



OPENING MINDS TO DIVERSITY OF THOUGHT

Article

FIRST PUBLISHED 23 JULY 2019

Diversity comes in many forms. Perhaps one of the least mentioned but most influential is cognitive diversity, which ensures that teams include people with different points of view. Sean Brocklebank, Senior Teaching Fellow at The University of Edinburgh, assesses the impact of divergent thought and whether troublemakers help or hinder team decisions.



DR SEAN BROCKLEBANK

Dr Sean Brocklebank is a Senior Teaching Fellow in the School of Economics at the University of Edinburgh. His areas of expertise are focused on macroeconomics and statistics. Sean holds an MSc and PhD in Economics from the University of Edinburgh and a Bachelor's degree from the University of Toronto.

The evidence is conclusive. When it comes to forecasting, groups invariably outperform individuals. Perhaps the strongest evidence for this comes from IARPA, the umbrella organisation for US intelligence agencies such as the CIA, FBI and NSA. In the face of criticism and apparent forecasting failures, IARPA decided to study forecasting performance by organising a tournament, where civilian forecasters were pitted against professional intelligence analysts.

Two major findings emerged. First, an elite subset of civilian forecasters – so-called “super-forecasters” – could reliably beat the professionals at their own game. Second, super-forecasters made substantially more accurate predictions when put into teams than when working alone.

This was useful information in itself, but which teams make the best predictions? Research suggests it is teams that are both good and diverse.

Good is easy to understand. Groups do better when their members are smart, as unbiased as possible, and when at least some of them have expertise relevant to the task at hand.

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Diversity is more nuanced. We are not talking about demographic diversity but cognitive diversity. Teams do better when their members know and think different things. To thrive, groups need dissenters. They also need at

least some of their members not to be experts. This may not please the rest of the group – and they may complain that their decision-making has been compromised – but all the evidence suggests they are wrong.

The existence of confirmation bias is why cognitive diversity is so useful. We all have a tendency to seek out comfortable opinions and information that confirms our prior beliefs, rather than information that challenges them. It is confirmation bias that allows coffee drinkers to readily remember and believe research showing that drinking coffee improves cognitive function and even reduces the risk of diabetes, while at the same time forgetting or dismissing other research showing that drinking coffee increases the risk of heart disease.

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Part of what makes groups successful is that they limit the scope for confirmation bias by setting members’ viewpoints in competition with one another. Left alone, an employee might direct their research almost entirely towards confirming their pet theory. If other people in the group have different pet theories, then those ideas will soon come into conflict. Once there is open disagreement, each person in the group will need to find evidence to show why they are right and everyone else is wrong. This process of active disagreement leads to better decisions, because it forces team members to examine their assumptions – which are sometimes lazy – and discard them when the supporting evidence is weak.

Disagreement in the group helps to root out false beliefs, but it must be authentic; the well-worn tradition of avoiding groupthink by appointing a member of the hive mind to play devil’s advocate simply does not work. Charlan Nemeth, a psychologist at University of California, Berkeley, has researched dissent and group decision-making for decades. Her research shows that the key difference between a group where someone is playing devil’s advocate and a group with an authentic dissenter lies in the way that the rest of the group reacts.

Much of Nemeth’s research involves presenting legal cases to simulated juries. For example, subjects might be given a description of a personal injury case and asked what level of damages they would award. The cases are described in such a way that most people opt for a very low award. But that changes when they are confronted either with someone playing devil’s advocate and arguing for a higher award, or someone authentically arguing for one. When a devil’s advocate is introduced, around 12% of the group end up changing their minds. With an authentic dissenter, however, almost 30% of the group change their minds. Intriguingly, the arguments presented by the devil’s advocate and the authentic dissenter are the same. The difference stems from the conviction behind the argument.

So what is going on here?

When confronted with a person who genuinely dissents against the group consensus, the other members try to convince the dissenter. They explain why most members believe what they do, and why the dissenter is wrong. They look for evidence. They persist.

On the other hand, when confronted with a member of the hive mind who has been appointed to play devil’s advocate, the others merely go through the motions. They know that the devil’s advocate does not really believe the

position they are arguing for, and they cannot be argued out of it, so what's the point? The group becomes a bit lazy, and if they are making bad assumptions, they are far less likely to notice than when they argue against a true believer.

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The same rationale applies to the inclusion of a non-specialist in any given group. Their presence forces the specialists to explain – and so examine – a set of implicit assumptions that they might not otherwise even notice they are making. So the outsider can be useful even if they do not contribute good arguments. Indeed, an outsider can be useful even when everything they say is wrong, because they will

force the specialists to explain more thoroughly, and so to think more clearly.

Most people do not really enjoy this kind of diversity. In fact, they rarely like working with dissenters or non-specialists. In Nemeth's research, participants are far more likely to report being angry when confronted with authentic dissent than when confronted with a devil's advocate – and they are happier still when not confronted at all.

Not only do people dislike interlopers, but they report that their groups perform badly when interlopers are present, even though both types of interlopers in fact improve the group's accuracy. But people prefer not to have their beliefs challenged too vigorously, and they find ways to argue that the more comfortable, homogeneous team is actually the better team. This self-serving belief is just another example of confirmation bias, and, ironically, another argument in favour of diverse teams.

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This article is from Walter Scott's Research Journal 8 (May 2019)