Michelle Baddeley, Research Professor at the University of South Australia’s Institute for Choice, explains why most of us are cows and not mavericks. Humans are inclined to herd, a survival quirk which produces anomalous outcomes in our ever-connected world. Religious terrorism, stock market crashes and adulation of Justin Bieber can all be attributed to our instinct to copy and imitate others. If you want to better understand yourself and the world we live in, this book has something to offer. Despite drawing on a vast literature across social, behavioural and natural sciences, Baddeley skilfully presents an eloquent narrative and even makes brain scans accessible.

Herding is our propensity to copycat. We learn from our social interactions and adhere to norms and customs entrenched in our psyche. The quintessentially British desire to queue typifies this beautifully. Given that so many of our daily interactions are dependent on trust and reciprocity, this is reassuring – or is it? Baddeley highlights that it is typically in our best-interest to conform to social norms. Though, what if your propensity to herd makes you partake in a suicide-pact? This is clearly not in your self-interest.

Contrarian rebels defy our ancient animal behaviours and actively ridicule conformity. Clearly a rebellious streak is useful when a cult leader tries to coerce you to take your own life - but even contrarians can act irrationally. Why then, as self-interested individuals, might we feel inclined to herd or rebel? How do copycats and contrarians interact? Do our copycat and contrarian instincts equip us well in the modern world? What can we do about it?

Clever Copying? Rational choice theory suggests that the information signals we observe from the behaviours of others are valuable. Representative agents balance work and consumption. Rationally, you want to consume the most you can for the least effort. I have to buy a new vacuum cleaner. It’s a dull task but I want value for money. I have literally no private information about vacuum cleaners but my savvy neighbour has recently purchased one. They appear to have done more research than I am inclined to do and have made me a recommendation. I am motivated to save time and use this social information even though it may only be partially true. Baddeley uses the information cascade metaphor to highlight why this leads us astray – our private information is overwhelmed by the signal strength of a herd’s social data. We assume that the collective wisdom of the group exceeds our own.

Mob Psychology explains how so many ordinary people were convinced to actively participate in the atrocities committed during the Holocaust. Are we hardwired to unquestioningly obey authority? Beyond the rational, collective herding occurs when the wants of the individual are sacrificed for the goals driving the group as a whole. Emotions, it appears, are also important. We feel anxious when we feel we might make the wrong decisions. Le Bon’s psychological crowd explains how an organised crowd transitions into a mob. Each individual loses a sense of personal identity, and the mob assumes a degree of intelligence less than the sum of its parts. As Baddeley explains, identity is more diffuse than pure economic rationality, and concerns itself with the need to be part of the in-group. Out-groups are discriminated against and ostracised – not great for survival.

So, it appears as though herding is on the brain. Nobel laureate Daniel Kahneman sets out two distinct think styles, System 1 thinking is intuitive, quick and emotional, while System 2 is slow and deliberative. When fighting a lion, time is precious and instinctual System 1 thinking can be the difference between life and death. However, impulsive decision heuristics are not great for calculus.

Baddeley explores how fMRI can be used to decipher our mimicry. Our brain stem and limbic systems are associated with system 1 and our prefrontal cortex with System
2. Evidence suggests that our limbic system kicks in more than it should, leading us to make snap judgements and employ herding heuristics. Collective herding can dominate over self-interested herding where System 1 dominated.

**Animal herds**, outlining some evidence from ecology and evolutionary biology, provides useful insights to human behaviours. Wolves can catch much bigger prey when they cooperate and wildebeests benefit from the dilution effect when they herd, disorientating lions. Both are clearly acting in self-interest. Baddeley highlights that there are distal evolutionary causes for our inclination to herds. This is intuitive when herding increases the probability of our individual survival, though how can we explain sacrificial herding? Why would an animal, or indeed a human, choose to act in a way which increases the likelihood of death? **Eusociality** explains this phenomenon, and Baddeley illustrates with reference to worker bees.

Bees specialise in specific tasks, meaning that some worker bees are not required to reproduce. They spend their whole lives promoting the survival of their species through the sacrifice of the self. **Docility** is a herding heuristic which can promote the survival of an entire species through the sacrifice of the few. However, this can be exploited by mendacious individuals fostering tyranny (more of an issue for humans than bees). Imitation learning and our predisposition to obey authority also makes us particularly susceptible.

Next Baddeley introduces **mavericks**, contrarians who are essential in tipping society away from docility. While too many mavericks would be chaotic, they serve to counterbalance the excessive dominance of herding in many aspects of our lives. But, what motivates mavericks to make their own way and risk social approbation?

Baddeley explains that both herding and contrarian behaviour can be rationalised through self-interest and social learning. Rather than seeking the safety of a crowd, mavericks use social information to build their reputation and balance the risks and rewards to promote their individual advantage by acting contrary to the crowd. Mavericks weigh their personal signals much more heavily and are more difficult to dissuade.

**Risk preference** is also important. Contrarians relish the risks copycats shy away from. Mavericks are more likely to gamble - fund managers are a prime example of this behaviour. Following market consensus is likely to ensure a consistent result on an investment. If you lose money, then the entire market has also lost money – it's easy to justify. In order to 'beat' the market, you need to go against consensus. This is risky, but the potential rewards are much higher.

Are **entrepreneurs** more likely to be contrarians and speculators copycats? Baddeley recounts **Tulipmania**, a brief period in 1637 where spectators got very excited about tulip bulbs. Bulbs were being traded for many thousands of times more than their fundamental value. Overnight the price collapsed and those still owning bulbs lost fortunes. The efficient market hypothesis had clearly failed. It appears as though capital markets are a Keynesian beauty contest. Iterative reasoning infers that speculative copycatting is not irrational – as long as there is a chance the price will continue to rise and you'll sell before the bubble bursts.

Baddeley develops this theme, observing that entrepreneurs are optimistic and generally comfortable with uncertainty. They are motivated not only by financial reward, but also by the satisfaction of building a business - they are the archetypal contrarians. While copycats don’t create value, they finance and purchase new products, and prevent excessive destabilisation. While this evolutionary quirk is useful in small scale-societies, ingrained instincts to herd are not useful in modern financial markets. If our instincts undermine order, do they render us obsolete for the modern world?

**Herding experts.** Michael Gove’s infamous “people have had enough of experts” (Baddeley 2018, p. 192) exclamation during the 2016 EU referendum campaign highlights an important issue. We do not always give an expert’s opinion the extra weighting it deserves. Baddeley highlights how social media enables the view of a bystander to be as influential as the view of a leading academic or practitioner. The fallibility of our experts further adds to the problem. The world is too uncertain and we are all at the mercy of personality biases. Experts too look to promote their self-interest and even herd as they face social pressures. Like Akerlof’s second-hand car dealer, the ignorance of the buyer may tempt the seller to make misrepresentations. On one hand reputational incentives drive experts to take contrary views in order to stand-out. On the other, herding path-dependency can lead experts to conform. Hence, moral hazard and adverse selection can apply to experts and how the rest of society assesses their opinions. This is exacerbated as experts anchor and adjust their opinions based on the current status quo, despite consensus being ever-fickle. If experts are subject to the same biases as the rest of society, Baddeley questions, how do our contrarian leaders impact the copycat masses?

**Following the leader.** Genocides are an enduring feature of our history, a terrible consequence of blindly obeying brutal leaders. Thankfully, history is also filled with benevolent rulers. Baddeley explores what motivates us to follow leaders, good and bad, questioning whether leaders are always contrarian and followers copycats. Mavericks and entrepreneurs are the natural leaders in society. The first-mover advantage occurs when opportunities offer abnormal economic or social profits. However, first-movers are exposed to risk and will often fail. Hence second-mover advantage is safer and explains herding behaviour. Vis-a-vis, if an opportunity is profitable or beneficial others will follow this behaviour.

Despite this, Baddeley explores why we are so willing to follow authority figures, despite conflicts with our individual sense of morality? **Stanley Milgram** conducted experiments where participants administered mock ‘electric shocks’ to actors. Around 65% of the participants were prepared to administer a potentially deadly 450 volt shock because an authority figure told them to. As copycats we can lose our sense of autonomy and become someone else’s instrument.
There is a leader-follower symbiosis; copycats need leaders and leaders are nothing without their followers. Political tribalism has been a feature of society since days of hunter gathering and is associated with political herding. We do not always carefully reason through all the facts when making political decisions. Political decisions are dominated by System 1 thinking, the same bias that makes us particularly susceptible to "fake news". If our primal instincts are no longer fit for purpose, how can we be sure we are copycatting the right contrarian?