driving Miss Daisy* and, more recently, Tim Burton's *Alice in Wonderland*, which grossed more than \$1 billion.<sup>40</sup> Hollywood royalty who spoke at his funeral and memorial services included Clint Eastwood and Steven Spielberg, who called him a 'cornerstone of the film industry'.<sup>41</sup>

But when I had lunch with Dick Zanuck at his usual table at George in Mayfair's Mount Street, just days before he died in July 2012, we discussed one of the rare moments when his decision-making had gone very wrong.

In 1965 a movie produced by Zanuck broke all box-office records. A musical about an errant trainee nun in the Austrian Alps, starring Julie Andrews, *The Sound of Music* was a gargantuan commercial success, rescuing Twentieth Century-

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Fox from the \$40 million wounds inflicted two years earlier by Richard Burton and Elizabeth Taylor's *Cleopatra*. It remains, in inflation-adjusted dollars, the third-biggest-grossing film of all time.<sup>42</sup>

Zanuck was thirty years old, and this was his first big hit. So what did he do next?

Understandably, he tried to repeat what he'd just done.

'I was convinced that the musical was back, and a lot of people, a lot of other studio heads, were convinced that this was the way to go,' he told me. He commissioned three more musicals, all in a similar sugary vein.

All three were box-office flops.<sup>43</sup>

*Doctor Dolittle*, an adaptation of the children's books by Hugh Lofting, contributed to Twentieth Century-Fox posting a staggering \$37 million loss in 1967.<sup>44</sup> The next, *Star!*, released in 1968, which starred Julie Andrews and had the same director, producer and choreographer as *The Sound of Music*, also bombed: box-office receipts in the US were just \$4 million, and losses were pegged at \$15 million.<sup>45</sup> The third, *Hello, Dolly!*, released in 1969 and starring Barbra Streisand, did equally badly, losing \$16 million, bringing to a close a disastrous few years for Twentieth Century-Fox, and leading to Zanuck unceremoniously losing his job as production chief.<sup>46</sup>

It's not that the past is never a good predictor of what lies ahead. There are of course many examples we could cite of times when looking backwards, consciously or not, has helped people reach the right decisions. The key, though, is not to be overly wedded to our past successes and failures, or our experience-based instincts, so that shifting tides or new information are ignored.

Nor should we assume a linear trajectory – more so now than ever, as we attempt to navigate today's uncertain and unpredictable digital world, in which things are changing with an ever greater rapidity.

Dick Zanuck explained to me that his movie strategy immediately after *The Sound of Music* fell victim to a fast-changing world, and a shift in cultural mores. When *The Sound of Music* hit movie screens, the appeal of singing nuns and the lush Technicolor greenery of the Austrian hills made sense against the backdrop of the early 1960s. But by the time the back-to-back movie flops were released, things had moved on. The Vietnam War and the Civil Rights movement had politicised the American public, Martin Luther King had been assassinated, pop and rock music were dominant, and saccharine-sweet family productions had lost their appeal.<sup>47</sup>

Success does not necessarily breed success. Just because we haven't seen a snake today or yesterday, it doesn't mean that we won't see one tomorrow. And just because a certain set of ingredients once worked, it doesn't mean they always will.

This was a tough lesson learnt by Finnish communications giant Nokia in 2007. From the 1990s onwards, Nokia dominated the mobile-phone industry. At its peak the company had a market value of \$303 billion, and by 2007 around four in ten handsets bought worldwide were manufactured by Nokia.<sup>48</sup> But when Apple introduced its game-changing iPhone in 2007, Nokia was caught sleeping on the job. Hoping to keep its edge on the market, it had piled \$40 billion into research, secretly developing an iPhone-style device – complete with a colour touchscreen, maps, online shopping, the lot – some seven years earlier. But the product never hit the shelves. In spite of all the research (which ended up generating about \$6 billion-worth of patents), Nokia decided to stick with what it knew: good, solid, reliable mobile phones. As a former employee working in the development team at the time said of that decision, 'Management did the usual. They killed it.'<sup>49</sup> In fact, when the iPhone was introduced, Nokia engineers sneered at the Apple device's inability to pass their 'drop test', where a phone is dropped onto concrete from a five-foot height.<sup>50</sup>

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They believed that the past could provide a reliable guide to the future, but as we now know, it didn't. In the five years since the iPhone was introduced, Nokia has lost 90 per cent of its market value.<sup>51</sup> Meanwhile, Apple has sold over a quarter of a billion iPhones.<sup>52</sup> Indeed, in August 2012, at the same time as Nokia's bonds were rated as worse than 'junk', Apple's share price peaked at \$664.74, making it the most valuable company in history, with the iPhone generating 55 per cent of that value.<sup>53</sup>

What can we learn from these two stories to help us with decision-making? That there is no such thing as a trend? Clearly not that – just ask the erotic fiction writers now bringing home the bacon thanks to E.L. James. Or those who've made their millions off the back of the *Twilight* franchise.

Never to make a musical? Not that either, although with a twinkle in his eye Dick Zanuck joked with me that that was the lesson he'd learnt.

How about that failure is the death knell for future success? Not necessarily. Zanuck went on to make many more blockbusters and critically acclaimed movies. And there are a number of examples of entrepreneurs who've gone on to make fortunes after losing it all.<sup>54</sup>

But what we can take away is this: do not get so attached to past successes or failures that they inhibit your ability to think cogently, and to assess the present challenges with an open and objective mind.

Be acutely aware that the interplay between our environment and its outcomes is ever-changing.

Understand that all trends will come to an end at some point.

Consider the possibility that the same ingredients at another time may not make a tasty cake or a hit movie.

Don't allow success to breed either arrogance or complacency.

And if you get things wrong, remember the imperative to learn from your mistakes.

That's what Dick Zanuck did. He realised that he had based his decisions too firmly on past experiences, assuming that what was right yesterday would be just as successful tomorrow. It is testament to both his creative energy and his willingness to engage in introspection that he came back from these harsh experiences to produce some of the greatest movies of all time.

### **The Truth about Harry**

Being stuck in the past can cause other problems too – a fog of assumptions based on past experiences can obscure the new or the innovative.

This is something that a dozen of the most prestigious British and American publishing houses must now realise.<sup>55</sup>

When a 223-page manuscript of around 90,000 words from an unknown female author landed on their desks back in 1996 they quickly turned it down for a number of understandable but misconceived reasons. The book was too long for kids these days – 50,000 words longer than the average children's novel at the time.<sup>56</sup> Reading by boys was declining, especially of books by women and those light on dialogue. Moreover, this was a straight-on, full-blown fantasy, not a book about the kinds of serious issues such as bullying or broken families that were currently in vogue. It was hard to think of a successful children's fantasy book in recent times.

Penguin, one of Britain's most prestigious publishers, flatly rejected the manuscript. At Transworld it languished in the in-tray of somebody who was off sick.<sup>57</sup> Indeed, twelve of the top British and American publishers turned it down.<sup>58</sup>

It took a publisher new to the game, working in a children's division just a couple of years old, with no past to be stuck in



and a belief that a story with emotional resonance would always find an audience, to take the plunge.

Barry Cunningham, a former marketing man and one-time giant puffin (at exhibitions for Penguin's children's books imprint, Puffin, Barry, as Marketing Director, would walk around thus costumed), read all 223 pages. 'The skies didn't part and lightning didn't come down or anything,' he recounted as we sat in the basement of the nineteenth-century Savile Club, the Mayfair haunt previously frequented by Kipling, Hardy, Yeats and other literary greats, me sipping tea, he his trademark Coca-Cola.

Cunningham simply thought that the manuscript was 'really engaging'. He negotiated with the author's agent 'for about five minutes, because he didn't want very much money and I didn't have very much money', and bought the first two books in the series for the princely sum of £2,000.

As he said to me, 'The rest is history.' And it sure was.

The author, a first-time writer by the name of Joanna Rowling, who was 'so nervous' the first time Barry spoke to her that she 'couldn't really talk', was delighted to get the firm offer, especially after so many rejections. And Barry Cunningham, of course, was also delighted. The seven Harry Potter books went on to sell over 450 million copies worldwide, have been translated into more than seventy languages, and spawned a movie franchise worth over \$4.5 billion.

Rudyard Kipling was right to caution us to treat both triumph and disaster as 'imposters'. Yet we're all too prone to letting failure and success become our only guiding beacons. What this means is that not only do we risk ignoring cues that things may be changing around us, but also deny ourselves the possibility of contemplating futures, trajectories and possibilities that are different from what has come before.

## How to See with Eyes Wide Open

To make smart decisions we need the right information to guide us. That is a given.

This means being aware of how instinctively tunnel-visioned we can be, of how some information glitters much more brightly than others – some of which may well turn out to be fool's gold.

It means becoming more conscious of the way we are drawn to what's most familiar or most obvious, or closest to what we want to hear. Of how little attention we pay to what we don't want to know. Of just how caught up in our past we can be, and how this can disable our ability to process the present or imagine the future.

Being aware is a start. But there's more that we can do to ensure we see with eyes wide open.

One thing we can do is to give ourselves more time – time both to gather the right information, and to consider it. I know that for many of us time feels like a luxury we just don't have any more. But as Dr Alter makes explicit, 'In order to think well, especially in hectic circumstances [and he's talking about decisions made by doctors in the ER here], you need to slow things down to avoid making cognitive errors.'<sup>59</sup>

You need time to ask yourself what you may not have thought about, time to consider alternatives, time for your eyes to dart around the picture.

Time pressures encourage tunnel or distorted vision, while the best ideas often emerge after a reflective pause.

So, can you take a beat before you make your decision?

More generally, is there a way you can give yourself more time so that you can properly take in what it is you need to?

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Barack Obama advised David Cameron that ‘The most important thing you need to do is have big chunks of time during the day when all you’re doing is thinking. Without that you lose the big picture.’<sup>60</sup> And without the big picture, as we’ve seen, we risk not seeing those snakes.

So, can you batch your emails and respond to a group of them in one go? Is there anything more you can delegate to others? How else can you carve out your own thinking time? Many of us feel that this just isn’t possible in our hyper-hectic lives, but if the President of the United States can find the time, surely you and I can too?

Alternatively, can you just slow down your decision-making process? Who or what can help you take that pause? Doctors and pilots have been found to profit from following a checklist even when doing things they have done many times before. By slowing them down, the list makes them more methodical and less vulnerable to making the kind of cognitive errors we discussed earlier.<sup>61</sup> Might a system like that work for you?

You should also ask yourself who can help you interrogate your own ways of thinking, help force you to see everything in the jungle, not just what you’re most drawn to. Who can serve as your Challenger in Chief, as we explored earlier?

Before we move on to the next Step, it’s also worth reminding ourselves of the following.

First, that the further into the future the outcome of your decision will play out, the less likely that what worked before will prevail. It’s a basic law of probability – so if you can make your decision as late in the day as possible, do.

Second, that decisions are best made with built-in flexibility. So, if possible, don’t fix yourself to Plan A. In a world as fast-changing as ours, try whenever you can to have Plans B, C and D in your back pocket.

Third, bear in mind that in order to work from the best intelligence possible, you’ll need to make assessments on an

ongoing and continuous basis. This means keeping your eye on the present and the future, not only on how things once were. Actively ask yourself, ‘What is different now?’ ‘What could be different tomorrow?’ And then think through the implications of this for the decisions you’re currently making and the information you’re presently seeking out.

And finally, give yourself permission to break from the past and try something unprecedented, especially if it’s an affordable punt. The pay-off can be quite remarkable. Bloomsbury Publishers made a multi-million-pound return on Barry Cunningham’s initial £2,000 investment.

As Barry said to me, ‘Probably the best investment in publishing ever.’

### **Takeaways**

In a world of data deluge, distraction and uncertainty, a world in which we increasingly have to determine ourselves which information we should use to make our decisions, it’s understandable that we tend to focus on particular forms and types of information over others. Ultimately, it’s a kind of coping strategy.

But what we are most naturally or most instinctively drawn to may not actually be the best information to help us make decisions. What’s in the foreground, what’s most glittery, what’s biggest and boldest, stands out the most and grabs our attention, as do numbers over words, information that reinforces what we want to hear over information that jars, and the past, with its promise to be our lodestar. Yet all of these are potentially tigers consuming all our attention, while a snake slithers dangerously towards us on the ground.

We need to be aware of this; to re-calibrate how it is we see the world, re-adjust our focus and deploy others around us to help pull off the blinkers.

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But once our blinkers are off, there's more to consider. In keeping with life's complexity, making smart decisions can be thwarted for other reasons too. For we are massively influenced by how *others* shape and form what it is they convey to us – by the words they use, the colours they choose, and even, as we will see, by touch. By factors in the ether that we're not even aware of.

How to strip bare what we are told, so that we can evaluate the information before us, see beyond packaging and wrappers and spin and misleading cues, is what the next chapter is about.



*Eyes Wide Open* by Noreena Hertz is out on the  
12th September 2013, and is available to  
pre-order now.

[www.noreena.com](http://www.noreena.com)  
@noreenahertz





With our eyes wide open, we [Verse 1] So this is the end of the story Everything we had, everything we did Is buried in dust, and this dust is All that's left of us left of us And only a few ever worried. While the signs were clear, they had no idea You just get use to livin' in fear Or give up, when you can't even picture your future. We walk the plank, with our eyes wide open. Eyes Wide Open may refer to: Eyes Wide Open (exhibit), an exhibit in memory of the American soldiers of the Iraq War. Eyes Wide Open (film), a 2009 Israeli film. "Eyes Wide Open" (Gotye song), 2010. "Eyes Wide Open" (Staind song), 2012. Eyes Wide Open (Middle episode), an episode of the 9th season of The Middle. "Eyes Wide Open", a 2012 song by Serbian-Australian DJ, Dirty South. "Eyes Wide Open", a 1999 memoir by Frederic Raphael about his collaboration with Stanley Kubrick on the film Eyes Wide Shut.