Australian Institute of Company Directors

WHICH TWO HEADS ARE BETTER THAN ONE?

The extraordinary power of diversity of thinking and inclusive leadership

Juliet Bourke

2nd Edition

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Australian Institute *of* **Company Directors**

Praise for
WHICH TWO HEADS ARE BETTER THAN ONE?

"After a decade or more of research telling us that diversity can deliver significant benefits, at last we have an evidence-based roadmap for how. I love this book."

– Kate Jenkins, Australian Sex Discrimination Commissioner

"This is a book that distils complex behavioural theory into an accessible, engaging and important message. Juliet Bourke cites fascinating studies [and] shows how our decision making is riven with biases and process failures. Instead of just cautioning against the perils of such decision making, she sets out guidelines into the areas of inquiry that we might make – and proposes specific techniques for mitigating against unconscious bias and ways to enhance decision making."

– Maxine Brenner, Non-Executive Director, Woolworths Group, Origin Energy, Qantas and Orica

"Diversity is too important to leave up to chance. Thankfully, Juliet Bourke provides us with a road map that helps us all, board directors and decision makers from across the sectors, achieve inclusive leadership where everyone can thrive and businesses perform at their best."

– Professor Iris Bohnet, Harvard University, and author of "*What Works: Gender Equality by Design*"

"[This is] the best research-based book on understanding cognitive diversity that I have ever read (the breadth of the research and the ability to synthesize the disparate sources of data into a fully and articulate framework of applied cognitive diversity). There are books that are purely academic, or science based, or mostly comprised of anecdotes and metaphors – but this book takes the best of each approach and blends them into a most useful practical guide. This book is a game-changer!"

– Dr Bruce Stewart, past Deputy Director, Office of Diversity and Inclusion, *"responsible for implementing President Obama's Executive Order on Diversity and Inclusion across the federal government"*

Juliet Bourke's book is both thought provoking and an essential tool for directors seeking to make good decisions and ensure better overall governance."

– Melanie Willis FAICD, Independent Non-Executive Director

"This is an excellent and much needed book. Juliet Bourke sets out to answer a major missing piece of the diversity debate so far – how do diverse teams create breakthrough ideas? She walks us through the answers step by step, making sure to leave no stone unturned. It is all very persuasive and itself a major breakthrough."

– Frans Johansson, author of *"The Medici Effect"*

"Changing culture to build more inclusive workplaces is both essential and very difficult. Until now there have been no practical guides for leaders wanting to make a difference. This book changes that paradigm. Read it and prosper. I couldn't put it down."

– Professor Scott E Page, University of Michigan

"Colliding clichés abound, ranging from 'opposites attract' to 'birds of a feather', speaking to inconsistent social biases but Juliet Bourke shows us systematically how to identify when such mental traps undermine fairness and clearheaded decision making. Which Two Heads Are Better Than One? *transcends scolding about prejudice to reveal how diverse perspectives can break the decision-making pathology of group think. Excessive cohesion is actually the enemy of good teamwork and this book shows how diversity enhances constructive debate as well as enriches the portfolio of knowledge. Everyone from boards of directors to everyday work teams should snag this book!"*

– Professor Jeffrey A Sonnenfeld, Yale School of Management

"The topics of diversity and inclusion have been around for years. Juliet Bourke's book finally unlocks the secrets to making inclusion really happen, how to create diverse and inclusive teams, and how leaders can specifically behave to drive performance in an inclusive way."

– Josh Bersin, Dean of the Josh Bersin Academy

"Chairs have an opportunity to sponsor, lead and facilitate change to provide the environment and conditions to enable diverse thinking. I encourage all chairs and leaders to read Which Two Heads Are Better Than One?*, [and to] think about the changes they can lead."*

– Vanessa Stoddart, Independent Director, New Zealand

The Australian Institute of Company Directors is committed to excellence in governance. We make a positive impact on society and the economy through governance education, director development and advocacy. Our membership of more than 46,000 includes directors and senior leaders from business, government and the not-for-profit sectors.

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Foreword

Since we released the first edition of *Which Two Heads are Better Than One?* in 2016, we have seen a watershed for diversity. Then, the AICD had just launched a campaign to reach a target of 30 per cent female representation on ASX 200 boards by 2018. Though progress was slow and challenging, that target was achieved in 2019 due to the commitment of boards and individual chairs and directors. Over that period, there was growing recognition that diverse teams improve the performance of an organisation. This book helped in that change.

Juliet's ideas remain forward-thinking. Recruiting a seemingly diverse mix of people does not guarantee true diversity. Achieving genuine diversity requires leaders who create an environment where diversity is valued and different modes of thinking are respected and drawn upon. Team members must feel like their perspectives are valued and leaders should "role model what it means to behave inclusively".

Juliet urges us to think of diversity as more than a box-ticking exercise. It is important that organisations have diversity of backgrounds and skill sets. Diversity is an ongoing process of taking stock and renewal. This is the core premise – and the challenge to boards – of the book.

Which Two Heads Are Better Than One? is an engaging, evidence-based and practical guide to how boards and organisations can foster truly diverse leadership teams that create value for stakeholders. The second edition is updated with fresh case studies, including how diversity of thought led to the rapid application of Remdesivir as a COVID-19 treatment at the height of the pandemic. Whether you are building a new team or looking to improve the outcomes of an existing group, Juliet's book provides a framework for challenging old habits and delivering new thinking.

Angus Armour FAICD
CEO and Managing Director
Australian Institute of Company Directors

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Introduction

Increasingly, diversity of thinking is being touted as a panacea to improve group, and ultimately organisational, performance by protecting against risk and stimulating innovation. But there's little that comes after this headline of an idea beyond anecdotes like this:

> Several years ago, Pacific Power and Light (PP&L), which serves customers in the American Cascade Mountains, had a problem with ice building up on its power transmission lines. To stop the lines from breaking, especially after a blizzard, linesmen were sent deep into the forest to climb the towers, tug on the lines and remove the ice. The job was unpleasant and dangerous. Even though the problem was predictable – after all, winter happens every year – a safer solution continued to elude PP&L.
>
> One year, PP&L decided to host yet another 'brainstorming' workshop, this time with the linesmen, their supervisors, an accountant and a secretary.
>
> The workshop didn't start well. Several hours had already passed and the group was nowhere nearer to finding a solution. During the morning tea break, one of the linesmen was overheard saying, *"I really hate this job. Just last week I was coming down from a pole only to find I was looking at one of the biggest, meanest black bears I've ever seen".*
>
> Seeking to motivate participants, the workshop leader retold the linesman's tale to the rest of the group, leading to a stream of consciousness...
>
> *"We should train the bears to climb the poles. Their weight would probably be enough to shake the wires and knock the ice off,"* quipped one of the linesmen.
>
> Someone scoffed, *"Sure, but how are you going to entice them to do that? And do it straight after a blizzard?"*
>
> *"We'll put honey pots on top of the poles!"* laughed the linesman.
>
> *"And, we'll 'borrow' the CEO's helicopter to fly them in!"* added another, bringing to mind images of honey pots attached by long wires being lowered over the electrical poles.
>
> When the laughter died down, one of the secretaries spoke up for the first time, *"When I was a nurse in Vietnam, the injured soldiers arrived at our field hospital by helicopter. The downwash from the helicopter blades was amazing.*
>
> >

> *Dust would fly everywhere. I wonder if we just flew the helicopter over the power lines at a low altitude, would the downwash from those blades be enough to shake the lines and knock the ice off?"*
>
> This time there was no laughter – just silence. The secretary had come up with the answer. Today, it is said, PP&L still flies helicopters over the power transmission lines after ice storms.[1]

Proponents of this story believe it's a poster child for diverse thinking. They point to the importance of including outsiders (in this case, the secretary and accountant). They invoke the brainstorming mantra: "There's no such thing as a stupid idea."

I take a different view. In fact, I think this story points to almost everything that's wrong with the standard approach to harnessing diversity of thinking – and the reason for this book.

Generating diversity of thinking requires more diligence than simply assembling a disparate group of people, encouraging random brainstorming and crossing one's fingers. That approach might work…sometimes…and apparently, on this occasion, it worked for PP&L. But only because they got lucky. The truth is, if the workshop leader had not overheard that linesman, if a different secretary had been included in the group, or if the secretary had not spoken up, PP&L's linesmen would probably still be out in the icy mountains risking their lives.

Taking the PP&L story one step further, and into the hearts of senior level groups such as boards, executive teams and cabinets, it's hard not to wonder if the value of diversity of thinking is similarly a bit 'hit and miss' in these settings? If this is so, then given the onerous responsibilities of these small groups and the cascading impact of their strategic decisions, the consequences – and the opportunities – are profound.

If the PP&L story does not demonstrate a reliable model for problem-solving, one that creates and then uses diversity of thinking, why does it have such a powerful resonance? The first answer is familiarity; the second is belief.

PP&L put into play an idea and a process that everyone is *familiar* with, particularly in western organisations. Every day, people work in small teams and discuss ideas in

1 E Camper, 1993, *The honey pot: A lesson in creativity and diversity*, http://www.insulators.info/articles/ppl.htm (accessed 26 March 2021).

some sort of brainstorming process. Each volunteers their opinion – sometimes in turn, at other times in a cacophony of voices – but all comfortable that this free-flowing and seemingly democratic process will result in quality debate and the generation of ideas. Certainly, it feels better than an autocratic process in which a leader speaks and followers may only listen.

As for *belief*, boards, executive teams, working groups and sub-committees, as well as their thoughtful leaders, *believe* in the inherent value of collective intelligence. They recognise that no one person, however smart, can have the breadth and depth of perspective necessary to make the 'best' decision, especially in a 'VUCA' world: Volatile, Unstable, Complex and Ambiguous. They understand the inherent weakness of a decision-making team comprising people who are more similar than different, and are, in effect, a leader's clones. They worry about personal and group blind spots and biases.

As Alan Joyce, CEO of Qantas explains:

> *"I believe diversity makes you stronger, gives you better understanding of risks in planning. For example, the way we are set up in Jetstar. I wanted to make sure we could see what other people were doing, that we could share experiences. I'm a big believer in cross-fertilising ideas."*[2]

Intuitively seeking to quantify the value of that diversity, Australian Chief of Defence, General Angus Campbell AO adds:

> *"You are going to get that extra 20% from the others. No one person is going to produce the best solution…and ultimately, in a business context or in a competitive environment, the 80% wave is the wave to obsolescence, not to next opportunity."*[3]

Such thinking is underpinned by a stream of best-sellers focusing on collective intelligence, diversity, decision making and bias. Books like Jim Surowiecki's (2004) *Wisdom of Crowds: Why the many are smarter than the few and how collective*

2 Interview Juliet Bourke and Alan Joyce, 11 July 2014.

3 J Bourke and B Dillon, 2015, *Fast forward: Leading in a Brave New World of Diversity (Customers, Ideas and Talent)*, Future Inc, Chartered Accountants Australia and New Zealand, p 25.

wisdom shapes business, economies and nations;[4] Scott Page's (2007) *The Difference: How the power of diversity creates better groups, firms, schools and societies*;[5] Dan Ariely's (2008) *Predictably Irrational: The hidden forces that shape our decisions*;[6] Malcolm Gladwell's *Blink: The power of thinking without thinking* (2007)[7] and *Outliers: The story of success* (2008);[8] Daniel Kahneman's (2011) epic *Thinking, Fast and Slow*;[9] and Scott Page's (2017) *The Diversity Bonus: How great teams pay off in knowledge economy*.[10] There are also books that have picked apart the slew of corporate failures (like Enron) or disasters (like BP) as mesmerizingly catalogued by Margaret Heffernan's (2011) *Wilful Blindness: Why we ignore the obvious at our peril*.[11]

Unfortunately, these widely-read and intensely thought-provoking books raise more questions than they answer. They are fascinating and compelling, yet deeply troubling. They point to a yawning gap between *what could be* if our decision-making groups consistently tapped into the potential of diversity of thinking and collective intelligence, and *what occurs far too often*: flawed decisions and compromised organisational performance.

Why the gap? Because while many might agree at an intellectual level that diversity of thinking enhances group performance, very few can put their finger on why it works or how to achieve it with any degree of specificity. Indeed, few can even agree on what creates diversity of thinking. Is it a maverick in the group? Is it people from minorities? Is it the coming together of team members from different educational disciplines and backgrounds? This knowledge gap means choices about group composition are often guided by hunches and feelings – a less than rigorous selection process.

And, returning to a group's discussion process, there's a trove of research questioning the value of random group brainstorming activities. Indeed, after reviewing 20 of

4 J Surowiecki, 2005, *Wisdom of Crowds: Why the many are smarter than the few and how collective wisdom shapes business, economies and nations*, Knopf Doubleday Publishing Group.
5 S E Page, 2008, *The Difference: How the power of diversity creates better groups, firms, schools and societies*, Princeton University Press.
6 D Ariely, 2008, *Predictably irrational: The hidden forces that shape our decisions*, Harper Collins.
7 M Gladwell, 2007, *Blink: The power of thinking without thinking*, Back Bay Books.
8 M Gladwell, 2008, *Outliers: The story of success*, Little, Brown and Company.
9 D Kahneman, 2011, *Thinking, fast and slow*, Farrar, Straus and Giroux.
10 S E Page, 2017, *The Diversity Bonus: How great teams pay off in knowledge economy*, Princeton University Press
11 M Heffernan, 2011, *Wilful blindness: Why we ignore the obvious at our peril*, Walker & Company.

these studies conducted over a period of 25 years, Syracuse University Professor, Brian Mullen, and his colleagues concluded:

> *"It appears to be particularly difficult to justify brainstorming techniques in terms of any performance outcomes, and the long-lived popularity of brainstorming techniques is unequivocally and substantively misguided."*[12]

Nevertheless, there doesn't seem to be a viable alternative group process. As a result, well-intentioned efforts to catalyse diversity of thinking are at risk of falling short or, like PP&L, only succeeding through luck. There is no proven, repeatable process to guarantee that groups consistently generate the highest quality of thinking; no proven method to ensure, as General Angus Campbell AO put it, that they generate the extra 20%; no reliable way to create a disruptive idea – the breakthrough insight that leads to a new way of operating, service, product or market.

This book chronicles my search for such methods, looking for the answers as to who, what and how. In particular, I wanted to identify whether there is a dependable formula to help groups, and particularly boards, make smarter decisions and generate breakthrough insights.

In my search, I considered the assumptions most leaders make about diversity of thinking and tested them against rigorous research to identify the factors that actually improve decision making and the reasons why. And then I asked: "What other elements are required?"

This journey led me to identify four enablers of diversity of thinking. First, paying attention to group composition in terms of 'surface level diversity' – that is, race, gender, functional roles and educational disciplines – gives a group a much better chance of seeing a scenario broadly and debating vigorously. *It's all about who is in the group.*

Secondly, individuals differ in their 'deep level diversity', that is, the mental frameworks or models they use to solve problems. My primary research shows that there are six different problem-solving mental models, all of which are equally valuable. These models focus on outcomes, options, people, process, evidence and risk. It is the *combination* of these models that creates a wise decision, robust solution

12 B Mullen, C Johnson and E Salas, 1991, "Productivity loss in brainstorming groups; A meta-analytic integration", *Basic and Applied Social Psychology*, Vol 12(1), pp 3–23.

or breakthrough idea. The challenge, however, is that people are often not aware of their own mental models, assuming that the way they approach problem-solving is the way that everyone solves problems and, moreover, if there are differences, theirs is the superior way. A second challenge, and one which is peculiar to senior teams, is that individuals tend to use similar mental frameworks (and just one or two of the potential six), thus narrowing group debate and giving rise to blind spots. The solution is to make personal frameworks transparent and introduce a process to consider each framework separately so as to provide a more effective discussion process. *It's about the disciplined process the diverse group uses to think and debate.*

Thirdly, notwithstanding attention to surface level diversity and deep level diversity, unconscious biases can interfere with individual relationships and group behaviours, as well as levels of attention to diverse ideas. These biases influence the composition of a group and manner of group debate. Being aware of these biases, together with applying practical mitigation strategies, is key to being open to, and integrating, diverse thinking. *It's about mitigating biases that pull towards maintenance of the status quo.*

Fourthly, *a diverse group functions best with a highly inclusive leader – a leader who role-models what it means to behave inclusively and creates an environment in which diversity is respected and valued.* As Dr Bruce Stewart, Former Director of Strategic Initiatives, US Office of Personnel Management told me:

> *"The old IQ was focused around individual intelligence. The new IQ is based on more of a group intelligence. The old IQ is about how smart you are; the new IQ is about how smart you make your team…Instead of a leader leading from the top of the pyramid, they lead from the middle of the circle."*[13]

The importance of inclusive leadership, and the willingness to be mindful of one's own mental model and to fully appreciate others' mental models, is a clarion call for board chairs, CEOs and team leaders.

Putting all of this together, and fast forwarding to the conclusion, I found that groups that leverage diversity of thinking reduce the risk of group think by up to

13 J Bourke and B Dillon, 2015, op cit, p 33.

30%, increase the potential for innovation by about 20% and generate higher levels of trust in their followers, making it easier to implement decisions.

Much of the credit for my conclusions goes to academic researchers from multiple disciplines – psychology, law, business and economics – who have conducted studies over the decades into the many different elements that create diversity of thinking. More than just relying on existing studies, however, I also conducted my own empirical research, testing ideas through a crucible of field studies with global leaders and their teams in a diverse set of organisations. The task I set myself was then to synthesise all these findings and identify how teams can apply these conclusions in a practical way to solve complex problems.

It has been a process in which I learned humility; making diversity of thinking possible in a reliable, dependable and repeatable way is really hard. Each time I tested an idea, I found aspects that worked and others that should be discarded. Setting one part of the puzzle into place only made me aware that more was to be done. I should have realised at the get-go that if this journey was going to be easy, and the answers simple, the discussion would be over by now. There's still more to understand, but what I have learned so far will help leaders and teams to close the gap between what's currently happening and what's possible.

Diversity of thinking enablers:

1. **Composition:** a focus on specific aspects of group composition in terms of visible and invisible diversity.
2. **Conversation:** disciplined debating and thinking processes instead of random brainstorming.
3. **Bias mitigation:** mitigating biases that lead individuals and the group back to homogeneity and the status quo.
4. **Inclusive leadership:** a mindset and set of behaviours that enables leaders to role-model what it means to be, and create an environment that is, highly inclusive of diversity.

About this book

This is a book of surprises. It disrupts several mainstream assumptions about diversity of thinking, replacing them with evidence that will help leaders understand how diversity of thinking works and be more deliberate and effective in using diversity of thinking to make better decisions.

Inside this book is a holistic view about diversity of thinking, as well as practical ideas about how to improve decision making through applying insights about diversity, bias and collaboration in teams. Simply put, the focus is on getting to the truth about:

Who: The composition of a decision-making group to ensure those *who* are present have a breadth of perspective – beyond ensuring team members have the requisite level of knowledge, experience and skills to be part of the decision-making group.

What: The thinking and debating processes used by the group to explore diverse approaches to problem-solving and mitigate bias, that is, *what* individuals and the group talk about.

How: *How* the diverse group is led so as to ensure individuals feel respected and valued, and work together collaboratively to identify risks and generate breakthrough ideas.

My goal is to offer ideas about how to be more purposeful and effective when selecting team members, facilitating group thinking processes and creating a sense of team. These insights are critical for anyone who regularly works in small group settings and wants to generate higher levels of team performance, but especially for those with a leadership role.

Moreover, as a consequence of discussing *who*, *what* and *how*, I also provide ideas about how leadership groups, such as boards and executive teams, can positively influence those who report to them. The powerful questions that leadership groups ask of others, as well as the processes they use to make a decision, will cascade – from boards to executives, executives to senior leaders, senior leaders to middle managers – to ensure that higher-quality decision making is the organisational norm. These

ideas and questions are not intended to replace existing good models of governance, but to enhance them by identifying and addressing potential weak spots.

Part 1: Clarity of thinking clarifies the nature of diversity of thinking: how diversity of thinking is generated and operates in the context of decision making. Those outside a leadership team intuitively assess whether the group is 'diverse' by looking at visible indicators such as differences in race/culture, gender and functional role. The intuition to look at these signals is right, albeit for unexpected reasons. But there's something more than visible diversity that enables diversity of thinking.

'Deep level' diversity refers to the ways people tend to approach problem-solving – their mental frameworks. The empirical research that underpins this book reveals that *individuals* are biased to use one or two of six possible problem-solving approaches. Good decision making requires consideration of these six approaches and the potential that *groups* can offer, that is, collective intelligence. Unfortunately, however, groups can become dominated by the preferred approach of the group's leader or by a voting bloc, particularly at senior levels. Frequently, I observed a bias in *senior teams* towards applying a narrow range of problem-solving approaches. I also share field work on helping small teams to use all six different approaches, in a deliberate way, to think through problems and generate innovative ideas and robust solutions. And, of course, real life examples will be narrated, helping to explain, for example, why the team at Bletchley Park solved the Enigma Code and BellKor's Pragmatic Chaos group won Netflix's $1,000,000 contest to develop an algorithm to predict consumer choices, while other groups failed.

Finally, in PART 1, I look at the issue of style preferences (for example, introvert/extrovert) concluding, perhaps controversially, that diversity of thinking is *not* created by ensuring a group comprises people with different personality styles.

Together, this information will help groups to be more disciplined in the way they think about diversity, select team members to truly provide diversity of perspective and approach and help themselves and team members to adapt to others' problem-solving approaches.

Part 2: Biases and behaviours goes on to explain that even if a group has been selected with attention to visible and invisible diversity, and leaders have applied disciplined processes for group debate, biases can still lead a group towards likeness of thinking – and away from diversity. Weaving in lessons from the demise of the Enron board, the Mayfield bombing case and the Volkswagen emissions scandal, PART 2 discusses some of these biases, namely 'social biases' that limit connectivity with diverse people, 'information biases' that limit the ability to access diverse ideas and 'attentional biases' that limit the ability to consider and process diversity of thinking.

Popular books, such as Sheryl Sandberg's 2013 best seller *Lean In: Women, Work and the Will to Lead*[14] and *Blind-Spot*: *Hidden Biases of Good People*[15] by Harvard University Professor Mahzarin Banaji and University of Washington Professor Anthony Greenwald, as well as the award winning *What works: Gender equality by design*[16] by Professor Iris Bohnet (also from Harvard University), have raised awareness of the power of unconscious biases, particularly in relation to gender and racial stereotypes. Many other authors have highlighted broader decision-making biases including 'group think' (the tendency of a group to converge so as to ensure equilibrium), 'confirmation bias' (the tendency to confirm a position already held), 'anchoring bias' (the tendency to overweight an initial proposition) and 'framing bias' (the tendency to limit attention to what is within an immediate frame of reference).

Yet, we have seen little effort to systematically introduce strategies to counteract unconscious biases when making group decisions, particularly in order to access, or when faced with, diverse information and ideas. When Forbes published an oft-quoted article about Warren Buffett's 'novel' strategy of counteracting confirmation bias (namely by inviting an opponent to speak with him on a panel so he could listen to a contrary point of view), it only highlighted that such strategies are still not the norm,[17] despite the fact that Darwin spoke of confirmation bias over 150 years ago.[18]

14 S Sandberg, 2013, *Lean in: Women, work and the will to lead*, Knopf. H Ibarra, R Ely and D Kolb, 2013, "Women rising: The Unseen Barriers", *Harvard Business Review*, September 2013.

15 M R Banaji and A G Greenwald, 2013, *Blind-Spot: Hidden biases of good people*, Delacorte Press, The Random House Publishing Group, New York

16 I Bohnet, 2016, *What works: Gender equality by design*, Harvard University Press.

17 R Dooley, 2013, "How Warren Buffett avoids getting trapped by confirmation bias", *Forbes Magazine*, 5 July 2013.

18 N Barlow, 1958, *The autobiography of Charles Darwin 1809–1882 with original omissions restored*. Edited with Appendix and notes by his grand-daughter, Collins, London, http://Darwin-online.org.uk.

Following the lead of Charles Darwin and former President Obama, this book offers practical bias mitigation strategies for leaders and teams, taking into account the energy one needs to actively work against bias. In particular, it provides strategies for the time-poor leader (and who isn't?) by considering the relationship between cognitive depletion and unconscious biases. This information will help leaders and groups ensure that the potential of diversity of thinking is not eroded by inattention or conflict, rather that it is enabled through active efforts of inclusion.

Part 3: The special role of inclusive leaders and leadership groups introduces the concept of *inclusive leadership* and identifies the pivotal role that inclusive leaders play in creating optimal conditions for diverse thinking groups. Having worked with highly inclusive leaders – exemplars – from around the world, I discuss the six signature traits of inclusive leaders in terms of their mental models (what they think about) and their behaviours (what they do).

In particular, we now know that highly inclusive leaders demonstrate extraordinary levels of commitment to diversity, are highly conscious of personal and organisational biases and work hard to control, if not eliminate, these. Crucially, inclusive leaders exhibit high levels of curiosity in others, demonstrate the courage to be vulnerable, are culturally intelligent and create collaborative cultures. In essence, highly inclusive leaders role-model what it means to be open to, and appreciative of, diversity, which is a very different mindset (and skill-set) to being inclusive of others who are similar. I bring these insights to life through the inspiring stories of Brigadier and Commander Fegan and his command of 800 tri-service and international personnel, along with 3,000 Afghan soldiers, in 2012 during the Afghanistan war, as well as the speedy and efficacious development of Remdesivir in 2020, the drug treatment for COVID-19.

Finally, this book draws together the key insights about visible and invisible diversity, group discussion processes, biases and inclusive leadership and considers senior leadership groups. How can these groups – boards and executives – operationalise these ideas to enhance their own interactions? To assist, I suggest seven areas of self-reflection.

I also provide boards and executives with ideas about how they can use this framework of analysis to review strategies and recommendations developed by subordinate groups, and influence other stakeholders (such as professional bodies).

My seven powerful questions will help leadership groups ensure that diversity of thinking has been woven into the processes of those who report into them.

This is an exciting moment to be talking about diversity of thinking. Since the first edition of this book in 2016, the global focus on diversity has further intensified and expanded. Initiatives to increase the representation of women on boards[19] and executive teams, introduce marriage equality and address racial injustices highlighted by the Black Lives Matter movement, all speak to this momentum. In Australia, company directors and executives have shaped and responded to the interest in gender equity through landmark initiatives such as the Australian Stock Exchange 2010 'Corporate (Diversity) Governance Principles & Recommendations' and the 30% Club, the aim of which is to increase the representation of women on all boards and the C-Suite globally to at least 30%.[20]

However, diversity of thinking is so much more than just a focus on demographic diversity. Board members and executives have the opportunity to shape the next wave of change, domestically and internationally, by being clear about:

1. The connection between diversity of thinking and a high performance team.
2. Surface level factors that generate diversity of thinking in terms of team composition.
3. Processes that help elicit deep level diversity differences during group conversations.
4. The hands-on role played by leaders in modelling inclusive behaviours and creating an environment of collaboration.
5. The influence of leadership groups, such as boards and executive teams, in role modelling and asking powerful questions so as to ensure that diversity of thinking and inclusive leadership become business as usual.

19 Deloitte, 2019, *Women in the boardroom: A global perspective*, 6th ed, Deloitte, https://www2.deloitte.com/global/en/pages/risk/cyber-strategic-risk/articles/women-in-the-boardroom-global-perspective.html (accessed 10 May 20215).

20 30% Club (www.30percentclub.org) (accessed 5 January 2021). See AICD, 2021, Gender Diversity Progress Report November 2020 to February 2021, https://aicd.companydirectors.com.au/-/media/resources/membership/pdf/gender-diversity-report-mar-2021-a4-18pp-(1).ashx (accessed 10 May 2021); Chief Executive Women, CEW ASX 200 Senior Executive Census, 2020, https://cew.org.au/topics/asx200-census/ (accessed 10 May 2021).

Which Two Heads Are Better Than One? helps define these five factors, providing a blueprint for improving the quality of thinking in decision-making teams and accelerating the journey to equality.

The final word

As the world adapts to the impact of the 2020/2021 COVID-19 pandemic, as well as multiple points of civil unrest, political change, economic strain and technological advances, there has never been a greater incentive to adopt disciplined diversity of thinking. Boards now find themselves in a very challenging place, needing to make difficult choices when the landscape is unstable and information is imperfect or incomplete. The trend is towards transparency, ensuring a social licence to operate, and the focus on directors' legal responsibilities is at an all-time high. If organisations are to make far-sighted and robust decisions about hydra-headed problems and growth opportunities, they need to learn how to create and capitalise on the collective intelligence of diverse thinking groups.

Having worked on the complexities of diversity of thinking for the past decade, and diversity and inclusion more broadly for the past twenty-five years, I now firmly believe that when leaders and teams take a disciplined approach to diversity of thinking, the chances of the group making the best decision and generating successful outcomes are increased. By 'success', I mean both the objective value of a decision (its 'rightness' when compared to other options) and also its subjective value (the extent to which it is perceived as a 'good' decision and accepted by those it affects). In contrast, a lack of clarity about diversity of thinking – uncertainty about how to be an inclusive leader, stimulate inclusive team behaviours and replace haphazard conversational processes – leaves too much to chance and is a recipe for average or under-performance.

Finally, in taking a more deliberate and precise approach to fostering diversity of thinking and enhancing collective intelligence, there is a very positive secondary effect. Notably, attending to deep level diversity (that is, the ways that people solve problems), in addition to surface level diversity (for example, race and gender) generates higher levels of inclusion. Team members experience a stronger sense that their uniqueness is recognised and respected, and also gain a deeper appreciation for the value of others. This helps to create higher levels of psychological safety which, as Harvard

University Professor Amy Edmondson[21] points out, is necessary to ensure that people speak up and take risks. It also gives people confidence that their perspectives have been considered when making choices, which in turn leads to greater levels of trust in the group's ultimate decision, and therefore followership.

So, paying attention to diversity of thinking has a utilitarian value but there is something more. I have now come to realise that a focus on diversity of thinking helps to fulfil basic human needs: it meets people's sense of curiosity, enables them to create meaning by being part of something that is bigger than themselves and facilitates more equitable and inspiring workplaces.

21 A C Edmondson, 2018, *The fearless organisation. Creating psychological safety in the workplace for learning, innovation and growth*, John Wiley & Sons.

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Part 1

Clarity of thinking

The value of collective decision making and diversity of thinking seems like a universal truth, encoded in our modern day sayings: "If everybody is thinking alike, then somebody isn't thinking"; "It is better to be blind than see things from only one point of view"; "Two heads are better than one"; and "When you need to make an important decision, never do it alone".

But, as it is also said, "the devil is in the detail". While these proverbs on wisdom point in the right direction, a few more sentences would have been helpful to bring these insights to life. What creates a 'different point of view'? Is this just a numbers game? Would any two heads make a difference? How do people know if they are following the crowd or thinking for themselves?

In essence, what is diversity of thinking and what conditions will create value from that diversity?

There's a logical sequence to answering these questions. Before discussing the conditions needed to bring diversity of thinking to life, one needs to be clear about the nature of cognitive diversity itself. Without a clear definition, diversity of thinking is more like a 'fingers crossed' aspiration than an operational tool. Knowing what type of diversity to focus on, and when, is a critical component to gaining value from collective intelligence.

I hear people using a variety of phrases and ideas to describe the elements of diversity of thinking, with some common themes, but little consistent agreement. Having listened to these phrases and sought to distinguish between them in practice, I now define diversity of thinking as:

1. Diversity of *perspective* – how people perceive or see an issue. Understanding what drives diversity of perspective helps to ensure that the way a situation or problem is defined is broad – that, collectively, the group sees the full picture.
2. Diversity of *approach* – the mental frameworks or models people use to solve problems once they have been defined. Much like using a familiar tool in a physical toolbox, people tend to approach problem-solving moments with familiar mental tools in hand. Although one might acknowledge the value of using a range of tools to create a well-crafted solution, familiarity breeds the repetitive use of, and higher levels of competency with, just one or two tools. Moreover, people are often unaware of their mental frameworks, assume that others share the same framework and sometimes become disconcerted or confused when they experience others approaching a problem in a different way. Becoming conscious of personal mental frameworks, as well as understanding and integrating the frameworks of others, are significant elements in the creation of a diverse thinking group.

Importantly, I do not define diversity of thinking in terms of personality types or thinking *styles*. In this context, people often refer to personality assessment tools such as the Myers-Briggs Type Indicator ('MBTI') and the Belbin Team Roles, or even elements of the Big Five personality traits such as introversion/extroversion. The validity of the MBTI has been strongly challenged, but this is not the reason I have pushed it aside, along with other personality tools. Rather it is because these tools focus on understanding individual preferences in the way people like to learn, contemplate things and communicate. When I use the term 'diversity of thinking', I am referring to the *outcomes* of the thinking process: different insights and ideas.

To be clear, I take a view that bringing a group of people together for their diverse thinking styles will not necessarily generate diversity of thought. If leaders want a team to generate diversity of thinking, then understanding diversity of *perspective* and diversity of *approach* are key.

A cautionary tale

Before I discuss these elements, let me share one of my early missteps, which taught me an important lesson about the role of perspective and approach in team composition. In 2011, the CEO of a business division of a global commodities company asked my previous team at Deloitte and I to help develop a three-year talent strategy. Having undertaken some preliminary data analysis, we brought together a working group comprising 15 of his employees to discuss, debate and make recommendations for change. These 15 individuals were handpicked on the basis that they had each expressed an interest in developing the strategy and, together, the group was diverse in terms of its racial/cultural composition, female/male ratio and representation across the business. What could go wrong?

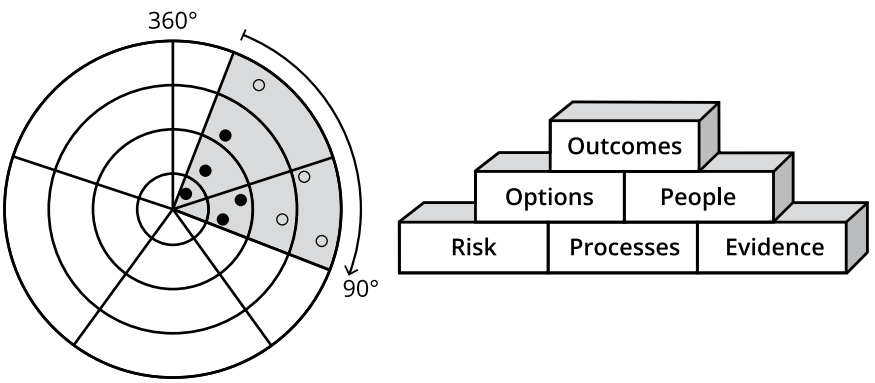
It transpired that most of the team members had a low level of knowledge about how talent strategies work. Of course, they had their own personal experiences, but only two of them had a detailed knowledge of recruitment, deployment, development, performance management, promotion and termination. Thus, the capacity for the group to 'think differently' could not make up for foundational knowledge gaps when it came to developing detailed ideas.

In hindsight, it seems obvious. We had paid too much attention to diversity and insufficient attention to quantifying people's knowledge and capability to answer the question. We may not have needed 100% of participants to know about human resources in detail, but 13% (2/15) was clearly a mistake. The balance should probably have been more like 80% (12/15), with those extra three people providing more of a 'user experience' lens on the discussion.

So my first hard lesson was this: paying attention to diversity of thinking is a plus factor and one to be considered *after* potential team members have demonstrated their capability in terms of domain knowledge, competence and experience.

Only then, once leaders are sure that potential team members have the right experience and expertise, should consideration be given to the concepts discussed in the next two chapters: how *diversity of perspective* gives a group a 360-degree circular sweep of a radar to gain the broadest possible view; and how *diversity of approach* gives a group multiple 'building blocks' or mental models on which to build an integrated solution to a problem (refer to Figure 1).

Figure 1: Visual representation of diversity of perspective and approach



Paying attention to diversity of thinking is a plus factor and one to be considered *after* potential team members have demonstrated their capability in terms of their domain knowledge, competence and experience.

1.1 Diversity of perspective and the radar model

I often hear people talking about diversity of thinking in terms of team members having diverse perspectives and, in combination, a breadth of perspective. This intuitive recognition of the link between diversity of thinking and perspective belies the challenge in achieving that goal. How so?

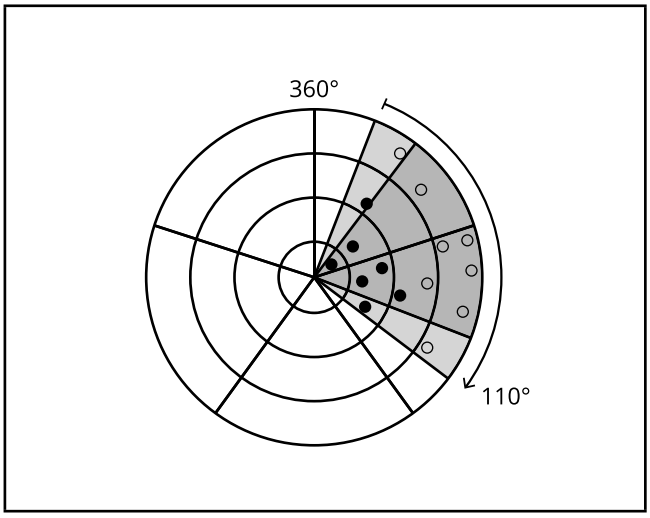
People's everyday experiences suggest that individuals think differently to one another. Every time you proffer an opinion and it is countered by someone else, your belief in diversity of thinking is reinforced. But step back from the fray a little and ask yourself whether, in fact, those differences of opinion are more at the margins than the centre. The conclusions from the field of social psychology are that, by and large, points of view within an individual's range of contacts are likely to be more similar than fundamentally different. This similarity arises from two fundamental human biases:

1. **Similarity attraction bias** (or homophily) – people tend to 'lean in' and connect faster and more firmly with those who feel similarly to themselves ('birds of a feather' so to speak).[22]
2. **In-group bias** – people tend to associate with, and gain their social identity from, groups of people who are more alike than different. When one seeks advice, it's more often from these trusted networks of people who share common experiences, backgrounds and beliefs. It's like an echo chamber.

In other words, people build perspectives on the world through their personal experiences, and these are shaped and refined by reference to the cultural knowledge of micro and broader in-groups.

Visualise your cumulative experiences as an arc of perspective radiating outwards from yourself. Now, imagine you are standing next to someone in your in-group. Chances are they will share a similar arc of perspective. There may be differences of degree, but broadly your arcs are similar because your world views have been formed by similar, or even shared, experiences, backgrounds and beliefs (refer to Figure 2).

Figure 2: Visual representation of the arc of perspective created by two in-group members



22 M McPherson, L Smith-Lovin and J M Cook, 2001, "Birds of a feather: Homophily in social networks", *Annual Review Sociology*, Vol 27, pp 415–444.

So, to create diversity of perspective, individuals need to connect with people holding very different world views. Imagine the range of insight a group would have if its members were truly diverse and combined their perspectives. The group could, potentially, see a situation or problem broadly from 360 degrees rather than bouncing backwards and forwards within a narrow arc of similarity. It seems obvious, but the challenge is how, in practical terms, can such an outcome be achieved?

One simple but effective strategy is to amplify the weak signals of difference within an in-group, for example views that are expressed by people on the fringes (think of acquaintances, indirect or now dormant contacts, rather than close family and friends). These 'fringe dwellers' occupy a place in one's own social network, as well as being part of another very different network. Fringe dwellers, therefore, not only have access to different pools of information,[23] but their ability to span both groups means that they can communicate across boundaries, transmitting and translating the perspectives of multiple networks. But there's other, and perhaps easier, ways of creating diversity of perspective.

So begins the detective story and the pursuit of rigorous research that identifies real and significant drivers of perspective. One can't rely upon gut feelings because everyone tends to 'feel' that their in-group members are really different from each other, whereas objectively an in-group is more similar than different. And adopting a scattergun approach to group selection (much like buying a lucky bag of mixed sweets) is inefficient as well as unreliable. If groups know how to broaden the sweep of their collective radar, they can intentionally and efficiently get closer to building teams with a comprehensive picture of an issue – the first element of any decision-making process (that is, defining the 'situation').

My search for the factors that create diversity of perspective turned up many distractions and false leads. People hold numerous assumptions and stereotypes about individual and group differences, very little of which is supported by quality research. To be fair, the quest is challenging, as identifying group or even individual differences is difficult. People are the sum of multiple parts and cannot easily be

23 M S Granovetter, 1973, "The strength of weak ties", *American Journal of Sociology*, Vol 78(6), pp 1360–1380; and D Z Levin, J Walter and J K Murnighan, 2011, "Dormant ties: The value of reconnecting", *Organization Science,* Vol 22(4), pp 923–939; and I Leslie, 2020, *Why your 'weak-tie' friendships may mean more than you think*, The life project, BBC, www.bbc.com/worklife/article/20200701-why-your-weak-tie-friendships-may-mean-more-than-you-think (accessed 26 March 2021).

separated into simple binary groups (such as female/male or engineer/lawyer), as if falling on one side or the other of that dimension explains all there is to know about them, or at least what is critical to understanding their world view.

Nevertheless, current research reveals three significant aspects of visible diversity that influence diversity of thinking: race (or culture),[24] gender[25] and functional role/educational discipline. These factors don't *always* influence perspective, and not in the simplistic way one might assume, but creating groups with an eye to these three features and knowing how they operate, can increase the likelihood of perspective diversity within the group.

In this chapter, I consider these factors in detail, starting with race, moving to gender and finishing with functional role and educational discipline. To some degree, the trajectory follows a curve of escalating impact of these factors on one's individual perspective. This is because the impact of race and gender socialisations are more malleable, whereas perspectives founded in functional roles and education seem to have the most durable and consistent impact on an individual's perspective. Put simply, everyone is highly influenced by their context: change the context and people start to change their perspective, but some aspects take longer to change than others. What is more enduring – and much more intriguing – is the impact of *others'* visible diversity on stimulating diversity of thinking in groups.

Race: curiosity and attention

There's no doubt that racially/culturally diverse groups will generate a broader view of the environment (and therefore the problem they are trying to resolve), than one generated by a racially/culturally homogenous group. Even more critically, that breadth of perspective will have a positive effect on a group's decisions.

These general conclusions are supported by compelling research showing that the racial diversity of top teams can measurably enhance company performance. For

24 I use the terms 'race', 'culture', 'ethnicity' and 'nationality' interchangeably and with a lack of precision for two primary reasons. First, these terms are used interchangeably in common parlance and in academic studies. Secondly, my goal is not one which requires technical precision to determine if one's visible diversity is driven by one's country of birth, citizenship, cultural affiliation, racial heritage and so forth. My goal is to talk about the cluster as a whole.

25 I use the term 'gender' for its commonly accepted meaning: to refer to men and women. Technically 'gender' refers to the socialised differences between men and women, whereas it is the term 'sex' that refers to being a man or woman.

example, in 2013, Professors Bo and Sabina Nielsen (both teaching at Copenhagen Business School and the University of Technology, Sydney) published their research comparing the performance of 146 Swiss-listed companies, across 32 industries, between 2001 and 2008.[26] They examined Return on Assets (ROA) as a measure of financial performance, and the characteristics of top teams (including diversity in nationality, as Swiss companies are required to disclose in their annual reports the nationality of their top executives), functional diversity (that is, the roles held by executives) and tenure. Lest there be any question as to the chain of causation, the data on composition was collected at the beginning of the year and the data on ROA at the end of the financial year. This helped the researchers to identify if, and what type of, demographics influenced ROA.

The Nielsens found that not all diversity made a positive difference to company performance, but that nationality and functional diversity definitely did. They discovered that companies with a positive ROA were significantly more likely to have a top team that was racially diverse and with executives performing diverse functions. Other aspects of team diversity (age, education, industry and international experience) did not have a positive impact on ROA once diversity of nationality was taken into account. Further, the positive impact of diversity of nationality became stronger over time. As racially diverse teams worked together for longer, company performance also increased presumably because longer-tenured groups had worked through cultural misunderstandings. Finally, the Nielsens found that the positive effect of diversity of nationality in the top team was amplified in companies with greater levels of internationalisation and those with higher industry growth, meaning that a racially diverse top team is particularly critical for multinational organisations operating in conditions of complexity and change.

The Nielsens' findings regarding the link between racial diversity in top teams and organisational performance were repeated in a 2018 study by McKinsey bluntly titled "Delivering through diversity". This study included an examination of profitability (measured as average EBIT margin) and the racial mix of 589 executive teams and 493 boards[27] across six countries (namely the UK, USA, Brazil, Mexico, Singapore

26 B B Nielsen and S Nielsen, 2013, "Top management team nationality diversity and firm performance: A multi-level study", *Strategic Management Journal*, Vol 34(3), pp 373–382.

27 V Hunt, S Prince, S Dixon-Fyle and L Yee, 2018, *Delivering through Diversity*, McKinsey & Company, p 1.

and South Africa). The study also examined the relationship between gender diversity and financial performance for 991 companies across 12 countries, but I'll come back to that later. Consistent with the Nielsens' results, McKinsey found that racial diversity and performance are strongly correlated: *"Companies with the most ethnically/culturally diverse executive teams – not only in terms of absolute representation, but also of the variety or mix of ethnicities – are 33% more likely to outperform their peers on profitability."* Even more relevantly, the study found that companies with the most racially diverse boards were 43% more likely to be in the top quartile of financial performers. Conversely, the lowest performing companies were more likely to be racially homogenous.

Looking at this from another angle, and yet reaching a similar conclusion about the productive value of racial diversity, are a number of large-scale studies examining the quality/novelty of academic research papers and the ethnicity profile of the co-authors. These studies use an article's publication in a prestigious journal as one indicator of its value, as well as the number of times it is cited by other researchers. They assess ethnicity via the authors' surnames or their country of location.

By way of example, to give you a sense of scale and therefore the reliability of their findings, Harvard University Professors Richard Freeman and Wei Huang[28] reviewed the performance of 1.5 million scientific articles published over a 13-year period. Further, University of Chicago Professor Matthew Smith and his colleagues[29] reviewed 1.25 million academic papers published across eight disciplines over a 17-year period. And their intriguing conclusions? When co-researchers are of diverse ethnicity, their papers outperform those authored by researchers who are racially homogeneous in terms of journal placement and citations.

Thinking about the implications for boards for a moment, while the Nielsens' study looked at executive team diversity and Freeman and Huang, as well as Smith and colleagues looked at research papers, it was McKinsey's research that clearly demonstrated a connection between the racial diversity of boards and organisational performance. And those findings are probably a matter of common-sense for boards

28 R B Freeman and W Huang, 2015, "Collaborating with people like me: Ethnic co-authorship within the US", *Journal of Labor Economics*, Vol 33(3), pp S289–S318.

29 M J Smith, C Weinberger, E M Bruna and S Allesina, 2014, "The scientific impact of nations: Journal placement and citation performance", *PLOS One*, October 8, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0109195 (accessed 26 March 2012).

of multinational companies, but what about boards that are domiciled locally? Does racial diversity add value in that context?

A curiosity trigger

The studies of the Nielsens as well as Freeman and Huang hold a clue. First, the Nielsens' study found strong evidence to support the view that diversity of nationality improves top team, and therefore organisational, performance – but not just for multinational companies. Secondly, while Smith and his colleagues analysed research papers co-written by authors in *different* countries, Freeman and Huang only reviewed papers written by authors living *in the USA*. Yet, racial diversity had a demonstrable effect on group performance irrespective of whether the team was operating globally or locally. Why is that so? How does racial diversity influence performance?

Asked to theorise about this issue, people often offer the view that racial minorities bring important new perspectives to group decision making. That's probably true, but in fact a much stronger reason that racial diversity enables better decision making is far more basic: including racial minorities in a group *causes those in the visible majority to do a better job.*

Now the story gets interesting.

More clues about the impact of visible diversity on group performance come from a study by Professor Sam Sommers from the Department of Psychology at Tufts University in the USA.[30] Sommers has long been interested in the relationship between group diversity and decision making, and not just decision making in an abstract way, but how diversity influences *significant* real-world decisions. High up on the 'significance' rating scale are decisions made by juries in criminal trials, especially in the USA, where a verdict about an accused's guilt can mean the difference between freedom, incarceration and capital punishment. So, it's not surprising that Sommers chose this decision-making scenario for his PhD research.[31] In a nutshell,

30 S R Sommers, 2006, "On racial diversity and group decision-making: Identifying multiple effects of racial composition on jury deliberations", *Journal of Personality and Social Psychology*, Vol 90(4), pp 597–612.

31 See also a follow-up study S R Sommers, L S Warp and C C Mahoney, 2008, "Cognitive effects of racial diversity: White individuals' information processing in heterogeneous groups", *Journal of Experimental Social Psychology*, Vol 44(4), pp 1129–1136.

Sommers wanted to know: Does a jury's racial diversity influence the decision-making processes and ultimate judgment and, if so, how?

To answer these questions, Sommers set up an experiment with jurors selected from the citizens of Washentaw County, Michigan, who were eligible for jury duty, and conducted a mock criminal trial. The mock jurors' task was to decide, beyond reasonable doubt, whether an accused was guilty of sexual assault. As with any criminal trial, the jurors heard evidence from prosecution witnesses (in this case there were seven, including the two alleged victims), and defence witnesses (in this case there were three). In Sommers' experiment, there was no question that the victims had been assaulted, the only issue in dispute was whether the accused was the assailant. The victims agreed that they could not identify their assailant's face, but one victim could identify a scar similar to one on the accused's torso. There were crime scene samples of hair and semen, but the DNA analysis could only say it was consistent with the accused's DNA profile, not that it was definitively his. It was a classic question of identification.

So, the jury's decision was one with high stakes, conflict and complexity, and one where diversity of thinking could increase the chances of the 'right' decision being made. But how does one test that? How does one hold almost every element stable but vary a diversity factor? How could Sommers pinpoint whether diversity influenced a group's thinking process when so many other factors may be relevant? Sommers came up with an ingenious experimental design. First, he decided to observe not just one jury, but 29 juries (each with six people). This meant that he could watch the behaviours of the 174 jurors, and 29 juries as groups, study their decision-making processes and their final decision (the output). Secondly, he controlled the information (the input) each jury considered. Unlike a normal jury trial, in which attorneys and witnesses might say slightly different things in the heat of the moment, Sommers videoed the 30-minute trial, and required each jury to listen to exactly the same evidence before retiring for their deliberations. The only thing that changed was the composition of the six-person mock jury, and that composition changed on only one dimension, meaning that on every other dimension the groups were identical. Let's call them Type A and Type B juries.

It worked like this: after viewing the video, each jury was given 60 minutes to reach a decision. Their deliberations were recorded along with their verdict. You can see Sommers' observations in the call out box below.

Type A Juries	Type B Juries
50 minutes deliberation	38 minutes deliberation
30 facts discussed	25 facts discussed
4 factual inaccuracies	8 factual inaccuracies
1 uncorrected error	2 uncorrected errors
2 missing evidence noted	1 missing evidence noted

Thus, Type A juries took longer making their decision than Type B juries and their deliberations were more precise and thoughtful. They discussed more of the 46 major case facts, made fewer factual mistakes, left fewer inaccurate statements uncorrected and noticed more missing evidence. Type B juries were faster and sloppier. These findings are deeply concerning. Even more so when I tell you, as perhaps you have already guessed, that the flawed information processing behaviours exhibited by Type B juries increased the chances of them making a flawed decision. In particular, while 28 of the 29 juries either acquitted the accused or delivered a hung verdict (meaning that they were unable to make a unanimous decision that the accused assaulted the victims 'beyond reasonable doubt'), *only* a Type B jury delivered a guilty verdict. A flawed decision? How else to describe a verdict that sits at odds with 97% of the juries that looked at the same evidence?

So, what triggered the difference between the conversation patterns in the Type A and Type B juries, which ultimately caused one of the Type B juries to make the wrong decision? The answer is visible diversity in the juries' composition: Type A juries comprised racially diverse members who were Black *and* White whereas Type B juries were racially homogenous, comprising *all* White jurors.

If that was the answer you were expecting, wait for the kicker. Yes, racial diversity – as most would assume – made the jury more effective. But the question is: Why? Was it because the Black jurors raised new and different points of view? Yes, they did, but that was only part of their impact. Sommers' insightful finding was that the larger impact of the Black jurors was more *indirect*. Their presence changed the behaviours and comments of the White jurors. It was the White jurors who, when in a racially diverse group, raised more case facts and made fewer inaccurate statements.

Sommers' study is intriguing because it points to the importance of demographic diversity in groups but alludes to a complex relationship by which visible diversity can trigger positive behaviours of listening, questioning and diligent thinking in the visibly dominant majority.

This is not the usual way that racial diversity is thought about, particularly in relation to US jury trials, but Sommers is not the only one to have reached this conclusion. Professor Antonio from the School of Education at Stanford University, and his colleagues from four other universities, looked at the impact of racial diversity on the conversations of college students.[32] In their study, they allocated 357 White students to small (same sex) groups, each with three participants and one research collaborator. Each group was asked to discuss a set topic, either child labour practices or the death penalty, but before the discussion took place each student was asked to write a short essay expressing their point of view. That task was repeated after the discussion so that researchers could determine the impact of the group discussion on the student's thinking.

Along with writing essays, the students were asked to rate the influence of the other group members on their own thinking, including the influence of the research collaborator. What the students didn't know was that the research collaborator followed the same script for each discussion, the only thing that varied was their race: some collaborators were Black and some were White. Just like Sommers, Antonio and his colleagues found that race acted as a trigger. In this case, the White students thought the contributions of the Black collaborators were more 'novel' and 'interesting'.

As a consequence, White students pricked up their ears and attended more closely when opinions were expressed by someone visibly diverse. Not only did they listen, but they thought more deeply about the Black collaborator's point of view and demonstrated more complex thinking in their post-discussion essays. Astounding. The content expressed by the Black and White collaborators was the same, but White students expected a different opinion and that's what they heard.

Are these two studies enough for us to definitively conclude that racial diversity helps trigger more rigorous thinking? If they are, then the implications are profound. If you are not yet persuaded, then perhaps one more study will help to cement this conclusion.

32 A L Antonio, M J Chang, K Hakuta, D A Kenny, S Levin and J F Millem, 2004, "Effects of racial diversity on complex thinking in college students", *Psychological Science*, Vol 15(8), pp 507–510

Wall Street, the epicentre of the 2007–2008 Global Financial Crisis (GFC), is well known for its overall racial homogeneity. Could the GFC have been prevented, or at least curtailed, if traders had been more ethnically diverse? In 2014, Professor Sheen Levine from Columbia University, along with his colleagues from the USA, Germany and the UK, tested that question by manipulating the racial composition of markets (that is, small groups of traders) on their trading behaviours and stock prices.[33] Levine and his colleagues hypothesised that if traders operated in an ethnically/racially diverse group, they would scrutinise others' actions more closely and thus make fewer trading errors. Conversely, Levine and his colleagues hypothesised that in a racially homogenous group, traders would have a higher level of trust and confidence in each other, assume others' behaviours were reasonable and therefore imitate each other (for example, buying or selling). Moreover, they predicted that price bubbles, caused by traders' collective pricing errors and a mismatch between the true value of an asset and market prices, would be thwarted by diversity.

To test their theory, Levine and colleagues invited skilled traders to buy and sell shares among themselves in a trade simulation. Notably, given that Sommers' and Antonio's previous research focused on differences between Whites and Blacks and thus raises a question as to whether the results are unique to the USA, Levine's research was conducted in both Singapore and Texas. Small groups of traders (six per group) were randomly assigned to test conditions in which they were ethnically similar (for example, Whites trading in Texas, or Chinese trading in Singapore) or ethnically diverse (for example, Whites, Blacks and Latinos trading in Texas, or Malays and Chinese trading in Singapore).

Prior to trade commencing, traders could see and talk to their counterparts and assess the ethnic diversity/similarity of their trading group. Traders were then presented with simple market scenarios and asked to buy or sell stock over 10 trading periods, each lasting two minutes. Just like in the real world, participants could observe trading activity on their networked computer screens, but they didn't know the individual identity of each trader. After 2,022 market transactions by 180 individual traders in 30 market simulations, the researchers unequivocally concluded that "*pricing errors*

33 S S Levine, E P Apfelbaum, M Bernard, V L Bartelt, E J Zajac and D Stark, 2014, "Ethnic diversity deflates price bubbles", *PNAS Early edition*, www.pnas.org/content/111/52/18524 (accessed 26 March 2021).

– mostly overpricing – (were) significantly higher in homogenous markets"[34] and homogenous markets erred collectively.

To place a number on this effect, taking the data from all of the market simulations, the researchers found that accuracy was 58% higher in diverse markets than homogenous markets. More conservatively, and accounting for location-specific effects (the South-east Asian traders were more financially literate than the American traders), the researchers concluded that *"diversity improves pricing accuracy by 29.7 percentage points"*.[35]

This means that the intuitive figure (of around 20%) which the Chief of the Defence Force, General Angus Campbell, placed on the value of diversity of thinking was pretty close to the mark. Certainly, whether the true value is 20% or 30% (as identified by Levine), it's not a figure to be ignored in a business setting – or in military conflict.

Again, racial diversity clearly made a difference. But what drove the traders' behaviour? It seems that offers to trade were much more likely to be accepted in homogenous markets than in diverse markets, presumably because of a healthy level of scepticism about others, rather than an over-inflated sense of confidence based on visible similarity. Additionally, trading prices were much more conservative, so the potential peaks and troughs were quite shallow in diverse markets, and if prices did fall, the impact was not as severe.

Could it be, however, that once traders became more familiar with each other, the effect of racial diversity would diminish? Apparently not. Just as for the Nielsens' study, ethnically diverse groups performed even better over time, increasing their accuracy levels by 21% (from a starting position of just over 50% accuracy), while the homogenous groups diminished in their accuracy levels by 31% (from a starting position of 60% accuracy). By the end of the ten trades, the diverse markets traded accurately about 65% of the time. In contrast, the homogenous markets traded accurately about 40% of the time.

To put Levine et al's findings more bluntly, as Professor Gaither (at Duke University) and her colleagues (including Professor Sommers) did in their 2018 study of racial diversity and decision making, there is a stronger bias to conformity in racially

34 Ibid, p SI17.
35 Ibid, p SI13.

homogenous groups.[36] Consequently, it is more difficult for people to hold fast to their own perspectives when the consensus of the group is moving in the opposite direction, even when that consensus is patently wrong. In their study, a White research participant was asked to decide which of two student applicants should be admitted to college. The White participants were not alone in making their decision, but part of a group (all of whom were research confederates) which was either homogenous (all White), or racially diverse (for example, including one Black man, South Asian woman and East Asian woman, and sometimes another White person). The experimental trick was that one college applicant was far superior to the other and the White research participant was required to proffer their opinion last, that is, after they had heard one confederate after another endorse the inferior candidate. These conditions created a challenge for every research participant, but the bias to conformity was 12% stronger for those in the homogenous groups. Conversely, racially diverse groups disrupted conformity bias, thus subtly encouraging the correct decision to be made more of the time.

Considering these studies in total (Sommers' of the jury, Antonio's of the students, Levine's of the traders and Gaithers' of the college applicants), we can confidently say that racial diversity helps to elicit more diverse perspectives in a group and stimulates teams to engage in more thorough decision-making processes and thus make smarter decisions.

Racial diversity helps to elicit more diverse perspectives in a group and stimulates teams to engage in more thorough decision-making processes and thus make smarter decisions.

Given that the findings of these four studies all occurred in experimental conditions, I was keen to explore how their insights might apply in real settings. In particular, I was curious about whether the visible trigger of racial diversity adds a note of constructive friction and thus disrupts the mental comfort of a homogenous group, or whether it just creates discord. In other words, how does it feel in practice?

36 S E Gaither, E P Apfelbaum, H J Birnbaum, L G Babbitt and S R Sommers, 2018, "Mere membership in racially diverse groups reduces conformity", *Social Psychological and Personality Science*, Vol 9(4), pp 402–410.

Marta Isarria (a Director at Deloitte) and I pursued this line of enquiry by conducting a 360-degree review of one of Deloitte's multinational client engagement teams, comprised of Australian, American, German, Japanese and Spanish nationals.[37] This seven-person team was co-located offsite, that is away from the Deloitte head office, for a period of three months, providing a hothouse for team interactions. The review comprised interviews with all team members, the team leader and the client about their experiences working in a culturally diverse team.

Our review yielded four insights:

1. Cultural and/or personality diversity is in the eye of the beholder but visible diversity does provide a spark of curiosity.
2. Cultural diversity can positively contribute to a person's personal and professional enjoyment of a project, as well as the project's outcome.
3. Cultural diversity can indirectly encourage project members to rethink their usual working habits and expectations, behave with fewer assumptions about the 'right' way to address an issue and promote linguistic clarity.
4. The dominance of cultural diversity reduces the bias to interact with people who have common characteristics, creating a unique team bond.

As to the first insight, we found that team members held a range of views as to whether the differences they observed between people were driven by personality or nationality, or a combination of both. Irrespective of the weighting, racial diversity clearly provided a point of intrigue. Moreover, just as the other researchers found, racial diversity (signalled by some visible differences, but more clearly by strong accents: Japanese, Spanish, American, German and Australian) triggered different behaviours, promoting cohesion and improved information sharing, and therefore decision making. How so?

First, nationality differences sparked 'cultural curiosity' leading team members to ask exploratory questions of each other, which provided an unexpected point of positivity. During the interviews, team members talked about their *professional*

37 J Bourke and M Isarria, 2012, *Working in multi-cultural teams: A case study*, Deloitte Australia, http://www2.deloitte.com/au/en/pages/human-capital/articles/working-multicultural-teams.html (accessed 26 March 2021).

enjoyment of the project, observing that *"the diversity of the group definitely enhanced the experience (for me)"* and that *"I was constantly challenged to think outside of my normal mode of analysis"*. Speaking of their *personal* enjoyment of working in a diverse team, one team member commented that *"finding out about the cultural backgrounds of team members was an important part of building relationships with them"*, while another spoke of valuable self-development: *"I truly feel as though I've grown as an individual through this project."*

Secondly, the cultural diversity of the team indirectly encouraged team members to become more conscious of their *own* working habits and assumptions. For example, one team member observed two different people-management styles in co-workers: a single-minded focus on getting required information from the business; and a focus on building social relationships/friendships to socially co-opt the business into volunteering the required information. This person concluded that both styles were more effective than her own 'softly-softly' approach of cajoling the required information from the business.

Thirdly, and most significantly, linguistic diversity enhanced team communication. To set the scene, although all of the team members spoke (business level) English, for four of the seven, English was not their first language. It might be assumed that in a time-pressured environment, speed of communication will be enhanced by commonality of a first language, and therefore the team's linguistic diversity would have caused time delays and miscommunication. In fact, our research found that the quality of communication was improved by linguistic diversity. In particular, while accents and idioms sometimes created short-term barriers to communication, the language differences provided a strong catalyst for clearer communication by all team members. Team members observed that they took "*more time to make sure that things were explained clearly"* and that this reduced miscommunication, even between native English speakers. One respondent, self-admittedly inclined to be more assertive in meetings, remarked that he had *"learned to listen to my colleagues and to appreciate their contributions"*. Further, linguistic diversity provided an unexpected point of connection between team members, as explained by one team member *"although there were times when language or pronunciation differences presented themselves, the team ended up laughing over the subtle misunderstandings, and bonding even more in the long run as a result of them"*.

Finally, one recurring theme in the interviews was the sense that, *"being from diverse backgrounds and countries of origin (meant that) we felt that being 'different' made us the same in many ways"* and that *"as everyone in the team was from a different country there was not an accepted cultural norm within the group"*. The 'levelling-effect' of this diversity seemed to bind the team around a genuine belief that their sum could be better than their individual parts, with one team member commenting that the diversity *"made me feel more confident about our likelihood of success, and that any challenge which might arise would be overcome"*. The diversity of the team also seemed to have a galvanising effect on its members, resulting in one person describing how *"the fact that we all came from different countries…made us connect in a very special way. It felt like we became like a little 'family' and provided additional support to one another…personally, I felt very close to my fellow team members and have established some great relationships"*.

This field study adds significant colour to the theoretical research. In particular, it seems that in the real world, people view others much more holistically than simply in terms of racial diversity. Having said that, the field study supports and extends the experimental research findings by demonstrating the ways in which racial diversity can prompt people to assume less, and adapt more, for example by taking the time to ensure clarity of communication. Further, and in line with Antonio's finding of novelty, racial diversity triggered a sense of curiosity in others, which generated exploratory questioning and feelings of mutual interest, thus enhancing team cohesion and information sharing.

But what about the ultimate question: Did the team's cultural diversity result in improved project outcomes? Certainly, the project was delivered on time and on budget, but that is only to be expected. Just as cultural diversity might be in the eye of the beholder, in the real world, project performance is in the eye of the client. In this case, her view was that, *"the team has been more productive and less stressed – when I compare them to employees in other places. I think they have worked longer hours because they are valued and appreciated. They have given 150% and have stretched themselves. Plus they have been upfront about issues – so open [in their] channels of communication"*.

Analytic and holistic thinking

The above experimental and field research reveals that the visible diversity of a group enables diversity of perspective. This is not so much because those who are visibly diverse bring unique perspectives to the group (although there is some element of that as discussed further below), but because visible diversity causes group members to behave more deliberately and even cautiously, especially in relation to communication and complex thinking. When team members talk with each other to discuss their ideas, these behaviours enable the different views of group members to come forth and be debated, thus expanding the group's perspective. Even when the team members are unable to communicate (as with the traders), visible diversity prompts more circumspect decisions.

There may be an additional reason why group racial diversity can support better decision making: the idea that cultural backgrounds may actually cause individuals to *perceive* their environments differently – to literally notice different stimuli or patterns. This is hard to prove, because of the threshold issue of defining where cultural boundaries start and finish: countries, regions or ethnic groups? If you are interested in exploring that threshold issue, I suggest you read works by Professor Hofstede (University of Maastricht) and Fons Trompenaars. Sidestepping somewhat I looked for studies that took broad brush strokes to cultural differences and found a series that helped me understand how Westerners and Asians might have different perspectives.

To be more precise, I found studies that compared the responses of East Asian citizens (for example, from Japan, Taiwan and China) with Westerners (namely Americans) on a range of different perceptual tests. This, of course, begs the question: How do you study 'perceptual' differences? These studies used a range of methods. Some asked research participants to look at pictures or videos and report on what they 'saw', with the researchers comparing what people attended to, for example the background, foreground, whole picture or relationships between items. Others asked people to group words together and looked for the logic behind the pairings, for example 'banana and monkey' versus 'panda and monkey'. In this word example, the researchers thought that a pairing of banana and monkey might indicate a person saw items in terms of the relationships between things (that is, the monkey eats the banana) whereas a person who grouped a monkey and a panda together

sees things in terms of categories (that is, both monkeys and pandas are animals).

Although the results were not as black and white as the researchers hypothesised, there *is* something there about race and perspective, and the way it falls is fascinating. Consider the video study conducted by Professors Masuda (University of Alberta) and Nisbett (University of Michigan) in 2004 which compared the responses of 72 university students, 36 studying at the University of Michigan and 41 studying at Kyoto University.[38] Each student watched ten short videos of underwater scenes with fish, weeds, sand and bubbles. And then they watched them again, because this was not a memory test, but an attention test. Masuda and Nisbett asked each student, "What did you *see* in the animation?" Responses were coded according to four categories: background, inert objects, active objects and focal fish. Both the Japanese students and the American students were more likely to focus on the focal fish than anything else. I imagine all of the students telling the researchers: "Well, there was this BIG fish, and it was really colourful, red and green… ": turns out everyone is a sucker for big shiny things, whatever country they grow up in.

However, hypothesising that the item people talk about first is the item people think is the most important, subtle racial differences emerged when the researchers went back and looked at the *first* item each person described. These differences became even clearer when the researchers realised that the four categories of items could be separated into two higher order groups, namely 'salient objects' such as the focal fish, and the 'field' which included the background, weeds and water. Using this lens of analysis, Masuda and Nisbett found the Americans were more likely to mention the salient objects first, and the Japanese were more likely to mention the field. I imagine the Japanese students painting a picture of the context and space, telling the researchers: "There was a fish tank, with weeds, rocks and bubbles, and near the rocks was this BIG fish…", whereas the American students started with: "Well, there was this BIG fish, and it was in a fish tank with…".

Just to get the full impact, the researchers had found a racial fault line which had, literally, influenced how the Americans and Japanese were seeing the picture: Americans were more likely to concentrate on the key item within the frame (the fish),

38 T Masuda and R E Nisbett, 2001, "Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans", *Journal of Personality and Social Psychology*, Vol 81(5), pp 922–934.

whereas the Japanese were more likely to pay attention to the relationships between the key item and its context.

Although we are only talking about a tendency, the fish tank study is not an isolated example, meaning there's a strength to racial differences which applies across settings. In particular, a similar finding occurred in the panda/banana language study, although this is where some complexity creeps in. In this study, Nisbett, together with Professor Ji (Queens University) and Dr Zhang (Beijing University) asked 119 Chinese students studying at Beijing University and 174 students studying at Michigan University (comprising 131 Chinese students and 43 Americans) to read 20 sets of three words, circle the two that 'go together' and explain why.[39] The responses were then coded in terms of whether students grouped items by relationship (for example, Shampoo and Hair) or category (for example, Shampoo and Conditioner). Consistent with Nisbett's fish tank study, the students from Mainland China (who were studying in China) were more likely to group the words by *relationship*, whereas the Americans were more likely to group items by category. This accords with the Japanese students who tended to look more at the relationships between objects in the fish tank, and the Americans who tended to separate items into component parts (that is, "this fish tank has weeds, rocks and fish…") and then identify the dominant part (that is, "and the most important feature, because it is big and shiny, is the fish").

Beyond fish and pandas

Thinking about this from a business context, differentiating between analytic and holistic thinking helps people understand how individuals look at the same issue, but see different aspects, and place different weight on their importance. An analytic thinker is more likely to break down an issue into its component parts, apply the 80/20 rule to identify the part that is playing a dominant role, and focus their attention on understanding that feature. A holistic thinker looks at the system and how the pieces hang together, searching for relationships (interdependencies) to understand if one piece moves how it will influence another piece. Both are critical for a broad perspective.

39 L Ji, Z Zhang and R E Nisbett, 2004, "Is it culture or is it language? Examination of language effects in cross-cultural research on categorisation", *Journal of Personality and Social Psychology*, Vol 87(1), pp 57–65.

The same pattern emerged in a 2020 study by Professor Na and his colleagues (including Professor Nisbett)[40] that threw a barrage of eleven different tasks at Japanese and American research participants, including the fish tank and word tasks, but also a detective task which asked participants to decide on 'irrelevant' clues in a murder mystery (for example, the number of pets the victim owned, and victim's history of sexual abuse) and a task to attribute causality for an event to a person's disposition or to their situational context. Once again, the 433 Japanese participants from Tokyo demonstrated slightly more holistic thinking, while the 233 Americans from Michigan demonstrated slightly more analytical thinking.

From these three studies you might assume that the exam question has already been answered, *"Yes, there is a difference between the way people 'see' a situation, and that difference is influenced by race/culture"*. Before you get too excited, you need to know that a surprise occurred in the panda study when the researchers manipulated the language. In particular, when they tested the Mainland Chinese students (living in China) *in English*, the bias to pair words according to relationships dropped by about 50%. Moreover, when they tested the Mainland Chinese and Taiwanese students (living in the USA) *in English*, there was no strong preference for relationship *or* category grouping. A cross-cultural experience, reinforced by use of a second language, apparently muted any perceptual preference. As I said in the introduction to this chapter, *"everyone is highly influenced by their context: change the context and people start to change their perspective"*. In this study, at one end of the scale were the Mainland Chinese students, living in China, who paired words according to their relationships and at the other end of the spectrum were Americans who paired words according to categories, and in the middle were Chinese students living in the USA who could be relationship oriented or agnostic (that is, not lean in one direction or the other) depending on the conditions.

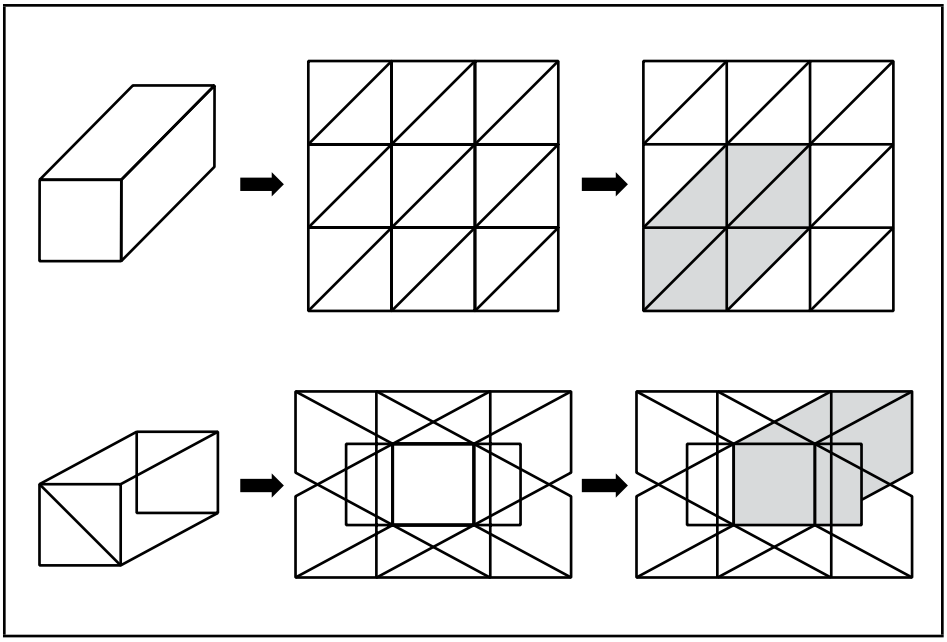
But if we just focus on the extremities, what was going on? Why did the fish tank study, the panda/banana language study and study with the barrage of eleven tasks, reveal that the East Asian research participants, who were living in their home

40 J Na, I Grossmann, M Varnum, M Karasawa, Y Cho, S Kitayama and R Nisbett, 2020, "Culture and personality revisited: Behavioral profiles and within-person stability in interdependent (vs. independent) social orientation and holistic (vs. analytic) cognitive style", *Journal of Personality*, Vol 88(5), pp 908–924.

countries and using the Japanese or Chinese language, were more likely to take a holistic perspective, looking at the whole picture and the relationships between items? And why in contrast, were the American research participants, living in the USA and using English, more likely to take an analytical view and concentrate on features?

Cognitive psychologists distinguish between these views in terms of people being 'field dependent' (FD) or being 'field independent' (FDI). East Asians were being more sensitive to patterns of information and relationships (FD), whereas Americans were more likely to separate features from each other and their surroundings, and focus attention on those deemed most important (FDI). A person's FD/FDI can be assessed quite easily using, for example, the Group Embedded Figures Test. This test measures a person's ability to identify a simple figure (for example, a line drawing of a cube) within a complex figure (for example, a picture which has multiple shadings, shapes and lines (refer to Figure 3)). The lower the score – the more field dependent; the higher the score – the more field independent. Take a look at Figure 3 and count how many images you see within the matrix.

Figure 3: Examples of Group Embedded Figures Test items



Since the 1950s, FD/FDI has been one of the most highly researched areas of diversity of thinking. There are hundreds of studies on FD/FDI – an accumulation of knowledge that us gives confidence in the construct (analytic versus holistic), measure (test reliability) and ability to identify individual and group differences. For our purposes, we can use these studies to make sense of the fish tank, panda/banana and detective mystery findings, and the surprise results for those people who crossed a cultural boundary.

Our navigation guide to FD/FDI is Professor Zhang (University of Hong Kong) who has devoted her career to researching cognitive styles and, for the last few years, reviewing 40+ years of research. Her aim has been to untangle the complex picture of FD/FDI differences and similarities among people, including differences with a race/nationality element. Fortunately for us, in 2013 Zhang published her epic review and discussed in detail those studies comparing people from different countries, nationality groups within countries (for example, Black American students compared with their White American peers), and children and adults within a single nationality group (for example, second and third generation Hispanic American students).[41]

When Zhang looked across the history of this body of research, she noticed that early researchers hypothesised that citizens from more individualistic and less hierarchical cultures (for example, Canada, the United Kingdom and the United States) were more likely to view situations analytically (FDI), while citizens from collectivist and hierarchical cultures (Japan and China) were more likely to take a more holistic and relationship frame (FD). The early researchers also hypothesised that FDI is associated with economic development, that is, the more economically developed a country (the less interdependent the citizens), the more they would see things independently and less holistically.

These are broad brush strokes, but the hypotheses seemed to hold true, especially for the earlier studies from the 1960s and 1970s. This is not to say the theories always played out as expected; for example, Zhang identified studies in Africa in which some tribal groups (such as the Mende in Sierra Leone) were more field independent and some less (the Temne also in Sierra Leone). However, the early research had a level of predictability to its results.

41 L Zhang, 2013, *The malleability of intellectual styles*, Cambridge University Press, pp 93–102.

Perplexingly, Zhang observed that more recent studies on FD/FDI seem to show greater variation between findings and even changes over time.[42] For example, a review of studies from the 1980s to 1990s found that school students from Chinese and Japanese cultures demonstrated greater field independence and students from Canada, the UK and the USA more field dependence. Those findings disrupt the idea that perceptual differences, or diversity of thinking, is a categorical quality in terms of racial determination. It turns out that racial differences, such as holistic and analytical perception, are more in the nature of a tendency than a definitive trait. In fact, as I hinted when discussing the panda/banana language study, they are malleable and influenced by context.

Just to break that down a little further, the panda/banana study showed that context includes language as well as exposure to new norms and behaviours through a cross-cultural experience. In terms of the more recent studies, that context now includes globalisation, the use of English as a dominant business language and the universal dissemination of information through the web. Certainly, that might help to explain the later, contradictory findings. But there's another influence on holistic and analytical thinking that also holds explanatory power: physical context. This insight comes from a study Nisbett conducted with his co-researcher from the fish tank study, Masuda, led by Professor Miyamoto (University of Michigan).[43]

To quickly recap, Nisbett and Masuda had already established for themselves that there were general differences in FD/FDI between university students living and studying in Japan compared with students living and working in the USA. What intrigued them now, along with Miyamoto, was: Why? What was creating these broad differences and, even more critically, could they use (read: control) this driver to influence people to see the world differently? This is where Zhang's insights on the malleability of analytic/holistic thinking and Nisbett and his colleagues' come together, raising the question: Can organisations learn what drives FD/FDI so that they can purposefully create FD/FDI tendencies and thus help individuals and groups to see *both* perspectives at will? Put simply, can people learn to be both analytic and holistic thinkers? The answer is Yes.

Miyamoto, Nisbett and Masuda thought about the role of language and

42 Ibid, p 101.

43 Y Miyamoto, R E Nisbett and T Masuda, 2006, "Culture and the physical environment. Holistic versus analytic perceptual affordances", *Psychological Science*, Vol 17(2), pp 112–119.

socialisation, and then asked themselves a ground-breaking question: Could it be that the physical environment plays a critical role as well? They hypothesised that because the physical environment in Japan is, in the main, more complex and cluttered with detail than the American environment, this might cause Japanese citizens to stand back and look at the picture as a whole and the relationships between parts of the picture, rather than focusing on the more singular stand-out items. In a three-part study, Miyamoto, Nisbett and Masuda asked students (East Asian international students and Americans, both studying in the USA) to assess photos of streetscapes in Japan and the USA in terms of their visual complexity, for example, "To what degree is the scene either chaotic or organised?" and "How ambiguous is the boundary of each object?" That first experiment provided them with a subjective baseline, and even though there were recognisable levels within the American environment (with New York being rated as more visually complex than smaller cities), when comparing like for like (for example New York versus Tokyo), the Japanese scenes were, as predicted, rated as more complex than the American.

That result might be surprising to you. Certainly I would have rated both New York (think Times Square) and Tokyo (think Ginza) as visually cluttered. Indeed, there must have been some level of doubt in the minds of Miyamoto, Nisbett and Masuda as well, because they undertook a second level of analysis. In particular, they analysed the Japanese and American photos to see if, objectively, the scenes were significantly different. To do this, they counted the number of objects, literally, by looking at particles with a minimum of 50 to 100 pixels. The results demonstrated, as the research study participants had intuited, that the Japanese scenes contained more objects than the American scenes.

The researchers were now set to do their real experiments on manipulating visual cues. If, as they expected, FD/FDI is driven by exposure to the physical environment, then they thought it would be possible to influence FD/FDI scores by exposing people to different physical environments. This means that if American students were shown more complex pictures of Japan, over time they would develop their holistic visual muscle and be able to see more of the context, just like their Japanese counterparts. Like Zhang, Miyamoto and her colleagues thought that diversity of thinking, in terms of perception, could be malleable.

In the final part of their study, their musical crescendo, the researchers showed

American university students (studying in America) and Japanese university students (studying in Japan) 95 of the 492 photos tested in the first and second study. The students were shown a pair of vignettes, one after the other, and asked to identify changes between one scene and the next. Each scene included a few items in the foreground (the focal items), such as a truck, and a few background items, such as buildings and sky. In each scene, something was changed in terms of the focal object (for example, the driver in the truck) and the context (for example, the height of a pole).

Consistent with previous research that American students were more likely to attend to focal objects than context, the American students detected fewer changes to context than the Japanese students. Nothing new there, but here is the fascinating part: the researchers noticed that the Americans thought the scenes were more complex than the Japanese, meaning that the Japanese, through familiarity, had become more comfortable with visual complexity so that it didn't feel as complex any more. That's the first thing. The second thing is that when American students were asked specifically to look at changes to a scene which was visually complex (that is, the Japanese scenes), they noticed more changes to context than when they looked at American scenes (less visually complex). It was as if their visual brain muscle was activated by complexity, that is, the American students looked harder and saw more context, not just the focal objects which they were already adept at. And the more people exercise that visual muscle, the easier it gets.

> Is it possible to influence analytic and holistic thinking through workplace design?
>
> Could a clean desk policy, furniture uniformity, large scaling and colour simplicity shape and reinforce analytical thinking? A holistic thinker would answer "yes" because the visual environment is part of a whole system which also includes language and socialisation.
>
> Can this insight be used to deliberately create environments to stimulate holistic thinking (with visual complexity) and analytic (with visual simplicity)?

In summary, supporting Zhang with one more piece of evidence, Miyamoto and her colleagues had found that while people might have individual tendencies to see either the field or the object, a tendency which is influenced by visual stimulus and language, they can increase their capability to see both perspectives. Putting this

finding to practical use, workplace designers could develop multiple spaces, some with visual simplicity and some with complexity, to allow workers to use visual cues to stimulate analytic and holistic thinking. Moreover, the language used by leaders and teams during team discussions could also help team members to direct their attention to both the context and the detail. For Executive teams and Boards in particular, these insights could be used to make deliberate choices about the visual set-ups of meetings (for example, in a cluttered library or a bare boardroom), or the use of specific words at different moments during the meeting (for example, "let's look at the interconnections", "let's look at the big picture").

> Language matters. Using the specific language of 'context' and 'detail' helps prompt holistic and analytic thinking respectively.

What does all of this mean? First, and most importantly, these studies have helped to expose the different ways (holistically or analytically) in which people perceive a scenario. Clearly, both are important to ensure that the full picture is being appreciated, that is, seeing *both* 'the big picture' and important details. The issue for many people is that they are unclear about their tendency to be analytic or holistic, or think that they do both to the same extent, given that they understand at a conceptual level the idea of the big picture as well as detail and critical analysis.

Certainly this was my experience when working with a small team recently and discussing FD/FDI. I gave each of the team members a page of six embedded figures and asked them to locate the individual shapes within the figures. Most of the group demonstrated a mix of analytic and holistic thinking, seeing some but not all of the figures, but there were also two very obvious ends of the spectrum. One of the most junior team members struggled to identify even one of the embedded figures, while at the other end of the spectrum the team leader identified all of the embedded figures, as well as a few extras that were not documented on the answer page.

What was most memorable about the experience was not that I had merely observed firsthand the FD/FDI spectrum, but the level of emotion attached to the exercise. The team leader told the group he was stunned and genuinely perplexed about the junior team member's score saying, *"I just can't believe that you can't see*

the figures". His intent may have been benign, but it sounded like a judgement. The junior team member, on the cusp of tears, expressed her frustration, "*I really try to see the detail, but I just can't"*. And that emotional content speaks volumes about a second insight regarding FD/FDI.

People tend to assess one way of thinking as more valuable than the other, with self-serving bias resulting in each person rating their own individual tendency more highly. In practice, this might mean that people don't follow someone else's thinking and give it appropriate weight, or worse, behave disrespectfully and dismissively. Of course, the most ideal outcome is to adopt a more open frame of mind, finding the delight of surprise ("How could I have missed that?") and experiencing the pleasure of combination. In this case, both the junior team member and the team leader could have learnt from each other. The team leader could have asked "What do *you* see?".

In essence, to make collective intelligence real, individuals need clarity on their *own* perspective ("What perceptual strength do I bring to the table?"), clarity on the perspective of *others* ("What perceptual strength do others bring?"), and a mindset of *equal value*. In this story, there's a happy ending. Months after the event, and with much dedicated effort, the junior team member had developed her 'analytic' muscle. She became ambidextrous, manifesting that holistic and analytic thinking are not fixed capabilities, but eminently amenable to development. And the team leader developed greater humility and appreciation for diverse perspectives. In fact, he became a vocal champion for diversity of thinking.

In summary, these Asian/Western studies show that racial diversity can play a role in creating perceptual differences, but those differences are malleable and influenced by language and context. This unreliability means that the simplistic (or Noah's Ark) approach to racial diversity (let's have a couple of Germans, a couple of Singaporeans and a couple of Americans) is fraught with danger if the expectation is that these characteristics will mean people will always see things differently. As I suggested earlier, a much more reliable value is the capacity of racial diversity to trigger greater levels of exploration amongst team members and more thorough information processing.

Cultural intelligence

There is, of course, an additional value to racial diversity that goes to the specialised knowledge that racial/cultural groups have about their own cultural sensitivities

and norms. One might think this goes without saying, but it appears not, given that multinational companies frequently make rules from the centre (Headquarters) assuming that dispersed employees or consumers give similar meanings to environmental features or behaviours.

By way of example, the numbers 1, 3, 4, 9, 13, 17 and 666 are just numeric figures but they carry different meanings or associations in different cultures. Westerners (in Australia, the USA and the UK, for example), are likely to attribute Satanic meaning to the number grouping of 666, and an (un)lucky meaning to 13. Chinese and Japanese are sensitised to the number 4 (pronounced *si* and *shi* respectively) as it sounds like the word for death. In contrast, the number 9 is auspicious in China with its associated symbolism for harmony, whereas in Japan the number 9 (pronounced *ku*) is a homophone for suffering. In Italy, the number 17 is associated with bad luck because of its association with the Roman numeral XVII, which when rearranged anagrammatically spells VIXI meaning "I have lived" (past tense).[44]

When companies investigate and integrate such cultural differences, it is reflected in their products and employee interactions. Take, for example, Canon, which bypassed the number four in its PowerShot camera series – moving straight from G3 to G5; construction companies that skip the 13th floor and 4th floor in Western and Chinese buildings respectively; and American products that are not priced at 9.99 for the Japanese market.[45]

In contrast to this adaptive approach, marketing magazines are littered with examples of product launches or marketing campaigns that have failed to undertake a cross-cultural double-check, assuming that the way the product designer sees the world is resonant across cultures. Gerber, for example, reportedly used its standard logo (a picture of a baby and the word Gerber) when it entered the African market, seemingly unaware that in Africa, where illiteracy is high, companies put a picture of what is inside the product on external packaging. IKEA's cuddly wolf toy, Lufsig, was released in China with the name Lo Mao Sai which contains a homophone for Hai, meaning vagina. And Colgate fell foul when it introduced its 'Cue' toothpaste into France,

44 Smartling, 2013, "I've got your number", www.smartling.com.
45 N Kelly, 2013, "Bad-luck numbers that scare off customers", *HBR Blog*, 30 July 2013.

not realising that Cue was also the name of a well-known pornographic magazine.[46]

More than mistakes with numbers and words, the essence of racial misunderstandings and conflict often lies in different expectations about, and interpretations of, behavioural and cultural norms. As Laura Liswood so elegantly identified in her 2009 book, *The Loudest Duck*,[47] different cultures view the same behaviours through a very different lens. Indeed, it is one of the key themes of her book and the reason for its title, which is a reference to the Chinese fable which cautions that "the loudest duck gets shot". In contrast, in the USA, the prevailing view is that "the squeaky wheel gets the grease". Two very different interpretations of the merit in standing out from the crowd.

People expect others to behave in certain ways and attribute significance to a behavioural indicator, all of which is created and reinforced by one's cultural surrounds. And while one may know this intellectually, much of what was once learned is now considered to be 'normal', leading individuals to anticipate, indeed expect, that others see the world in the same way (or pretty close to it).

This is the fallacy of perspective homogeneity. This bias leads people to tend to overestimate the degree to which their world view is shared by others. It is one of the reasons for the marketing mistakes described above. In contrast, those who are more culturally intelligent know that racial/cultural diversity influences not only the features of an environment that individuals are primed to notice (and ignore) as well as the way those features are interpreted, but also who and how decisions should be made. Cultures differ wildly in the ways people are conditioned to show deference and respect for authority, in whether to expect equality or paternalism, in how consultation should occur, and even in the timing of conversational interactions (for example, how long to pause before responding).

As I will discuss in PART 3, one of the indicators of a highly inclusive leader is the ability to understand and adapt to these cultural differences so as to create a more collaborative diverse team. To recreate, for example, the positive experience of the Deloitte multinational team, rather than one which fractures along diversity default lines of misunderstanding and separation.

46 M Fromowitz, 2013, "Cultural blunders: Brands gone wrong", *Campaign Asia Pacific*, 7 October 2013, https://www.campaignasia.com/article/cultural-blunders-brands-gone-wrong/426043 (accessed 26 March 2021).

47 L Liswood, 2010, *The loudest duck: Moving beyond diversity while embracing differences to achieve success at work*, John Wily & Sons, New Jersey.

To sum it up

Let's take stock for a moment, as the discussion about racial/cultural diversity has gone in a number of different directions. I have shied away from espousing a simplistic view that racial diversity *always* means that people see different features of the same environment (in the sense of an FD/FDI racial fault line). I have leveraged the insights about analytic and holistic thinking to suggest that seeing both the detail and the context should be a group's goal, but relying on racial/cultural diversity to deliver that value is dangerous. I have suggested that workplace design and the use of explicit words ('holistic', 'context', 'big picture' as well as 'analytic', 'detail', 'items') can help prompt diversity of perspective.

I have argued that the stronger value associated with racial/cultural diversity comes from an understanding of how race/culture shapes the way people interpret the same features of an environment and sets expectations of behaviour, and that this understanding of 'perspective' is vital for globalised workforces and operations. Even more critically, I have argued that racial diversity changes the dynamics, or interactions, between group members. Racial diversity is a trigger, creating an expectation of difference. It stimulates people to pay a higher level of attention to others, to listen more closely, to question and to speak up, all of which help reduce conformity bias. This is the golden nugget that lies at the heart of the studies conducted by the Nielsens, Freeman and Huang, Smith, Sommers, Antonio, Levine and Gaither, as well as the field research on a multinational team.

From all of this, it is clear that racial/cultural diversity should be one of the features of the 360-degree radar scan, although a few words of caution are needed before inscribing this idea in stone. First, there are inherent risks in generalisations, given that there is a high level of variation *within* a demographic group. Secondly, perception is malleable and sensitivity can be eroded, often quite quickly. While these cautions can apply to statements about any demographic group, the capacity for current racial differences to be minimised over time is heightened by a shift to a more globally connected, educated and mobile workforce.

And here's the final intriguing thing about racial diversity, which I foreshadowed through my profile of Sommers' study, as well as those of Antonio, Levine and Gaither: even if some differences between racial groups are going to be minimised over time eventually (for example, FD/FDI), the *expectation* of difference will probably

remain for a little longer, and this has an unexpected upside (not just the downside of negative stereotyping).

What's the bottom line? As noted in the introduction, my hypothesis is that creating a diverse team broadens the perspective of a group, and I have placed a bet on being intentional about including racial/cultural diversity as one of the key elements of perspective. I have been a bit loose with the language, using the word race, nationality and culture almost interchangeably, because the science is not exact but indicative. In summary, drawing on the Asian/Western studies, I suggest that a group view that combines analytic and holistic thinking provides a more comprehensive perspective than one or the other alone, and is therefore likely to generate more ideas or options. Additionally, awareness of cultural differences can act as an insurance against error, particularly in terms of different interpretations of environmental cues, but obviously only when those issues are relevant.

Finally, the field study provides connective tissue between the theory of nationality diversity, experimental studies and its practical operation in a high-performing team. The field study confirmed what Sommers, Antonio and Levine already found, namely that the presence of visible diversity changes behaviours to elicit diverse perspectives and stimulate more rigorous thinking.

But, of course, racial diversity is just one element of visible diversity. Where and how does gender diversity fit in?

The bottom line is that...

1. Visible racial/cultural diversity amongst group members has an indirect effect on diversity of perspective by triggering attention and exploratory behaviours *amongst the visible majority*, and disrupting the bias to conformity thus helping generate a group conversation that is both broader and more accurate.
2. Racial/cultural tendencies to be more analytic (detailed) or holistic (context) in perspective can facilitate a direct effect on diversity of thinking in a group. These tendencies are malleable in an individual (not stable), and can be learned and even stimulated by the use of language and workplace design.
3. Attending to specific racial/cultural knowledge and being culturally intelligent are critical when developing market specific strategies and engaging with people from culturally diverse backgrounds.