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WHY MINDS LOVE SPORT

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THE COGNITIVE SCIENCE OF SPORT FANDOM

INTRODUCTION

Known by English Premier League (EPL) Manchester United fans as the King, Eric Cantona was notoriously cantankerous, having punctuated his decisive on-field career with a continuous stream of behavioural problems aimed at just about everyone including referees, team-mates, and managers. Opposition fans also took great delight in giving him a hard time. Having seriously fouled a Crystal Palace player in a league match in 1995 and incurring a red card in the process, Cantona marched from the field fuming. Nearing the stands, a Palace fan raced down 20 rows in time for Cantona's exit, screaming abuse as he arrived. Inflamed beyond control, Cantona threw off the guarded arms of his chaperone kit-man and hurled himself with a running start over the advertising rails and into the chest of the stunned fan. He connected with both feet in an improvised martial arts-style double kick, before following up with an attempted cross. Both men were banned. Cantona for eight months along with 120 hours of community service, while the Crystal Palace fan had his season ticket confiscated. It remains one of the most bizarre incidents in English football history, but also one that exemplifies the intractable etching that football makes into the minds of its players and followers.

Perhaps as many as five billion fans follow versions of football across the world. *Football on the Brain* explains why football is so important to so many by revealing how the human mind provides a perfect host for the immensely powerful beliefs that accompany fanaticism. Or, to put it another way, this book is about why two-thirds of the world loses its mind once a week because a leather-covered inflatable ball might just journey between a set of stationary posts.

Of course, there's any number of reasonable explanations for football's popularity, including tribalism, identity, fun, passion, friendship, meaning, membership, excitement, vicarious experience, and indoctrination. I have no dispute with any of these. It's just that I think these are all outcomes of a more foundational legacy.

What I am interested in explaining is why the above factors are relevant and available in the first place. My answer is that it's because we all share a brain that loves to love football. But as you will see, I am not going to argue that the brain is hardwired to love sport. Rather, I am going to propose that the mind evolved to preference certain kinds of overarching beliefs that supported survival and reproduction, and that football fandom leverages these superpowered concepts to find an ideal niche in the mind. So, while football is not inevitable, it is natural.

This book also attempts to launch *a cognitive science of sport fandom*, using football as the prototypical exemplar. The forthcoming ideas can be applied to every kind of sport fandom as well as to every mainstream football code, including association football (soccer), American football, rugby league and union, Australian rules football, and Gaelic football. Then there's deaf football, blind football, amputee football, CP football, Paralympic association football, powerchair football, wheelchair rugby, quad rugby, five (and three)-a-side, arena football, rugby sevens and nines, international rules football, futsal, beach soccer, ice football, walking football, goalball, touch, tag, and flag football, jorkyball, and indoor soccer. That's not an exhaustive list, and I'm not going to even try to list the esport football versions.

In establishing a 'cognitive science of sport fandom', my goal is to explain why wandering footballs are exactly the sort of thing that the

mind loves to think about. More specifically, the beliefs and ways of thinking that we need in order to find the trajectory of footballs compelling, aligns marvellously well with the ways in which the mind likes to operate. We are wired to believe in certain things, especially those things that help us get by in life through better social engagement and an intensified sense of belonging. Just like football.

HEARTS AND MINDS

Fans are the heart and soul of football, but it's their minds that deliver both. Fan appetite for football seems almost insatiable. Fans attend games, watch it on television or on any number of other screens both fixed and mobile, read electronic and print news and commentaries, contribute opinions to forums and social media, buy vast quantities of branded gear, consume sponsors' products, and generally spend large chunks of their lives thinking, talking, and getting emotional about football-related stuff.

For most fans all of this engagement provides a smorgasbord of important psychological, social, and cultural needs. Such needs range from escapism, stimulation, and entertainment, to national pride, cultural celebration, and a sense of community and personal identity. Football needs are satisfied with such copious energy, commitment, and passion that many fans are truly prototypical fanatics, and in a sense, have become addicted to following football.

But why do so many people love football? And why is football in its many versions universal across the planet. Undoubtedly, football's capacity to deliver on psychological and social needs cannot be

disputed. Yet, perhaps there is also a deeper, more fundamental explanation for why football kicks goals.

My explanation for football's persistence comes down to the following premise. *Evolution crafted minds that love to believe. Minds then crafted sports they love to believe in*. And, football is perhaps the quintessential sport, found in some version everywhere in the world.

In fact, our minds possess a remarkable capacity to hold beliefs because believing in things was tremendously helpful to getting by when humans were evolving. Now, like an over-developed muscle, we just can't help but use our believing biceps. To make it even more addictive, being able to believe in things—including football—turns out to be surprisingly useful.

TWO GOALS

This book tries to answer two questions. The first is, how do football and football-related content like teams, clubs, and players become so important, the deities of fans' thoughts and the directors of meaning? It might sound a little over-dramatic—not to mention unoriginal—to present football as analogous to religion, but I will try to show that this is exactly the way our brains work.

The second question is, why are football-related beliefs and their constituent concepts so powerful, resilient, and ubiquitous?

My answer to both questions, as I have already foreshadowed, has to do with the way the brain is naturally 'wired'. Our minds did not evolve to host football thoughts, but they did evolve with a compulsion to hold

faith in certain ideas. I will argue that our brains are just as inclined to believe in football gods as in supernatural ones.

I respond to the twin questions of importance and ubiquity by drawing on the evidence from cognitive science, which is a conglomeration of scientific approaches all converging around a common interest about how thinking works. Technically speaking, cognitive science covers biology, psychology, neuroscience, anthropology, sociology, and even some philosophy. I weave the evidence from all of these sources into an explanation for how the brain hosts football concepts (and those connected to sport) that are underpinned by beliefs demanding a combination of faith and fact. For example, evolutionary explanations help to expose why sport comes naturally. At the same time, the neuroscientific evidence suggests that fan-related thought engages the same brain structures as any strong belief, downloaded through both emotional and rational centres. It also shows how 'peak' experiences can add gravity to entrenched doctrinal concepts. This book brings these diverse explanations together and explains how football becomes embedded in the mind to deliver remarkable meaning and belonging.

To summarise, in *Football on the Brain*, I argue that minds evolved with an impulsion to create, share, and defend certain kinds of beliefs that deliver personal and social benefits. Football beliefs—the foundations of fandom—rely on a kind of faith. Faith-directed beliefs create a resolute conviction of rightness and are mobilised through concepts that cannot always be factually verified. Football comprises the ideal content for minds that need to believe, especially in the absence of evidence.

Fans cling to football-related beliefs because like a catchy tune they resonate in the mind's natural grooves. They even offer shortcuts to help

sort through the complexities of life's decision-making, at the same time maximising satisfaction, comfort, belonging, and certainty. When we have faith in something, the innumerable choices and problems that we each face are swiftly compressed into a narrow band of options, automatically prioritised into a neat collection.

Football fandom captures the quintessential extremes of human experience. Like family bonds, spiritual commitment, and ideological passion, not to mention love, grief, war, and identity, football beliefs thread through our lives. To an astonishing extent they also determine our behaviour, satisfaction, and happiness. And that's why most of the world has football on the brain.

THE USUAL SUSPECTS

Modelling the fan-football relationship and the factors that impel fans to get more deeply involved than with other forms of entertainment can be tricky because it's easy to fall into the circular trap of saying football is emotional, or that it provides a sense of belonging. But are these causes or consequences of football's popularity? After all, football is not emotional, we are. So, is it that football just uses our natural emotional volatility better than other popular activities, or does it tap into something deeper as well?

It is possible to identify a range of elements that help unpack the drivers of fan allegiance and commitment, usually clustering around one of four areas.[1] These begin with the motives driving participation in sport fandom, move onto the factors moderating these motives, include the ways in which emotion becomes attached to a sport, team, or club, and

finally, account for the contextual influences that may facilitate or obstruct fandom. Let me explain each of the underpinning motivational elements further as I try to answer the question I posed earlier about whether football taps into something powerful about the way the mind operates.

First, the motivation to become and remain a football fan comes in three flavours, or at least, are explained through three different ways of looking at fans and the worlds they inhabit.[2] Starting at an individual level, psychological motives revolve around the fan's need to manage their personal feelings and thought states. Usually, such states have to do with a need or desire for entertainment, theatre, spectacle, excitement, arousal, escapism, and drama.

Second, moving on to circumstantial pressures, so-called socio-cultural motives refer to the need to be associated with something 'bigger' than the self. They reflect the importance of belonging. At the most fundamental level, belonging is familial and cultural in basis. In fact, fathers are the most influential socialising agent on a young person's interest in football, and on their choice of team to follow.[3] In addition, sport fans exercise their need to belong to a wider set of values and beliefs that are embedded in the fabric of the society in which they live, or the social units in which they interact. This may take the form of national, state, ethnic, or community pride. It is also manifest in the recognition of sporting traditions and all the rites and rituals that accompany them, providing powerful symbols of meaning that open windows to understanding the values and assumptions that fans adopt.

A third category, self-concept motives, pivot around the need for a personalised identity further to that associated with culture. Where

cultural identity can provide the foundations of belonging, many sport fans seek to belong to something a little more selective and special. The need for identification tends to be tribal and provides the avenue for the preservation and escalation of self-esteem. Few avenues achieve these outcomes better than feeling connected to a winning team. Over time loyalty is encouraged, reinforced, and rewarded.

The tribal explanation remains very popular for good reason because it explains how football satisfies a driving and deeply engrained need for wider identification, often through archetypal rituals where fans can rehearse social tenets and acquire personal power, status, and recognition.[4] Tribal elders in the form of club personalities, managers, coaches, and players enact tribal rituals that both re-enforce the club's values and regulate the behaviours of its followers. Of course, the players are the tribal heroes who are lauded and applauded, at least until they are replaced by superior, younger versions. Central to the tribal practices are the tribal-followers, or fans, who demonstrate their passion and commitment by proudly displaying their loyalty and living their experiences emotionally.[5]

Although research has identified the previous three kinds of motives as key in compelling sport fanaticism, not all sport fans are motivated by the same factors or combination of factors. For example, demographic factors like age and ethnicity influence the motives relevant to an individual sport fan, and their resulting degree of emotional attachment. Also, contextual factors outside an individual's psyche can facilitate or inhibit sport fandom, like wealth and geography.

In the end, as I cautioned earlier, it may well be possible that a lot of the motivations we associate with fierce fanaticism are merely proxies for

more fundamental fan needs, such as belonging, identity, and entertainment. My question is whether we can dig deeper to find something that makes fulfilling these basic needs through football so compelling. I have an answer in mind, so to speak.

LIES AND DAMNED TRUTHS

Despite any lofty assumptions we might hold, minds did not evolve to be optimised for accuracy. Rather, minds were equipped through evolution with a thirst for ideas to believe in, whether true or not. 'Truth' and facts account for much less importance than we tend to assume. What matters is whether the beliefs that we hold *work*; whether they help us get through life easier in one way or another.

By focusing on how we think, or through what is sometimes called a 'cognitive' perspective, we can better understand how fans elevate certain resilient forms of belief to the top of the heap. In showing why certain concepts rise to dominance naturally, I hope to expose how it is so easy to become—and love being—a football fan.

So why is the love of football pervasive in so many minds? In the forthcoming chapters I will show that irrespective of education, culture, or ideology, fans use unverifiable faith in football teams, players, and fellow fans as a crutch to help get by in life. Football helps in functional ways despite, ironically, having no direct function beyond superficial entertainment, display, belonging, or fun.

Scientific explanations for beliefs and faith have come a long way from vague assumptions about the need for meaning and social order. Current research has revealed how mind and culture interact to produce

powerful concepts that trump rationality and evidence. Cultural and neural processes are intricately interwoven largely because the brain is the consequence of survival-driven evolution, which has delivered a weird combination of intransigence and plasticity.[6]

In practical terms the brain is hardwired to facilitate social engagement by adapting to fluid social groupings, patterns, and priorities. Such social hardwiring means that our minds reflect a combination of explicit learning and implicit learning, where the former delivers new cultural content while the latter amplifies existing tendencies and intuitions.[7] Although we are, of course, able to learn any stuff, we are more inclined to learn some particular kinds of stuff.

My argument is that football is exactly the kind of stuff that is easy to learn. For example, studies have revealed that brains respond to familiar cultural patterns like those prominent in football because they activate the same areas that jump into action when we need to make critical survival decisions.[8] Yelling at the referee or umpire might be as natural as screaming for help when fleeing from a predator.

Curiously, some neuroscientific evidence suggests that concepts can bury themselves deep into the mind's cognitive software, a bit like computer viruses that trigger under certain conditions.[9] Concepts are units of thought organised into patterns through beliefs.[10] The implication is that beliefs can become hardwired into the brain, worming their way into the very neural fabric of its structures.[11]

We are not born with cultural programming but rather an innate system finely attuned to acquiring it. At the same time, cultural conditioning re-writes this system with new software add-ons, leading us to change our minds about beliefs, as well as to hold multiple cultural and

social priorities simultaneously. In short, the brain accumulates cultural information and undergoes tangible neural modifications as a result. You might say that culture is 'embrained'.[12] This means that it is buried deep in the mind without conscious or cognitive mediation, a point that resides at the heart of the argument I am introducing.[13]

Football beliefs arrive through a set of cognitive adaptations that accompanied the evolutionary selection process to solve other problems relevant to survival. Football is optimally sticky for the mind. It secures a place in our thoughts because it falls upon fertile mental soil. Like an illicit drug, football triggers an inexorable addiction for so many despite the inevitable comedown and hangover.

A QUICK OVERVIEW

Here's a quick precis of this book's main ideas. To begin with, fans find football so compelling because it latches onto certain kinds of concepts and beliefs prominently found in football, fulfilling the mind's evolutionary impulsion to believe in things that help explain the world, its contents, and what's important. In this respect, football-driven beliefs are not unique. The mind covets what I refer to as 'superordinate' beliefs: powerful faith-driven beliefs. Since football teams, clubs, and players are so culturally accessible, football 'faith' is more popular than religious faith. And, like religion, football provides a handy life brochure as a ready-made guide to what's important.

The dominant presence of superordinate beliefs in football also explains how fandom comes about, accounting for football's immense personal and social contribution to fans. Football beliefs provide

decision-making shortcuts that are useful, even if they are evidentially flimsy. Despite the apparent contradiction of holding beliefs that are useful but flawed, football feeds from the mind's inclination towards self-delusion, especially when unsubstantiated optimism can make life more tolerable. Frankly, it is preferable to think that a slab of chocolate cake can be 'walked off' with a casual stroll around the block, rather than the more confronting reality that it would take 90 minutes of strenuous discomfort.

While survival needs are self-evidently not what they used to be, optimism remains central to perseverance, especially during adversity. Even if a tiny bit delusional, believing in a better performance from the team next week or next season does actually help a fan get through other personal hard times as well. One of evolution's most intriguing legacies is the strength of delusional optimism, nowhere better exemplified than in the football stands. There are, after all, no atheists deep in the terraces or in the grandstands.

Minds are built as survival tools. As I noted earlier, although it might seem a little odd, survival is not always maximised through truth-detection. Sometimes the converse is true in that self-deception can prove surprisingly useful in reaching decisions, making friends, and fitting in. If fooling yourself into thinking that the Cowboys, Crows, Chiefs, City or any team of your particular persuasion are going to win next season brings with it some other advantages, then it's game on so to speak. Irrelevant data—that might look a bit like facts to an independent observer—stop getting noticed. A fan's football world is just a simulation of reality based on their personal needs, assumptions, and delusions.

Part of the reason football beliefs become superordinate—that is, they sit above most other beliefs in importance and decision making—is because they are also sticky. By sticky I mean that they are easy for the mind to acquire and remember. Not only that, since they linger in the mind, they remain conveniently available to pass along, not only to prospective new believers but also to members of the same football-following denomination. Sticky beliefs therefore act as a kind of shared language spoken only by members of the same in-group.

Superordinate beliefs become super-important precisely because they make hard decisions easier by automatically prioritising certain concepts. Just as a new parent suddenly discovers a different, intuitive sense of what is important, fans lead with their football beliefs like a plough across lumpy dirt, smoothing out the terrain before setting foot on it. Not only do football beliefs help fans make decisions, but they also deliver all sorts of other social advantages including personal meaning, a comforting sense of belonging, lifelong friendships, and of course, endless entertainment and gripping conversation. But these satisfying outcomes only exist because the mind lets them rest on its belief foundations.

Following on from the notion of superordinate beliefs, I then go on to explain how football beliefs can be so sticky and personally useful. Football ideas and concepts possess a couple of features that make them more authoritative and compelling than ordinary ideas and concepts. Football ideas tend to contain counterintuitive and counterfactual concepts, which paradoxically end up being more influential than logical concepts. It turns out that the mind likes football concepts because these contrarian elements lurk in the memory. Our minds tend to hook on to unverifiable concepts, partly because their unusual content differentiates

them in the memory, and partly because holding them in the mind requires rehearsal, elaboration, and defence.

Football beliefs get more airtime than others, so they hang around. Memorability leads to engrained thought patterns where football anchors its doctrine—just like in religion—through emotion and ritualised performance. The result, of course, is that football can lead to unyielding beliefs characterised by intolerance and even the willingness for conflict. Unverifiable beliefs play a role because their adherence demands a kind of blind commitment or faith.

MAKING FAITH

Returning to the aims for this book I introduced two questions, the first related to how football becomes so immensely significant to the lives of so many fans, and the second concerning why football in its many guises can be found far and wide.

So far, I have introduced the proposition that superordinate beliefs are the mind's quarterbacks, acting on its evolutionary impulsion to create, transmit, and defend ideas. Successful beliefs offer survival benefits because they deliver personal and social benefits. Those beliefs with the greatest power are associated with faith, often deployed through concepts that cannot be factually verified. In a sense, these beliefs constitute our 'accidental gods'; the side effect of minds that need to believe in something.

In general, the somethings that tend to rise to importance combine utility with ubiquity; useful for getting by in life and sufficiently plentiful

to be convenient and familiar. Of these, the most influential escalate to become a form of faith.

I will also be suggesting that fans cling to faith-based beliefs because like rainwater they get stuck in the mind's natural potholes. But beliefs are not the rational guides we think them to be. Faith concentrates the mind's natural capacities to hold intractable, pervasive, high-standing, elevated-status beliefs. In fact, fans use football faith as a shortcut to help steer through the complexities of decision-making. Belief is a powerful medicine even if the treatment relies on faith rather than fact – a kind of placebo effect.

For fans, faith in football-related beliefs works. Faith delivers productive outcomes, at least in fans' minds. That is not to suggest that all football faith yields positive or favourable results by objective measures, just that fans have unerring confidence in beliefs they think work for them.

Beliefs sufficiently salient to command a faithful adherence take on a powerful directive and interpretive role in the lives of their owners. They orchestrate thoughts, mediate emotional responses, attenuate actions, canalise social relationships, specify opinions, modify values, forge assumptions, and ultimately, define lifestyles. Which is exactly what football provides to its faithful fanatics.

Faith in football persists because the mind is primed for belief. It seeks to grasp and fiercely defend concepts that make sense personally and socially, despite often defying objective reason. Belief is the currency of thought, and faith offers a powerful return on investment. Faith-related practices concentrate the mind's capacity to hold ideas that galvanise groups and cultivate belonging. Believing when it is advantageous to do so comes naturally because faith generates social opportunities. This is exactly how following a team works.

FANATICAL BELIEFS

Fan beliefs held about favoured teams employ a cognitive attitude, and as such they contain ideological as well as factual content. They represent the character and perspective of thoughts on specific concepts, and consequently should be differentiated from purely factual beliefs in at least three ways.

First, where factual beliefs remain static (unless they are updated by new information), fan beliefs can switch on and off in order to provide guidance when needed, such as what behaviours are appropriate and acceptable at the supermarket versus at the stadium.

Second, fan beliefs do not deliver a default cognitive governance, meaning that they are not automatic assumptions or inferences like the expectation of gravity.

Third, fan beliefs are far less vulnerable to being updated, replaced, or deleted as a consequence of new, contrary evidence even when it's as obvious as rain replacing sunshine. At the same time, fan beliefs are susceptible to creative elaboration leading to new interpretations and variants, as well as to the dictates of special insider authorities who hold particular sway over the contents.[14]

Although the very word has come to connotate a departure from the normal, fanaticism should not be seen in terms of pathology. Rather, fanaticism extends normal behaviour to the extreme because it is underpinned by an excessive enthusiasm for certain beliefs and ideas until they become convictions. For the football fanatic, certain beliefs about football have become superordinate, while those associated with other aspects of life have diminished in influence. As a result, football beliefs

exert much greater effect upon behaviour for the football fanatic than they do for non-fanatic football enthusiasts.

Fanatical behaviour can be described by 10 characteristics: 1) a disproportionate fixation with issues of concern to the fanatic, in this case most likely their team or club affiliation; 2) a worldview skewed by football beliefs and convictions including a substantive elevation in their importance compared to other matters; 3) a lack of interest in other, non-group members, their opinions, and 'conventional' social pressures or standards; 4) a diminishment of critical judgement wherein the fanatic conforms to ingroup expectations at the expense of their own personal interests; 5) a tolerance for contradictions between the beliefs held; 6) a certitude in the correctness and appropriateness of fan behaviour; 7) an over-simplified perspective of the world where the sport team of interest resides at the core of importance; 8) a high resistance to facts or interpretations that undermine convictions even when the evidence is observable; 9) disinterest in the negative effects that fanatical behaviour causes; and, 10) the construction of a social environment that makes it easier to sustain fanatical views, including barriers to exclude incompatible views.[15]

It might be helpful to conflate the fanatic to two dominant features. First, fanatics adopt certain values and beliefs with conviction that are held unconditionally and tend not to be subject to revision. Fanatical beliefs rely on non-rational propositions that cannot be rationally justified, based as they are on dogmatic claims supported by unwavering certitude. In fact, these beliefs must withstand external critique in order for the fanatic to maintain psychological stability.

Second, fanatics identify powerfully to a group with whom they share a commitment to certain beliefs, leading individual fans to assume the master narrative common to the fan group.[16]

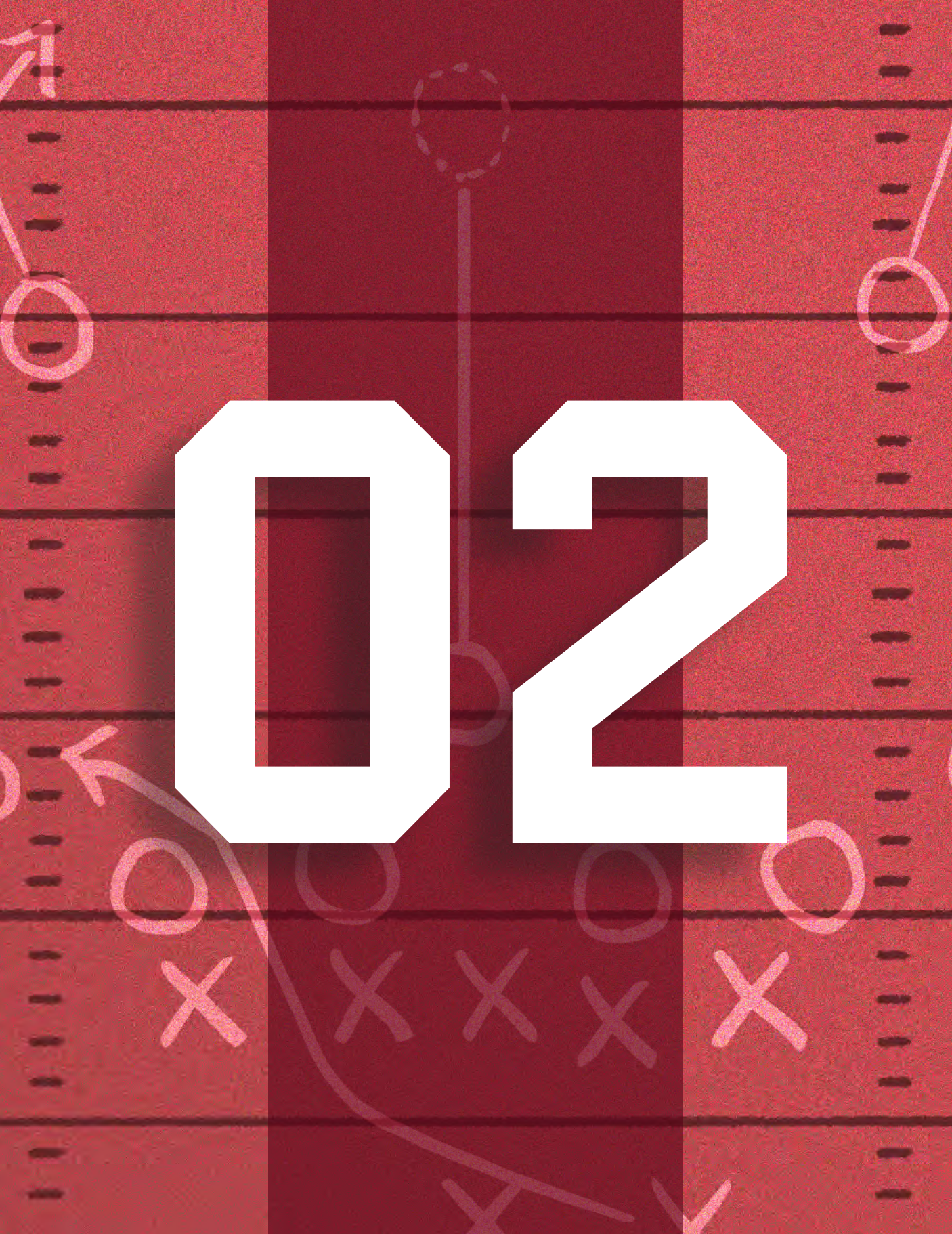
CONCLUSION - INTO OVERTIME

Despite the popular assumption that evolution is somehow progressive, having delivered more and more powerful brains perfectly attuned to the job of planet domination, making compelling reality television, and thumb typing on a tiny touch screen, the reality of natural selection was a lot more perfunctory. The brain was not finely crafted. It was cobbled together like a steampunk outfit, built incrementally on the back of favourable genetic mutations that delivered piecemeal survival and reproduction advantages to the lucky recipients who went on to make over-representative contributions to the gene pool. Brains therefore work more like messy bits and pieces bolted together than elegant engineering; more patched and darned sweater than meticulously designed Swiss watch.

Nevertheless, the congested concoction we got was adequate to raise humans to supremacy on a competitive planet. All because the random luck of genetic infidelity aligned neatly with selection pressures and added some useful morsels to our rudimentary animal brains. The catch is that the resulting combination of older hindbrain animal instincts and newer frontal brain higher reasoning works a little like putting an outboard motor on a bamboo raft.

The result is a smart brain that does dumb things like creating magnificent and sophisticated ways of worshipping a ball.

Unfortunately, the brain never got designed from the ground up. Instead, new systems added to the old ones as utility demanded, never mind the side effects that the crowded combination created. So, we possess brain systems that do not switch off even when counterproductive. Moreover, they can only be modified under heavy experience-based learning, leading to a selective retention through an unreliable memory indexed by emotion. For these reasons and more, upon which I will begin to elaborate in the following chapter explaining the centrality of beliefs, football is stuck on the brain.


02

CHAPTER 02.

— BELIEFS, BALLS, AND BRAINS —
DEFINING FOOTBALL IN THE MIND

INTRODUCTION - WITH FOOTBALL IN MIND

Let me begin this chapter introducing beliefs in more detail with an unconventional definition of what it means to be a football fan. My definition sidesteps the usual way of looking at football fans as consumers or as social followers with a 'fanatical' fervour. Instead, my emphasis lies with what fans 'do' with football in their minds.

A football fan is someone who experiences a stable, uniform, and involuntary cognitive distortion in a predictable direction when they engage with their favoured team or target of sporting interest.

In other words, being a football fan means having regular and systematic deviations from reality.

Fandom normalises biases about football, teams, and players until they become casual, everyday thoughts that operate as an unconscious mechanism within an entrenched and unchallengeable belief set. You could say that football fandom manifests as a predictable cognitive bias that, over time, makes extreme attitudes and beliefs quite routine.

My definition of fandom and the underpinning argument in this chapter bring the importance of beliefs front and centre. By placing what fans think at the core of a definition, I am able to show how fandom can be understood through the functions and consequences of football thoughts. For example, fandom can distract or suppress worries because stronger beliefs, as evidenced through more robust declarations of conviction, lead to reduced anxiety.[17] Conviction provides a rudder for navigating the complexities of the world and how one should respond to them. Fandom therefore acts as a rampart against uncertainty and the fear of making costly mistakes.

Common fandom practices reduce social uncertainty, diminish cheating, and encourage cooperation, all of which are based upon immutable beliefs. In the forthcoming chapter, I unpack what I mean when I talk about beliefs, and further explain their anchoring role in football fandom as well as in all aspects of thought.

WHAT ARE BELIEFS?

Beliefs attribute trustworthiness to certain ideas, attitudes, and observations that cohere as facts. Believing is a stable and uniform state of mind that tends not to waiver even in the presence of disconfirming evidence, which means that no amount of on-field failure will crack a true fan's commitment. Infused in beliefs is also a common vocabulary to communicate and share meaning. Simply put, beliefs describe our truth, so when fans come together their shared beliefs provide a common reality upon which they can build an immediate mutual understanding. Fans of the same football teams therefore also recognise each other as members of the same tribe, leaping past the usual need to awkwardly swap information in the conventional social tango. The process tends to be made easier because fans often communicate their football beliefs to others via their actions, whether in the form of non-verbal signals like wearing the team's merchandise or through verbal declarations to anyone who will listen.

Consider how football makes transmitting deep and personally important beliefs so easy. Few other core belief systems an individual might hold can be so transparently displayed, with the sporadic exception of religion, politics, and nationality.

For the most part our deep beliefs remain covert, even deliberately concealed. At the same time, visual symbols and language do parade some of these beliefs but are not always sufficient to expose what a fan's complete beliefs might comprise. Not all fans of the same team believe the same things, and if they do they might not believe them with equal fervour. We therefore need to understand more about the way that fans construct their realities using beliefs.

In response to the world around us—football and everything else—we construct mental models or maps that help us to navigate our way around, respond to various complex situations, and generally to function despite a cacophony of distractions. These mental maps use beliefs as a foundational structure to construct representations of our surrounding social terrain. As a result, we constantly compare the mental map with the experienced reality, just as we would in judging a map against a physical landscape. Ideas are tested, possibilities are evaluated, and outcomes are predicted.

If you were to read an academic definition of beliefs you might conclude that they are declarative and definite, meaning that they are overt and distinct. However, it would probably be a mistake to think that beliefs can always be expressed in language as clear and confident propositional statements. Beliefs can be far murkier than simple statements beginning with 'I believe that'. Some may well correspond definitively with subjects and contents in the world and be summed up in an intentional statement or a declaration, but many remain elusive.

Since our minds work much faster than language, being able to articulate a belief in a simple statement can be tricky. We seem to know what to do in many circumstances even if we never actively or consciously

think it through. Our brains need cognitive economies—quick and effortless thought patterns—or else we would spend all of our time trying to work out what's going on. That might be fine now and again but it's sub-optimal to say the least when you realise that you're standing in front of a moving bus.

By around five years of age, children understand that beliefs are mental states that come about when people engage with the world. We know this because children around five realise to their surprise that not everyone else thinks the same as they do, and therefore must hold a different mental state as well. Children work out that people around them are capable of believing different things. To the child, whether or not to have another chocolate seems obvious, and a parent's apparent belief to the contrary can prove shockingly incomprehensible. However, it doesn't take children long to understand that other people can believe other things. It is therefore no coincidence that around this age of development healthy children start a serious experimental campaign of deception and fraud. Neither is it a coincidence that at around age five, children become more interested in particular sporting brands and entities when they observe the vigour of a parent's support.

Beliefs have the curious distinction of being both vague and well understood, the latter at least in the colloquial, day-to-day sense. After all, when someone talks about a belief, most people know what they mean, even if the content of the belief itself may not be shared. Yet a hard and fast definition seems to lose something in the translation, so we tend to consider beliefs as states of mind about things in the world, along with all the abstract stuff that goes along with them. We seem to know a belief when we see one.

Before I get into the details, we can start with a few generalisations in the form of key belief characteristics. First, beliefs are states of mind about something that is assumed to be true, whether factually correct in an objective sense or not.

Second, a belief finds expression in the mind through a proposal of sorts; a specification of what is considered true, usually in the shape of a proposition, like *the Dallas Cowboys play in navy blue, silver, and white.*

Third, propositions about beliefs tend to contain an attitude directed towards what exactly is believed. As a result, beliefs tend to express the attitude of a subject towards a predicate: *I think that the Washington Commanders are the best team in the NFC East.*

Finally, beliefs reside in the background as relatively permanent fixtures delivering intentional positions about their content. They constitute stored knowledge about the way the world works and just pop up when needed, usually without the need for conscious thought. As such, beliefs have soaked through the mind's contents, staining everything with their dye.

It might also be helpful at this point to contrast a belief with an observation or unfolding event, which just reflects a pertinent local situation, like *the Dallas Cowboys are running onto the field now.*

When I talk about beliefs and belief systems, I am referring to propositions held to be true by a football fan. Since such propositions cluster together around allied domains, they form sets or systems. As a result, the most important beliefs are the ones that cohere into structures and patterns rather than those that are held independently and remain unrelated to other key beliefs. My interest therefore focuses on the common structures and patterns that go along with football beliefs.

DEFINING BELIEFS

From a psychological and cognitive perspective, believing involves creating and sustaining a mental construct that a person considers accurate and real based on a combination of their previous knowledge, experience, and reflection. Believing is therefore a self-organising process that culminates in a coherent set of constructs that have been built up in levels of structure and complexity. Although we tend to think of beliefs as simple propositions, they can also encompass sensations, perceptions, emotions, and actions, which means of course that they defy easy description.

Believing is independent of objective observation and verification, because as I've noted, the process of believing confers personal and social benefits that do not necessarily have anything to do with the 'facts'; an axiom that has been accepted for at least six decades.[18] Most of the time, the simple confidence of belief during uncertain and pressured situations encourages more swift and decisive action.

Dithering in ambiguity tends to be inferior to poised action when it comes to better personal and social outcomes. So, for the most part, the advantages that go with decisiveness outweigh the risks that go with inaccuracy.[19] Believing also works actively as our beliefs automatically adapt to new information and experiences, re-coding reasoning along the way like a software update.

THE FINE PRINT

If a belief is a disposition towards a specific kind of proposition to which a fan has decided is correct, we run into all kinds of vagueness should we

want to unpack the details. To begin with, what is the form of the 'proposition' about which the belief describes? Are we referring to a definitive statement-like declaration, or do we mean something far broader and intangible that resides in the mental sphere? Or, perhaps, we assume the latter creates the former, which might work well except for the possibility that a person cannot or will not transfer their nebulous mental material into defensible and surgical propositional language. And, to add to the complexity, who is to say that my idea of being a fan is the same as yours, or for that matter whether any of my mental objects in any way correspond with yours.

To take the final step, what if a belief could be interpreted as more than certitude about some mental content, like an entire *way of thinking* about that content too? If this were the case then a belief can not only be just something a fan has, but something a fan does in order to think and make decisions.

A consequence of seeing beliefs as a way of thinking as well as a very strong opinion about some concepts is that the concepts themselves take on greater agency. By agency, I mean that the contents of beliefs take an active role during the thinking process. Beliefs are not just static content about which we think, but rather are dynamic content *through* which we think. A process viewpoint also helps to explain why beliefs can be expressed differently under varying contexts.

Logically, and perhaps intuitively, it seems reasonable to assume that beliefs represent things, both tangible and intangible, and that these representations are held to be true by the believer. Further, by extension, since believers hold the representations to be true, they also hold the beliefs to be true as well, which means that fans use their beliefs to guide

actions, channel emotional responses, and generally interpret life and the world around them.

Research indicates the people utilise different belief evaluation criteria depending upon the class of belief under consideration. For example, a person can use non-scientific criteria to sustain counterscientific beliefs,[20] the classic examples revolving around religious and familial beliefs, but the point could be easily extended into the sporting realm. We find it easy to conclude that our children are the most important objects in the world and think nothing of the absence of evidence for that belief. Likewise, I believe that my sporting affiliations are more important than yours, and I have little need for objective verification beyond my own experience.

While unobjectionable as a series of basic premises, the earlier formulation of what beliefs constitute tends to fall down when you get into the detail. For example, a critical problem arises when an individual accepts a belief that contradicts another one. Sporting beliefs exemplify the potential for contradictions. The obvious problem occurs for the football fan when their intractable beliefs about the superiority of their team collides with bad news on game day. As a result, fans—and more particularly their minds—need a functional way of holding contradictory beliefs at the same time; an issue we shall get into shortly.

BELIEVING AND SELF-DECEPTION

One of the most intriguing aspects of belief systems must be the periodic inclusion of content that a person never really intended to wholly believe.[21] While it hardly seems unreasonable to assume that people

actually believe their beliefs, instances do occur where certain ideas or propositions are not, in their entirety, actually believed. What kind of beliefs can be sidestepped without collapsing the whole lot?

First of all, let's put aside insincerities and outright lies. Even when your partner claims that you do not look fat in those pants, they may well think that you do. Similarly, a person might deceive for personal gain or advantage, like during a job interview or blind date. Of course, all kinds of fraudulent behaviours involve fabricated belief claims. Also, indifference can lead to incomplete or slightly skewed beliefs that invite neglect simply because challenging them is too much trouble, personally inconvenient, or might lead to an unwelcome discovery. Sometimes climate change can come into this category along with a suite of health, nutritional, and exercise-related beliefs, connected to things like jogging, cosmetics, alcohol, and chocolate.

Yet, I am not referring to any of the previous kinds of pseudo beliefs, but rather the kind that sit within a common belief structure but do not command the full allegiance of those who consider the broader belief structure to be true and correct.

It all depends upon where a belief—or a basic proposition as part of a belief—falls within the context of its parent belief system. For example, to what extent does even the most fanatical football mind really believe that their team will win any given game? Contrast this level of certainty with the degree of hope that the same fan might hold for success. In fact, it is not unusual for a die-hard fan to express pessimism or even despair about the likelihood of winning. Following a football team doesn't necessarily mean a blind belief in its on-field superiority. Hope, however, is another matter.

Exactly what a belief constitutes and therefore how it should be defined can be endlessly debated depending on what assumptions you make about it in the first place. For example, you might think that a belief is an all-or-nothing thing, or you might see it in probabilistic terms in that there are some things you believe to be true to a conditional extent. Believing in God seems to be a prototypical example of the former, whereas believing that your team will win the Super Bowl might allow for a little more wiggle room. Also, a belief could be seen as a disposition, or even a representation or an approximation of reality held in the mind rather than a hard and fixed super-structure.

My practical definition sidesteps these tripwires: a belief is a functional state held by a fan wherein they endorse of a certain state of affairs as 'actual'.[22] I am well-disposed to this view because it focuses more on what beliefs do; they provide a fan with a practical position on something that they commit to being true, correct, right, or accurate. The more pertinent belief definition revolves around the importance of the team to the fan, in the process encouraging some non-rational ideas that often have something to do with rituals and superstitions.

VERY SUPERSTITIOUS

Football is packed with superstitions, not least of which are practiced by the players themselves, like former England football captain John Terry's 50 plus, ranging from lucky shin pads to always sitting in the same seat on the team bus. Similarly, touching wood, dispensing salt over a shoulder, and carrying a lucky football scarf all share a similar basis in a kind of magical thinking. Magical thinking refers to a reasoning process

insulating certain beliefs from normally accepted principles of logic, causality, and objectivity. Although there's not much research available on the topic, at least one robust study has linked magical thinking with sports fandom. In fact, there might be a positive relationship between strength of fandom and the strength of magical thinking.[23] Serious fans infuse magical reasoning into their football observations, willing key players to perform miracles on cue as if casting spells from the Quidditch grandstands. One ethnographic study based on Lithuanian basketball fans concluded that witchcraft, spells, rituals, and superstitions are familiar practices, despite the fact that the fans were reluctant to admit it, embarrassed by a wilful neglect of their own customary secular beliefs.[24]

Superstition-driven actions imply that a connection exists between their performance and a favourable outcome, without worrying about any account for how it works. All superstitions have in common the absence of logical causality as successful deliverance relies on compliance, not understanding. It's magic, after all.

In ducking the need for explanation, superstitions seem to demand that something unusual will happen. In the absence of a conventional, let's say 'scientific' kind of causality, superstitions depend upon some other kind of intervention. If not supernatural, they must at least be supernormal, because normal explanations have no relevance.

Lucky football socks are not imbued with luck for reasons that can be described by normal reasoning. If a football fan is asked *why* a pair of socks brings luck, an answer would be readily forthcoming, but it might not withstand a lot of scrutiny. They might be, for example, the same socks that were worn during the last successful cup victory. An

originating positive event became anchored to the action of wearing the socks somehow, which transformed into a habit. The explanation, however, is stuck in a loop because the socks were once arbitrarily declared the cause of some luck after the event, and now provide luck repeatedly because they were once lucky.

But, if asked *how* the socks deliver luck, a fan's answer will be a lot less likely or just a repeat of the same answer as above. Physics can't even account for lost socks let alone lucky ones.

Football beliefs often embed superstitions that rely on muddled up causal explanations. For example, let's say that one fan turns their back for all fourth down and goal attempts because they claim that whenever they watch, the play 'always' goes wrong. Thus, in order to secure the touchdown and avoid a fumble, the play can't be observed live. It's the reason why a percentage of fans avoid watching penalties in soccer, critical field goal attempts in the NFL, and 'after the siren' attempts on an Australian football goal.

Curiously, most of us do incorporate superstitions into our beliefs. While most are mild, they can sometimes be extreme as well. We can manage this seemingly illogical accomplishment because we deliberately avoid dealing with any explanations. Superstitions work—in the sense that they hold salience to a football practitioner—because they are a kind of faith-based belief, which necessitate the careful avoidance of any contradictory evidence.

Faith and superstition of the sock sort are based on a wilful commitment to negligent, magical thinking. As a result, fans go out of their way not to think some things through. Nothing spoils a hearty superstitious belief faster than trying to justify it logically.

The next question is that if a football fan needs to exercise a careless inattention to facts and well-known causality, what purpose could a superstitious belief serve for an otherwise sensible football lover?

Indifference to reality turns out to be extremely profitable for football fans. Pleasure comes from executing a series of miniature rituals, which have the unique power to divide up football experiences into the lucky and the unlucky. In a football world where outcome uncertainty pumps the beating heart of the game's addictiveness, superstitions allow fans to suspend their disbelief in much the same way we all do when anticipating the finale of a Hollywood movie that has slavishly followed the usual formula. We all know that the protagonists are going to win after a close call, but we play along for our own amusement and gratification.

Since the outcome of any football contest can go either way, a football fan can feel empowered by taking ownership of luck, thereby enhancing their own importance to the game result. Superstitions can even bolster mood, acting as a kind of barbican against disappointment for fans by absolving them from the responsibility of game failure.[25] A fan can thereby reason that they did all that could have been done. It's a collision of an irrational illusion of control and a personally useful bias. Together the two assist fans to make meaning of the game outcomes, for better and for worse. That's why superstitions find the most traction in circumstances emblazoned with random luck and uncontrollable conditions.

Soldiers before battle, and fans before football, share the realisation that neither skill nor hope will always decide the contest in an environment when anything can happen. A surfeit of emotional tension cannot be diffused through the usual belief structures, so another mechanism

must bleed off the worry. As a result, the solider and the fan ritualise superstitions just to be sure that they have done everything that can be done and to take back at least some sense of control. And, sometimes, to also distract themselves from the reality of their own impotence to affect the outcome.

LEARNING TO BELIEVE

Many football fans become indoctrinated at an early age when their brains are optimally ready for imprinting. Of course, most physical and cognitive skills are best learned at an early age, like long division, riding a bike, and of course, football.[26] Memories cluster in the bundled interactions of brain cells—neurons—in the brain's cerebral cortex, mediated and amplified by a suite of chemicals. The upshot is that frequently used thoughts need specific sequences and groups of neurons to work together repeatedly. In the words of the neurophysiologist Donald Hebb, neurons that fire together wire together. Our thoughts are literally bound up into connected pathways. Beliefs come in patterns because the brain wires them that way.

Children have yet to wire their brains with clusters of interconnected neurons but are primed to do so. When exposed to repeated bouts of beliefs and all the procedures and notions that go with them, a child's brain adapts by laying down permanent pathways in the memory. This is why we can still remember things that occurred long ago like they happened only yesterday, why learning languages is much easier as a child, and why football fans inculcated early are much more likely to remain loyal for their entire lives.

Humans also have the unique ability to suspend disbelief, unsurprisingly peaking in childhood and declining over time. It's why we get more boring as we get older. Nevertheless, the ability to temporarily accept fiction as true has enormous use to us beyond the entertainment pleasure it can yield when watching a good movie or being immersed in a compelling book. For example, we can imagine possible scenarios and play out their implications. We do this all the time, whether to test out (and perhaps prepare a mental script for) a few white lies, contemplate how we will get to work if the bus fails to show up, plan how to deal with a problematic co-worker, and imagine how we would celebrate should our team win the championship.

The mind's capacity to put disbelief on hold—that is, briefly accept a known fiction as true—comes into its own during football fandom. With practice the fan elongates the period of disbelief suspension to encompass a game, a season, or even a lifetime of blind support for a team. As a result, the suspended disbelief becomes normalised for that particular domain of reality, partitioned from others thanks to the power of a dominant belief hierarchy that prioritises and protects football beliefs.

With time and practice football beliefs can become completely insulated from reality like bubble paper wound around a fragile vase full of football-related fantasies. In fact, the same phenomenon has been studied in the version of fan fiction known as 'Real Person Fiction', where writers form psychological attachments based on imaginary relationships to the real-life celebrities in the stories.[27] Just like football fans, fan fiction writers become emotionally invested in the fantasy relationships they cultivate and can experience tangible distress if the relationship is somehow terminated.[28]

CHOOSING TO BELIEVE (OR NOT)

As I will continue to explain in forthcoming chapters, my argument about the nature of football beliefs implies that fans don't always have control over what they believe, and that their ability to change the content of their beliefs may be quite restricted. Part of the explanation is that beliefs don't act the way we think they do.

We think that we think beliefs, but the reality is that we feel them too. Since emotional content demands emotional responses, fans' beliefs are infused with judgements and assumptions that have little to do with rational analysis, evidence, or objective verification. Despite an intuitive attraction to the idea that beliefs present a way of converging on the truth, they really don't function that way at all. None of us chooses what is objectively true, but we all believe different things despite assuming that our own version is true and correct. However, that is not to say that some beliefs do not rest on an approximation to the truth, or at least have a decent amount of evidence behind them. After all, truth-based beliefs remain critical to our effective functioning in the world.

I am not saying that strong football beliefs are necessarily close to some sort of an objective, evidence-based truth either. My position is that strong football beliefs yield great returns, which means that their objective correctness is less important than their utility. Beliefs that work for us are more important than beliefs that work for the evidence. Truth and usefulness do not equate when it comes to beliefs.

Beliefs that have a practical function can sometimes trump evidence and reason. Here, beliefs and desires hang out as close friends even if the two seem completely incompatible. For example, a belief—whether

actually true and correct or not—aims at providing a helpful description of the experienced world. A desire aims at finding a way for the experienced world to comply with what is wanted. The two intersect when a fan desires the realisation of something that they acknowledge is not true, at least not yet. For most fans the obvious example can be found in the desire to win the next game or the season's trophy in order to match the belief that their team is the best, or at least the most deserving. Beliefs are therefore also influenced by desires, in some cases the latter overshadowing the fomer when sufficiently strong.[29]

Beliefs can also toggle between the global and the local. Global belief structures are hardwired whereas local belief content rests on cultural indoctrination. By implication, the impelling desire to hold superordinate beliefs reflects a mind's programming, while the specific things that are believed in reflect what has been exposed, reinforced, and rewarded. Local content explains why all fans do not support the same team. Global programming explains why so many fans support their teams so vigorously.

DELUSIONS OF GRANDEUR

Fans hold their football beliefs for good reasons, and likely consider that one of the reasons is because they are right and correct. At the same time, a fan's conception of what is right changes over time to align with the shifting gravities of local norms and expectations. A fan's personal agency—their sense of who they are in the world—cannot be separated from their circumstances or their beliefs. In consequence, any challenge to strong or superordinate football beliefs represents a challenge to

personal legitimacy. Confronting a serious fan about the fragility of their football beliefs will be met with a fierce response. You might as well tell them that they have no value in the world.

Psychologists have worked out that grandiose—or extravagant—beliefs are strongly connected to positive emotions, as well as to what they call positive self-schemas.[30] Fans with more extreme football beliefs feel better as a rule, not only about life itself, but also about themselves. Not only that, those with delusions of grandeur about themselves or their core beliefs tend to misinterpret unrelated events as being of direct personal relevance in ways that shore up their emotional states.

In some cases, grandiose believers assume that an external event was somehow affected by their own personal impact. An obvious example can be seen in the fans who believe that their personal attendance at a match or game will have a material effect on the outcome.[31] Such fans can read a private relevance into just about any football-related information, taking personal offence at the slightest derogatory comment or occurrence aimed towards the target of their affection and loyalty. Conversely, fans can readily infer that their own views or actions have affected those held by others.

Reasoning of the inflated kind also raises another curious psychological disposition sometimes called the 'jump-to-conclusions' (JTC) bias.[32] Those with a tendency towards delusions also have a proclivity to jump-to-conclusions, making impulsive decisions, and reaching decisive resolutions without much evidence at all. Part of the JTC bias comes from the impetus created by superordinate beliefs like those underpinning strong football beliefs. It's not necessarily that dedicated fans have a reasoning problem. It's more that their belief super-structure

encourages a data-gathering bias; they look out for evidence that they can interpret as belief-reinforcing while discarding the rest, often completely oblivious to disconfirming evidence.

To make matters more lopsided in favour of assiduously held football beliefs, fans with ideas of team grandeur (beyond the reasonable hopes and aspirations of a supporter), have a predisposition to accept and defend objectively implausible explanations for their views.[33] In practice they will take a more conspiratorial view of football failures, blaming all manner of conditions for on-field fiascos that have little to do with the supported side's awful play, or the superiority of the opposition. All of these biases are fuelled by an over-reliance on intuitive ways of thinking that depend upon the easy shortcuts offered by superordinate beliefs so powerful that they radically reduce the need to evaluate any evidence.

Without too much thought we might joke about football fans being delusional, but from a clinical—that is, medical—perspective, delusions are a serious business. More than one in 10 people in the general population experience delusional thinking or hold delusional beliefs of some kind.[34] In fact, it is well accepted that aspects of delusional thinking occur in healthy minds from time to time. Curiously, holding one unfounded belief predicts holding others, even in completely different areas. For example, people who believe that the moon landing was faked are also more likely to believe that other events and issues can be explained through conspiracy theories, like that climate change is a hoax.[35]

Self-evidently, making accurate decisions about what is real and what isn't has a lot to do with a fan's ability to process information in an unbiased way. The stored knowledge and rules we each apply to the task of

reasoning is sometimes referred to as 'mindware'.[36] According to cognitive scientists, mindware can become 'contaminated' when beliefs slip in that interfere with the reasoning process.[37] Studies have suggested that contaminated mindware plays a critical role in allowing all kinds of weird and irrational ideas to parade through our minds without being critically challenged. Conspiracy theories pop up prominently in research journals, most recently including a proliferation of concerns about anti-vaccination.[38]

Sometimes faulty mindware can have serious health and life choice consequences. Medical decisions, political extremism, and the justification of violence offer obvious examples.[39] Football fans undeniably suffer from mindware malware but for the most part the trojans in their reasoning software don't lead to re-boots. Perhaps it leads more often to what one line of research refers to as the propensity to consider bullshit as profound.[40] Let us not forget that the utility of fan beliefs is not so much to make decisions in line with the facts or some objective reality, but rather to make decisions that best suit fans' needs. When it comes to football fans, sometimes bullshit is exactly what best suits their needs.

For the football fan there can be a fine line between a strongly held belief and a delusion. For example, the medical definition characterises delusions as fixed beliefs that are not amenable to change even in light of contradictory evidence.[41] Since belief in the superiority of a team can regularly withstand the most self-evident contradiction on the field of play, we might be forced to conclude that football fanatics are not only deluded in the colloquial sense, but also according to the psychiatric diagnosis. But do football fanatics, even those whose entire lives and happiness revolve around the success of their teams, really believe that

the next game after dismal failure will be different? Is it really possible for a football fan whose team occupies the ladder's cellar to genuinely believe that their team is still the best?

The answer in the case of deep football fans is an emphatic 'yes'. It all has to do with what a fan classifies in their mind as contradictory evidence. After all, if there's no contradiction, then there's no delusion either. Based on what we know about the way football fans think, they train themselves to become highly adept at conditional thinking; they can place conditions around what it means to be the best team at any given point in time depending upon the circumstances. For example, a committed fan would never concede that just because the team isn't winning at the moment, it is not the best.

Being the best reflects an intuitive reality for the fan. They love the team or club in the same automatic way that they love their children. No interrogation of the position can be contemplated, and contradictory evidence cannot exist because there is no reality wherein the love for children and club does not feature. Best, in this case, is normalised against love.

COGNITIVE ILLUSIONS

Our natural inclination to hold cognitive biases encourages fans to interpret game performances through inaccurate but intuitive heuristics—assumptions—that seem right but turn out to be oversimplified or skewed. For example, one of the most prevalent in sport has to do with how fans 'see' streaks. A now infamous 'hot hand' study showed statistically that a player's performance on a given shot in NBA basketball is

independent from their performance on previous shots.[42] In other words, players don't get 'on a roll'; we just interpret a few baskets in a row that way.

More recent studies have suggested that psychological momentum can occur in some sporting contexts, just not as often as we think.[43] Fans also side with officials and referees when their controversial decisions favour the fan's team but can become aggressive and abusive if the decisions go against them.[44]

We might presume intuitively that, from an evolutionary perspective, true (that is, accurate) beliefs are 'adaptive', in the sense that they should lead to better judgement and decision-making than misbeliefs (false beliefs that are not correct or are incomplete). Yet, we do not of course, all hold accurate beliefs, which leads to the curious conclusion that humans are not biologically engineered to acquire correct beliefs.

In fact, humans might even be programmed to hold a whole suite of mistaken ideas, faulty impressions, inaccurate concepts, and self-delusions. I have already suggested that sport fans—and indeed all humans—do have the propensity to elevate unverified and even counterfactual ideas to strong belief (superordinate) status. Evolution by natural selection favours genetic drifts that confer survival and reproductive advantages; truth is not the sovereign concern.

All other things being equal, it is hard to deny that accurate perception is better than inaccurate perception, and that true beliefs are superior to false ones. However, as the psychologist Paul Bloom so sagely observed, sometimes all other things are not equal.[45] In fact, nothing is ever equal when it comes to sport's putatively level playing field.

An account of football fandom that revolves around the mind and how we think cannot escape some comments about faulty thinking. After all, scientific studies have demonstrated beyond doubt that each of us is susceptible to making errors in thinking, judgement, and memory.[46]

A thinking 'error' occurs when a perception, judgement, or memory departs from what might be considered 'reality'. Sometimes what can be reliably considered as reality is self-evident, like when the reality under question can be independently observed. For example, various kinds of fouls and penalties in football can now be reviewed by replay, often augmented by high quality analytical technologies. Although they do not remove controversy from some refereeing and umpiring decisions, they do often reveal much more than the naked eye and memory. However, in other cases when thinking and judgement play a central role, what constitutes reality can prove to be blurry. As a result, to be considered a cognitive illusion, the putative deviation from reality also needs to be both systematic and involuntary.

By systematic I mean that a fan's distortion in some aspect of their cognition shifts in a predictable direction, which as I mentioned earlier might just be as good a definition of a serious sporting fan as any. That is the point, after all.

Systematic distortions exclude those random cognitive errors that affect us all, like forgetting things, getting muddled up about something, misremembering an event, misattributions, and sensory deceptions. Involuntary means that the deviation occurs without conscious will or outside influence. When a football fan experiences a cognitive distortion, they will not be aware of it. It also means that the football fan cannot avoid it.

Here's the key point for football fans: consistent cognitive distortions become assimilated into conventional beliefs. Over time, a fan's mind adjusts for the standard shift, anticipating and correcting their version of reality to accommodate. After a point, the departure from reality is no longer a departure at all. Confirmation bias—the pursuit or interpretation of evidence in light of pre-existing beliefs—provides the textbook example. As a cognitive phenomenon, confirmation bias does not operate as a general condition. Rather, fans have a 'myside' bias in that they are on the search for evidence to support their specific arguments and positions.[47]

My view is that cognitive distortions and illusions come about because some functional ways we think sometimes go a little off the rails. But more importantly, pre-existing beliefs hook on to these lopsided flaws and leverage them for further gain, all behind the scenes and without conscious awareness. As a result, fans unknowingly employ cognitive illusions, distortions, and biases to influence others, to acquire knowledge about uncertain events or domains, to assuage anxiety, and to help cope under stressful conditions.

You might even say that cognitive biases are abilities rather than liabilities, even though they misrepresent and distort reality. For example, whether intentional or not, fans mislead each other. A casual, uncommitted observer might infer a manipulative agenda where one fan tries to influence and persuade another, but it is probably more sincere than it first appears.

In addition, when it comes to making decisions in a highly complex and ambiguous world, the ability to swiftly act on the basis of

incomplete knowledge might be at least as good as not acting at all. Certainly, biases that encourage confident action mitigate stress and worry.

Fan biases also protect. We weave biases around ourselves like tourniquets to cover up wounds and protect our sensitive self-illusions from outside injury. Fandom is the exemplar of an identity armour worn to both signal allegiance and defend meaning, like a coat of arms on a knight's shield. Biases also prepare the mind to react swiftly to events by instantly generating an attitude towards a situation.

FOOTBALL ATTITUDE

When we speak of attitudes, we mean all of those long-standing judgements we hold about people, places, and ideas that influence our behaviours and contribute to our ideologies.[48] Formed from personal experience, observation, and exposure to other information, the key part of an attitude is that it creates a kind of mental readiness.

When something comes up that has relevance, we are already primed with a benchmark attitude to help deal with it. Attitudes therefore provide some building blocks to construct more comprehensive beliefs. They work together, attitudes collecting and combining under broader belief sets, and beliefs directing and selecting the attitudes held to be correct.

Like beliefs, attitudes flex and swirl depending upon circumstance. For example, explicitly stated attitudes regularly clash with actions when they reflect an internal perspective that does not quite match with behaviour. Typically, the collisions between externally declared and internally held attitudes come to the fore when a person makes

statements declaring their lack of bias about a particular issue. Common examples seem to be found in matters of race, class, and gender where self-reported attitudes disconnect with the observed behaviours of the same person.

It's probably not difficult to see the same kinds of misalignments in serious football fans. I know numerous warm, considerate, and generous individuals whom I have witnessed describing at high volume a football official as a 'maggot', 'scum' and other, unrepeatable adjectives. Often the same goes for a selection of opposition players, coaches, managers, and fans.

Several explanations might account for the discrepancy between self-reported attitudes and actions. One answer is that fans are inherently prejudiced one way or another and seek to outwardly comply with social expectations by hiding their deeper perceptions from public scrutiny.

A second possibility is that fans possess socially or culturally conditioned attitudes about some matters that operate automatically as a form of stimulus-response. A fan would be unlikely to perceive their attitude as prejudiced or biased, having been shaped over a lengthy period of personal experience. Such is the case with inter-team rivalries where each side's fans have become acclimatised to disdainful behaviour from the other. Indeed, the fans would consider their attitudes to be based on firm evidence and not from an unfair bias.

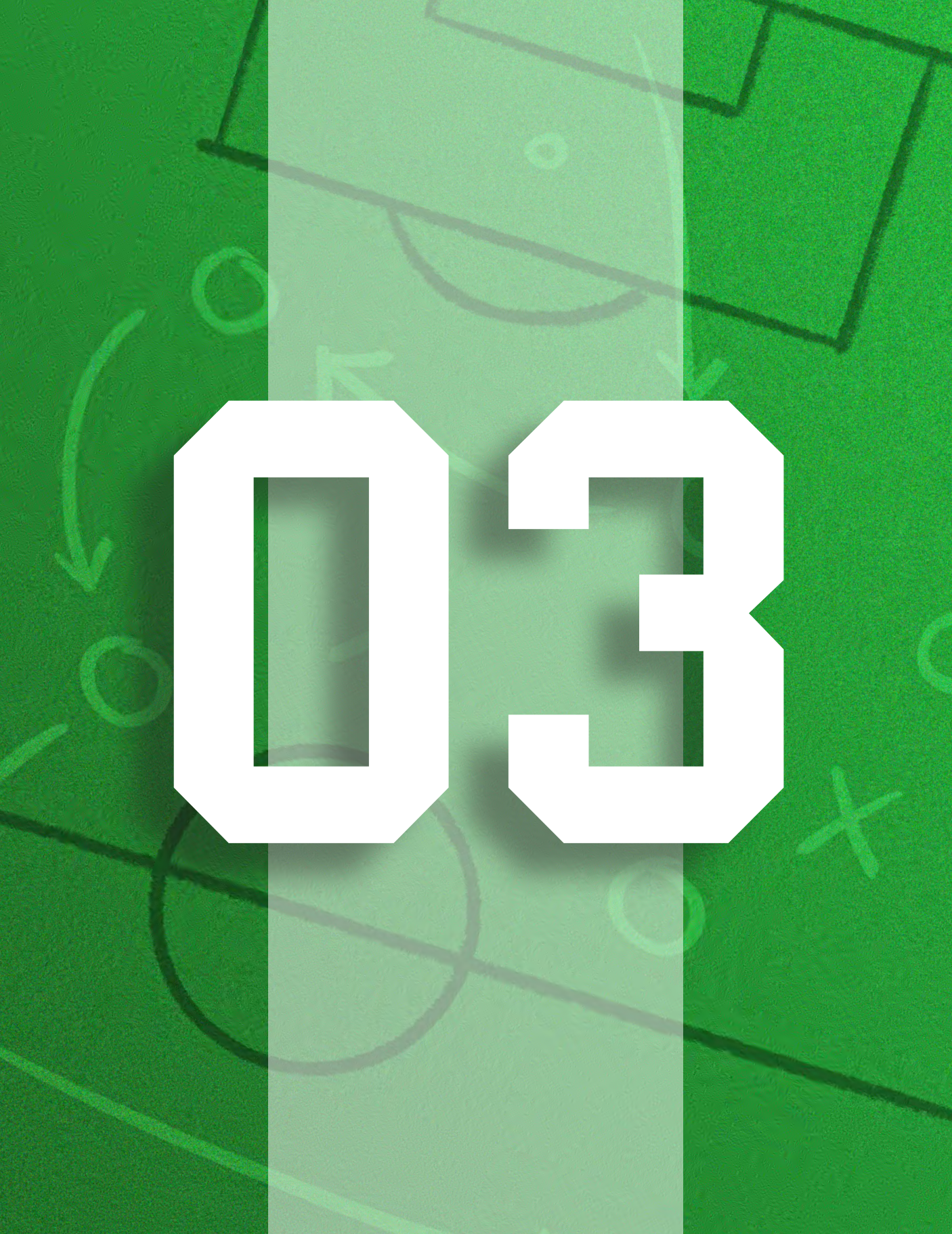
A third explanation arises from the temporary distortion of attitudes under emotionally loaded conditions, or when one intractable set of existing beliefs comes into contact with another set less firmly embraced. Under such conditions we find out which beliefs sets are immutable, and which are at least a little elastic. It is also the time when unconscious

attitudinal biases step into the light. These I will return to in almost every chapter that follows as they play a central role in belief formation and fan behaviour.

CONCLUSION - CAUSE AND EFFECTS

Confidence in beliefs is associated with the evidence available to support them, the shared acknowledgment of their correctness by a trusted group of local peers, the value of the beliefs to the holder, and the degree to which they reflect a personal set of desires; what we want to believe.[49] There is no such thing as an objective belief. Whether we accept it or not, all beliefs are differentially weighed against their personal usefulness.

Most significantly, beliefs give fans a distinctive signature that orients them in a dynamic world full of contradiction and turbulence. They also advertise to others a consistent set of expectations about likely patterns of behaviour, thereby attracting fans of like mind. I consequently define football fandom as a form of cognitive delusion. These insights all arise from a cognitive perspective of football fandom, upon which I expand in the following chapter.


03

CHAPTER 03.

— GOALS IN LIFE —
HOW FOOTBALL WORKS IN THE MIND

INTRODUCTION – HARDWIRED OR EASYWIRED?

So far, I have argued that football is not indigenous to the brain but is something that brains find easy to acquire. Yet fans do not acquire football beliefs just because they were suckers for them in the first place. Rather, football beliefs are activated because some of the inferences they present are socially advantageous. Football works for us, so we gravitate towards it like the heater on a cold day.

At the same time, minds do not necessarily begin open. The mental belief gatekeeper is relaxed when football ideas first receive attention. Despite the importance of football beliefs to a fan's personal meaning in life, football did not arise in response to human existential need. It would be more accurate to suggest that meaning is a consequence rather than a cause of deep football beliefs. In this chapter, I take the cognitive proposition a step further by connecting some fundamental aspects of the way the brain operates with the mental football representations that emerge in the mind. To put it another way, here I am interested in what the mind does with football.

SOME BRAIN STUFF

Without venturing too deeply into the technical bits of anatomy and their function, a few comments about the brain's structure and operation will help to appreciate its football meanderings. The most relevant structure from our viewpoint can be found in what is known as the limbic system because its activity mediates the way memory and emotion function as well as their implications for behaviour. Along with parts of the

brain stem, the limbic system is amongst the oldest legacy of human ancestry, a fact of certain relevance to its role in visceral football experiences.

The limbic system stimulates an emotional reaction to the information it receives from the five sensory channels, projecting this on to the frontal lobes where the higher brain functions of conscious thought and goal-directed activity intervene and interpret. Emotional experience is therefore arbitrated between the primal surge of the limbic system and the tempered contemplation of the forebrain. No shortage of examples can be found of the former winning the tussle when it comes to football fandom.

The limbic system also contains the hippocampus and amygdala. The former is involved with recording memories, particularly those with strong emotional content. Pathology in, or damage to the hippocampus has been associated with changes to beliefs including feelings of heightened meaning, spirituality, and even transcendence.

The amygdala plays a central role in arbitrating between unconscious emotional states and their conscious expression. Noteworthy is the connection between the amygdala and the autonomic nervous system, exemplified through physiological responses to stressful or stimulating emotional experiences like fight or flight. Such conditions also feature during moments of 'peak' football fandom, as I shall explore later.

In addition to the hippocampus and amygdala in the limbic system is the hypothalamus, a brain structure of greater importance that its diminutive four-gram weight would suggest. Situated at the junction of the thalamus and cerebral cortex, and with ascending fibres from the brain

stem and spinal cord, the hypothalamus conveys information with hefty emotional significance.

By way of structural overview, the cerebral cortex and its four lobes—frontal, parietal, temporal and occipital—envelop the deeper structures of the brain including the limbic system, which comprises the thalamus, hippocampus, amygdala, and hypothalamus. In fact, the limbic system was probably the first cortex, its importance now marginalised a little by newer evolutionary additions. To summarise the principal functions of the limbic structures: the hypothalamus is a relay station between the sensory systems and the cerebral cortex, the hippocampus helps to convert information into long-term memories, and the amygdala integrates emotional components.

The take home message from this complex assemblage of brain bits is that it's a complex assemblage of brain bits. Nothing works by itself, and yet the whole system operates seamlessly despite being a weird fusion of old and new, like a Neanderthal with a smart phone.

SEPARATING THE FACTS FROM THE FOOTBALL

Messy though it is, the brain's cognitive functions seem to be admirably adapted to getting the job of thinking about football done. One curious neuroscientific discovery relevant to football on the brain is that subjective beliefs and objective information are encoded in separate cortical (involved in memory and reasoning) regions of the brain.[50] Such an arrangement means that objective information can be combined, filtered, and interpreted by existing, value-laden beliefs. It suggests the

co-existence of an experience-based system of inference alongside a knowledge-based system of assumption.

The combination means that what we learn is mediated by what we already know, as well as the reverse, where what we know has a lot to do with what we have the capacity to learn. Moreover, the strange storage siloes give human minds the natural capacity to separate objective observation of the 'facts' from the subjective belief in something completely contradictory. For our purposes, the implication is that this particular brain capacity helps fans to casually disassociate any unattractive on-field performances in the last match from the deeply held certainty of victory in the next.

To take another step, the way the mind processes beliefs indicates that different types of beliefs involve not only different inferential systems but may also recruit distinct brain regions. For example, the brain deals differently with information depending upon whether it is perceived as truth or falsity.[51] Also, an individual's motivation and behaviour can be influenced by pertinent beliefs when the level of certainty in them reaches a threshold. It seems probable that different beliefs stimulate different and specialised brain regions, while a common set of brain areas work to evaluate and mediate the influence of beliefs on behaviour via the brain's motivational systems.

The point of all this brain stuff is that from a football viewpoint fans tend to interpret their experiences in ways that reinforce what they have already decided is true and correct. Likewise, they are far more likely to be able to learn things that already align well with their existing belief commitments. Like a software firewall, the mind includes and excludes based on predetermined beliefs—programming—with much less

attention dedicated to evidence, facts or logic, which simply get shunted into the 'junk' folder.

To put it another, less scientific way, the mind naturally 'likes' certain kinds of concepts. It is this proposition that lies at the centre of my cognitive analysis and it leads to the idea that football is easy to get on the mind.

FOOTBALL QUESTIONS, COGNITIVE ANSWERS

Let me try to explain why I think looking at football from a cognitive perspective is a productive idea. Cognitive scientists generally agree that our beliefs surf the waves of social tides. You don't have to look far in football to see this. You could say, for example, that I've been a Birmingham City Football Club supporter since my father was born. At the same time, there remain numerous beliefs that my father holds that I don't share despite his best attempts, from politics to pinot noir. It is this difference that comes into play when you look at the mind and its beliefs from a cognitive standpoint. While social contexts and cultural forces have their impact, something else is going on too.

Certain kinds of beliefs seem to be easier to acquire and pass along than others. A cognitive view suggests that some beliefs—and their constituent concepts—are more likely to get stuck because they fall into some kind of mental trench. Like wine spilt on a keyboard, some ideas trickle into the cracks where it becomes extremely difficult to get them out.

If the premise that the mind soaks up some notions better than others holds up, the question becomes which ideas and why? For example,

cultural differences ensure that there are all sorts of different kinds of sport, language, music, art, and religion across the world. Yet, these cultural forms have developed in every major social system throughout history. The details might be unique to each culture, but it is hard to ignore the evidence that some things seem to be universal as a result of a common mental disposition. In this case we appear to have a particular proclivity to play with balls of varying shapes and sizes.

From a cognitive position, cultural content is not just material; it also exists as mental representations of material things. What I mean is, the physical things, events, and people occupying the world of football do not exist independently from the minds that witness and process them. A cognitive understanding of football means that we are interested in what the mind does with the information that it encounters from the playing field. Minds act on information, crunching it in ways that help their owners make sense of it. So, how do our minds deal with football?

REPRESENTING FOOTBALL

To start with, the mind creates representations of the things it encounters. We each possess a mental repository of everything we need to think about as representations of things like objects, ideas, places, and people. Football things take the form of mental representations that relate to all of the stuff that football comprises, like teams, colours, logos, players, balls, rules, positions, and so on. Each one stands for something, symbolising the mental correlate of the thing itself.

While a mental representation can change or shift, it provides a relatively stable response to the original thing so that we have something

solid to come back to every time it enters our minds. Of course, the whole process involves being exposed to the thing in the first place, working out what it means, holding it in memory, retrieving it when relevant, and making associations about it in relation to other things. The point is that football mental representations sit in the mind symbolising all the stuff that's relevant to the game, poised to be put into use whenever football-related things come up. Because representations deliver symbolic content about something in football, understanding them also means understanding how a fan experiences their world.

A fan's football representations form consistent patterns that organise the information and concepts, and the relationships between them, or what a cognitive psychologist might call a 'schema'. Such 'schemas' act like software for the mind because they are operational systems that crunch information until it matches a known pattern. Consequently, the mind's operational systems give us the guidelines that inform our decisions based on previous experiences about how things work. Fans therefore deploy their football schemas all the time, which in turn inform them how to act in various circumstances, like when to cheer or boo, and what to say to other fans when the team tanks at the Super Bowl, All-Ireland Final, or World Cup.

MENTAL TROPHY CABINETS

As I just described, our minds have the capacity to symbolise—or 'represent'—all the basic content in the football world along with associated rules of thumb for their understanding. Carrying out the heavy lifting behind the scenes are what cognitive scientists call inferential systems,

which are responsible for heaving around the concepts and putting them in the right place. Like a furniture removalist, the mind's inferential systems are particularly adept at locating, packing, and storing concepts along with all the 'inferences' that go along with them. As a result, we can usually find all the items, ideas, and concepts that are connected to each other without much effort.

Unlike a removalist, the storage, inference, and retrieval processes operate without our conscious awareness. A constant stream of ideas about the football world and its contents flow into the mind quite effortlessly, and arise in the form of assumptions, intuitions, and expectations. We know automatically even if we don't give any thought as to how. Yet one of the curious aspects of our intuitive inferences has to do with when we take note of what is going on. As I will talk about more later, when a concept arises that doesn't quite fit the others in our mental storage, it forces us to take account and work out why.

The evolutionary impetus for our mental inference system comes from the need for swift and efficient survival responses. Thinking fast will always prove an advantage when it comes to navigating the hazardous and hyper-competitive world of predators and procreation. With survival pressures channelling cognitive abilities towards an inferential system that works so quickly it doesn't even need conscious awareness, over time our minds evolved a suite of mental shortcuts attuned to hazard-detection and social interaction. These abilities helped with cooperation in groups and staying alive long enough to reproduce. As an example, amongst the most useful inferential systems our minds possess are those dedicated to recognising and interpreting the emotional states of our fellow humans. Naturally, the better we do so, the better we get

along with each other. And, as a general rule, getting along with one another has always had a pretty good correspondence with living longer.

From a football perspective, fans use their teams and clubs as common points of reference, in the process ascribing motivations to comrades by reference to a shared emotional repertoire. Football and its passion-packed content is so successful because it excites the mind's hardwired system for emotion detection. It triggers inferences in precisely the way the mind was designed to work best. Even better, sharing an emotional response with other like-minded fans encourages personal and social connections, and general feelings of goodwill, understanding, and belonging.

EMOTIONAL COHERENCE

Faith and belief in football teams are side-effects of the way the mind manages inferences and emotions. Football concepts are infused with emotion, which means that fans need to find some consistency between thought and response. Reaching so-called emotional coherence needs some support, so our minds construct a system of belief commitments as scaffolding. Although a little crude, to continue the metaphor, thinking provides the bricks while emotions provide the mortar.

Given that beliefs have a thinking and an emotional dimension, the two have to make sense together as they arise during a fan's experience. When they don't, fans experience what psychologists call dissonance. If, for example, our actions are inconsistent with our beliefs, cognitive dissonance keeps us up at night. The same thing happens when thinking and feeling go wonky, which is why falling in and out of love can be

confusing and traumatic. Fortunately, football love unlike the other kind, is more likely to last for life.

The original, and infamous Cognitive Dissonance Theory proposed that believing involves a process of improving the fit between belief elements by diminishing those that align poorly with the ones already well-established.[52] In a practical sense, reducing dissonant—jarring—thoughts, ideas, and concepts encourages a more harmonious mental environment. It's easier to think clearly and make decisions without the noise of incongruous, distracting thoughts. Cognitive dissonance has therefore been associated with the idea that believing is a process designed to smooth and streamline cognition, because inefficiency comes with a high energy cost.[53]

Having to figure out every event and situation on a case-by-case basis is slow and ties up cognitive resources that could be deployed elsewhere. As a result, the mind prefers to use beliefs to save the time and energy that would otherwise be relentlessly invested in locating and evaluating evidence.

Incidentally, at least one detailed study has revealed that serious female fans demonstrate higher emotional expressivity. By implication they also experience more cognitive distortions in order to align feeling and thinking.[54] In short, our brains help us out by continually making predictions, unconsciously preparing us for what might come and reducing the potential for future dissonance. As reality catches up with predictions, our brains can either revise the predictions to match the incoming reality or change the world to make the predictions correct.[55] We all know that football fans can change the world.

Without getting into the complicated world of cognitive neuroscientific models,[56] more recent theories have several common strands suggesting that believing: (1) involves adaptive adjustments to make incoming information and its mental representations concord with personal values and already well-formed beliefs; (2) provides predictive and probabilistic estimates of future events to guide current decision-making; (3) blends and organises perceptions, actions, and values into a single unit; (4) integrates emotions into the thinking process; and (5) is likely to be biased towards social and cultural imperatives associated with local dynamics and personal advantage.

To cut a long story short, believing cleans up the mental mess by either changing or throwing out what doesn't fit. Strong beliefs are like nightclub bouncers who only let friends and attractive patrons in the door.

A key platform in the cognitive position I am advocating is that we do not simply learn what is in the environment. We learn what we have been prepared to learn by virtue of the way the mind operates. The evolutionary process of natural selection conferred specific mental predispositions that encourage some concepts to stick while allowing for a certain amount of variation at the same time. All human beings can therefore easily acquire a range of football notions and communicate them to others with a minimum of cognitive effort. Similarly, humans can easily pass on melodies, pictures, and sounds, which is why we all have music, art, and language. It is also why it is so easy to get an annoying but somehow catchy tune stuck in your head, not to mention why smart phones are addictively attention-grabbing.

THINKING IN TWOS

We can distinguish two kinds of cognitive (thinking) processes underpinning two different sets of football concepts. One process is spontaneous, automatic, and intuitive, providing a rapid assessment of circumstances without the need for conscious awareness. Its automaticity is essential to success in drawing inferences about the environment and making predictions based on patterns accumulated from experience. The system operates like a kind of intuition and tends to be active during creative and imaginative thoughts associated with football.

In contrast, the second process is reflective, conscious, and systematic. This system supports active thinking about football concepts when they require consideration or evaluation. It comes into play when a fan deliberates over an idea or works out a response to a new situation.

In short, the intuitive system drives spontaneous inferences about football such as what happens when someone starts talking about a team you despise, whereas the reflective system drives elaborated deliberation about football, much like what happens if you make the mistake of asking a fan for their opinion about the tactics being used during a game.

When the intuitive system is engaged concerning football concepts, a fan reacts with an automatic and simplified response, typically in line with an indoctrinated view that is shared amongst the local fans with whom they associate. However, the response is not necessarily a completely faithful portrayal of a fan's football beliefs because they are also influenced by contemplation and consideration over time, and in response to new information and experiences.

To make matters more complicated, there may in fact be a difference between what a fan *thinks* they believe and what they *actually* believe. Add to that a mind particularly proficient at both embellishing facts and creating fiction; a mental skill set regularly exercised during football conversations, some might say.

Consider the fear of flying. Nonreflective beliefs tell us firmly that a plane cannot fly, but reflective beliefs correct this viewpoint. Sometimes, however, knowledge of thrust and lift are not enough to displace the deeply held counterintuitiveness many people feel when they think about flying. The point is that nonreflective beliefs are always with us, influencing our judgement. They vary in strength according to the biases of innate mental tools and the frequency with which they are exercised. As a result, the most vehement beliefs are those supported by innate mental inclinations. For example, it is easy to develop a fear of heights, but less easy to acquire a fear of pillows. Snakes are easy to fear, ducklings less so.

The brain's natural intuitive system kicks in with football in the same way. There's something primally satisfying about watching a group of people cooperate to drill an object through a target. It's just easy to like football.

FAN FICTION

Fiction-building and the imagination that sustains it started with more sober needs. Like all evolutionary legacies, being able to make stuff up—or in more formal, cognitive terms—run mental simulations of reality on the basis of hypothetical alternatives, has proven to be an

enormously useful skill, especially when it comes to imagining what might happen if a rustling bush is in fact a predator preparing to pounce. Also of course, the capacity is advantageous because it allows us to empathise with others, to imagine the contents of their thoughts, and to anticipate their behaviour. Paradoxically, the capacity for social fiction is a conduit to better understand social reality. Studies reveal that the more fiction people read, the better their skills of empathy and theory of mind – their ability to infer the thoughts and experiences of others.[57]

Basically, reading fiction improves social skills. It stands to reason as neuroscientific research involving fMRI brain scans shows that the same parts of the brain light up in activity when subjects think about narrative stories as when they imagine the content of other people's thoughts.[58]

Football beliefs are enabled at least in part because they leverage the mind's capacity to create fiction. After all, who would remain interested in football if it were not possible to imagine winning next week, no matter how implausible it might seem this week. Paradoxically, fictitious mental simulations are so important because they allow personal truths to be explored in ways that allow fans to experience the emotional and cognitive implications in a low-risk way, also leading to an improved understanding of their own psychological nature.[59] Fantasising can be fun and functional.

How is it that we can override the unappetising facts in favour of more mouth-watering fiction? To answer the question, once again we must circle back to the collision of thought and feeling, because we can't make thinking independent from being trapped in a body that feels. Conceptual content and knowledge, or the football stuff we think about and have formed opinions on, are mediated through our emotional

experiences. Continued faith in a football team is influenced by the emotional benefits it delivers. As I mentioned earlier, if all decision-making contains an emotional dimension, then all decisions will incur an emotional reward or penalty.

The catch is that making every decision based on feel-good emotions tends to lead to later regret. As a result, most of us work towards a coherence between thought and emotion so that our beliefs are useful and sustainable over time. For example, when fans apply reasoning to determine the best explanation for their team's success or demise, they reach conclusions and make decisions that are both positive and negative. But the evaluation of positive and negative outcomes is not a detached cognitive calculation. Instead, there are inevitably strong emotional attitudes attached as well.

A need for coherence between thought and feeling ensures that inferences about which beliefs to embrace and which behaviours to enact are not exclusively based on hypotheses and evidence, but also on the emotional values that are intractably connected to the football content under consideration. After all, it rarely pays emotionally for a fan to reach the carefully calculated conclusion that their team couldn't beat an omelette.

THEORY OF WHOSE MIND?

As I have explained, one of the most powerful and unique mental capacities available to human minds is known as 'theory of mind', which describes the natural inferences we automatically make about what other people might be thinking. In fact, it is theory of mind upon which

the suite of social and cooperative structures adopted by human groups is scaffolded. As a consequence, the theory of mind capability opens up a way of living that maximises survival and procreation.

Like all of our other cognitive faculties, theory of mind comes with a few bugs in the system. Our minds help us to navigate real life social interactions, and they help us to imagine how potential real life social situations might play out. Both are immensely helpful; the former for live social situations, and the latter for predicting future ones. Yet, theory of mind power does not discriminate between real people and fictional characters, which goes some way towards explaining why stories can prove so compelling. Well-crafted stories present characters that might as well be real to our minds, so we naturally attribute mental states to them just as we would with someone we have actually met and gotten to know. We just cannot help ourselves because our theory of mind muscle is so over-developed that it springs into action at any chance.

Any opportunity to indulge the need for mind reading is gluttonously indulged, our appetite for stories, novels, plays, movies, television, and images all insatiable. Any wonder that we seem to have an unlimited craving for all manner of mind-craft no matter how trivial, crass, or irrelevant, whether through reality TV, social media, or fan forums.

Not just an addiction, mind-reading is a compulsion, an automated, synchronised certainty that just happens to also come gift-wrapped inside a box of emotional satisfaction. After all, there is no point in indulging in fantasies unless the targets of our infatuation can be imagined fulfilling our wildest desires, on and off the field.

CONCLUSION - THE FINAL SIREN

As I mentioned earlier, notwithstanding the intuitive assumption that evolution progressively delivered more and more powerful brains perfectly adapted to invent new forms of cheese-flavoured snacks to eat in front of Monday night football, the reality of natural selection was more perfunctory and random. The brain was not finely crafted. It was cobbled together, built incrementally on the back of favourable genetic mutations that supplied piecemeal survival and reproduction advantages to the lucky recipients who went on to make over-representative contributions to the gene pool. Our brains therefore work more like modular bits of messy machinery than elegant engineering. New systems were added to the old ones as utility demanded, never mind the side effects that the crowded combination created.

We therefore possess brain systems that do not switch off even when they are counterproductive. Learning is lumpy, memory is patchy, and judgement is compromised. To put it in non-technical terms, we are emotionally invested in self-deception; the perfect platform for football fandom.

On the upside, a heftier frontal lobe brought other side effects too, like imagination, conceptualisation, invention, contemplation, and prediction. These immensely useful abilities define the quintessential human experience, core to the cultural grooves they fall within. But that doesn't change the fact that due to the nature of the brain's shambolic development, the grooves of culture are filled with football beliefs.


04

CHAPTER 04.

— THE BEAUTIFUL GAME —
THE MENTAL LANGUAGE OF BELIEFS

INTRODUCTION - WHY FAITH IS IMPORTANT

In this book I argue that faith in what I term 'superordinate' beliefs—the most important beliefs that automatically override all others unconsciously—dominate the mind's rational equipment. I have also begun to make a case that minds did not evolve to make 'correct' decisions, but instead were equipped through evolution with an irresistible need to covet powerful, overarching beliefs that have utility, whether true or not. Accuracy in a strict sense does not always correspond with usefulness. By implication, minds elevate certain resilient forms of beliefs—superordinate beliefs—to sovereignty by conferring faith in them. Since superordinate beliefs receive support from the mind's cognitive processes, they are hard to resist and tough to change. I use the term faith for this reason.

Superordinate beliefs defy reason, disconfirming evidence, and the absence of verification. But superordinate beliefs do not reside only in the minds of the weak-willed, irrational, or gullible. Rather, these faith-based beliefs feature in every mind because they sit firmly upon powerful biological mechanisms that were selected through evolution to enhance survival. If foundational beliefs were vulnerable to easy change then they would hardly be useful. After all, from a survival viewpoint, it doesn't matter whether faith in a superordinate belief is warranted by evidence, or whether it is objectively wrong. What matters is whether it works. As a result, we all covet beliefs that work for us irrespective of how sceptical, rational, or thoughtful we might be. Faith is universal—correct and incorrect, right and wrong—because minds like certainty. Also, of course, because uncertainty has a habit of leading to hesitation,

vacillation, or indecision where none enjoy a strong correlation with helpful survival outcomes.

Our desire for strong beliefs evolved under circumstances where survival necessitated immediate responses, and where taking the time for reflective contemplation would have led to catastrophic results. They also arrived on the back of less urgent but equally important social needs. Our evolutionary inheritance prepared minds to be adept at understanding other minds, which led to successful cooperation in groups for collective safety, and conditions conducive to raising offspring in a dangerous world. Although some of the dangers that influenced selection pressures, like predators, have largely become redundant hazards, we remain stuck—for good and bad—with a survival-oriented mind.

Armed with rapid-fire intuitive responses, our minds jump to conclusions and take the rest of us with them. A vast world packed with potential danger cannot be comprehensively assessed by the handful of senses extended immediately around us, so for the most part a superior survival strategy involves running first and thinking second.

When something does happen, the mind's intuitive reactions take command and shove action to the fore, colloquially described as 'fight or flight'. At the same time, we need to get along with others because cooperation means increasing our sensory scope for danger, which also then facilitates a collective action in response. Cooperation requires mutual understanding. Our minds accommodate this need by activating its system of strategic inferences, in the process providing an ideal environment for sharing fandom. It is to this system that we now must turn because it works so well for football beliefs, paradoxically because it works so badly for the accuracy of beliefs.

FAKE NEWS

What pops into mind spontaneously and effortlessly should be understood as the outcome of thinking rather than the process of thinking. For the most part thought occurs unconsciously, without our wilful intervention, and certainly not with any kind of objective validation. As a result, the mind's machinations are riddled with short-cuts, biases, flaws, and favourites, most of which we never notice, and when we do, tend to defend vigorously. For both better and worse, these cavalier machinations help us get by. For example, fake news can affect our judgement, even after we work out that it's fake. The initial influence of incorrect information does not simply get 'undone' when it is corrected and we accept that it was wrong in the first place.[60] Like any kind of impactful experience, it is impossible to un-hear or un-see something no matter how much we might like to.

According to research, being suckered by fake news is associated with a lack of careful reasoning and with gaps in relevant knowledge, the combination encouraging fans to fall back on effortless mental short-cuts based on familiarity.[61] When hit with scuttlebutt about their team, instead of investigating further with critical intent, fans simply fall back on well-worn expectations and past experiences. We all do it. Even if it sounds lazy, the reality is that vigilant news checking is far from practical. To make matters worse, our entire mental apparatus is as reliable as a politician's promise.

To begin with, our sensory perception is not a passive set of instruments receiving data about the reality it samples. Rather, our senses construct reality as much as they record it. It's all about inference and

interpretation. What we perceive is filtered through an already well-established internalised version of reality, shaped by the mind's natural inclination to attend to the stimuli best fitting the expectations meeting previous socialisation, education, values, role contexts, and of course, deeply held beliefs.

Perception has a way of matching with expectations; we see what we are looking for, even after new and better sensory information becomes available. As a result, we are slow to correct faulty perceptions and wary of any inputs that challenge preconceptions.

The next problem has to do with memory. Memory requires the activation of a range of different areas of the brain, partly because there are different kinds of memory for different purposes. Information gathered by the senses is known as perceptual memory and comprises what might be seen as hierarchical levels of knowledge acquired through the senses and stored in the posterior cortex of the brain. This perceptual memory is implicit rather than declarative,[62] which means football symbols and other relevant categories of knowledge are at least in part concealed to individual fans.

Executive memory refers to a series of higher-level cognitive skills used to oversee other cognitive abilities and behaviours. It is stored in the frontal cortex, but the integration of working memory and attention is managed by the prefrontal cortex. Motor-related memories, particularly those associated with well-known sequences of action, are stored in the basal ganglia. Long-term memories are associated with the right hippocampus and the right prefrontal cortex.[63]

To conflate all of these functions about how memory and the brain work, raises two implications salient to the way fans think about

football.[64] First, memory is a fundamental property of the brain, and its storage is connected to ongoing information processing in the brain. That means we think via memory, which in turn gives enormous power and importance to those experiences that have already been deeply etched. Second, memory is a multi-faceted function that manifests through numerous brain structures, which means that football ideas permeate all aspects of a fan's thinking, whether emotional or logical, and whether imagined or remembered.

We have a worrying tendency to remember what we already think we know, rather than what we actually experienced. Memory continually streams into the thinking process, both consciously and behind the scenes, so any memory retrieved can have a material impact on a current analytical judgement. To complicate matters, and as we are all too aware, the mind's memory capacity is limited so the chances that we stored all the past data and experiences pertinent to a current judgement is low.

Storage can be affected by numerous variables at the time of initial exposure including attention, emotional content, and circumstantial factors shaping vividness. So, not only is memory retrieval problematic, but it was also inaccurately stored in the first place, inevitably subject to sketchy remembrances, skewed by perceptual biases and emotional responses, misinterpreted and misunderstood, and with the available information filtered through long-standing habitual interpretations and strong beliefs. It's really not the greatest concoction for a faithful reproduction of the facts.

The fact is that no one actually recalls facts. At best it's a messy pastiche of sensory recollections, shadowy fragments, emotional residues,

and post-event rationalisations. Over time the bits and pieces get sorted, categorised, and interpreted. It is also worth noting that these interpretations tend to be resistant to reinterpretation, especially in light of new evidence that arrives later. First impressions count, according to colloquial advice, and cognitive scientists would agree.[65]

MENTAL THEORIES

Our minds employ short-cuts in order to economise and avoid wasting energy on inessential effort. As a result, we hold a vast suite of hypotheses about the world—sometimes called heuristics—that allow us to sidestep the impossible demands of evaluating every piece of incoming sensory information. However, our decision-making process trades diligence for dispatch, and more often than not we spend no time at all actively considering which variables should be given the greatest weighting, not to mention which ones are actually having the most influence on us in shaping our decisions. This is why marketers emphasise emotional content. A resonant emotional stimulus trumps rational evidence almost every time because it activates the shortcut circuit embedded in the mind. Emotions trigger shortcuts just in case the stimulus demands an immediate safety-related decision, and we need to spring into action.

A confronting array of biases affect our interpretations, and subsequently judgement and decision-making. Irrespective of the quality of information that our minds encounter, its value as evidence will be assessed imperfectly, pulled towards an inbuilt system that gives greater importance to material that is vivid and personal. For example, a fan's

personal experience of a match will have a far deeper impact than a second-hand report, especially if it contained emotion-stimulating action. Also, information placed into a personal context will be more memorable than a whole series of aggregated data. My story will always be more powerful to me than a dozen from other people.

Human stories get retold because they are personal and resonant, which is why few statistical 'facts' are passed along with the same vigour as gossip. Further, if the received information corresponds to an existing belief or previously held supposition then it will prove difficult to shift even with a significant body of subsequent, contrary material. As I mentioned earlier, if something strikes a chord, the note cannot be unheard.

Our minds also work in narratives, as we are all storytellers by chronological inclination. As a result, we find ways to make the facts fit into a coherent story. As in any story the facts slowly coalesce into intelligible patterns arranged into a sensible flow of cause and effect. It doesn't really matter if some facts don't work for the story; they can be omitted to ensure that the plot is not confounded by distracting characters and events.

We possess a natural propensity to seek causes in order to explain the effects being observed. However, not only might the observations fail to be explained by the causes we infer, but what we observe might not even be the effects of any single or explainable cause at all. When we fail to see a pattern that explains our observation, we tend to assume that we haven't worked out what it is. It is difficult for minds designed to infer agency and order to allow for randomness and inexplicability. We impose order and patterns on events so that we can make sense of a world around us that is actually pretty random. This is partly why gambling on

sport remains so popular, even though it might best be described as a tax on fans who don't understand statistical probabilities.

Storied narratives loom large in football because fans have the tendency to construct causal explanations towards the gravity of local and common opinion, which of course comes from other fans. The result is that fans infer coordinated and intentional agency to situations that were unintended, coincidental, random, or accidental. Although the evidence suggests blunder, our minds want to leap to conspiracy. The same happens on the field of play too. Fans overestimate the coherence and directed strategy of team play, often inventing patterns to help rationalise what they are observing. In short, we make the unpredictable sequences of football events into a comprehensible story, formulated into structures that are easy to remember and retell.

KICKING GOALS WITH INFERENCES

We possess an impressive ability to infer the thoughts and interpret the actions of other people and animals around us based on imagined assumptions about what they are likely to be thinking or how they are disposed to act. According to neuroscientific evidence, for example, observers covertly and unconsciously mimic the activity of others, leading to a shared mind state. Further, when an observer judges that another person's actions are false—that is, misaligned with the expectations held about the observed individual's predicted behaviour—certain parts of the observer's cortex and cerebellum light up like a Christmas tree.[66]

When we observe someone else doing something unexpected, our brain's social alarm system goes off. Since ardent football fans tend to

assume that the rest of the world thinks the same as they do, the discovery of an alternative football worldview tends to be received with some astonishment. In some instances when the alternative worldview seems both incomprehensible and repugnant (like being a supporter of a particularly unfavourable team), the result can be conflict.

The mind's inbuilt survival and social instincts introduce two consequences pertinent to faith in beliefs associated with football. First, since the environment around us screams with constant and overwhelming white noise, the mind needs a screening system with a learning loop. Attending to all sensory channels simultaneously would not only be paralysing, but it would also make it impossible to get anything else done. That's why your partner can't hear you when they are watching the game on TV.

Second, since we can conceive what it might be like to be another 'agent' (that is, a person or animal), we can project their behaviour into the future, anticipating how events might unfold. But a sensitive, and at times, overactive agency detection system—where we proactively venture into the minds of others—can prove overwhelming and impractical. The mind's systems rely on deeply engrained beliefs to filter the signals from the emotional overload, otherwise we would become crippled with the mental noise.

Beliefs provide mental maps of our environments and experiences, in effect projecting our physical senses into a virtual representation within our minds, and which we can tinker with in order to simulate potential causes and effects. That means we are able to test out different possible scenarios in our minds before they might occur. Whether strategic or fantastic, this imaginary potential of the mind sustains football belief

even in the face of consistent defeat and despair, like the hope of rain in the desert.

In a Palaeolithic context, a growl outside the cave registers immediately in the conscious mind, cutting through any other sensory inputs because it matches a known danger. Likewise, the shriek of rubber on the road gets a driver's attention today because it foreshadows a series of events emanating from one vehicle's abrupt and unplanned stop, just as a gasp or cry does in the football stands.

Of course, beliefs come in all shapes and sizes, and do not necessarily have to relate to survival-level circumstances. Yet they each have a purpose in helping us sort out the complexities of life, whether in the form of an unwelcome tiger, tax audit, or touchdown. Mostly, beliefs provide shortcuts based on a useful combination of automatic inferences generated by our intuitive hardwiring, as well as through collected learning about our environment that has proven worthy of remembering and recognising.

LIFE, DEATH, AND FOOTBALL

I have suggested that some beliefs rise above the others and that our confidence in their correctness is not only unusually high, but also resistant to scrutiny. These are the very beliefs and assumptions that allow fans to offer unconditional support to their teams and favourite players and be prepared to defend them to the very end (of the season, because there's always next season...). Beliefs produce guidance and predictions about events, people, and possible futures in the form of cause and effect explanations about phenomena, like why sticking my hand in boiling

water is not a good idea, and why my team seems to win more often when I wear my lucky scarf.

Instrumental, daily, automated, and routinised beliefs go on in the background of life like how to tie a shoelace, where to find breakfast, and which team to cheer for. Their importance seems indisputable, but prosaic beliefs would hardly mandate our compliance or direct meaning.

One relevant theory suggests that our cognitive 'distance' from a belief affects its susceptibility to testing and verification.[67] For example, routine, micro beliefs about the best toothpaste or how to fry an egg can be easily subjected to feedback. Trial and error leads to better choices about what works. In contrast, more distal beliefs—typically more abstract and wider in scope—tend to be experienced remotely or removed from immediate feedback. Distal beliefs therefore sit above the mundane but defy interrogation from irrefutable tangible feedback. It is harder to deny a ruined egg than a ruined season.

Some beliefs are so important that they literally safeguard our lives. For those of us who make it to adulthood, good examples include fire safety, food hygiene, the incompatibility of electricity and water, and playing on train tracks. Others seem to be useful, were learned but remain untested, or are accepted but periodically ignored. Examples include avoiding high ledges without handrails, swimming after a large meal, and driving too fast or after a few drinks. Naturally, some beliefs deserve greater observance than others for decisive, practical reasons. It should be no surprise that we have invested a high degree of faith in these 'survival' beliefs. After all, it would be a short life for any of us who believe we can live without food and water or breathe underwater.

Faith in survival beliefs hardly seems like news, and on the surface, they do not explain much about the convolutions of football fandom. Survival-related superordinate beliefs inspire faith in conscious, purposeful functions, created and propagated for obvious and essential reasons. However, my interest in this book revolves around faith in superordinate beliefs that are not necessarily essential, obvious, or critical to survival, yet relay tangible benefits to those who hold them. To put it another way, faith reveals meaning.

Part of the key lies in understanding that superordinate beliefs resist change. In fact, their very utility depends upon stubbornness in the face of contradictory evidence, or at least, alternative options. Consider the following, for example. A hypothetical individual wanders through the savannah, stopping abruptly upon hearing the sound of a tiger's roar. Careful visual inspection of the surrounding area, however, reveals no sign of a tiger. Does the individual continue in unreserved abandon or do they lie low for a while? Similarly, we watch a pan being taken out of the oven. It doesn't 'look' hot or dangerous in any way, but we avoid touching it because we have learnt that heat is not always visually apparent. The beliefs supporting these actions seem purposeful, yet beliefs and sensory data need not align. In fact, beliefs can still win out even when contradicted by objective evidence. They are supposed to. If a tiger could be lurking about, it is not the time for analysis and contemplation, and there is no point in being a thoughtful meal.

What about superordinate beliefs? These reflect the ideas and concepts we believe bring about personal and social benefits through connection, belonging, consistency, security, meaning, control, structure, and power. These are our accidental gods because they arrive as

freeloaders on the mind's natural systems. When elevated to superordinate status, our accidental gods hold the reigns, even in the presence of substantive conflicting evidence. That is why fandom is so prevalent. It survives in the face of contradictory evidence because it works on so many levels. We place faith in certain common survival-relevant superordinate beliefs, but we also each hold a unique set of accidental ones as well. The former beliefs are shared; the latter beliefs are inimitable. Accidental gods determine our worldview, perceptions, satisfaction, and the whole series of actions accompanying them.

BELIEFS FOR FOOTBALL

Why do we have beliefs, how does faith play a role, and what is the purpose of examining either of them? To begin with, beliefs provide explanations about the world and its contents, giving us a way of approaching life in a consistent and functional way. Beliefs lay a scaffold in our minds against which we can mortar our experiences in a shape that makes sense. Patterns emerge, allowing us to make predictions, act swiftly, and generally avoid sensory paralysis by prioritising those stimuli that have proven worthy of our previous attention.

Like a series of partially overlapping Venn diagrams, ideas and concepts make up beliefs, and beliefs assemble to produce more global belief sets and superordinate beliefs. As a side effect, well established (and particularly superordinate) beliefs assuage anxiety, relieve uncertainty, and moderate indecision.

In a world of limitless choices and unknowns, beliefs add confidence. Security comes from the sense of certitude that a faith in them affords.

We fall back on the identities we create through fandom because they offer familiar reassurance and offer a grounded foundation upon which life's wobbly events can gain some stability.

From security, structure arrives, as socially shared belief sets form the basis for both explicit law as well as the myriad of informal, tacitly assumed behavioural norms with which we comply. Social order accompanies common beliefs, whether in a micro version through small groups or through the macro interactions of entire communities and societies. Some superordinate beliefs play critical roles in guiding behaviour, often reflected in the universal principles of all sustainable and successful social configurations, like placing value on the lives of group members and respecting the ownership of property.

Fan networks create uniformities in beliefs about the past because they control and organise the information that in-group members receive, especially those new to the group. They then place social pressure on group members to conform through sanctions and exclusions for deviance, and support and rewards for compliance. When new information arrives, either about the past, or in some way challenging beliefs about the past, the network validates or rejects it. The process works so effectively because fan group members trust information from other members more than any received from outside the group. As a result, group members end up relying on each other more and more for the interpretation, confirmation, and validation of information, even though it might be distorted by fabricated content.

CONFABULATIONS AND FANS

Curiously, the drive to confabulate—hold false beliefs and even invent supporting 'facts' that are manifestly incorrect but held as true despite irrefutable evidence—comes with confronting ease. According to brain studies, thinking about confabulated beliefs feels more pleasant when they are consistent with our existing beliefs, leading to an emotional bias in favour of new beliefs that aren't really all that new at all.[68]

Lies feel good when they reinforce what we already think is important. As a result, we go out of our way to lie to ourselves when our most resolute beliefs get challenged somehow. Most of our favourite, frequently repeated football stories, are really just comforting self-deceptions.

To make matters more alarming, not only do we ignore evidence that contests our deepest beliefs, but we also modify our beliefs in order to fit with pleasant emotions. Conversely, we dodge uncomfortable emotions by avoiding evidence that can compromise our most strident beliefs. For example, one anthropological study recorded the case of a tribal rainmaker who refused to dance for rain during the dry season, while another documented a practicing but agnostic minister.[69] Other case examples can be readily found because we all form our beliefs asymmetrically; that is, in skewed ways and with greater weight and emphasis on certain content, like football of course.[70]

It's not hard to find fair weather football fans during purple patches of success, and they typically claim to have always been vigorous supporters. Most bandwagon fans are telling the truth, at least as they see it. The bad news gets distorted, discounted, or disowned, while the good

news gets magnified, glorified, and exaggerated. Fans are like politicians when it comes to the facts.

Research shows that belief asymmetry leads to all kinds of social impacts, from financial bubbles and crashes to overzealous nutritional and vitamin supplementation. It also doesn't hurt sales of cosmetics, fat burners, and handguns, and that's before we even start to talk about football. Superordinate football beliefs therefore perform a tremendously influential function. From them flow personal identity, social belonging, interpersonal relationships, and a gamut of values, attitudes, assumptions, and behaviours. In fact, belief-driven social attitudes can be used to predict most forms of behaviour.[71] In the end, superordinate beliefs locate the targets against which we allocate and assess happiness, explaining why so many of them can be found on the field of play.

THE BELIEF WORK

It's time to dig a little deeper into what beliefs are, and how they should be understood. As a reminder, I distinguish beliefs from items of knowledge and from the contents of memory. Beliefs overlay upon knowledge and memories, like a tint from coloured goggles, adding value and context to neutral information. These values come in the form of attitudinal interpretations and evaluations of the kind often volunteered by fans about everything from the quality of the officials to the availability of the hot dogs.

As psychological scaffolds, I take an interest in beliefs for what they do more than how they can be defined, especially since their cognitive foundations and impact have received only modest attention to date.[72]

Nevertheless, some relatively uncontentious features of beliefs are worth raising at this point.

As a foundational premise, beliefs can be understood as pre-existing notions.[73] However, because beliefs are inextricably woven into personal convictions, they act differently on the way we think than other kinds of information or knowledge. Strictly speaking, information and knowledge remain value neutral until a belief is activated in order to interpret them. Of course, this process transpires seamlessly so that the assignment of value to information occurs unconsciously and automatically. More technically, beliefs can be expressed or captured as propositions endorsed with heavy bias. But they can also comprise cognitive, emotional, and behavioural components extending well beyond an abstract value or statement of preferences, thereby possessing greater durability than more fleeting opinions.[74]

As I mentioned earlier, evidence and critical reflection are rendered unnecessary when a superordinate belief is in charge, as we have already reached the conclusion that they are right and correct. No number of titles or championships won by your least favourite team will convince you they are the best, even though objective measures about which team is the best could not be easier to find.

Although typologies or categories of belief types can lead to some general groupings, there is no way to identify a 'standard' belief format, flavour or style without gross oversimplification. On the other hand, when focusing on what beliefs do, it becomes transparent that they act as a kind of cognitive operating system by sorting, coding, organising, and processing inputs, and delivering in response, intuitive inferences and reflective judgements about their relevance and value.[75]

OFF THE FIELD

The scope of what beliefs do in constructing mental commitments to ideas and concepts means that they have to operate both consciously and unconsciously. At times beliefs occupy our deepest contemplations, but mostly they remain automatic, shielded from awareness, and so engrained that we do not even realise that judgements are being made. We might be able to reflect on some of our beliefs but the whole picture remains forever unavailable. We can never examine our own beliefs objectively or understand their entire composition. In fact, we cannot identify some at all because they remain deeply buried, their origins an intractable collision of natural inclinations, hardwired intuitions, and tacit social programming.

At a more micro level, some psychologists have tried to nail down beliefs by focussing on specific elements, typically expressed in the form of 'isms' common to personality assessments, like 'authoritarianism'.[76] Personality and beliefs seem undeniably interconnected, and together are demonstrable precipitants to action.[77] Psychologists work with 'isms', 'ists', and 'ics' because they can be quantified through descriptive terms such as communist, fundamentalist, democratic, or autocratic.[78] No doubt certain belief sets can be better understood by reducing them to well-defined references, opinions, ideas, concepts, principles, views, or convictions. It turns out, for example, that 'isms' help expose ideologies within belief sets particularly well, at times even leading to the identification of common demographic and motivational features common in people advocating certain strong positions.[79]

A standardised set of quantifiable measures, does not however, further my analysis of faith in superordinate football beliefs. I am more concerned with the mind than in the specific measurement of its contents. It is not that the ball isn't important. It's just that the player has more relevance when you're trying to work out why the ball was kicked.

From my viewpoint beliefs can be understood as a cognitive position—a way of thinking—where certain concepts receive acceptance and commitment, and under some circumstances, outright faith. They are right and true, sovereign over evidence, and impervious to critique. Despite the surfeit of terms available, they all refer to aspects and elements of a larger belief commitment offering some shortcuts about what is right, true, good, or important amidst tremendous uncertainty. Beliefs are engrained in thought, woven in as the thread of personal meaning.

CONCLUSION - FROM BELIEF TO FAITH

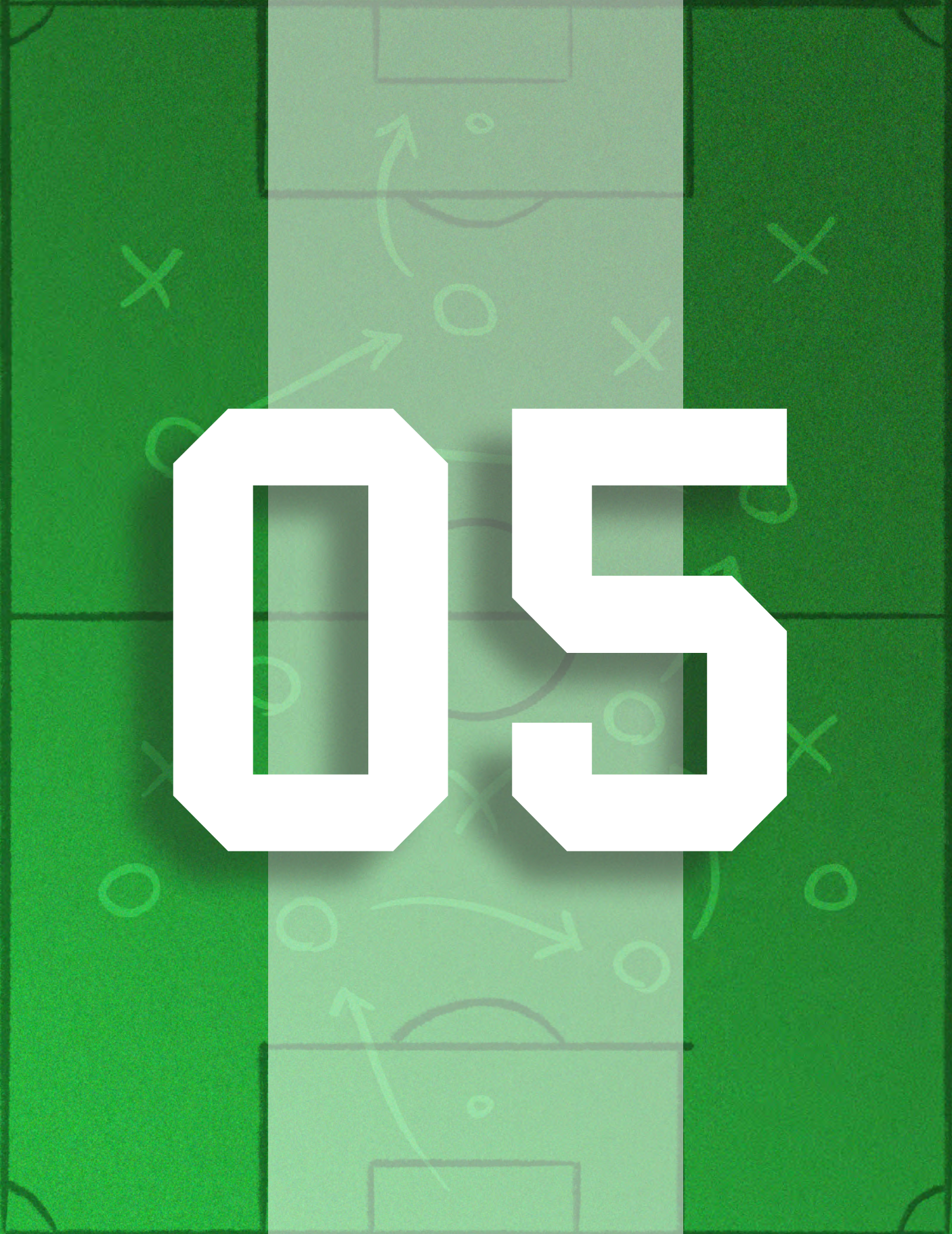
In short, beliefs help us understand the world by providing an interpretive lens; a way of making sense of it all.[80] Collectively, they sort the wheat from the chaff, and give us a basis for making decisions and for acting.[81] As neuroscientific research connecting thinking and emotions has shown, beliefs also allow us to turn inwards, giving structure to identity, and feedback on the assumptions we make about ourselves.[82]

Emotions also moderate the beliefs and the behaviours they instantiate. For example, positive emotional states like excitement encourage people to take more risks and display more confidence than their beliefs would typically support, a bit like having a few drinks.[83] Even the most cautiously optimistic football fan can get carried away thanks to an

emotional surge. Conversely, negative emotions such as fear can lead to anxiety and conservatism. But given the mind's natural drift to hold positive emotional states, it also conveniently modifies and updates our beliefs so as to maintain—or at least strive for—an upbeat emotional condition. To do so, however, requires that any contradictory information acquired during previous experiences be ignored. We are all guilty of it, whether displacing the memories of guilt and regret that accompanied the last half-time binge or allowing the satisfaction of a well-directed barb to override the certain knowledge that it will lead to an unpleasant escalation in an argument with a friend who supports a rival team.

Faith-inspired concepts such as those related to football arrived as an evolutionary by-product, the free set of steak knives that came with the rest of the mind as its development responded to the needs of its environment. Some of the most significant personal and social beliefs—like football—are accompaniments to minds that 'like' to hold certain kinds of ideas, some of which fall into well-worn cultural and social grooves that make their on-going presence consistently useful.

Superordinate football beliefs arose as by-products of innate cognitive mechanisms, then flourished as they were culturally prioritised for their pro-social impacts. Superordinancy leads to faith, which is where we pick up the trail in the following chapter.


05

CHAPTER 05.

— KEEPING THE FAITH —
HOW BELIEVING DEFINES THE FANATIC

INTRODUCTION - SUPERORDINATE SPORT

Football, like many significant cultural activities, grew from inclinations that go with the mind's natural way of thinking. The mind likes to think certain kinds of thoughts and football fits the bill. While not necessarily about the technical merits of punting on the third down, or of playing five in the backline, the thoughts that like to inhabit our minds do tend to have some common features. For example, our minds gravitate towards beliefs that help us feel good, secure, accepted, connected, righteous, special, and important.

Beliefs float around in our heads because they support social coherence; they allow us (most of the time) to get on with other people by creating mutual understandings, emotional bonds, personal connections, and tribal affiliations. It just so happens that the cognitive systems underpinning critical social engagements also support football, precisely because football serves all of the same outcomes.

I have laboured the point that beliefs are central to shaping football fanaticism, and this chapter elaborates further on their critical function. To summarise so far, beliefs provide explanations about the world and its contents, or a way of approaching the world in a consistent and functional way. They lay a scaffold in our minds to which we can mortar our experiences and construct a narrative architecture that makes sense. Patterns emerge, allowing us to make predictions, act swiftly, and generally avoid sensory paralysis by prioritising those stimuli that have proven worthy of our previous attention. As a side effect, well established beliefs like those associated with football assuage anxiety, relieve uncertainty, and moderate indecision. In a world of limitless choices and

unknowns, the belief in football and its associated concepts adds confidence. Security comes from the sense of certitude that a faith in them affords.

Overt beliefs and faith are only the tip of the fanatic's cognitive iceberg. The real weight lies underneath the water, deep in the mind where superordinate beliefs lurk. As this chapter explains, superordinate beliefs and our faith in them trump the rest in importance and utility, and feature football-related beliefs for serious fans. They play a critical role in guiding behaviour, often reflected in the universal principles of all successful social configurations, like placing preeminent value on the wellbeing of group members and respecting the hierarchies of power. As a result, superordinate beliefs perform a tremendously influential function. From them flow personal identity, social belonging, interpersonal relationships, and a gamut of values, attitudes, assumptions, and behaviours.

In the end, superordinate beliefs locate the targets against which we allocate and assess happiness. If guided by superordinate beliefs, evidence or critical reflection is rendered unnecessary as we have already reached the conclusion that they are right and correct. Superordinate beliefs connected to football affect judgements about what is right and wrong, helping to explain why it is so easy to believe against the odds.

We use some beliefs to help understand the world and the socio-cultural indoctrination it demands. Some beliefs are better than others in helping us to make sense of this complex cultural tangle, and football beliefs are amongst the best. Football beliefs provide a neatly packaged and no-further-thought-needed understanding of the world. In many ways, football beliefs deliver a ready-made explanatory framework. Collectively, they reveal what we should care about, and give us a basis

for making decisions and taking action that will predictably fit into social expectations and deliver personal rewards.

The mind's natural propensity to move towards comfortable emotional states means that it conveniently modifies and updates fans' football beliefs in order to maintain a sustainable emotional equilibrium. To do so, however, requires that any contradictory information acquired during previous experiences be suppressed, dismissed, or ignored. Not only do football beliefs assist in making sense of the world, they help fans to function and prosper. The stronger the football beliefs, the more value they yield to the fans who hold them, where the most potent of all are superordinate and are embraced with the certainty of faith. To these we now turn in more detail.

COLLISIONS OFF THE FIELD

From a cognitive viewpoint faith does not have to invoke any kind of supernatural commitment even if some fans treat sporting heroes as super-human. Faith occurs when the mind elevates certain concepts to superordinate status. When consciously acknowledged beliefs become superordinate, they begin operating as self-governing, virtually untouchable cognitive ecosystems, invulnerable to critical examination and resistant to change.

Football beliefs resist change because they are shielded by at least two kinds of cognitive firewalls. First, even in the face of compelling evidence, disconfirmed beliefs loiter in the mind. Second, when presented with flimsy evidence, we are still vulnerable to being easily convinced by a suite of superficial but powerful stimuli including a

pretty face, a sympathetic disposition, a smooth line, an emotional appeal, a personally relevant example, or a heroic narrative.

To add to the cognitive drama, we find it relatively effortless to find reasons for what we believe and how we act but have far more trouble doing what reason and evidence clearly recommend that we should. These biases play a formative role in underpinning superordinate beliefs like those associated with football.

Football beliefs increase in value the more useful they become, not the more correct or accurate they might be. Since many fans gain extra value from stronger football beliefs, there can be a natural drift towards more commitment when it is rewarded with notions of heroism, loyalty, belonging, pride, and sacrifice, even if the rewards are self-administered and self-delusional. Systematic bias does not preclude a tether to reality,[84] which means that so long as the beliefs maintain a loose connection to the real world and respect the boundaries of survival and social needs, self-delusion can occupy a place in fans' minds without much challenge.

When elevated to superordinate status, football beliefs hold the reigns, even in the presence of substantive conflicting evidence. As a result, for the most committed fan, football beliefs determine their worldview, perceptions, satisfaction, and a whole series of consequent actions. Football is the script in which fans' stories are written. The next question then must be, how do faithful football beliefs actually become active scripts directing behaviour?

PRACTICE MAKES POTENT

Faithful belief combines thought, feeling, and experience in a way that optimally leverages the natural tendency of the mind to latch on to socially and personally useful concepts. The integrative effect delivers tangible benefits because faith-related concepts and practices feed the mind's natural drive to cling to strong beliefs. At the same time, such feisty beliefs become further reinforced by favourable emotional responses. The elements work together to make faith-based football beliefs powerful, resilient, and pervasive.

Like a decent golf swing, beliefs need practice. As I will elaborate upon in much greater detail later, fans use physical rituals to simultaneously signal belief to others while stimulating memorable personal emotional responses. In this way, the practice of faith can be intensely transformational for fans. Football rituals also connect football doctrine—what fellow fans tell each other is true and right—with experience, by projecting interpretations upon uplifting emotional responses. As a result, football-supporting practices satisfy psychological as well as social needs.

Through rituals, action precedes belief, which helps fans to partition unverifiable beliefs from normal rational analysis before they can be rejected. For example, 'early-career' fans get swept up in the collective behaviours of their more seasoned companions. In so doing they end up performing the same ritualised practices before they really understand or internalise what the practices symbolise or mean. Over time the practices become engrained and the new fans take on the same beliefs as veteran fans in order to make sense of why the rituals are performed, especially when they don't always make logical sense.

Since newer fans also tend to be younger fans, the natural inclination to follow elders and seek acceptance as part of the in-group is difficult to fight. For the most part, however, there is never a fight in the first place. I like the term 'cognitive firewalls' to describe how the mind safeguards doctrinal content associated with club and team support, allowing key concepts to be rehearsed until they become natural.

MUNDANE FAITH

Faith-related thoughts work through mental theories about categories of belief concepts; they overlay the rules of the game in both a literal and a figurative sense. When faith governs adherence to a belief it means that the same rules apply automatically every time. However, rather than being special, faithful thinking employs the same cognitive processes and apparatus as any other form of thinking. At the same time, faith-driven concepts possess a specific character because they contain counterintuitive and (potentially) counterfactual content while at the same time denying opportunities for objective verification.

Perhaps paradoxically, counterintuitive and unverifiable beliefs enhance meaning-making because they demand a committed effort to believe in, through reflective thought interpreted via accepted fan doctrine. For example, it might not make any logical sense to hold an arm in the air and chant, sing the club song, stand on one leg during conversion attempts, bump fists with every touchdown, or throw one's beer in the air if a goal is scored. But that doesn't matter in the slightest if a fan believes that the practice is important.

Perhaps oddly, many faith-driven thoughts sit comfortably with our intuitive inferences about the world and how it works. Faithful thoughts are affected by the way the mind's thinking system operates upon the diverse range of cultural concepts associated with football-related beliefs. That is not to suggest that all football fandom yields positive or favourable results by objective measures. It just means that we have unerring confidence in beliefs that we think work for us.

Football beliefs sufficiently salient to command faithful compliance take on a powerful directive and interpretive role in fans' lives. They orchestrate thoughts, mediate emotional responses, attenuate actions, canalise social relationships, specify opinions, modify values, forge assumptions, and ultimately, define lifestyles.

Resilient fandom during a discouraging season is one thing, but why does football faith persist even in the face of overwhelming contradictory evidence and despite long-term disappointment? My answer is that higher order, inviolate beliefs are natural in the sense that they are supported by the mind's cognitive features. We cannot function without faith in superordinate beliefs, and there is no such thing as a belief vacuum. Cultural conditioning provides a ready, accessible, and acceptable smorgasbord of football beliefs to choose from, often in contexts where football is a powerful social currency and where a certain opinion is expected and respected. Ditching a team is therefore like disowning a child.

WITH GODS IN MIND

The mind doesn't care what we think, just how we think. Believing is more important than which gods are worshipped. Minds use gods of one

kind or another because systems of faith give beliefs a practical structure. Humans invent gods because their presence soothes existential disquiet and because fearing God compels order. Also, gods in all forms symbolise untestable beliefs, which are essential to faith as they are irreducible and invulnerable to rational interrogation. Beliefs are of no use to anyone if they flex and change all the time, even if they should from a rational viewpoint when accounting for new information and evidence.

Sometimes the most powerful beliefs seem impossible to logically understand yet persist with the support of superordinate concepts that command allegiance. These beliefs bond minds through collective collusion. We need beliefs in general, and gods in particular, in order to improve cooperation with other humans.

Ironically, gods give us faith in each other, which is why our gods don't need to be the supernatural kind as long as they include a superordinate component. Humans rely on beliefs of all kinds in order to simplify their life choices. Minds are so versatile and nuanced that they are forced to contemplate innumerable and endless options. Beliefs are essential to act as guides to allow for easier choices. Faith in those beliefs gives us the boundaries for dealing with each other, in the process delivering a ready-made social map. We bond through common beliefs and agree to share what are considered appropriate behaviours.

Faith-related thought engages the same brain structures as any strong beliefs, distributed through both emotional and rational centres. Football-related faith-based beliefs leverage the mind's emotional responses, including its inferential systems governing intuitive thought.

From there they seep into the rational thought processes where their substance is defined, defended, and deployed.

As I mentioned earlier, neuroscientists have discovered that subjective beliefs and objective information are encoded in separate cortical regions of the brain. The separate arrangement means that objective information can be combined, filtered, and interpreted through existing, value-laden football beliefs. Other evidence examining the neural basis of belief-processing indicates that different types of football beliefs may involve not only different cognitive systems but also may recruit distinct brain regions altogether.

The point is that football beliefs are not all concentrated together, which implies that the mind distributes important, superordinate beliefs throughout its entire cognitive network. Powerful beliefs find their way into every component of the cognitive engine. Football is not just on the mind but is deeply and inextricably implanted within it.

A hypertrophied frontal lobe brought side effects like imagination, conceptualisation, invention, contemplation, and prediction. These immensely useful abilities define the quintessential human experience, core to the cultural waves they surf upon. From language, music, art and religion to politics, sport, entertainment and war, the tsunamis of culture are drowning in concepts. All of these concepts need minds with the ability to believe, while the most potent demand the ability to believe unproven ideas. Although a strictly rational position would find a belief in unverified ideas unpalatable, I suggest that such faith is not just expedient, but essential and commonplace to all of us.

Faith invokes religion, of course, but consider the vast range of other forms of faith we exercise. Social movements, political ideologies,

personal improvement, and scientific leaps all require faith in unverified concepts. Even scientists harbour faith in unproven ideas. For example, scientific provocateur, publisher, and editor of 'edge.org', John Brockman, has released a book every year since 1998 in which more than 100 prominent scientists record their short answers to the same open-ended question. One of the most compelling volumes asks, 'What do you believe is true even though you cannot prove it?'

BELIEF PERSEVERANCE

It's actually quite remarkable how durable our beliefs can be in the face of contradictory evidence and experience that can not only challenge it, but outright obliterate it. In many aspects of life, contrary evidence can often present itself in ways easily ignored, reinterpreted, rationalised, or discarded. But in sport, the evidence arrives in unambiguous form.

Victory or defeat can indeed be explained away by faulty refereeing, unlucky breaks, and questionable tactics, but there can be no misinterpretation of the actual result, boldly declared in a definitive and unambiguous numerical summary. Yet fans remain fans, even when confronted by soul-destroying periods of team performance. From a cognitive perspective, you could say that football beliefs are amongst the most persistent an individual can hold because the mind is wired to ensure that superordinate beliefs persevere and endure. How does this happen?

In the first instance, our minds collide with a messy, busy reality that arrives in fragmented, partial, and oblique sensory data. Even notwithstanding how accurately we interpret the inflowing information, any

conclusions reached are going to be based on an incomplete and unrepresentative data set in the first place.

The next problem revolves around how the mind organises and converts the massive sensory inflow into material that can be understood. Computational limitations are quickly exhausted. As remarkable as the mind is, its capabilities are soon stretched in terms of short-term memory storage. Involuntary attention is always directed towards the most intense and arousing stimuli, at the same time as maintaining functionality without over-reacting to every trivial environmental bleep.

All of our cognitive limitations were inbuilt to align with natural human objectives, which as I have repeatedly noted, revolve around basic survival and reproduction. Our minds were rounded in an evolutionary lathe favouring the curvy cognitive capabilities that contribute to the overarching goal of staying alive, both personally and as a species.

The result was a trade-off. Cognitive accuracy slips in exchange for perceptual speed. Hyper-sensitivity encourages risk aversion to amplify the swiftness of decision-making. Choices are wrong more often, but come with low risk, as it is usually better to be skittish and wrong than be unflappable and dead. Human cognition is therefore predicated on a cognitive equation that favours economy: fast decisions and accurate decisions are counterpoint, which leads to the next challenge.

The utility of cognitive economy is that it streamlines decisions. Without immense processing power it is impossible to crunch the huge volumes of incoming sensory data to which we are constantly exposed. So, if quick decisions are important then the mind needs some shortcuts to get the job done. Cognitive heuristics rise to the occasion, allowing us to simplify the impossible to manageable chunks.

Heuristics provide rules of thumb based on crude pattern-matching and makeshift categorisation. The catch is that heuristics also maintain cognitive equilibrium. They therefore prioritise rules of thumb that help us to keep control and generally sustain a coherent and stable mental frame. In other words—and notwithstanding information pertinent to imminent survival—the mind uses shortcuts to preclude, diminish, or avoid information that we don't want or won't like. Just like the body's immune system, our minds seek to exclude pathogens that could contaminate an existing belief system, and consequently upset the delicate cognitive equilibrium that has been established.

Cognitive heuristics are the white blood cells of the mind, dutifully protecting what has become known as a psychological immune system.[85] Not only do heuristics discourage unwelcome information that might challenge a superordinate belief, but they also encourage the creation of mini theories to assist in the job. In football ideologies, for example, we come across a proliferation of mini theories to dismiss unwelcome information, from refereeing conspiracies to purposefully deflated footballs. The most useful personal mini theories become reinforced through repetition and get run out at every available opportunity to counter challenging information. Belief perseverance is a cognitive adaption that keep fans on an even keel.

HOW FANS REVISE BELIEFS

It's logical to assume that over time and with the availability of new information, we update and revise our beliefs. Every little piece of data or experience is apportioned a weighting based on its strength, leading

to a rational reassessment that updates beliefs accordingly. Unfortunately, logical assumptions rarely hold up when it comes to beliefs and the notion of rational updating is completely unlike what we really do.

What actually happens has less to do with rational updating and more to do with irrational self-preservation. People in general—and especially fans when it comes to the target of their support—accept or reject new information mostly on the basis of whether it reinforces their sense of self-identity. In practice, the preservation of self-identity means that a fan is most likely to accept information that accords with their pre-existing beliefs about the team and football, while also being predisposed to reject anything that doesn't.

As I have mentioned, psychologists refer to the practice of fiercely guarding deeply held beliefs as a central feature of the psychological immune system.86 Ideas and information that threaten a fan's core football beliefs will be challenged, disparaged, undermined, vilified, and rejected in order to avoid any uncomfortable truths making contact with their comfortable illusions.

Since the mind's belief immune system works unconsciously, fans do not intentionally delude themselves or conspire to undermine unnerving ideas. For the most part, fans remain oblivious to their mind's protective conniving, which helpfully quashes any incoming information that could lead to stress, anxiety, distress, and worst of all, contradiction about how they view themselves.

The scheming doesn't end with distorting and discarding. Somewhat perversely, exposure to information that challenges their beliefs can encourage fans to double-down, reinforcing their existing beliefs as a defence mechanism rallying around a highly sensitive self-conception.

Better not to think of deeply held beliefs as like facts, at least in the way they operate in the mind. 'Two plus two equals four' and 'Rome is the capital of Italy' are represented in the mind as 'hard' information, part of the repository of useful (and non-useful) mental notes that we store away but don't think much about.

Some cognitive psychologists suggest that beliefs are context-specific because they apply only in certain situations and conditions.[87] For example, a fan loves their football team, not every team. Also, most football-related beliefs do not have governance over other cognitive processes, such as reasoning as it applies to non-football circumstances. No matter how unreasonable a fan might be in relation to a team-related belief, they are unlikely to be so unreasonable about objective facts. In this respect, football beliefs are partitioned not just from contradictory information but also from facts.[88] The demarcation serves to shield beliefs from tricky facts (like the team occupying the bottom of the ladder), but also essential facts from interference by beliefs (like the need to adhere to the law).

One interesting variable affecting the way fans deal with information is the cognitive load they are under at the time they receive a new piece of information. Cognitive load refers to the intensity of mental activity required at a given point in time. For example, completing long-division in your head incurs a greater cognitive load than brushing your teeth. As cognitive load increases, rational evaluation decreases. As a result, a glut of new information—overload—tends to heighten a fan's inclination to dismiss all of it.[89]

ARE ALL FAN BELIEFS IRRATIONAL?

It might seem as though I am suggesting that the entire process of human belief formation and revision is irrational or not based on evidence. Certainly, I have proposed that fans can accept incoming information without critical evaluation, effectively believing automatically. We are therefore prone to catch all kinds of beliefs as easily as we catch colds.[90] However, while some beliefs are acquired automatically, and in some cases executed through biased processing, we do rely on accurate beliefs and processing for the most part. In fact, we rely on accurate beliefs based on rational evaluation so routinely that we don't even notice.

Perhaps oddly, even our biased beliefs rely on rational ones to function. Consider all the accurate beliefs essential to a fan's supposition that their team will win, including the mass of factual information concerned with the game, its rules, the opponent, and the players. We simply could not function without a majority of at least relatively accurate beliefs about the world we inhabit. It's just that some superordinate beliefs are so strong that they give the impression that all cognitive processing must be skewed. But it's not all skewed.

We take different attitudes towards the things that we think about, which incorporates different approaches to processing the same ideas. For example, there are some mental states so engrained that they pass by unnoticed, simply because they guide action or thought that we take for granted.[91] We think with or through these mental states and not about them, like the rules of the football code we are observing. At the same time there are other attitudes that flex according to the situation, forcing

us to weigh, consider, and reflect upon them, such as the best strategy to employ against an opponent in a specific game condition.

Yet, some fans do develop extreme attitudes, and some of these coalesce into rigid beliefs. Extreme attitudes and beliefs demand uncompromising adherence, subordinating other aspects of life and the beliefs attached to them including family, friends, work, or leisure.[92] For this reason, I label such powerful beliefs as superordinate. But that does not mean superordinate beliefs are necessarily irrational.[93]

The factual accuracy of many superordinate beliefs might be questioned, but they tend to be deployed rationally. In fact, extreme ideologies tend to function within a strict moral dualism, meaning that a clear demarcation between right and wrong and correct and incorrect is always in operation. In contrast, non-superordinate beliefs tend to be enacted with much greater flexibility, even to the point where a series of contradictory positions can be held at the same time, shifting in importance and flexing under circumstances.

Consider, for example, a superordinate belief applied to a diet where under no circumstances certain foods are to be consumed. In contrast, many people maintain non-superordinate beliefs about food, more principles and promises, allowing some compromise under particular conditions, like having dessert after a fancy but once-off celebratory dinner. So, we might say that non-superordinate beliefs allow for some degree of mental flexibility and even ambiguity without troubling a person's conscience or cognition, despite being a little bit irrational.

A capacity for working with inconsistencies generally signals normal cognitive operations. Healthy thinking processes allow a person some wiggle room so that they can accommodate different situations or adapt

to new experiences.[94] Football fans exhibit healthy cognitive flexibility all the time of course, from sometimes choosing the cheap seats to downgrading estimations of previously preferred players.

As I noted earlier, superordinate or extreme beliefs are distinguished by unconditional adherence, the by-product of a complete harmony with the values that underpin them. While all of us maintain some superordinate beliefs, they remain few. Other than superordinate beliefs, we tend to exercise some conditionality with respect to most beliefs including those that might seem immutable. The prototypical example would be beliefs about the immorality of murder. However, it turns out that although we're all against it, there are some conditions whereupon many of us back away from an unconditional position. Contingencies play a part because we simply do not rate all murders equal. For example, there might be a significant perceived difference between a child's abduction and murder, and Saddam Hussain's abduction and murder.

Cognitive flexibility is not only commonplace but a normal and functional thinking process. Conversely, cognitive inflexibility has been associated with radical and extreme beliefs and behaviours as I've suggested is characteristic of superordinate beliefs.[95] Some evidence suggests that the kind of person naturally inclined towards cognitive inflexibility may be vulnerable to recruitment into radical and extremist ideologies, the research based on work associated with political and religious violence and terrorism.[96]

I would not suggest that football fans are more cognitively inflexible and therefore more likely to become fanatical, although it is clear that superordinate beliefs can escalate cognitive inflexibility in all of us. It might nevertheless be possible that individuals with a greater propensity

towards cognitive inflexibility also have greater susceptibility to acquire more or stronger superordinate beliefs, but any relationship is speculative.

COGNITIVE SUCCESS OR FAILURE?

As social theorists will quickly observe, sporting allegiances go well beyond the usual boundaries of the self to the extent that individual and collective identities can become blurred, and even inseparable. A fan's personal sense of self morphs into that of their affiliation. 'I' and 'we' coalesce as the diehard fan imports elements of their team's identity—as they personally perceive and experience it—while reciprocally placing their own personal selfhood into the team's image.

Although social in orientation, my interest here lies with the cognitive foundations. As I mentioned at the outset of this book, I am not trying to exchange social and cultural explanations for sport with a cognitive one. Rather, my aim is to reinforce social and cultural descriptions with their cognitive foundations, as this provides a more comprehensive explanation. My point is that the constant process of up- and down-loading of identities has an effect on the way a fan thinks. Deeply invested, long-term fans can no longer distinguish between their own sense of self and that of the team.

I am not describing a conscious failure where a fan actually thinks himself or herself to literally be the team, or even part of the team. Rather, it all happens at the unconscious level where a fan's brain makes little or no distinction between information describing the team and information describing their individual self. We are not just talking

about a sense of belonging here. This is a fundamental cognitive interruption where a person's mental identity apparatus has become confused. Its presence in the most vigorous fans also helps to explain why cognitive biases play such a powerful role in football.

Susceptible as we are to severe biases, one might reasonably conclude that sporting fandom starkly reveals a failure in human cognitive architecture. In his book, *The Secret Life of Sports Fans*, journalist Eric Simons describes sports fandom as a 'species-level design flaw'.[97] While I see where he was going in that sport has a long history of questionable impacts—from Roman gladiatorial contests to fighting in the stands—my view remains that sport fandom exposes and exemplifies one of the mind's most important adaptations.

It's true that cognitive biases and identity-blurring undermine the mind's interpretive accuracy. Yet, the sacrifice in accuracy was made up in the survival benefits that came with cognitive speed and decisiveness, as well as in the powerful inclination to connect with others through tribal identification and meaning. Pretty good instant decisions tend to be more useful than excellent slow ones when it comes to navigating the extreme volume of incoming sensory information. Likewise, better to make some sacrifices and bond with a group than to make none and go it alone.

My argument touches on another popular misunderstanding of fandom questioning why fans remain allegiant despite long periods of on-field failure. In other words, why do fans persist in the absence of rewards? I think the common answer is partly correct but only touches the surface. Since the deepest fans have merged their identities with the object of their support, it is virtually impossible for them to discontinue

without sacrificing a part of themselves. Success and failure have become intrinsically personal, so discarding a team is a bit like abandoning a child.

Football fans therefore do not abandon poorly performing teams as if it were a misguided product choice, like a disappointing brand of chocolate biscuit. As a result, the common answer quite reasonably points out that, even in the face of continual failure, football fans do not lose the rewards accompanying deep and personal belonging. In fact, bonding tends to increase during adversity. Furthermore, the psychological benefits of stronger bonding probably far outweigh the absence of sustained success.

My addition to the personal reward theory brings the cognitive element to the party. I start with the identity position too, as the mind unconsciously interprets a supported team's failure as a personal one. No one ditches their own identity, so neither will a die-hard fan abandon their allegiance in the face of abject failure. But fandom goes much further than identity-blurring, leading me to return to the supremacy of superordinate beliefs and the faith they inspire.

When a fan's football beliefs reach superordinate levels, they invest their faith in the 'truth' and righteousness of those beliefs, irrespective of whether it is backed up by the on-field evidence. Faith, in fact, relies on the absence of evidence. It's all hardwired. Children as young as 18 months have demonstrated in experiments an ability to understand beliefs, including those of others, and even recognise when they do not correspond with physical reality.[98]

What the cognitive viewpoint reinforces is that the most faithful fans become even more faithful during periods in which their allegiance is

tested. In addition, the longer a person has been a believer—whatever the object of belief might be—the greater the payoff awaiting at the other end of faith, whether in the form of a heavenly afterlife or an earthly trophy. As an aside, one of the curious advantages of sport as a driver for belonging is that it offers regular glimpses of relief, and therefore a reason for hope. After all, even the worst teams win now and again.

VALENCE OF BELIEFS

I have already made the point that we harbour the erroneous but intuitive expectation that we arrive at relatively accurate representations of the reality around us, and that we consequently make considered judgements in response. The evidence, however, tells a different story. Not only are our sensory perceptions incomplete and riddled with inaccuracies, but we also employ this compromised information to make decisions disposed to incorporate systematic biases. Of these biases, some of the most influential concern our self-representation.

Beliefs about ourselves and our futures seem to be the most vulnerable to glitches. Good examples revolve around biases like the superiority illusion,[99] involving the tendency for a person to view themselves as better and more skilled than most other people, as well as the optimism bias,[100] encouraging people to anticipate an unrealistically rosy future. Of particular relevance to fans is the so-called delusion of success.[101] Summarised simply, undesirable evidence is under-weighted compared to desirable evidence when it comes to the object of football faith.

On the surface, liking good news better than bad news seems to be the manifestation of confirmation bias, where we go out of our way to locate and favour information that reinforces what we already believe. A deeper dive into biases suggests that a confirmation tendency does not explain the whole picture in terms of how new information bumps into existing beliefs. For example, some compelling research reveals that people are more likely to update their beliefs in a positive direction than in a negative direction. That means good news will more likely affect an existing belief than bad news. But, unlike confirmation bias, the evidence shows that good news can update existing beliefs even when they contradict those existing beliefs. Cognitive psychologists call this process 'asymmetric updating' where beliefs are more readily updated by good news.[102]

Asymmetric updating appears to be a common experience for the football fanatic. Although an over-generalisation, I would say that fans adeptly ignore or disregard information that challenges their football beliefs, unless it provides evidence to update it to a more attractive version. Further, as I have already noted, the positive effects of these updated beliefs on emotional state, health, and motivation suggest that they deliver more benefits than harms.[103]

CONCLUSION - IMAGINING FOOTBALL

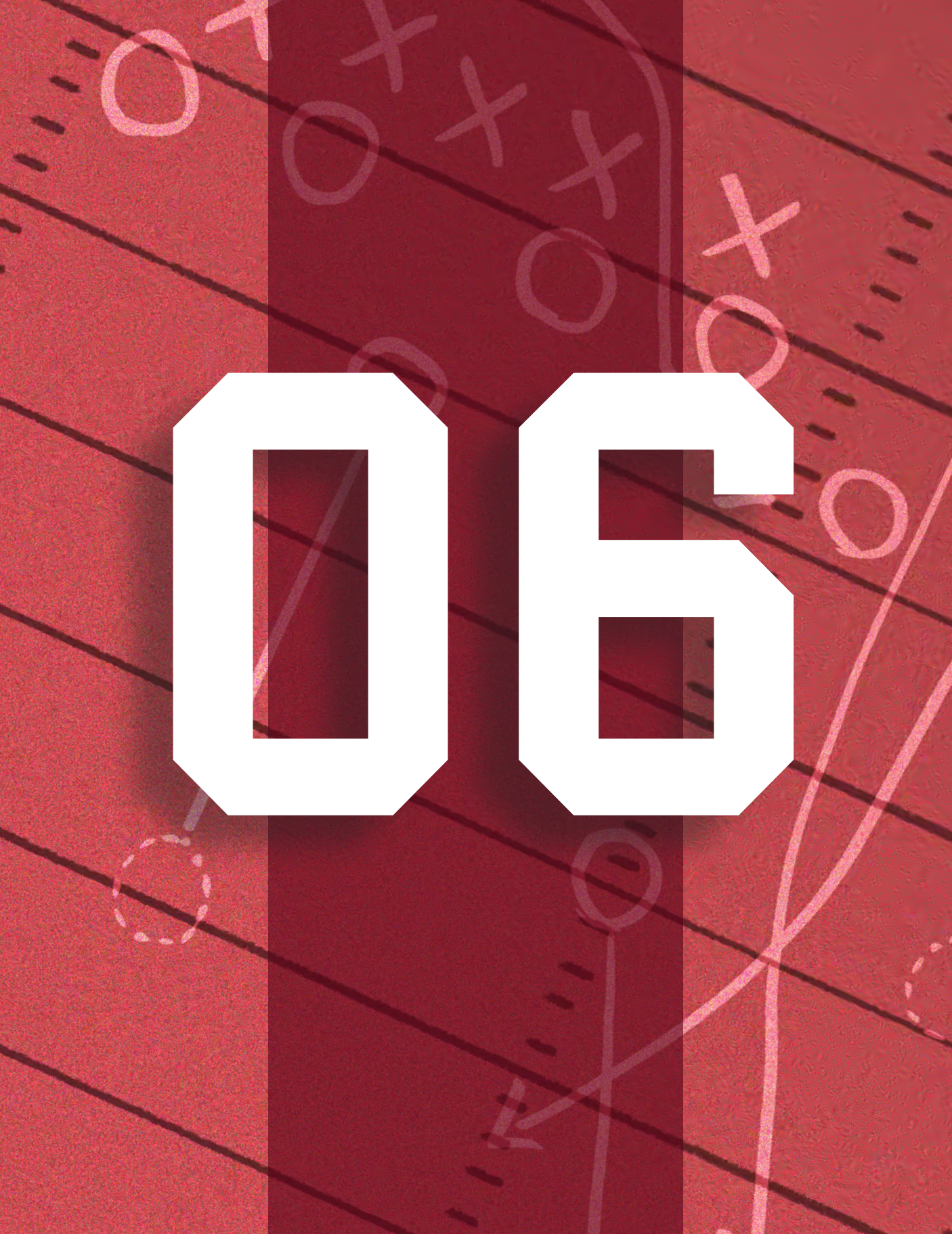
The collision of culture and cognition has propelled football into the minds of billions. Superordinate beliefs take seed due to the fertile mechanisms of minds that evolved to host and defend ideas that make life easier, like those related to staying alive, establishing successful

relationships for procreation and child-rearing, bolstering belonging and group identification, generating opportunities for social status through respect and power, and creating personal meaning.

Seeds grow into beliefs as they receive sustenance from social and cultural nutriment. This process of social hardwiring came about through a coevolution of culture and brain, each responding to the other's pressures, in a kind of mutually reinforcing effect. As a result, the natural inclinations we possess thanks to the brain's hardwired inferential mechanisms play out in tandem with cultural events like football.

We are not born with football programming but rather an innate system finely attuned to acquiring it. Our brains are televisions with cognitive systems acting like antennas tuned to the football channel. Faith is all about us, and our belief-primed minds.

Fans' gods in the form of superordinate football beliefs are the accidental side effects of minds that seek faith. Minds use football like gods because systems of faith give beliefs a local structure. Humans invented both football and gods because the promise of symbolic immortality and belonging to something bigger than oneself encourages cognitive stability, social cooperation, and simpler, happier lives. Who wouldn't want to believe?


06

CHAPTER 06.

— BACK OF THE NET —
UNDERSTANDING FOOTBALL BRAIN BIASES

INTRODUCTION - I WANT TO BELIEVE

Essential, intuitive superordinate beliefs revolve around 'survival-related' intuitions, or something like pre-installed operating software. We all have instincts that evolved under selection conditions when staying alive was closely connected to a hyper-awareness of surroundings, extra vigilant hazard-detection, and finely sensitised social solidarity. Although it might be true that we invest faith in such deeply engrained instincts, it is probably more accurate to say that we have little choice but to accommodate them. After all, a sudden and loud noise is not an invitation to think carefully about what it could have been until after we jump involuntarily.

At the same time our instincts brighten under the lamp of culture where context illuminates the things that we should focus on in order to meet local needs and expectations. Enter superordinate beliefs and faith. These faith-based beliefs, as I described in the previous chapter, are contrived through a collision of the mind's indigenous properties and local cultural priorities, crafted to deliver benefits to the holder when they invest faithfully. Here we find football beliefs lurking at the intersection of cultural utility and natural inference.

In this chapter I am going to return to an earlier assumption that has ramifications for how faith works with superordinate beliefs in order to sustain and amplify fandom. Certain beliefs emerged naturally because they were immediately pertinent to survival, like leaping from lion-shaped shadows. At the same time, the capacity to hold beliefs once pivotal to survival also encouraged the emergence of other beliefs yielding personal and social benefits. Examples include religious beliefs and those associated with the pre-eminence of family, tribes, and certain

ideological positions, incorporating rules, rituals, laws, and tacit assumptions. All of these personal and social benefits directly or indirectly support survival because cooperating in groups generally beats starving alone.

The mind's innate cognitive structure—how we 'like' to think—gravitates towards superordinate beliefs that perform especially well under certain contextual and cultural circumstances. At the same time, our cognitive architecture flexes with an alarming myriad of biases and inclinations, simultaneously compromising belief accuracy while accentuating fan commitment. Oddly, although our minds evolved with an impressive level of self-congratulatory intelligence and conscious self-awareness, they also came with a few glitches that mostly go unnoticed.

IMPLICATIONS OF A BELIEF-SHAPED COGNITIVE STRUCTURE

In order to help explain why the mind finds football beliefs so easy to acquire, and why they carry such significant weight, four interrelated implications are worthy of further exposition. I shall use these as a way of summarising the case so far.

First, our common cognitive structure gives fans an enlarged and well-developed ability to create what psychologists call theories of mind, a critical mental capacity I've already introduced. The term refers to the way that we deal with other people's presumed thoughts. Behind the scenes our minds *imagine* the contents of other minds. We automatically examine, pattern-match, analyse, interpret, and anticipate what other people are thinking and feeling. From this unconsciously crunched data

our minds feed back to us 'theories' in the form of hypotheses and expectations about the way another person might respond, based on an imagined supposition as to what they might be thinking and experiencing.

Although we get it wrong all the time, for the most part this supremely useful ability allows us to get along with each other a lot better than if we were not well attuned to fellow thinkers. So much so, in fact, that we tend to think in terms of agents—beings with active minds—even when they are absent or non-existent.

We connect with our fellow fans precisely because we are wired to imagine what it is like to be them. In consequence, humans go out of their way to find 'like-minded' people to hang around with. A shared football fanaticism takes a lot of the guesswork out of social interactions because fans can make confident predictions about the thoughts, feelings, and behaviours of each other when in a football context.

Another repercussion from the capacity to theorise about other minds is that football fans leap to assumptions about the causes of unfortunate outcomes, where the intuitive response often means blaming someone or something else. Many of us have been heard to complain about uncooperative technology or inclement weather seemingly created exclusively for our personal inconvenience. The same goes for referees and officials, amongst other things.

Minds see the world through other minds; an axiom pivotal to understanding why some beliefs slide past ignored, while others linger for a lifetime. Consider, for example, why fans can remember in excruciating detail all the minutia from a certain game played 20 years earlier. Their emotional experience at the time was heightened by the unconscious

sympathy they felt for the players, as well as the collective impact of fellow fans whose minds were all soaking in the same feel-good neurochemicals.

A second implication of the mind's innate cognitive structure comes in the form of fans' remarkable ability to copy and duplicate other fans around them in a kind of mutually reinforcing behavioural loop. You could say that fans spread faith, beliefs, ideas, and concepts like viruses. Minds like to mimic, offering fans a suite of abilities facilitating learning and the transmission of football concepts. Novice fans watch their parents and others they look up to. Wanting to be accepted and acknowledged, they assume the same behaviours, and soon discover that a myriad of social rewards and advantages follow. Indoctrination was never so satisfying.

A third implication comes with the mind's use of memory in the transmission of beliefs, which provides some insight into why it captures football ideas so well. It turns out that the way the mind acquires, stores, and retrieves information has a lot to do with the kinds of information that gets acquired, stored, and retrieved. Football ideas, concepts, and beliefs are not hard to remember because they align optimally with the mind's innate memorability preferences, thanks largely to the intricate interconnection between thinking and feeling, interlaced with a touch of counterintuitivity to encourage easier recall. After all, a good story needs a twist at the end.

A fourth and final implication highlights the importance of emotions in the adoption and transmission of beliefs. As I have already mentioned, thinking and feeling are completely inseparable, which means that they play off each other for an optimal memory effect. Faith requires more

than a cognitive commitment. Powerful feelings about beliefs become anchored to specific thoughts, while reciprocally, reflective thoughts about specific beliefs can release a flood of emotions.

As the four implications reinforce, the mind is exquisitely well structured to acquire, manage, and transmit beliefs. Moreover, this organisation and functionality lends itself to the formation of well-muscled beliefs that flex in preference to others. Indeed, unconscious obedience to superordinate beliefs defines the choices, experiences, and consequences of our lives. Since football makes the grade in terms of superordinate importance, its imperatives permeate through all aspects of a fan's life.

FOOTBALL INSTINCTS

We do not think in special and unique ways when engaging with superordinate or any other kind of beliefs. Thinking about beliefs is an entrenched aspect of our cognition precisely because it calls upon commonplace cognitive mechanisms. Everyone thinks, so everyone also believes. What makes faith-based football believing so important and interesting is that reflective interrogation does not dent its armour. Although it might seem contradictory, faith-based football beliefs withstand deep cognitive cross-examination. It is not that we do not think about them, it is that they do not yield under scrutiny. And, for better or worse, we have a strong tendency to think that the faith-based beliefs we hold are for better.

A further complication has to do with the specific collections of beliefs individual fans hold. Each fan wields a completely unique cluster of beliefs even compared with local fellow supporters whom it might be

assumed share precisely the same beliefs. Not only do we all possess unique belief sets arranged in distinctive configurations, but a lot of our cognitive processes also go on behind the scenes, unconscious and inaccessible to our deliberations, leading to a couple of pivotal conequences.

First, what we think about our own beliefs cannot be trusted because their foundations reside beneath our conscious awareness. Weird though it is, what we think we think is not a reliable assessment of what we actually think.

Second, faith in superordinate beliefs may involve a blurred concoction of intuitive and reflective thoughts. Inevitably, we think about only the visible iceberg's tip of our most tenacious beliefs, which also goes some way to explaining why faith provides successful and practical shortcuts. If football has risen in ascendency for a fan—as with all superordinate beliefs—it washes over all thoughts, infusing and flavouring them like a marinade.

A third implication from the unconscious processing underpinning many significant beliefs suggests that atheism does not exist. Keep in mind that I am using the term 'atheism' to represent the absence of beliefs, and not the absence of either religious or football versions. We cannot function without faith in superordinate beliefs, and there is no such thing as a belief vacuum. Believing in something—football included—happens to be a side-effect of being smart, even if the content itself is not smart in an objective or logical sense. Although not necessarily always accurate, beliefs do rely on intelligence.

EXISTENTIAL PROGRAMMING

Belief is a capacity born of intelligence, which in humans also brought about self-consciousness. With sentience comes introspection, and ultimately, existential uncertainty. Probably any species that evolves to higher intelligence will have to confront the problem of mortal contemplation. Driven beyond the survival instinct, humans try to come to terms with their fleeting lives. One common response involves the need to believe that we exist for a reason, and that reason is in turn linked to our own presence and importance.

If humans are nothing more than the products of material mechanisms—and truth, beauty, love, and free-will, not to mention the pursuit of football, can be expressed as the interaction of brain chemicals and neurons—then every belief giving meaning to life has no deeper authority unless we create it through faith. Are we nothing more than watery concoctions of ball-watching carbon?

We hold in apprehension the cosmos but are faced with the reality that it has all come about by processes devoid of inherent meaning, hosted in a world absent of observable purpose. Of course, there are plenty of views that counter the one of meaningless lives in a meaningless universe. Perhaps the more salient issue is whether our search for meaning is also an expression of our cognitive architecture. Our greatest challenge might be to each invent a personal meaning sufficiently robust to scaffold a life around, at the same time as finding a way to deny that it was a fabrication in the first place.

Once the survival imperatives of life are met—food, shelter, and clothing—we tend to invent new problems. Curiously, give us fame and

fortune and all we do is conceive of new ways to be miserable. Accompanying our every dream and ambition is the nagging question: Is there any point? Superordinate football beliefs help attenuate the anxiety by providing some answers, and perhaps, distract us from the deeper implications of the question. But in order to smooth out all the rough edges, and to avoid existential paralysis, we need another cognitive process to provide a seamless connection, especially to fellow fans.

THE ILLUSION OF CONTINUITY

How we access our mind's contents or thoughts—through conscious self-awareness and reflection—affects the character of the beliefs that take occupancy. To make the messy melange work, an illusion of continuity helps to smooth out our perceptual processing and ensure a seamless experience of consciousness. Perceptual continuity shuffles our vast sensory inputs into an understandable stream, like how a sequence of 24 single frames can be played back-to-back every second to create a motion picture. In a roughly analogous way, we experience an illusion of continuity when it comes to superordinate football beliefs.

Cognitive continuity reflects the way we automatically project our central beliefs upon other people, especially when we interact with them. An unconscious assumption maintains the illusion that we share the same superordinate beliefs. The illusion is helpful because it facilitates communication for the most part, at least under conditions where the expectation holds or reflects some authentic shared ground. In the process it allows tacit assumptions to do some heavy lifting. This is one reason why fans emblazon their attire with symbols and colours

signalling allegiance. Any fellow supporter does not have to invest in the usual social waltz of small talk in order to locate the evidence confirming continuity, and therefore safety, in personal engagement.

It all goes wrong, of course, when the illusion is in fact revealed as an illusion. Such disjuncture helps to explain why some behaviour strikes us as incomprehensible and shocking, especially when it is enacted by someone who we imagine, infer, or assume is 'like us'.

Shattering the illusion means a sudden, and often forceful realisation of a powerful misalignment in deep, guiding beliefs between individuals. Extreme behaviours are underpinned by what psychologists call 'extreme overvalued beliefs'.[104] Suicide bombing and terrorism offer confronting examples, but continuity can also be interrupted in trivial and mundane ways, like a partner who appears to be indifferent as to whether a toilet roll should be oriented leaf under or leaf over, or the unfathomable fast food trend of using donuts as burger buns. Similarly, one fan's preferred quarterback is another's overpaid scrounger.

If extremely overvalued beliefs—like the presumption that the season's result will be glorious despite persistent occupancy in the ladder's slums—sound a lot like delusions, it could be because the two are linked. Psychologists consider delusions to be unfounded yet tenacious beliefs. I define superordinate beliefs in a similar way, but see them as properties of ordinary cognition, whereas delusions appear as symptoms of psychotic disorders. It could be a fine line between the two as studies reveal varying degrees of delusional thought in healthy individuals.[105] Such delusional content is readily found in the thoughts reported by football fans too.

Understanding—and perhaps even accepting—conflicting superordinate beliefs is a different matter entirely to simply recognising their presence. Neuroscientific studies demonstrate that a person can explicitly attribute to others any possible beliefs they can themselves entertain.[106] At the same time, we can each only track and reflect upon a restricted belief content. Our brains seem to selectively exclude and include without our conscious deliberation. That is not to say that each of us could succumb to extremist behaviour, but it does mean that acquiring different superordinate beliefs is possible in the right context and with the right combination of innate disposition and socio-cultural pressure.

Interrupting a superordinate belief means revealing the illusion of continuity. As a result, it is often easier for a fan to escalate their belief strength to avoid confronting a continuity chasm. Fans have an aversion to finding out that they do not share the same ideas as their colleagues. When it comes to fandom, comfortable illusions often trump confronting truths.

THE CONSCIOUSNESS CONNECTION

A confusing aspect to commentary about the evolution of consciousness is the assumption that it was a cumulative process that delivered to humanity the keys to the planet. We think that we are at the top of the evolutionary tree. Yet, evolution is not a competition for survival wherein the winners have achieved their success as a by-product of superior intelligence. Actually, the process of evolution is one of random chance and necessity; chance delivers genetic mutations and necessity rewards those that turn out to be useful.

Human brains are capable of an impressive range of taken-for-granted capacities including the formulation of values, ethical contemplation, visualisation, an appreciation of subjective beauty, love, humour, creativity, and of course, faith. From an evolutionary perspective, the brain was built through selection to survive in the natural world. It was not constructed in order to understand itself, despite our persistent need to try. Our self-describing inclination leads to something of a conundrum given that the tool under scrutiny is the same one doing the scrutinising.

Consciousness has conventionally been defined as an internal model of the world that contains the self. It consists of the parallel processing of prodigious quantities of neural networks all designed to code the information received by the senses. As a result, the mind can be seen as a stream of conscious and subconscious experiences. It comprises the representation of sensory messages, either 'live' or in storage and replayed. By extension then, the mind is what the brain does, and what the brain does is process information.

Cognition, or how the brain responds to stimuli, is the easy part of brain science. The hard part lies in understanding what it means to have an experience and to be sentient.

One of the difficulties with understanding consciousness is that the hardwired structure of the brain is integrated with the software of the mind. To some extent this can be broken down to a neurobiological equation. To illustrate, consider the structure of the brain as the configuration of its neurons, while the memories that carry the 'software' can be thought of as a strengthening of the neural connections or 'synapses'.

Long-term memory seems to be established through the reinforcement of pathways between the synapses linking particular neurons.

Synapses are the gaps between an 'upstream' neuron and a 'downstream' neuron. Stronger chemical bridges interconnecting specific neurons are created as a consequence of memory formation. In this way, a 'familiar' chemical pathway represents a vivid long-term memory.

Without memory, consciousness would be fundamentally different. It would preclude the formation of the knowledge and analysis that keeps us alive, let alone the kind that allows the development of a football, not to mention a space shuttle or particle accelerator.

Our minds take the responsibility of dealing with the prodigious amount of information accumulated by our senses and then sorts it to allow a suitable response. Much of this is undertaken without conscious awareness. Consciousness is therefore, at the very least, a marvellous system of information screening. This function leads necessarily to another involving the more deliberate consideration of information.

Consciousness functions like a computer operating system that decides what to store and when. Some information is sufficiently urgent to demand immediate attention. Other stimuli trigger emotional responses that in turn arouse contemplation. Such introspection is clearly limited, however. We cannot access the internal functioning of our brains. Sometimes it is difficult to even recognise the responses we are experiencing, not to mention what is going on in the so-called unconscious. As a result, we remain oblivious to the massive fraud that our cognitive computations are relentlessly committing.

BIASES, RATINGS, AND EVALUATIONS

I have noted in several chapters the presence of systematic biases embedded in our cognitive processing, for the most part latent, discrete,

and unrecognised. I would like to venture further here because some of the most powerful biases are consequences of our contemplating powers. Or, to put it another way, our brains are smart at being dumb.

An essential first point is that research on cognitive biases and beliefs suggest that the direction of causality moves from the biases to the beliefs, rather than the reverse.[107] A directionality from unconscious biases to the (at least more) conscious beliefs, raises some implications for the quality of evaluations we make generally, as well as for fans' specific treatment of football. I want to revisit the shortcomings of the evaluation process in light of the consciousness, continuity illusion, and existential issues I introduced earlier in this chapter. My focus is going to be on the biases that creep into fans' assessments and evaluations, or how they rate things in the football world.

My argument holds that the combination of biases, conscious reflection, and the need for existentially oriented meaning-making, leads to lopsided ratings of fan beliefs that are favourable towards football clubs and their connections. Of course, lopsided views about a football team reflects the very definition of fandom as I have positioned it. My objective, therefore, is not to argue that they exist, but to explain how innumerable micro-level biases allow fans to appraise reality with a slant.

Because I have already made the case for cognitive biases in fan beliefs, and because I am interested in how wonky ratings come about, I am going to introduce some evidence from other contexts. To begin with, we can gain some insight from performance appraisals of various kinds; those where one person rates another, whether in sport about players, coaches, or managers, or in other organisational settings like work, or even through democratic voting. In fact, performance

appraising seems to be a constant cognitive activity in one way or another, including about football, food, and friends.

We cannot seem to help ourselves, from offering informal and often unsolicited evaluations of football contents, our spouses, co-workers, supermarket employees, wait staff, and others we encounter in our daily lives, to the more formal ratings we give to subordinates in annual reviews, and to politicians through our ballots. Somewhere in between are the countless opportunities for rating television shows and films, social media posts, consumption experiences, product quality, and restaurant food and service. It doesn't help that there can often be a serious disconnect between what fans actually believe and what they share (increasingly on social media), although it might be due to inattention, haste, and the desire to stand out more than outright and purposeful deception.[108]

Appraisal gains its traction from the most fundamental demands of cognition – making fast decisions. A formidable body of empirical findings emanating from disciplines including applied psychology,[109] behavioural economics,[110] clinical medicine,[111] and education,[112] confirm that cognitive biases have a demonstrable effect on raters' perceptions. Not only are performance appraisals commonplace, in almost all aspects of life they come with material impact leading to significant rewards, celebrity, payment, promotion, or their absence or removal.[113] However, parity in performance appraisals across any one context remains elusive due to both systemic and human rating imperfections.[114]

Notwithstanding concerns about conscious decisions based on popularity[115] (we rate people we like higher irrespective of their performance), performance appraisals may be subject to unconscious errors in accuracy

as a result of leniency effects[116] (we tend to go easy because harsh ratings are more difficult to deliver), halo effects[117] (in our eyes some people can do no wrong), centrality effects[118] (ratings tend to be clustered around an average), various forms of 'similar-to-me' effects[119] (we rate people like us more favourably), and biases associated with race, gender, age, class, and other personal or social characteristics.[120] Demographic dissimilarities between raters and ratees have always been associated with negative performance appraisal biases.[121]

Biases can affect raters' appraisals irrespective of hierarchical level and directionality of evaluation—both in appraisals of subordinates and in appraisals of leaders—even when the raters are external and presumptively independent.[122] The upshot is that it does not really matter who is under the microscope as we will evaluate everyone whether we consciously seek to or not.

Most evaluations rely on judgements about an individual's performance in comparison to a real (in formal appraisals) or an imagined set of expectations or standards. However, as demonstrated through experiments, perceptions about performance lack objectivity as they form more intuitively than reflectively.[123] We get it the wrong way around by rationalising impressions and inclinations with thoughtful reflections and fit-for-purpose evidence.

Raters are vulnerable to personal biases, complicated by the presence of both deliberate and unconscious partiality. Biases can emerge from personal relationship issues, like so-called network proximity, which means that the closer we work with or feel connected to someone, the stronger our likely bias towards them.[124] It is not difficult to extrapolate the network effect to a fan's assessment of their fellow supporters, or

even to their sense of connectedness to certain players. Conversely, non-supporters of the same team might be viewed with disinterested equanimity, all perceived as being of lower importance in a form of a centrality bias.[125]

POSITIVE DEVIANCE

As I mentioned earlier, halo-effect biases confer an automatically positive disposition towards certain individuals and groups. For example, experiments have found that anchoring and halo effects systematically bias performance ratings upwards.[126] The former occurs when raters are exposed to higher anchors; when their benchmarks for performance are pulled higher. After all, if your team fields Brady then the other players around him can secure a little of his halo. A halo effect can be described as the tendency to like (or dislike) all aspects of a person, irrespective of the dimension or evidence.[127]

In the same family of biases as the halo effect, an optimism bias occurs when a rater extends their own positive hopes to others as if the future outcomes of the rated are partly owned by the rater. The connection to football hardly needs to be spelt out, but it is worth noting the increased propensity for optimism bias when a rater experiences a closeness with the subject, often as a result of either direct personal ties, or indirect psychological bonds.[128] Such ties can lead to an accumulation of positive emotions over time towards the ratee because favourable feelings linger longer and with greater impact.[129] Accordingly, the more a rater knows about the ratee, the more the chance of an optimistic appraisal. You can substitute rater for fan and ratee for player here.

Optimism and knowledge about a subject probably work reciprocally, leading to an escalating effect. Naturally, the more a fan learns about a team and its players, the more optimism they will amass. At the same time, more optimism encourages fans to learn more and more, which is why the most hard-core fans are vast repositories of stories and statistics.

Other biases might work in favour of teams too. For example, one more speculative possibility involves the operation of an attractiveness halo.[130] For example, facial attractiveness can deliver a positive halo effect. If favourite players are selected in the same way as some leaders in politics—at least in part because they look good—it is possible that they are also relatively more attractive than other players.[131] In a similar vein, 'mature-faced' individuals hold an advantage over the 'baby-faced' in terms of ratings.[132] In addition, better ratings are conferred upon taller players than their shorter counterparts.[133]

Other studies have consistently demonstrated that height proves a reliable predictor of better ratings in business and politics.[134] And, for the record, sport fans are perceived as being more socially and physically attractive than science fiction/fantasy fans, demonstrating the unshakeable stereotypes anchored to the two forms of leisure.[135]

Another set of cognitive biases can undermine accurate evaluations especially under circumstances where multiple choices are on offer.[136] For example, fans can fail to choose or assess optimally because they either do not accurately predict the consequences of their choices, or they ignore their own assessments. In a practical sense, a fan's ratings may not recognise how weighty their evaluations might prove in terms of later ramifications, or because they shift their original assessments on

the spot in response to prevailing social expectations. This helps to explain why serious fans place ridiculously hopeful bets on their team.

WHICH BIASES?

Identifying exactly which biases are in action prooves tricky.[137] Impact biases illustrate the point. They describe an intuitive tendency to over-react to an emotional event, leading to a preoccupation with the event itself and overlooking the contextual circumstances that play a role.[138] A fan, for example, might grant greater favour upon charismatic leaders on the field, even if they do not warrant the status based on their technical performances. Other performances—like those by an opposing star player—can be quickly rationalised away in the cognitive process psychologists call immune neglect.[139] Like a psychological immune system dealing with incompatible idea viruses, fans can intuitively rationalise lower appraisals by conceiving all the reasons why an opponent's player might not be worthy.

During the assessment process, emotions can introduce a further variable by skewing arousal states.[140] Arousal states tend to be projected into future reflective states, which might help account for high-profile and 'larger-than-life' players gaining more attention.[141]

How past decisions worked out can also affect the accuracy of future assessments. Memory introduces systematic biases disproportionately connected with past, heightened emotional states, as well as the converse.[142] As a result, some players might become tainted with unflattering fan biases due to a past indiscretion like a bad game in a big final.

Assessments can also be complicated by memory, which plays a key role in fan biases due to assumptions made when weighing up different choices. For example, although more choices tend to be considered more attractive than fewer, experimental evidence shows that more options lead to worse assessments.[143] Fans whose teams have numerous star players are likely to find it more difficult to rate individual performances objectively.

Although fans monitor the performances of players over a certain period, they ultimately determine a rating based on a remembered summary of a player's historic performance. Furthermore, it is possible that the remembered performance is moderated by a predicted rating, formulated preemptively on the basis of expectations. For the fan—as for any rater—intuitively confining the best evaluations to a narrowed group like their own team makes for a handy shortcut.

Only a couple of studies have investigated performance appraisal biases in the sporting context. The earliest found a reputational bias during figure skating judging, linked to the ordinal ranking of the skaters, and therefore their reputations.[144] In fact, judges unaware of the rankings remained unaffected by what would in more contemporary studies be called an optimism bias.

Another study concluded that an optimism bias influenced player ratings provided by coaches in a German Bundesliga club's youth academy.[145] In addition, remembered and predicted ratings were skewed upwards compared to those delivered in real time.

Other work has focused on referee favouritism but has reported mixed findings. One study pinpointed evidence for referee bias in professional (European) football when evaluating potential penalty kicks.[146]

Conversely, another study found no favouritism towards home teams, high-reputation teams, or star players exhibited by elite basketball referees.[147]

INVESTING IN BIASES

Further biases affecting raters' (fans') assessments are also worthy of consideration. For example, evaluations could suffer at the enactment stage when more accurate initial judgements are subordinated to accommodate more in-the-moment appeal, or just to better comply with new social expectations.[148] Hanging out with a different group of fans—or worse, a group of fans with mixed followings—can be tricky, leading to variations from typical judgements.

It is also possible that fans give better ratings to more expensive players. In the consumption context, experimental data show that when faced with a choice between two free products, consumers will tend to choose the more expensive item even if they predict that it will deliver them less satisfaction than the cheaper item.[149] Analogously, fans might exercise bias towards the (literally) more expensive players (and even teams for those new to a sport or market), thereby unconsciously choosing on the basis of an already established quality indicator. Moreover, a 'psychology of sunk costs' encourages fans to perceive more expensive investments as higher in quality than lesser investments, irrespective of actual quality.[150] Sunk cost thinking might help explain why famous players more often receive the benefit of the doubt when it comes to their performances, from both fans and officials.

Of all the variables causing accurate evaluations to be ignored, one of the most obvious psychologists call 'medium-maximisation'. Fans make decisions to maximise a medium or proxy rather than the objective. The textbook example is that people work harder and longer to maximise their status and wealth without yielding any tangible improvements to their happiness.[151] Similarly, fans can become distracted by the medium of their favourite teams and players as proxies for satisfaction. In practice fans will feel better and more fulfilled when their favourite stars put in a strong performance even though it will not lead to any material improvement in their lives.

ATTENTION PLEASE

Add to the above what psychologists refer to as attentional biases, or the propensity to pay attention to specific things as markers and cues for behavioural responses. Some evidence suggests, for example, that strongly bonded social groups like fans share thought control parameters.[152] As boundaries for thinking, control parameters provide pointers about how a belief-committed group should think in certain situations, leading to a blinkered view of what constitutes the right behaviours. Attentional bias thereby allows belief-consistent group members to watch for signals that should trigger action.[153] For example, football fans of several codes watch and listen for the umpire's call after a play before daring to move or make any noise. As a result, biases towards cognitive-control parameters encourage the expected fan behaviour. Fans notice the very actions that they expect, thereby canalising the style and

efficiency of their decision-making to the things they think are most important.

Attentional biases can naturally encourage reasoning of the inflated kind, or what I introduced in an earlier chapter as the 'jump-to-conclusions' (JTC) bias.[154] Fans with a tendency towards strong opinions also have a proclivity to jump-to-conclusions, making impulsive decisions and reaching decisive resolutions without much evidence at all, and often completely oblivious to disconfirming evidence. As a form of confirmation bias, it is not a great stretch to imagine that fans hold strong pre-existing views about players and teams and exercise their judgements in line with these beliefs.

JTC biases may overlap with motivational biases, which lead to judgement distortions emanating from self-interest, social forces, or sporting context.[155] For example, fans can generate over-optimistic forecasts of future player performances because accurate predictions about stellar deeds can yield substantial kudos, especially when they are less obvious, whereas failed predictions tend to be overlooked.[156] Fans make cognitive adjustments to make incoming information align with personal values and already well-formed beliefs.[157]

CONCLUSION – OVERENGINEERING INTELLIGENCE

Football contents reflect everything from meaning and ideology to belonging and rituals. The key to remember is that minds have the ability to believe, and that some content categories stick better than others because they also grant significant benefits. To oversimplify, faith is innate, with its orientation generally confined to a bandwidth of belief

types, but where its specific content reflects the social and cultural context.

The point to the chapter's observations about consciousness is that we do not know whether intelligence is an inevitable consequence of evolution or a remarkable fluke. Upon scrutiny, human intelligence seems like over-engineering. Why would the complexities and depths of the human brain be necessary? Quite obviously, some intelligence is useful, but we have been the beneficiaries of far more than we have needed to become the dominant species on the planet.

From a survival perspective, what value is the capacity for art, literature, music, faith, and football? We developed the ability to conceptualise the world around us in a mental form, which has proven manifestly useful for things like food foraging, finding Pokémon, and football fandom.

My answer remains that football is an accidental but universal by-product of intelligence, sentience, belief, and faith. It might sound a little odd as a first premise, but the cognitive science of football fandom is founded on a beautiful fluke of the mind's mechanics, reinforced creatively by an appetising smorgasbord of cognitive illusions, delusions, and biases.

Conscious intelligence has led to the drive for immortality, and more particularly, the beliefs that underpin it. Our minds were forged in the crucible of function, bound by narrow parameters that rewarded survival. Yet, existential meandering came along for the ride, the hitchhiking freeloader relying on hand-outs from a brain crafted to believe (in itself amongst other things). As a result, non-survival superordinate

beliefs—that is, non-instinctive and non-automatic beliefs—tend to revolve around locating and making meaning. Enter football.

Intelligence brings the need for self-reinforcement and personal meaning, which is supported by making favourable assessments of the things we (fans) have declared are important, irrespective of the objective facts.

07

CHAPTER 07.

— STANDING ROOM ONLY —
THE COGNITIVE SCIENCE OF FOOTBALL FANDOM

INTRODUCTION – BUILDING A THEORY

A cognitive approach starts with the assumption that the brain 'likes' thinking about sport because how we think is driven by evolutionary adaptations that evolved for bolstering survival through pro-social engagement. Since these pro-social capacities are the fulcrum upon which football fandom is leveraged, thinking about football comes naturally. Further, a cognitive stance proposes that while the capacity for belief is hardwired, the actual content of belief has come about as a chance side-effect of the intersection between brains that need to believe in something, and the cultural context that provides brains with something useful to believe in. From a cognitive perspective believing in football is manifestly functional.

Believing has always played a critical role in survival for humans in a hazardous world. In response to danger, the mind evolved cognitive mechanisms that encourage people to cooperate by making it easy to share beliefs that sustain mutual and personal benefits. A curious, paradoxical side effect of these critical cognitive mechanisms is that some of the beliefs that people share are *both* useful and illogical.

The general argument for a cognitive science of football (and sport) that I present in this chapter goes as follows. We all possess superordinate beliefs that take precedence over others because they are critical to survival or to essential social interactions that contribute to success and prosperity. Superordinate beliefs are central in directing and determining thinking, feeling, and behaviour. They are easy to acquire, maintain, and transmit because they fit tongue in groove with the cognitive structure of our minds.

For fanatics, football beliefs occupy a place amongst their set of personal superordinate beliefs. As a result, football beliefs latch on to receptive minds because they align with the mind's evolved cognitive mechanisms, explaining why they are ubiquitous and pervasive across human society.

The summary above comes to rest with the overarching proposition that the mind 'likes' football beliefs because they fit well with its cognitive operations. Just as carpentry tools 'like' wood, the mind was 'designed' through evolution to work with beliefs, where the easiest beliefs to work with have superordinate characteristics.

Now we must address exactly what those characteristics might comprise. What structural commonalities do all superordinate beliefs share, and more specifically, what shape do superordinate football beliefs take? The answer to these questions delivers the foundations to a cognitive science of sport, which I shall lay out in seven propositions.

My argument that the mind is predisposed to 'like' football is predicated on the idea that the way we think has something to do with the stuff we like to think about. In this chapter I describe seven propositions about the way we think in order to explain why football content finds favour in the mind. These propositions help to reveal why we are all fans (of something), even if not all of us are fans of football or any sport.

Before I get to the propositions, I need to lay some additional groundwork about how thinking actually works in the mind. Without getting into the detailed mechanisms of cognition from a scientific viewpoint, my goal here is to offer a streamlined sketch of how the mind deals with incoming information. That is, how we process or compute information in the mind – cognition.

In trying to offer a rough guide, I present the computation elements of cognition within four categories. The approach is admittedly a little simplistic, and it does give the impression that the four are independent activities. As these things often go, the reality is much messier, more complicated, and difficult to separate. At the same time, breaking thinking down into a framework of sorts does get us closer to the aim of understanding why certain kinds of thinking and certain kinds of ideas come easier. The framework comprises: 1) Structure and Processing, 2) Memory and Content, 3) Learning, and 4) Perception and Motor Skills.[158] In the following sections I will briefly outline how each of the framework components works. After that I will move on to the seven foundational propositions.

STRUCTURE AND PROCESSING

Structure refers to the architecture of cognition, or how information is organised into mental components for processing, as well as how that information is shifted between the components. If information were the occupants of a house, then the structure would represent its rooms, while processing would be how the residents can move between the rooms. Following on with the analogy, a cognitive account takes the view that the mind does not entail one large open plan room where all incoming information is processed, but rather operates as a series of distinct rooms each with specialist functions.

The functions vary but can be crudely carved up into first, activities that engage perception and motor activity, and second, those that need memory, either in working (held temporarily in the mind) form,

procedural form (how to do things), or declarative form (events and facts). Sometimes the perception functions connect directly with those governing motor control, allowing us to take instantaneous action and bypassing the need for conscious thought. Other times in the absence of urgency, working memory juggles the information between declarative and long-term memory, giving us the chance to make a considered decision with the benefit of what we have previously learned and experienced, as well as in light of what we believe to be true.

Not only does pertinent information get stored, but it can also refine and modify declarative memory, as well as vice-versa. That means we tune incoming information to the pitch of our accepted beliefs as well as re-tune our beliefs in line with new melodies.

The crux of processing information revolves around the 'cognitive cycle', which comprises a single thinking activity arising from the interaction of the perceptual, motor, and memory functions. Each cognitive cycle leads to a processing outcome like a modification to memory, a step in reasoning, a mental simulation, the retrieval of knowledge, the activation of motor action, or an alteration in perception. Although a cycle can only deliver a single outcome, the processing behind it can go on in parallel involving multiple functions at once. Of course, each cycle is completed with amazing speed, somewhere around 50 milliseconds. All complex behaviour like language, planning, and imagination arrives after a series of cycles where decisions come with sequences of processing outcomes.

On the downside, unlike a computer, the mind's use of sequential cycles means that our mental processing has a hard bottleneck. But on the upside, it also means that we cannot make multiple, contradictory

decisions at the same time. By implication, as I've laboured throughout this book, the mind's cognitive cycle process is wired for (what gets called in textbooks) 'bounded rationality' rather than optimal decision making.

Bounded rationality means that we end up making decisions that are good enough rather than optimal, usually because the mind is geared towards using short cuts. As a result, the mind trades accuracy for alacrity. It's a better trade-off in survival situations than in stock market predictions, but it does heighten the football fandom experience. Curiously, the less a fan actually engages in contemplating football, the more vehement their fanaticism.

MEMORY AND CONTENT

Memory allows all forms of cognition to occur as it stores, maintains, and retrieves the content critical to thinking. Although there are innumerable different kinds of content in memory, most content is stored as relational symbols, meaning that the content is held as a mental representation. In addition, each mental representation can be supplemented by other mental symbols that add nuance and detail. Mental symbols are retrieved when relevant and modified as new information flows in, laying the foundations for learning.

For the purposes of easy description, memory can be classified into three types, noting that most of the time all forms of memory activate with unconscious automaticity. The first is working memory, which gives the mind a temporary place to hold information while it retrieves pertinent stored content, assess perceptual data, or monitor motor

responses. Working memory is the waiting room where incoming information reads an old magazine until the doctor is ready. Incoming information sits there until it has been diagnosed, held in buffer while the cognitive doctor does their work. For example, the buffered information might stimulate declarative memory to locate relevant facts or previous experiences, or procedural memory to provide guidance on how to perform necessary tasks or motor responses.

The second kind of memory is procedural, where knowledge about action is stored, such as how to select, ready, and perform actions in sequences that make up skills. Procedural memory activates when stored patterns are recognised, leading to cause-and-effect rules bound by specific conditions. A goal is scored, a fan leaps to their feet and cheers.

The third kind of memory is declarative where facts and concepts are stored for the long-term. Here all the mental representations of information are held as relatively stable patterns and relationships, including a database of experiences. Declarative memory holds the facts and concepts alongside the personal and emotional, the combination decisive in the formation of durable beliefs. Declarative memory therefore plays a critical role in the way long-standing beliefs act on the information loitering in working memory.

LEARNING

If items of information are stored as symbolic mental representations, then learning can be seen as the emergence of updated symbolic representations, along with a suite of supplemental ones that add texture, context, and specificity. Learning feeds into action-oriented procedural

memory with an effect on the factual concepts in declarative memory. It can also influence perceptual and motor faculties. In fact, anything that sticks as long-term knowledge was once learned.

Given that the learning process is unstoppable, all new information has the potential to effect an incremental change in memory as it is filtered and assessed in light of declarative knowledge formed through innumerable iterations of new exposures and experiences. As a result, learning actually occurs when information flows backwards as we replay and reconstitute it in our minds. The back-and-forth process between the information and the mind's declarative contents gives our memories the chance to make sense of the where the new data fit in, and whether it demands a revision of the existing database. In consequence, long-term learning relies on the accumulation of short-term exposures that require ongoing deliberation.

PERCEPTION AND MOTOR

We are constantly bombarded with external stimuli so part of the mind's job is to latch on to the external signals that might be relevant and hold them in working memory until a decision is reached about whether they demand a motor response. Perceptual data enter working memory from a range of sensory sources including the familiar five senses.

One limitation comes with the finite capacity of working memory, which can only buffer a certain amount of sensory information at once. This is why we can miss important sensory cues in the midst of noisy crowds, when one particular sensory input is especially demanding, or

when attention is focused and exclusive. It is also why football fans can tune out their partners while watching the game in the living room.

Memory content can flow helpfully to perception providing guidance on what to attend to or what patterns to match against. New parents offer the exemplar of the function, oblivious to the neighbour's racket but instantly alert with the slightest sob in the next room. When required, motor activity responds, often when a pattern has been recognised in procedural memory triggering a cause-and-effect response.

NOT SPECIAL BUT NATURAL

In constructing a cognitive science of football fandom the big challenge lies with using evolved psychological mechanisms to explain the signature features of football content. Since panhuman cognitive mechanisms lead to predictable consequences for human behaviour, I begin with the assumption that football belief and activity remain contingent upon common cognitive apparatus. Football thinking is not special; it is common. After all, its ubiquity is the whole point to bothering with a cognitive science to explain football in the first place.

Football beliefs can be easily acquired, maintained, and propagated because they engage supportive cognitive mechanisms. Football supporters might think that fandom is a dramatic phenomenon that requires a dramatic explanation, but cognitive science suggests the opposite. Accordingly, football fandom is probable given the right cultural exposure, but not an inexorable by-product of the normal operation of human cognition. To put it another way, football is not inevitable, but it is natural.

In using the term 'natural' I associate football with four assumptions that underpin its cognitive features. First, the human mind operates with a suite of universal biases and predilections. Second, and by consequence of the first assumption, some important aspects of cognition occur separate to cultural forces, like various forms of agency detection and social communication like gossip. Third, indigenous 'mental tools' constrain cognition, contouring its general expression and delivering universal patterns, one of which comes in the shape of a football. Extending into a fourth, cognitive science seeks to explain recurrent patterns of different forms of football expression that appear across cultural barriers.

In sum, the cognitive science of sport fandom aims to pinpoint and explain how evolved mental tools encourage the spread of football concepts.

I have proposed that football superordinate beliefs gain traction because they are natural. I have also claimed that every belief can be seen as a by-product of natural selection rather than as a direct adaptation to it because cognitive mechanisms did not evolve with design features specific to any particular kind of cultural content. Although naturalness encourages intuition, intuitive beliefs are not necessarily reliable beliefs. After all, we acquire a suite of scientific beliefs through education and many defy, or at least, challenge intuitive expectations about the way things work. I will return to intuition shortly.

CONSTRUCTING A FRAMEWORK FOR BELIEF SYSTEMS

Although the terms beliefs and belief systems can be used differently by psychologists, sociologists, and political scientists, to name a few, here I

take a cognitive standpoint. I therefore prioritise what beliefs do in the mind or what might be considered their impact on thought. A key question revolves around how we get from one belief to an entire 'belief system', with somewhere in between the sets of interrelated beliefs pertinent to a specific domain like football.

Taking a hierarchical perspective, each individual belief comprises an integrated suite of concepts, ideas, opinions, and experiences that together coalesce to form a more tangible and generalisable belief.

A formed belief has three macro components: 1) a proposition about a domain; 2) the domain itself; and 3) a universal disposition towards the proposition. The outcome is a stable mental state through which a believer thinks. Based on my definition, a belief can be both the contents of, and the vehicle for, cognition. We take a position about a domain on the basis of a stable belief, but also use the same stable belief to think about other domains. We then link a single belief to others that collectively aggregate into belief sets. Independent single beliefs naturally coagulate, thickening into larger collections that all align and reinforce each other. In addition, these formations of strengthening beliefs act as lenses for interpreting new elements in the same or in a relative domain. As a result, we tend to establish and then stabilise new beliefs by adding to them the certainty we have already accrued in the aggregated group. New and uncertain propositions about sub-domains therefore transform into solid beliefs, and form part of a larger structure associated with a broader domain. For example, nascent inclinations about elements of football like opinions concerning video assisted refereeing / umpiring, or certain players and coaches, become firmer and more distinct thanks to the influence of strong, existing dispositions. Some belief

sets escalate in personal importance and certitude until they become superordinate, or the super-structures of preeminent beliefs that trump all the others.

Collections of inter-related beliefs aggregate into belief sets describing broad domains such as 'football'. But, of course, setting boundaries around any broad domain is completely arbitrary. In practice, beliefs sets intersect and interact like dynamic Venn diagrams. Football beliefs link to innumerable other belief sets from sport to politics, as all belief sets operate within a compendium that constitutes an individual's entire belief system. In a practical sense we use our belief system as a way of making sense of the world. Some key characteristics of belief sets can be highlighted when taking a cognitive stance.

First, belief sets are *aggregations* of formed beliefs, which each have at least a proposition about a domain, content about the domain itself, and a universal disposition towards the proposition.

Second, belief sets are *personal* in that every one is indigenous and unique to the mind that hosts them. Conversely, belief sets come with infinite variations, even when two individuals think that they share identical beliefs.

Third, belief sets possess *undefined boundaries* as they shift dynamically to overlap and interact with other sets, and with every idea, concept, opinion, and domain with which they make contact.

Fourth belief sets possess *content elements*, within which at least 10 can be differentiated, noting that the elements coalesce seamlessly and that this disaggregation is just an artificial way of trying to understand them: 1) concepts – topics and domains about which the beliefs refer and describe; 2) mental representations of the concepts held in symbolic

form within the mind; 3) structural relations between representations in which the concepts are held together through some form of organisation; 4) positions related to the concepts including opinions and perspectives concerning them; 5) experiences related to the concepts, including secondary (non-personal) information, and the opinions of peers and of other close persons; 6) perspective and prioritisation, whereupon the concepts are understood relative to broader social and personal circumstances; 7) affective associations, where the concepts are connected to emotions and feelings; 8) values, which define what is good and correct, and serve to evaluate incoming information; 9) rules emerging from the concept position that lead to prescription and proscription, as well as causal logics about how things work; and 10) certitude, reflecting the strength and surety with which the belief is believed. With beliefs sets, beliefs, and belief contents now laid out in more detail, the seven propositions explaining football cognition will be introduced.

A COGNITIVE THEORY OF SPORT FANDOM

Football concepts align with the mind's natural inclinations. The most powerful attributes of football connect with the mind's intuitive knowledge base and the inferences it stimulates, helped along by the memorable, counterintuitive features of its content. A cognitive perspective places the focus on the cross-cultural commonalities that encourage certain aspects of sport and fandom to become important in the first place.

In order to provide a theoretical framework for understanding the basis for the cognitive science of sport (and therefore football) fandom, I

propose seven general cognitive principles and seven corresponding propositions specific to sporting and football cognition.

Proposition 1. Thinking about football is natural to the mind and is helpful for social engagement

First, football concepts occur in the mind as 'representations' of football content, and are inseparable from 'normal', non-football representations. Ideas about football occur as a by-product of ordinary cognitive functions, a seemingly obvious point that leads to two significant implications. One is that football ideas come naturally without any need for special or unusual forms of thinking. The other is that football thinking—or football-related cognition—proceeds adeptly because it works with the kinds of representations that the mind finds easy to wield. Even though cognition did not evolve with a specific need to work with football beliefs or concepts, it did evolve with functionality that supports pro-social beliefs particularly useful to fans.

Football beliefs and concepts are parasitic upon the cognitive mechanisms that evolved to sustain ways of thinking that work, on the basis that working means they help people get by. Evolution compressed the way we need to think, feel, and act into a funnel along with our social needs to deliver a narrow set of possibilities for the kinds of beliefs that will work well. While there is no evolutionary or survival reason to be able to think about football, there is good reason to be able to think about things like tribalism, identification, allegiance, optimism, hope, meaning, and winning. As such, evolution favoured the emergence of beliefs and concepts that exercise these natural and helpful cognitive behaviours.

Proposition 2. Thinking about football enhances memorability because it contains counterintuitive concepts

Second, football beliefs contain counterintuitive concepts that contradict expected inferences about the world and its contents. We need minds capable of a certain, minimum automatic response to incoming stimuli if we are to survive in a world where some hazards afford no time for any thought before action is required. Obvious, perhaps clichéd examples can be lifted from the biology texts, like running from pouncing predators and jumping away when startled. These kinds of instantaneous responses remain hardwired even if the predators have become buses and being startled means slamming on the brakes in front of a texting pedestrian.

The key to remember is that our minds react automatically to some content in the form of predictable inferences. Some of these actually take over our bodies as a safeguard, while others arrive in the form of a pre-packaged idea, supposition, or conclusion. When we experience the world as children, we slowly convert our learnings into permanent inferences, of the sort that automatically links fire with hot and rocks with hard. In fact, for every kind of thing that we have interacted with, we acquire inferences that will reoccur and reinforce with every subsequent exposure.

A funny thing about football content is that it can often include concepts that go against naturally acquired inferences. Fans hold natural, intuitive inferences about the physical capabilities of people. For example, when someone follows an individual player or team with fanatical devotion, they also tend to think about them in counterintuitive ways

where failure seems impossible, and superhuman performances are part of a normalised version of what a human is capable of.

Other intuitive concepts are compromised in football too. Consider the ever-presence of luck and superstition, unrealistic hope and optimism, blindness to imperfection and infraction, unconditional allegiance without reciprocity, and the expectation of success despite the reality of consistent failure. In short, much of football relies on faith, and faith by definition demands the suppression of reason and evidence.

Curiously, when natural inferences are compromised just a bit, they acquire a transmission advantage because they become more memorable. Like a great twist in a story, or a quirky personality, a little bit of something different or unexpected seems to stick in the mind. Minor variations from the 'normal' are easier to remember.

The argument presumes that the mind unconsciously generates assumptions about the world and its contents as a way of efficiently navigating and responding to large volumes of complex stimuli. However, sometimes concepts contradict these instant inferences. After all, the concept of a superstar player contradicts normal assumptions the mind generates about human performance, as Marta and Messi remind us.

Proposition 3. Thinking about football amplifies personally meaningful assumptions and experiences

Third, the mind's hardwiring encourages fans to ascribe meaning to events above and beyond their material significance. It all starts from a natural inclination to attribute agency to events; to assume that the things that happen do so for a reason and that a meaning can be found in their occurrence. As a result, when something happens in the football

world, the fan's natural response is to assume that a greater causality is at play than the mere random churn of a sporting contest.

Behind the natural tendency to infer deeper meaning and causality lies what cognitive scientists call agency detection. It describes the attribution of mental states to others, a process that can also extend to events. Attributing agency means activating the mental agency detection device known as 'theory of mind'. Accordingly, the mind's capacity to attribute agency and goal-driven behaviour to events and situations encourages fans to find meaning as if the universe had conspired to ensure a preordained outcome. For example, with minds designed for registering agency in uncertain circumstances, fans presume that there is something behind the events that transpire around their teams.

Finding meaning presents an 'overpopulation' or hyper-stimulation of the natural way minds seek to find agency. That is not to suggest that the process occurs entirely consciously. Rather, we just cannot help but look for causality and purpose in everything, even when we know better. It comes naturally, like when it feels as though it starts raining the moment you walk out the door, or that the office copier is more susceptible to jamming just before a critical print job. Likewise, the striker always seems to miss the penalty you watch, and the team tends to win when you're wearing the lucky scarf.

Proposition 4. Thinking about football leads fans to make inferences about other fans, facilitating a common understanding

Fourth, inferences based on agency detection stimulate judgements and suppositions about others' intentions. Building on the previous proposition, hardwired cognitive systems encourage assumptions about the intentions of other people, and in particular, fellow fans. The prospect

leads to the general prediction that fans will imagine the intentions and judgements of their peers and interpret events in accordance with the football values they share.

It all begins with the way that human minds treat other participants in the world as agents with specific beliefs and desires, and with enough common sense to act rationally to achieve those beliefs and desires. As a result, humans not only infer agency, but they also attribute intentionality in order to explain and understand the unique behaviours that can be observed in others.

Allocating intentionality to another fan provides a rationale for their action, thereby improving social interaction by anticipating behaviour. The agency detecting ability and its intentionality aspect makes it easier for fans to imagine the goals and subsequent judgements of the people they value most highly within their social structures. In consequence, fans tend to fit in with other fans, amplifying their social connectedness and tribal bonding.

Proposition 5. Thinking about football heightens emotions and empathy

Fifth, an extension of the mind's remarkable ability to infer the thoughts of others and to attribute intentionality to their actions, as well as its proclivity to attribute meaning to events, comes the capacity to detect emotional states. Minds that interpret agency find it relatively easy to work out the emotional status of others, particularly those within an immediate social network. The capacity to detect emotions has obvious utility to the football fan participating in the drama and spectacle of game-watching. By reading how other local members of the same football tribe are responding, new members become enculturated to the

expected emotional status, while existing members receive positive feedback and a sense of security from the display of well-understood emotional signals in response to the football context.

Experiments suggest that our ability to correctly infer the mental states of others based on observed emotional responses is sophisticated but limited. For example, when test participants are given sparse evidence of a target individual's emotional reactions, they are generally capable of correctly specifying the beliefs and desires of the observed person. Yet, inferences based on observed emotions only go so far, as most people cannot make correct judgements when the beliefs and desires underpinning the emotional displays are more complex or even unique to the individual and their circumstances. The exception occurs when test participants are given the chance to watch emotional reactions to both an expected and observed outcome.[159]

The takeaway point is that we make sound inferences about the beliefs and desires of others based on their emotional reactions when those reactions make sense to us in the context of what the others were reacting to. Attributions go wrong when the emotional responses don't seem to match an expected response. As a result, because correct attributions bring people closer together, fans tend to bond better when they all respond the same to the same events.

Emotion-detection can also alleviate or amplify anxiety in fans by connecting the judgements of other fans to their emotional signals. When a fan has worked out what kinds of emotional responses match the conditions, they further reinforce all the tacit conditioning that operates around fandom for that specific tribal group. One important outcome is the raised significance of ritualised and repetitive performances.

A strong link operates between football commitment and the underpinning emotional benefits of belief.

Football concepts and experiences become infused with emotion. Consistency between thought and action means diminishing logical tensions between beliefs. More importantly, reconciling thought and action makes fans construct intellectual commitments that ensure emotional coherence. In other words, fans assimilate the emotional content that helps them to fit in.

Proposition 6. Thinking about football intensifies fan commitment and public signalling

Sixth, the way the mind works encourages social exchanges. We evolved as social creatures, and we benefit from being accepted, respected, and liked within a group. But at the same time, in successful social exchanges, you rarely get something for nothing. In order to secure social approval—and all the advantages that go with group membership—sacrifices have to be made to the greater good. In the football context, fans make commitments to the team, and in the process, their fanatical counterparts.

Commitments come at a cost, of course, like spending money on travel, tickets, and merchandise, and in giving up time and energy in the service of supporting the team. Costly commitments to the team and fellow fans declare personal sacrifice; the preparedness to view the team and group as larger and more important than personal interest. With repeated costly signals comes authenticity, which in turn secures belonging and commands respect.

Costly signals smooth social exchange because they demonstrate a commitment to the group. Fans will endure costly sacrifices in order to

prove themselves worthy of social acceptance and exchange, where over time the greater the sacrifice, the greater the benefits in terms of social networks, group solidarity, and inter-personal commitment.

With a cognitive capacity for making intuitive social inferences also comes the propensity to make sacrifices and costly commitments to other key social actors, like in-group fan leaders. In a football context, costly commitments extend to players and sometimes even coaches and managers, often through overt, ritualised demonstrations of obedience, dedication, and sacrifice.

Routinised rituals get reproduced on 'autopilot', drawing on automatised habits, and in the process removing the need for critical interpretation. These habitual rituals are the ones most practiced by fans. As a result, routinised rituals provide optimal cognitive conditions for the attribution of meaning. The very automaticity of the rituals discourages internal critical interpretation, thereby safeguarding any externally imposed interpretation, like from a partner who thinks that the time supporting the team would be better invested elsewhere, or from non-football fans who find the whole idea of personal sacrifice to the team confounding. Moreover, the routinisation provides an ideal learning pathway delivering a stable product in a standardised formula through which new fans become indoctrinated.

Proposition 7. Thinking about football activates common fan community morals and values

Seventh and finally, the mind has evolved a nuanced system of generating innate moral intuitions, which means that we have a hardwired ability to land on the 'right' thing to do under different circumstances. Innate moral reasoning, which admittedly does not always trump

personal selfishness, does at least tend to deliver a consistent and predictable assessment of what would be socially considered as the right choice. That does not mean that we necessarily comply with our own innate moral reasoning, but most people who choose to act selfishly do so knowing that their actions would not be condoned if publicly known. For the most part, we lie, cheat, steal, and deceive to serve our personal interests, but do so in defiance of our own judgements about what is right. It's the basis for guilt, after all.

From a football perspective, however, innate moral judgements allow fans to better interpret the imagined wishes of fellow group members as well as revered players. The deeply held values that reflect the combination of early life learning and an inherent capacity for emotional empathy become amplified in a fanatical supporter environment. Further, natural moralising encourages fans to attribute communicative meaning to random events and as a result rationalise the events as punishments or rewards for their fan behaviour. It also makes fans particularly sensitised to the imagined expectations of the team and other supporters, not to mention swift in their appraisals of rightful behaviour in peers. Like in other powerful social groupings like religion and the military, fans experience an awareness that other minds in the community are keeping careful tabs on their actions in terms of 'football morality', where right and wrong are expressed though costly declarations of unconditional support.

CONCLUSION - THE SHAPE OF FOOTBALL BELIEFS

To summarise, the mind possesses a variety of specific cognitive functions that create inferences about the environment. Some of these

inferences encourage the presence of a tacit but powerful tribal agency that constantly assesses contributions made by fans to the team and supporting group. Because the mind readily identifies and interprets emotions, fans suppose that the success or failure of their team's goal will lead to personal ramifications. This powerful presumption in turn stimulates fans to invent or replay symbolic displays of loyalty, where the greater the sacrifice, the more loyalty a fan demonstrates. Moreover, normal cognitive mechanisms responsible for social exchange help fans imagine the wishes and judgements of their on-field heroes.

Seven foundational cognitive principles were outlined in the form of propositions. First, football concepts as they occur in the mind—'representations' of football domains—are inseparable from 'normal', non-football representations, meaning that they occur naturally.

Second, the mind generates intuitive inferences about domains, where those containing the kind of counterintuitive concepts found in football hold a memorability and transmission advantage.

Third, the mind attributes agency and goal-driven behaviour to events and situations, encouraging fans to grant meaning and significance to them.

Fourth, layered upon the cognitive ability to attribute agency, the mind also infers intentionality, where fans can imagine the intentions and judgements of both their peers as well as their heroes.

Fifth, the mind's ability to identify and interpret emotions leads fans to ascribe emotional conditions to counterparts. In addition, emotion-detection helps to alleviate existential anxieties by connecting football events with personal rewards or punishments.

Sixth, the mind's inclination to seek social exchange encourages fans to perform rituals and demonstrate their preparedness to endure costly sacrifices and prove themselves worthy of both heroes and peers.

Seventh, the mind's innate moral reasoning and intuition provides a strong platform for conceiving and estimating the wishes of other fans and idolised players, at the same time encouraging strict judgements about others.

Collectively, these propositions form the foundations of a cognitive science of sport and football fandom, and for explaining the immense personal meaning that accompanies fandom, as I will explore in more granularity in the following chapter.


08

CHAPTER 08.

— ALL TO PLAY FOR —
CONNECTING THOUGHT TO MEANING

INTRODUCTION - MEANING IN THE BRAIN

Although psychologically galvanising to be part of a supporting fan group subject to continual on-field failure, it might just be a little dangerous too, and I am not referring to a punch-up with hooligans. One recent study, for example, revealed that losing football games can trigger heart attacks.[160] The data showed a correlation between poor results by a professional football club and a higher prevalence of heart attacks in male residents within the club's city. In fact, hospital data indicated a 27% increase in male admissions for acute coronary syndromes in the 24 hours following a lost home game. The researchers concluded that the mental and emotional stress associated with defeat can precipitate cardiac events, although it is worth noting that the effect did not apply to women. Inescapably, football commands serious psychological and physical impacts as a consequence of its intense personal meaning to fans, with or without heart attacks.

Is it possible that football, in its various forms of consumption, can become a kind of spiritual ceremony? A vessel for transmitting and even amplifying meaning? Of course, religious metaphors are commonly invoked to offer commentary on the social context and psychological impact of football. It is also well accepted that football can stimulate a range of emotional reactions from goose bumps to tears and even rapture. But here I am interested in deeper responses in the brain that might underpin some of these feelings. By drawing on the brain's physical machinations I aim to take a different perspective on familiar observations about football as a religion. Specifically, by considering the commonalities between spiritual and football consumption experience from

a neurological or brain activity perspective, I will argue that the cognitive science of sport fandom also has a grounding in neuroscience.

How we think about football is underpinned by how the brain deals with football as a sensory input. My proposition is that football can generate the brain conditions necessary for peak moments of deep meaning. I also add to my argument that we are wired to make a messiah out of Manning and a hero out of Hamm.

According to neuroscientific research, spiritual experiences come about when a person's brain gets into a particular state, which might be described in less scientific terms as a bit of a muddle.[161] Analysis reveals the presence of significant activity in the limbic system, deep in the temporal lobe of the cerebral cortex. As I've previously noted, the limbic system is directly relevant to football because it plays a key role in emotion and memory.[162] As I'm going to show, the kinds of peak experiences that tend to get labelled as spiritual are also correlated to brain processes that are stimulated by certain kinds of football consumption.

My aim here is to examine the 'neural' correlates of peak football experiences; what's going on in the brain when it's all going on for the fan. In so doing, I want to dig further into the role that the brain plays in supporting the transformational and meaning-making power of football. Initially I will look at football as a kind of spiritual experience, after which I will show how spiritual (or religious) practices and those common in football, activate the brain in similar ways. Then, based on the premise that peak experiences can affect the way fans think about football, I consider the connections deep within the brain's neurochemical operations. Football on the brain means that football is in the brain too.

THE MYSTERIOUS, MYSTICAL, AND MUNDANE

Let's start with the assumption that a spiritual experience doesn't have to be mystical, religious, or associated with a supernatural or supreme power, at least not to the brain.[163] Based on neurological evidence, I am going to speculate on how certain forms of football consumption stimulate powerful limbic system responses that feel like mystical or spiritual experiences. From a football perspective, spiritual experiences are peak experiences unrelated to religion, but are nevertheless powerfully relevant to personal meaning.

In rough terms, if peak spiritual and football experiences share the same brain activity, then football might be considered a physiologically legitimate religion. Perhaps this speculation goes too far in a literal sense, but the argument is supported by two tiers of evidence, both of which are informed by scientific work conducted in neuroscience. The evidence I will present draws on studies of religious and spiritual experiences. It reveals many striking commonalities between the 'intense' states reported by religious practitioners and those of football fans. Such intense periods are characterised by altered states of consciousness (ASC) and specific patterns of neural activity.

A significant volume of research has been produced concerning the activity of the brain during periods of intense spiritual experience. Since I am interested in football—and with due respect to the anyone's religious beliefs—I am silent on the matter of God. All I am focused on is whether what I am calling peak experiences in each of spiritual activity and in football fandom share a common 'neurological agency', that being the scientific term meaning that the same stuff is going on in the brain.[164]

Quite usefully there are scientific ways of working out what's going on in the brain without actually cracking it open. These methods are known as neuro-imaging.

Neuro-imaging analyses use imposing names such as positron emission tomography (PET), functional magnetic resonance imaging (fMRI), and single positron emission computed tomography (SPECT). For our purposes, and with inevitable over-simplification, all of these techniques work in a roughly similar way by providing information on brain blood flow and heat. Although imperfect, blood flow and heat in the brain offer reasonable proxies for what is called neuronal activity, or when brain cells activate. With scanning techniques neuroscientists can find out which parts of the brain kick into action during different kinds of thinking. All researchers need to do is stick a subject in a huge encapsulating apparatus that scans the brain and ask them to complete certain thinking tasks, in some cases injecting them with tracing chemicals that help reveal the parts of the brain in action.

The data provided by neuro-imaging have been central in revealing the characteristics of different brain activity, like during speech or consciousness, as well as in responses to religious stimuli. However, neuroscientists have shown a worrying disinclination to spend their research grants working out what parts of the brain football fans use during peak or any other kind of football experiences. As a result, my approach here is to make a connection between different kinds of peak experiences. If the peak experiences for spiritual practitioners and for football fans share similarities, then there might be reason to speculate that the same things are going on in the brain for both.

I am going to begin with a relatively uncontentious position: football can confer some unique experiences, the description of which has been pursued with vigour for at least 100 years.[165] The next, more speculative argument, holds that certain kinds of football fandom experiences have an effect on the brain a lot like the occasional but profound mystical moments that religious and spiritual practitioners have recorded for millennia. To get to this point, I will need to revisit a little of the anatomy and physiology of the brain and its governing nervous system.

LOBES TO LEATHER

The human cerebral cortex is considerably larger than those of other mammals, and comprises four lobes, the occipital, parietal, frontal, and temporal. Deep in the temporal lobe resides the limbic system, which as I mentioned earlier, is amongst the oldest legacy of human evolution along with parts of the brain stem. The limbic system provides an emotional reaction to the information it receives from the five sensory channels, projecting this to the frontal lobes where the higher brain functions of conscious thought and goal-directed activity become interested.[166] Emotional experience is therefore arbitrated between the primal surge of the limbic system and the restrained contemplation of the forebrain.

If you've ever felt the urge to call your boss an idiot or even punch them in the nose—but refrained—then you can thank your limbic system for the impulse and your frontal lobe for crushing it. In a crude sense, it's the newly evolved frontal lobe capable of higher reasoning that separates us from other animals, at least most of the time, and a little less of the time than normal when watching football.

As a reminder, earlier I mentioned that the limbic system also contains the hippocampus and amygdala. The former is involved with recording memories, particularly those containing strong emotional content. It is therefore the site responsible for holding memories associated with particularly meaningful football experiences. Pathology in, or damage to the hippocampus has been associated with changes to spiritual and religious experience, as well as changes to long-standing commitments like marriage partners and sporting team affiliations.[167]

As a curious aside, the hippocampus and amygdala are central to the mind's ability to precisely recreate the sensory conditions experienced while watching memorable football games that occurred in times gone by, especially those from childhood. The more intense the emotional reaction, the more likely the experience was permanently imprinted. These two brain structures are complicit in every emotional scar and joyful reminiscence that football might deliver over a fan's lifetime. Conversely, when something goes wrong in these brain parts, people can have some weird and even frightening moments. For example, so-called neural pathology accompanying temporal lobe epilepsy, near-death experiences, and drug-induced hallucinations have all been associated with a suite of peak experiences, many of which have been described in mystical terms.[168]

According to studies, brain disorders can stimulate feeling of depersonalisation, timelessness, and mysticism. They also reflect the characteristics of flow states often reported by deeply engaged football spectators. We know that spiritual and mystical experiences are limbic in nature as numerous studies have shown that dysfunction in the temporal lobe can lead to sudden and extreme surges in religiosity. Similarly,

neural activity has been found in epilepsy patients experiencing abrupt, heightened religiosity.[169] At the same time, patients scoring high ratings on religiosity psychological tests have significantly smaller right hippocampi; a strange side-effect of epilepsy.

The amygdala plays a senior role in coordinating unconscious emotional states and their conscious expression. Noteworthy is the connection between the amygdala and the autonomic nervous system. That means physiological responses to stressful or stimulating emotional experiences like fight or flight are orchestrated by the amygdala. Because the amygdala is linked to the prefrontal cortex, it also has a hand in the conscious awareness of emotion, assisting peak moments to be both experienced and interpreted. The key point is that peak experiences tend to come about when something unusual happens in the temporal lobe.[170] We simply cannot shake the effect of that old limbic part of the brain. If it's an intense experience, then it's because the limbic is in limbo.

THE SPIRITUAL CONTEXT

If disruption in the temporal lobe of the limbic system is somehow connected to spiritual experiences, what is it that makes them spiritual in nature? What makes people think that it's God, or some kind of connection to the divine or mystical?[171]

In fact, the reason that someone with a strange 'temporo-limbic' situation might leap to the mystical as an explanation comes back to their cultural conditioning. We fall back on what we know and understand. It turns out, for example, that westerners who've had peak experiences tend to interpret them in line with their religious sympathies, whether

curiously odd, vaguely spiritual, intensely mystical, or ideologically religious. Easterners are more likely to report connections with ancestors or with philosophical traditions.

My question as a consequence is, if football were a powerful cultural influence on an individual, would the same brain conditions just as easily manifest in extreme football fanaticism?

Occurrences of auditory hallucinations in normal populations is surprisingly high. Studies estimate that around one third of the general population have had a disconcerting—and for some quite rewarding—experience of this nature.[172] Noteworthy in these studies is the impact of culture as a variable affecting interpretation. Western cultures tend to perceive hallucinations as negative and malevolent, whereas non-western cultures are more likely to view the experiences as special or even sacred.[173]

One suggestion is that psychotic and mystical states are similar to hallucinatory experiences.[174] The point of differentiation is the interpretation, and the resulting emotional and behavioural reactions. Psychotic experiences induce negative emotional and behavioural episodes while spiritual hallucinations are typically characterised by positive and adaptive consequences.

Strong adherents to spiritual movements experience more religious hallucinations than the non-religious.[175] But unlike psychotic in-patients, religious adherents show significantly lower levels of subsequent distress. Some studies have even compared the auditory hallucinations of psychotic, evangelical, and control groups.[176] While the psychotic group experienced the most, and controls the fewest hallucinations, the psychotic group also found them to be significantly less positive than those

of the control group, which in turn were less positive than the evangelical group. In other words, a strong religious or spiritual conviction may be a pivotal factor in determining the content of hallucinations. If conviction is the consequence of contextual pressures, then cultural forces may be a determining variable in amplifying and directing the nature of peak feelings.

Given the right limbic conditions, heavy football exposure might shape how peak experiences are expressed. Religion contains a language-like grammar where labels become associated with cognitive patterns, such as the presence of an omniscient force.[177] Equally, perhaps football also contains a grammatical structure with a team as the omniscient equivalent. In both football and religious structures, the invention and transmission of symbols are critical, including logos, colours, and songs, as I will explore further in the next chapter.[178]

The need for and the expression of symbolic metaphors is innate, but the content is contextually determined whether football or religious. Human brains are hardwired to respond to symbols, and some of the most primal are found in sport such as the fearsome predators associated with the identity of some teams and the use of emotional music. To some extent the very nature of football personifies combat, war, and survival. The key question that remains is what exactly happens in the brain during peak episodes?

IN A STATE

Studies investigating altered states of consciousness show that they shift brain waves toward what is known as slow-wave synchronisation.

During these periods the brain experiences high-voltage, slow-frequency wave activity directed from the limbic system, after which the brain stem connections subsequently allocate synchronising patterns to the frontal cortex. In more simple terms, the brain produces an unusually coordinated synthesis of behaviour, emotion, and thought during the altered states of consciousness linked to peak experiences.[179]

Yet, changes to the brain are not always so transitory. The results of neuro-imaging studies focusing on the activity of meditation practitioners and those engaged in deep prayer show that their brains undergo serious long-term transformations.

It has also been demonstrated that meditation on a singular focus leads to an over-stimulated cerebral cortex, which in turn excites the reticular nucleus of the thalamus.[180] The chain of causality leads the reticular nucleus to block sensory impulses so that they can no longer be transmitted. This inhibition shuts down the cortex and releases a complex flood of neuro-chemicals leading to intense, peak states.

To review the process leaving out the technical bits, a continuous fixation upon an object or event triggers the limbic system, delivering a mildly pleasant state. As concentration deepens, the limbic system reaches a point of maximal arousal. This arousal stimulates an overcompensation effect, leading to a neurochemical reaction to dampen it. Now, the brain's arousal system and arousal dampening (quiescent) system are operating simultaneously, which in turn confuses the brain's mechanisms that fix it in self, time, and space.[181] In a crude sense, the brain gets into a huge jumble where we lose ourselves and become 'one' with the original point of attention. No wonder it seems mystical.

AN OWN GOAL

Perhaps powerful fan experiences can leave a lasting impression on the brain. Let me speculate for a moment based on one study, which examined blood flow in the brain via a PET scan during religious practice of a group of subjects who had previously experienced a spontaneous religious conversion.[182] Compared to religious practitioners who had never had a conversion experience, the converted group had significantly increased blood flow to the supplementary motor area (linked to the planning of motor acts), the right dorsolateral prefrontal cortex (linked to memory retrieval and monitoring of thought), and the right pre-cuneus (linked with visual working memory).

The evidence suggested a strong interaction between existing beliefs, memories of powerful previous experiences, and current cognitive activity. Sound like a familiar combination? Indeed, deeply committed football fans live and breathe the great moments of the past, some of which might have permanently affected their brain physiology.

To summarise, brain imaging studies show that intense meditation and prayer increases activity in the front part of the brain and decreases activity in the area of the brain that orients minds in space, encouraging a blurring of the normal sense of self.[183] The resulting brain activity can stimulate feelings of mystical unity, 'oneness', peace, and even the sensed presence of God or other invisible entities.[184]

Increased frontal activity is found not only during meditation, but also during any attention-focusing task.[185] In fact, it doesn't really matter what stimulus caused it.[186] Intense concentration on football, combined with a keen understanding of the sport's intrinsic 'grammar', may well

lead to symbolic expressions of meaning, the merging of self with the team or game, and perceptions of mystical-like insight. Such brain conditions and subsequent events could reinforce football as the manifestation of a deeper, more meaningful imperative. The lessons here demonstrate the importance of concentration on the game as well as an understanding of technical nuances.

FINDING THE FLOW

You don't have to look very far to find lyrical descriptions of football from hysterically excited or utterly depressed fans. Some of the most intense come from fans who have found themselves so deeply immersed in the football experience that they lost track of not only time, but also their very sense of self. These moments of transcendent enrapture have been described as "a small masterpiece of economy and joy ... A moment of pure joy ... and self-forgetfulness."[187] The quotation is indicative of what has become known as a flow state.[188]

From a psychological viewpoint, the conditions ripe for a flow state come about when there is a relative match between the skill of the participant and the challenge they are undertaking. In this sense, peak performance and peak experience are linked.[189] For example, one study found that sport provides flow experiences 44% of the time for venue-based spectators, whereas its remote observation via television or technology only yields a flow state 13% of the time.[190] The more that a fan can be drawn into football, the more likely that their engagement will lead to the penetrating absorption associated with flow states.

There seems to be a relationship between flow states and peak experiences.[191] The two inspire similar reported emotions and mental states; they might also be mutually inclusive in terms of brain activity as measured by brain waves – the electrical bustle of the brain.

Measuring brain waves provides a grainy but useful way to interpret mental states via sensors wired to electroencephalograms (EEGs), which record levels of electrical activity occurring in regions of the brain. Most commonly, brain activity is measured across four frequencies, from the fastest to the slowest (in hertz): beta, alpha, theta, and delta.[192] Beta waves are associated with awake and mentally alert conditions. Alpha waves are common during physical and mental relaxation, or during fantasising, daydreaming, and visualisation, the place between wakefulness and sleep. Theta waves are characteristic of early stages of sleep and meditative or trance-like states. Delta waves arise during deep but dreamless sleep. Although it is the brain wave correlate of what we colloquially call the unconscious mind, they can arise during certain kinds of altered states of awakened consciousness as well.

Some interesting inferences can be drawn from brain wave recordings of accomplished performers during what they have described as peak moments of mental awareness and creative inspiration – flow states. During these infrequent but intense moments of high performance, accomplished creative performers exhibit a brain wave pattern in which the four categories, from beta to delta, combine in a distinct configuration.[193]

Underpinning the unique pattern is an unusual synchronisation of both cerebral cortex and amygdala (limbic system) activation.[194] It just might be that the latter, as the brain's emotional generator, is responsible

for stimulating the former, as the brain's emotional interpreter. Of note, however, is the likelihood that information is being integrated between conscious and unconscious levels of brain functioning in an unusually smooth and coordinated manner. Certainly, it seems as though something deeply interesting happens in the brain when a person engages with something deeply interesting.

CONCLUSION – FOOTBALLING BRAINS

I mentioned earlier that studies have shown that the brain can be 're-wired' as a result of long-term meditation.[195] Moreover, the patterns of neural activation in highly experienced meditators are different to those of the general population. Further studies have revealed that meditators, and those who have practiced prayer regularly over a long period, can experience a form of addiction to the neurochemical and other neurological impacts of their activities.[196] Similarly, addiction to football may involve several levels of response, including the stimulation of neurochemicals that enhance feelings of pleasure and well-being, the regular engagement of flow states, and ultimately, the experience of intense spiritual moments characterised by a sense of mystical unity and overwhelming happiness.

I have proposed that football consumption may represent not merely a socio-culturally meaningful form of religion, but also a physiologically legitimate manifestation of the brain's capacity for spiritual experience. The evidence presented here justifies the speculative assertion that sufficient exposure to football might just lead to permanent changes to the way a brain operates. Football is religion, drug, and mystical experience all rolled into one. And it might just change your brain permanently.

09

CHAPTER 09.

— PRACTICE MAKES POTENT —
HOW RITUALS SHAPE THINKING

INTRODUCTION - THE RITUAL CONNECTION

If tap water can be converted into sacred water through religious ritual then perhaps a football match can undergo a similar ritualistic transformation.[197] In this chapter, I venture deeper into the importance of rituals in football and their impact on the brain. Anthropologists have learned that rituals—like those critical to religion—contain carefully choreographed procedures, a little like the physical equivalent of grammar in language. Procedural routine makes rituals more effective because actions and cognitive patterns become linked.[198] As a result, football rituals can transform common modes of thinking into meaningful experiences.

Spiritual experiences and peak football experiences share common feelings and brain conditions. Spiritual experiences, for example, are characterised by the same kinds of feelings as those reported by football fans, including periods of powerful affiliation with an identifiable group or with a more nebulous universal force, as well as moments of mystical flow and unison with the environment.[199] They can also be activated by repetitive ceremony involving music or sound, colour, odour, and light of the sort common in both spiritual traditions and football.

Since rituals can create the conditions wherein fans experience psychological flow states, this chapter examines the evidence highlighting the brain activity occurring during these periods. Flow states are similar to those reported during intense spiritual episodes. I consider the stimuli for intense spiritual and football experiences, as there are commonalities between the rituals that are known to facilitate and amplify altered states of consciousness during spiritual practice, and those rituals

associated with football fandom. While the first set of evidence works from spiritual experience to football experience, the second does the reverse.

Football fandom encompasses a whole range of activities that go beyond watching games, such as personal reflective thought, the consumption of merchandise, and a wide range of pre- and post-game rituals. For the purposes of this discussion, I will consider a spiritual experience to be one that evokes powerful feelings of wonder, awe, and engagement, accompanied by selflessness, timelessness, or unity with the environment. For example, as one researcher specialising in the neuroscience of religion put it, "During rare, spontaneous moments, experiences of very special quality and great import emerge from the depths of the human brain ... these fragile events inspired our major religions in ways that still shape our cultural development."[200] Here I'm suggesting that maybe they shape football experience too.

RITUALS AND BONDING

One of the reasons rituals work is because they provide the context for bonding. In fact, anthropologists report that small groups bond more successfully when forced to band together in adversity or under duress. The phenomenon has occurred throughout human history including during initiation rites, military training, and football fandom.

Football fans who have suffered more are also more strongly bonded. According to researchers, football fans can experience heightened 'identity fusion' wherein a tight group 'synergistically activate' their personal and group identities to the point where the two align into a single,

melded sense of oneness. Identity fusion can encourage a whole suite of football rituals, some of which might be considered at least a little offbeat. For example, writing in the *Aspen Times*, journalist Michael McLaughlin recorded the case of a Seattle mother and daughter who fabricate figurines out of Spam to represent the opposing team and proceed during the game to eat the heads off one player at a time.

Studies have also revealed some intriguing relationships between football identity fusion and fans' mental and physical responses. In one study undertaken during the 2018 FIFA World Cup, researchers measured football fans' cortisol concentrations.[201] Since cortisol is the body's main stress hormone and is correlated with personal experiences of anxiety, the study was able to demonstrate a connection between match outcomes and cortisol concentrations, in the process proving the intuitive reality that a team failure incurs an unwelcome personal impact on a fan.

Even more interesting was the discovery that fans who experienced the greatest stress responses were also the most closely bonded. Research has confirmed that the behavioural consequences of strong bonding can underpin and reinforce extreme social actions, both in sport with fan groups fighting,[202] as well as in other even more radical contexts like terrorism.[203] Bonding drives loyalty, the strongest of which is lifelong in duration and life-ending in potential, given the propensity for extreme sacrifices to a tribal group.[204]

Fan group allegiance signals escalate when fans move from home territory to contested venues, a process that galvanises in-group solidarity to face rival engagement.[205] It's a kind of compensation effect like the small dog syndrome; fans bark louder when they feel threatened.

Curiously, in addition to a propensity to fight more, football fanaticism correlates with fan perceptions of loyalty, authority, and purity (but not with fairness).[206]

Another revealing study shoved fans into an fMRI to scan their brains while being presented with winning and losing moments of loved, rival, and neutral teams.[207] It discovered that the 'tribal' love die-hard fans experience corresponds to activation in the brain's emotional relay, the amygdala, in addition to parts well-known to be associated with rewards. The observing neuroscientists concluded that fans experience a kind of non-romantic love for their chosen teams, and that it stimulated an aroused and motivated state deeply connected to feeling both good and emotionally connected. Such tribal love also boosts a fan's propensity to drop into a flow state when observing their team in action.

RITUALS WITHOUT CRITICAL INTERPRETATION

Repeated rituals are reproduced on 'autopilot'. Because they are automatic habits, they tend to skirt around any form of critical interpretation, which means that fans keep doing them without giving it much thought. Performing football-related rituals without conscious thought is important because it means that a fan will not stop to consider whether the ritual has any functional utility, or even if it makes sense logically.

Take for example the automatic habit of singing a club theme song every time the side emerges for the first time. Going a step further, English Premier League club West Ham United supporters not only sing the club anthem, 'Forever Blowing Bubbles' pre-match (and have done

so for almost 100 years), but also literally blow bubbles as well. In 1999, nearly 24,000 West Ham fans set a world record for the number of people simultaneously blowing bubbles. Fans do not ask themselves, 'Why am I singing?' every match. Rather, fans circumvent any externally imposed interpretations as well as any internal, critical introspection. The presence of either can undermine such habits and disrupt the constancy of the routine.

In the same way that a religious practitioner says a prayer before a meal, the football fan sings without hesitation. As a consequence, the practice embeds into the cognitive routine becoming engrained as a normal act even though to sing at other times—like prior to washing the dishes—might seem nonsensical. Explanations for the act remain 'in house'; within the exclusive club of practitioners. For example, singing the club song might be introduced to new, young club fans by parents as a way of showing support to the team and to signal allegiance and belonging to other fans.

Routinisation provides an ideal learning pathway for novice fans, delivering a stable product through a standardised formula where the attribution of meaning comes from insiders with authority. As a generalisation, the more idiosyncratic and obtuse the ritual, the more powerful it becomes as insiders accumulate a sense of specialness in the knowledge that only they know the real meaning of the performance. For example, fans of the US college football giant, the Iowa Hawkeyes, all wave to the occupants of the University of Iowa Stead Family Children's Hospital at the end of every home game first quarter as the hospital is visible from the stands.

Meanwhile, the all-green clad fans of Chinese Super League team Beijing Guoan, have acquired the label, 'Gangs of Beijing', built upon the unparalleled noise they create prior to every game. Similarly, Iceland's fans demonstrated their resonant 'Viking Thunder Clap' at Euro 2016, which culminated in a single but awe-inspiring simultaneous clap. Not only are fan rituals shared by supporters of the same team, but almost every die-hard fan practices their own eccentric version.

COGNITIVE RITUALS AND SYMBOLS

Fan-performed football rituals often employ symbols that serve to amplify the cognitive effects of the performance. Often, they incorporate iconic symbols like costumes, face paint, songs, salutes, and gestures that carry no intrinsic emotional or cognitive meaning because they are shaped by historical connections as well as their specific use in long-standing ceremonial actions. In fact, the meaning of abstract symbols used in football must be learned for each fan relative to their team.

During the performance of certain fan rituals, key symbols have been imbued with a cognitive schema as well as an emotional significance, thereby transforming them from abstract objects into sacred symbols. Fan activities associated with football fandom do not become special until they are made special by ritualised performance.

With rituals and symbols as exemplars, fandom can be understood as an expression of our evolved capacity for social cooperation, magnified through the infusion of emotionally charged symbology. It's worth noting that young fans are especially susceptible to the impact of symbols and rituals in combination. For example, adolescence presents a critical

period for creating life-long fans. The age involves a lengthy period of brain plasticity that provides a fertile habitat for new ideas, especially when reinforced with emotional beliefs delivered through physically enacted performances.[208]

Rather than for the spiritual benefits of the activities, religious rituals and taboos propagate because they signal commitment to a group, effectively precluding the uncommitted.[209] Taking one step further, what differentiates human from non-human rituals is the association between emotions and symbols.[210] This association is reinforced by conditioning that occurs during adolescence when neural plasticity is at its strongest. As sport marketers know, if you can convert someone into a football fan in their childhood, they can stay with a code or club for life.

No shortage of weird and wonderful rituals can be found in the world, both inside and outside of sport and football. Even in the scientific age there no fewer now than in times past. Although not all ritualistic activities are benign, most are pro-social because they tend to bring people together in a common objective under a shared identity. Of course, from there they can become more hostile as groups can use rituals to galvanise their enmity towards other groups.

A lot of rituals are wasteful, irrational, and potentially unhealthy. For example, it's common to see football fans performing coordinated actions and songs in the terraces wearing little but a club jersey despite winter temperatures. Other rituals involve hours of preparation such as from the banner makers in Australian football who create bespoke designs out of crepe and sticky tape for each game, only to have them destroyed as the team bursts through upon entrance to the field from the player tunnels.

The popular explanation for the incommensurate time and resource commitment is that fans participate in football rituals because they believe in the efficacy of the rituals, and the precepts and meanings they represent. While true, there is also a deeper cognitive explanation.

Football rituals serve to transmit specific football content like how to behave as well as to communicate identification, solidarity, commitment, and belonging to others. The very structure of ritualised football actions drives their transmission power. For example, many football rituals require exaggerated formality, unnecessary sequencing, rigid invariability, and relentless repetition.

Collectively, ritual characteristics are perfectly composed to capture attention, signal significance, elicit emotion, trigger memory, and shape association. In other words, rituals provide an ideal delivery vehicle for the ideal cognitive content. Messages get transmitted, some of which are encoded so that only insiders comprehend their importance, in turn reinforcing the social solidarity they experience. As a result, rituals express and affirm collective fan beliefs, harmonise their distribution and meaning, and bolster group stability. It's a football match made in heaven.

SIGNALLING

The performance of common rituals—and especially those that look a little mad from the outside—can also encourage stronger fan allegiances. In fact, when a fan performs an action that might be considered irrational or at least functionally questionable, they will likely enhance the trust they receive from the wider fan group. As it turns out, from a

cognitive perspective crazy rituals actually do have a functional purpose. It's just that the purpose doesn't have much to do with what a fan might think.

Completing an apparently arbitrary or weird ritual demonstrates authenticity because it demands that the fan make some kind of personal sacrifice to the greater good. Crazy rituals do not just exclude outsiders, they also preclude freeloaders who are less likely to participate in something weird if they don't believe in its symbolic or even literal importance.

Weird rituals help to enhance the ideological purity and intensity of a fan group, leading to greater solidarity and stronger collective beliefs. Furthermore, rituals bolster trust between strangers who are linked only through their common fandom, as the performance displays belonging and belief. Communities where social interaction or density of familial kinship is high do not need as many elaborate rituals to bolster trust. However, where group membership is more fluid, symbolic markers and unusual rituals help to provide an identity badge that acts as a signal of trustworthiness.

Research has revealed that groups employing fewer rituals possess lower levels of intra-group trust.[211] In a football environment, symbols like scarves and jerseys in team colours get added to rituals, in the process amplifying the signal of belonging through a shared and visibly displayed commitment. The combination within football rituals also creates conditions wherein psychological flow states have the greatest potential to emerge.

ATTENTION IN THE RITUAL

During football rituals fans demonstrate an apparently seamless ability to move attention between different stimuli and focal points without missing anything. Psychologists call this 'rapid attentional shifting', and it occurs during flow states, and correlates to feelings of elation and satisfaction. Moreover, the neurochemicals that facilitate rapid attentional shifting also drive cognitive efficiency and creativity.[212] What could be better? Feeling and performing great at the same time.

One of the key brain chemicals governing attention is the neurotransmitter dopamine. In crude terms, neurotransmitters assist the communications process between brain cells, or neurons. Dopamine is significant because it regulates the pleasant feelings that can accompany flow states, facilitates rapid focus, and helps exclude interfering stimuli.[213] Dopamine levels may even indicate the presence of flow states.[214] In fact, dopamine release increases during challenging cognitive tasks that demand strict focus.[215]

Some beliefs are so strong that they can reproduce the same effects on the brain as pharmacological drugs. For example, addicts receive a dopamine surge when they imagine receiving their preferred substance.[216] This might be unsurprising as dopamine is associated with the brain's reward centre. The lesson though, has to do with learned responses, and in particular the effect that beliefs have on neurochemical behaviour. Anticipation of social rewards might similarly affect neurochemical triggers.

Several strands converge at the following speculative conclusions about what occurs in the brain during flow experiences. First, as I

outlined in the previous chapter, there is likely to be symmetrical brain wave activity, suggesting the paradoxical presence of a partly passive and partly alert mind.

Second, there is activity in the limbic system that impacts the cerebral cortex where higher reasoning occurs; a kind of reciprocal back and forth between feeling and thinking until the two merge into one.

Third, the neurotransmitter dopamine spikes, adding some extra feel-good and focus-well. I would bet that these three elements rise in football fans during periods of concentrated engagement and may well lead to fleeting periods of euphoria.

STIMULATING FLOW

How are flow states stimulated for football fans? As I foreshadowed earlier, one explanation involves certain repetitive rituals of the kind often found in both spiritual practices and football fandom. These include the ritualistic use of mantra, song, light, sound, and movement. Studies show that repetitive activities of this nature can create the conditions ripe for flow states and peak experiences.[217] For example, the chants of European football fans, the rhythmic swaying of fellow fans, or the coordinated exposure of music and lights, will likely stimulate emotional (limbic) reactions.

If ritualised actions combine with strong cultural conditioning associating the activity with the sacred, then a flow experience might transpire. If sacred water is special because it has been transformed by religious ritual, is a beer at the football more special because of the ritual

associated with its consumption? Context and culture will be sovereign.

The combination of frequent and intense emotional engagement with football creates a link with its symbolic representations. For example, a child exposed to a rugby club on a weekly basis will experience a conditioning effect involving a connection to the club colours, song, and other symbols. Repetitive conditioning helps to explain why committed fans wear team merchandise, and even at the extremes, get tattoos associated with their clubs.

Music can also be used with great effect in football rituals.[218] Imagine for a moment that the belief systems accompanying football are 'technical equipment' that can be used to enhance flow. Technical equipment is found at the confluence of hyperbolising belief, ritualised behavioural patterns, encouraging rhythms, and brain wave synchronising music. In a way, football chants are just another kind of spiritual practice where little separates football from religion in terms of brain activity.

REMOTE FLOW

One more line of evidence suggests that football fans might be exposed to conditions leading to deeply intimate peak moments. These moments can be found in the way the brain operates during vicarious experiences, like those times when football fans experience the game *through* players, and sometimes via other fans, either personally or along another channel such as social media. For example, studies have investigated what's going on in someone's brain when they closely watch another person perform

a physical task, and then comparing it to what is going on in the brain for the one actually doing the task.[219]

Curiously, the mental activity of the observer mimics the mental activity of the actual performer. The same parts of the brain operate during imagery that are used during the actual performance of a motor task. This means that when football fans observe the physical skills being performed by players, they force their brains to go through the same routines as if they were themselves performing the activity. Of course, sport psychologists are well aware of this phenomenon as it forms the basis of mental rehearsal.

To a large extent, imagined and actual actions share the same brain structures and operations. In practical terms, the mere observation of a football game stimulates a fan's motor processes, tricking their brain into sympathetic activity. There might actually be some evidence after all that football fans are worth listening to when it comes to learning how to kick a ball. After all, their brains have learned something during the thousands of kicks they have observed. Strongly engaged football spectators may not be getting much physical exercise, but their brains can work overtime in sympathy with players' actions.[220]

The brain mechanism underlying sympathetic brains may have something to do with specific kinds of brain cells or neurons. The discovery of 'mirror neurons' in the ventral premotor cortex of monkeys turned cognitive neuroscience on its head, so to speak.[221]

Mirror neurons activate during specific motor activities where different clusters of neurons govern different activities. Although it appears that mirror neurons are responsible for motor activities, they also seem to have a unique characteristic from which their name is derived. A

mirror neuron not only fires when its owner performs an activity, but also when its owner observes someone else performing the same activity. For example, when a fan watches a football player kick a ball, their own football-kicking mirror neurons fire in sympathy.

Mirror neurons offer clues to several key questions about how and why certain mechanisms in the brain evolved. One conundrum is that the brain reached its present size (and by implication intellectual capacity) approximately 250,000 years ago, yet apparently did not confer the sophistication to develop language, art, clothing, well-designed dwellings, and religion until about 40,000 years ago. Enter mirror neurons.

The implication is that mirror neurons might have been a late but integral addition to the neural composition of the brain. Accordingly, the putative presence of mirror neurons leads to a theory explaining some of the most mysterious abilities of the mind. Primary amongst these are the ability to experience empathy, to learn by imitation, and perhaps most importantly, to develop and wield language. Mirror neurons might therefore facilitate understanding, cooperation, and overarching 'theory of other minds', allowing us to take greater advantage of social cooperation.

Needless to say, football fandom displays social cooperation in abundance. In support of the role of mirror neurons, studies even suggest that watchers experience different levels of engagement depending upon their personal expertise in the tasks being observed.[222] High levels of familiarity and proficiency in the tasks being witnessed seem to activate the viewer's brain more than for unskilled observers.

If you've played football you are more likely to experience higher levels of brain activation while watching football than someone who is

unskilled in the sport, irrespective of passion or interest. Mirror neuron response is likely to be greater for expert watchers than for novice fans. Also, sitting close to the action activates the brain more than watching from the cheap seats, and live viewing generates superior activation than screen viewing or replays.

There is no substitute for the live sensory cues that immerse a fan in the venue, although mirror neuron theory probably does lend some credibility to large screens, sharp pixilation, surround sound, and augmented reality. Fans can point to the mirror neuron evidence when justifying their over-the-top technology purchases. It's true that it's the next best thing to being there.

SYMPATHETIC MINDS

Research has also uncovered another interesting phenomenon relevant to football fandom. Mind sympathy may extend beyond motor actions to emotions as well.[223] For example, the observation of emotion in someone can lead to the activation of similar neural mechanisms in the observer. Thus, the observer is prompted to duplicate the emotional actions of their target. For example, a football fan can react directly to the emotional conditions of players, or other fans, helping to explain mass fan activity and possibly even mob behaviour. This in turn can engage the limbic system and focus attention on a singular target where, "The results are also reminiscent of the experience of sports fans mimicking the movements of their favored player in a forlorn attempt to help along."[224] Experiences of vicarious agency often seem to accompany

these sympathetic movements or 'body English' as we watch others performing actions.

Vicarious agency is directly linked to the stimulation of flow states as it provides another ritualised avenue for engagement, and by consequence, gives rise to the kind of neural conditions that encourage flow states. Focus is essential to both flow states and spiritual episodes. If a football player or team offers an engaging visual target, flow can rise from either visual transfixion, a sympathetic motor reaction to players' movements, or a combination of both.

When a fan observes the balanced athleticism of US soccer superstar Megan Rapinoe or a graceful turn from South African rugby speedster Sbu Nkosi, their brains will respond with a stronger sympathetic reaction. From a neurological perspective, watching attractive football engages the conditions needed for transformative experiences.

Although it might be drawing a long bow, one study even determined that sport pictures elicited similar brain responses to those stimulated while viewing erotic imagery, although not as strong.[225] Please note that I am not suggesting that football is a form of pornography, just a little bit of neural foreplay.

As an aside, research has demonstrated that empathising is positively correlated to religiosity.[226] The strongest difference between believers and non-believers is that sceptics score higher on scales measuring their 'mechanistic' cognition, meaning that they find interpreting the physical world easier than those with strong religious convictions. Further, sceptics tend to be more inclined towards analytical thinking, which is inversely related to religiosity. And, stronger fans may be more inclined

towards empathising with players, which might mean that they are also less inclined to think analytically.

You may recall that I have argued in earlier chapters that analysis and fandom are poor partners. In fact, deeply committed fans behave more like addicts than analysts.

RE-WIRING AND BRAND-STANDING

Psychologists have noted the commonalities between addictive consumption and peak experiences to the extent that consumption itself might be viewed as a quasi-religious ceremony. Certainly, there is no escaping football as a consumer product. Football has thoroughly appropriated marketing rhetoric and tactics, while sport marketers have sought to layer meaning over every form of mundane consumable from scarves to sausages in order to make associations between brands and fan identity.

In crude terms, if consumer culture has religious properties, then even Santa is sacred.[227] Going one step further, some products—football included—are sold as being equivalent to a form of deity.[228] As stretched as this might sound, the brain response to some forms of both consumption and religion show remarkable commonalities.

Neural imaging techniques have been used to observe the responses of subjects' brains during brand choice decision-making.[229] Studies reveal that the act of brand choice engages the brain in longer, more complex ways than just making simple differentiations. While perhaps not surprising, it has also been found that the brain responds better to

emotionally engaging advertising stimuli than the reason-engaging kind.[230]

It has been estimated that individuals store 10,000 brand names across the interconnected networks of their brains.[231] But brands are not encoded in a simple, linear way as thoughts are never separate from emotions. Accordingly, it is emotional coding that determines whether a person takes notice of stimuli related to a brand.

By the time the rational side of the brain has paused for analysis, the emotional side has long decided. Emotional reactions are mitigated by direct sensory impressions, as well as personal and cultural meaning.

There are further implications associated with how football consumption stimulates the brain conditions ripe for peak experiences. Despite the hopes of sport marketers, few fans undergo mystical episodes every time they buy a new jersey or even observe a magnificent play. Even seasoned retail therapists, who have been shown to receive a surge of endorphins (chemicals released by the body to relieve stress and pain in a similar way to opioids) every time they make a purchase, are unlikely to describe their experiences as spiritual without tongue in cheek.[232]

Only certain forms of football consumption are likely to consistently generate the brain activity that can potentially, albeit infrequently, lead to peak moments. Yet, some football-related activities are more likely to lead to peak experiences. These are characterised by ritualised, repetitive motor activity, the complementary use of music, light, sounds, or odours, and the support of powerful cultural messages that deify or glorify the sporting property.

CONCLUSION - EXPLAINING THE ADDICTION

Strong football fandom arises with the practice of elaborate rituals fostering group cohesion and creating personal bonds that participants are prepared to sacrifice, or even die for. Knowledge gaps—things we just don't know—can be in-filled by explanations created by a mind that is naturally disposed to attribute design and complexity to an agent of some kind. In some cases, the propensity presupposes the intervention of a supernatural agent, and other times it might be allocated to manipulating luck with a powerful ritual or even a lucky shirt. As a bottom line, fans don't worry too much about why or how football rituals work because their minds helpfully focus all the attention on the performance.

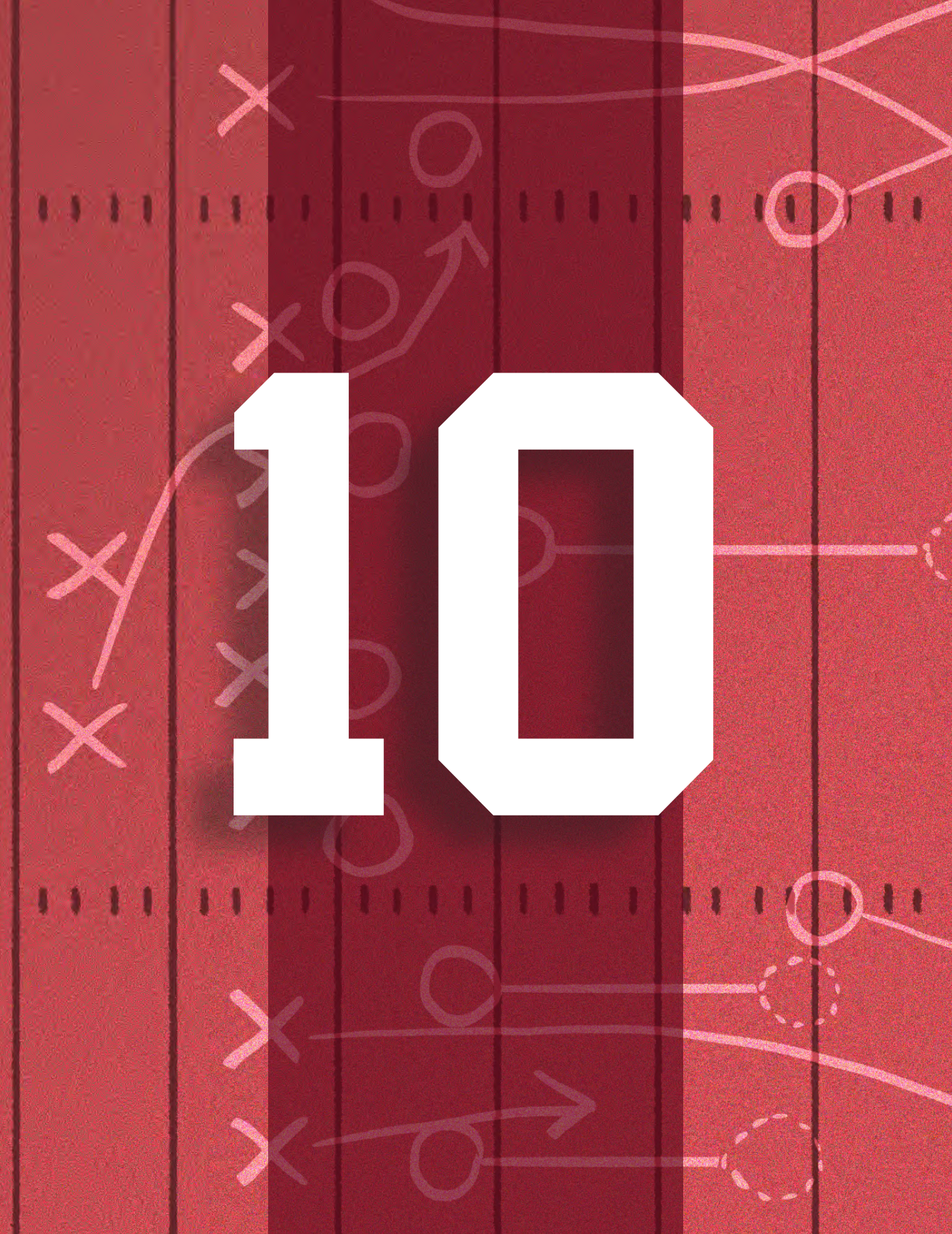
Excluding the complications added by consumable substances that act on the body biochemically (e.g., soft effects like chocolate and caffeine; hard effects like pharmaceutical drugs), football is amongst the most addictive of products. Further to its superficial entertainment value, the deeper tribal allegiances of football can be explained through brain activity and the coordinated activation of the limbic system, dopamine release, and altered patterns of neural firing.

Of course, there are probably few genuine 'spiritual' moments in football, just as there are few associated with religion. But when they occur, they will be imprinted for life as a consequence of the limbic structures of the brain responsible for emotional processing.

To illustrate, for a committed and conditioned fan of the Australian Football League club Geelong, Gary Ablett's goal from the boundary throw-in during the 1989 Grand Final might have been a rapturous

experience. It is not unreasonable to expect that this culminating moment was preceded by intense concentration, an emotional connection, elevated dopamine levels, and a diminished awareness of time and space.

Even mild experiences of flow are sufficient to yield high levels of fan loyalty and even mild addiction. Part of the reason is that over prolonged periods, football fandom might have a permanent effect on the brain.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CHAPTER 10.

— THE FINAL WHISTLE —
WHY THE MIND LOVES FOOTBALL

INTRODUCTION - FOOTBALL SEEDS

The growth of football is an understandable and logical consequence of the human mind's natural inclination to find meaning through beliefs. It provides comfort and consolation in an all-purpose, omniscient, loving/punishing, answer-for-anything, turn-key package. It's a religion as far as the brain is concerned, and like religions of the supernatural kind, football offers an interpretive belief system for making sense of life and the world.

In fact, football is a quintessential religion in all but its metaphysical content, providing beliefs, behaviours, myths, heroes, rules, rituals, and codes into one tribal bundle of faith-based commitments. If you push the comparison, you might even claim that for some of football's greatest heroes there is also the promise of legend, if not immortality, and the odd occasion when their prowess borders on the supernatural.

Football helps fans band together, suppresses fear and anxiety, and imparts a universal bonding belief system that allows them to not only feel part of a group, but also feel part of a shared future.

Of course, to be a beneficiary of a football tribe's unconditional allocation of belonging, there is a price to pay. Fans are subject to a suite of obligations, rituals, and behavioural expectations that enforce discipline and control within the fan community. Like in a church with rules of worship, fans have their own tacit and explicit rules of support. Strong fan groups show unity by virtue of their own sometimes subtle, sometimes crude enforcement of shared values and expectations.

From an evolutionary perspective, a cohesive group is stronger, more secure, and has a greater chance of survival from outside threats. It will

be healthier, better fed and sheltered, and will reproduce faster than scattered and isolated little families and clans. But cohesion needs glue; the kind that only comes from shared beliefs, where the most powerful look like blind faith, which in turn provide the architecture for common standards. As a consequence, deep and committed fans experience long-term cognitive distortions that normalise the overriding importance of the team over the individual.

A clear set of ethical and behavioural standards promotes more harmonious and cooperative relationships between fans. The structure and meaning attached to a fan's common belief system through rituals and communal quasi-religious ceremonies encourages interaction between members, and provides the foundation for stability and trust between them. This is why football can foster feelings of community togetherness as well as share knowledge, burdens, and responsibilities, while nurturing a group connection urging collective progress.

When a fan's faith-based belief system includes a guarantee of lifelong belonging, they consequently exhibit a greater fighting spirit, capacity for bravery, risk-taking, and selflessness. Compared to tribes without an impenetrable belief shield, the football warrior is fiercer and more daring.

In an unpredictable world, football beliefs provide a haven of certainty. If, in addition, a fan can experience a vicarious connection to a revered team and its players, their faith becomes a treasured and irreplaceable experience.

SUPERORDINATE SUPERHEROES

Superordinate beliefs take seed due to the fertile mechanisms in minds that evolved to host and defend ideas and concepts that make life easier. They help us stay alive, develop successful relationships for procreation and child-rearing, bolster belonging and group identification, generate opportunities for social status, respect, and power, and allocate personal meaning. Seeds grow into beliefs as they receive sustenance from social and cultural nutrients. This process of social hardwiring came about through a co-evolution of culture and brain, each responding to the other's pressures, in a kind of mutually reinforcing effect.

Although the notion of 'hardwiring' has some colloquial, or even metaphorical utility, it tends to understate the impact of cultural exposure. As usual, reality has a way of being a shade of grey rather than black or white, or in this case, blank or write. What looks like hardwiring, for example, may well be re-wiring, coming through the messy combination of direct and sympathetic learning. Here, the former provides new content, some of which the mind is well predisposed to latch on to, while the latter magnifies the inclinations and tendencies already present in the form of intuitive responses. For example, we can learn a new language, drawing heavily on the mind's pre-existing capacities for syntax and vocal mimicking. Or we might quickly become automatic in punching the air when the team scores. In both instances the brain acts like a cultural sponge, the 'organ of culture'.[233]

My analysis zeroed in on faith and beliefs from an inter-disciplinary perspective, but with cognition as the common intersection. This focus

arose from my goal to find a corridor to access thought and thinking about football beliefs where mind and culture collide.

Humans think, feel, and act in ways that no other animals can duplicate. We make music, draw maps, worship gods, and love football. Not only must we consider how faith and beliefs were canalised by a brain engineered to believe, and at times, believe without constraint, cultural rules and social institutions also present variables worthy of study. Of course, brain and culture affect each other, but the 'hows and whys' remain patchy and nascent. The interactive complexities between brain and culture can scarcely be overstated.

My key point is that we are not born with cultural programming, but rather an innate system finely attuned to acquiring it. During the learning process, cultural conditioning re-writes the mind's programming with upgrades and add-ons. By consequence, we not only change our minds sometimes, but also end up clinging to contradictory ideas simultaneously.

Neither the study of brain nor culture in isolation will deliver a coherent picture given the reciprocal, dynamic, and contextual nature of their interaction. Our 'embrained' culture emerged because it fell upon fertile mental soil, but then the effects of being exposed to cultural forces led to tangible neural modifications.[234] We want to believe in things, and those delivering personal and social benefits shot to the top of the list.

Football on the Brain took aim at why faith is pervasive in all football-loving minds. I argued that all fans, irrespective of education, background, or ideology, use unverifiable faith in football beliefs in order to enrich their lives. Scientific explanations for beliefs and faith have come a long way from vague assumptions about the need for meaning and

social order. Mind and culture interact to produce powerful concepts that trump rationality and evidence.

From a cognitive viewpoint, faithful football belief arrives through a set of cognitive adaptations that accompanied the selection process to solve other adaptive problems; a by-product of sophisticated pattern-matching brain activity that erroneously assigns higher agency to patterns in the white noise of life. Patterns that look ball-shaped, as it happens.

BELIEFS AS THE CURRENCY OF FOOTBALL FANDOM

As I have already noted, mind and culture interact to produce powerful concepts that can trump rationality and evidence. I used a cognitive interpretation of football, which views belief as a phenomenon anchored in the systems of the brain and mind, working within a cultural context. Like the majority of western scientists, I made no differentiation between the self and the brain; the brain constitutes the underlying substrate of who we 'truly' are.[235]

The brain is hardwired to facilitate social engagement by adapting to fluid groupings, patterns, and priorities. In short, my approach to understanding football fandom via fan thinking—a cognitive approach—attempts to help integrate the traditionally disparate perspectives of culture and of mind.

Social and cultural explanations for beliefs focus on practices and behaviours while cognitive and evolutionary explanations rely on the assumption that fandom comes naturally. At the same time, the neuroscientific evidence suggests that faith-related thought engages the same

brain structures as those enacting any strong beliefs, distributed through both emotional and rational centres. I have tried to bring these ways of thinking about football together in order to explain two perennial questions that constitute the focal point of this book.

Towards an answer to the first question of how football and its associated beliefs can become so significant, I explored the nature and effect of 'faith'. Based on my definition, faith comprises an unwavering confidence and certitude in the correctness of pivotal beliefs and their constituent concepts. More specifically, I referred to belief concepts and more expansive, overarching belief sets delivering faith as 'superordinate beliefs'. These beliefs represent a higher order of commitment, paradoxically so important that their interrogation is not necessary for compliance.

Superordinate beliefs trump rational analysis, evidence, reason, evaluation, and criticism. They hover over all other beliefs as superior in rank and class. In fact, many superordinate beliefs may be sui generis; in a class all of their own and incomparable with 'ordinary' beliefs. By implication, ordinary beliefs are subordinate.

'Faith' constitutes a commitment to superordinate beliefs meeting three characteristic conditions. First, faith-based (or 'faithful') beliefs feature unverifiable concepts that forestall rational interrogation and the impact of objective evidence. As a result, faith sidesteps the mind's system of higher reasoning, skirting past because they cannot be disconfirmed. Since faith-based beliefs escape impartial analysis for the believer, they also venture into the supernormal. That is, they extend concepts from the ordinary to the super-ordinary, and the normal to the super-normal. In addition, faith leverages the mind's intuitive pursuit of

causality, always leaping to inferences about effects, from the predator that might have caused the bush to rustle, to what elicits the approval of a fellow fan. In fact, our minds rush to find causes for all events and phenomena, even those for which any conclusion is unwarranted speculation. As a result, human history is jammed with chronically imaginative mythologies explaining lightning and thunder, victory on the battlefield, life and death itself, and of course, balls and goals.

Most cultures have applied the trump-card shortcut answer to the ultimate existential questions by inferring the presence of supernatural gods and other deities orchestrating our destinies by tinkering with the cosmic furniture. Superordinate beliefs utilise the same mental strategy. Faith makes constant causal interrogation unnecessary, efficiently delivering a suite of shortcut decisions to help us make choices when the options seem endless or confusing. In short, football fandom not only makes life easier by reducing uncertainty and indecision, but it also makes it better too by adding meaning and motive.

Second, faith-based beliefs feature counterintuitive concepts that work optimally on the mind's systems of semantic memory and reflective thinking. Not only are concepts infused with a degree of counterintuitive content more memorable, but they are also more resilient. As a result, faith aligns favourably with socio-cultural effects, including learning and methods of transmission. Football's fusion with myth, heroism, and hope ensure that its contents make for compelling stories that linger in the memory and transmit like a virus.

Third, faith-based beliefs leverage the mind's emotional responses, including its inferential systems governing intuitive thought, and in particular, how they encourage certain kinds of thinking and thoughts.

Superordinate beliefs overlay cognitive interpretations upon emotional experiences, while equally, thoughts about concepts attract powerful emotional anchors. Thinking about football means feeling about football too.

THE GODS OF FOOTBALL

My answer to the first question of football's importance to so many fans is therefore that superordinate faith creates football gods. By 'gods' I do not of course mean supernatural deities of the kind described in religious doctrine. Religious faith obviously invokes religious gods, but my broader use of the term includes any superordinate commitment, irrespective of whether it's secular or supernatural. Faith-based beliefs drive cognitive, emotional, and behavioural commitments that conquer all others. They form our 'gods' by canalising the ideas we live and die for into a handful of inviolate beliefs, upon which we rely for personal meaning, psychological sustenance, and social advantage.

Superordinate football beliefs arrive as 'accidents' because we do not tend to select them, or their consequences, on the basis of any kind of conscious judgement. After all, gods are to be obeyed. Superordinate—faith-based beliefs—arrive with the mind's natural inclinations, which promote modes of thought delivering personal and social advantages. Natural selection supplied the mind, and the mind elevated football to godhood in order to help fans get by smoothly in a context where social cooperation remains critical to personal success. This is why I consider believing in football to be easy and natural, although not hardwired and automatic.

Concerning the second question, that of the ubiquity and persistence of faith-based football and its beliefs, I claimed that minds evolved with an impulsion to create, transmit, and defend faith-based beliefs. Beliefs in general offer survival benefits because they yield personal and social benefits. The most powerful beliefs of all are associated with faith—a resolute conviction of rightness whether religious or otherwise—and deployed through concepts that cannot be factually verified. These are our football gods; the side effect of minds that need to believe.

We cling to faith-based beliefs because they work their way into the mind's natural thoughts. Football beliefs are really just social shortcuts that help fans plot a course through the traps, complications, and contradictions of making decisions in a world that demands more social acuity than just predator avoidance and locating the next edible berry.

Specifically, I maintained that football faith arrives through a set of cognitive adaptations that accompanied the selection process to solve other adaptive problems; a side-effect of a pattern-matching brain that can't help itself but find white rabbits—or perhaps balls—in fluffy clouds. As a result, faith resides at the heart of football fanaticism where hope, loyalty, and belonging lurk. In consequence of the mind's predisposition to covet superordinate beliefs, and in concert with the socio-cultural pressures to display, share, and teach them, faith becomes pervasive for its practical benefits.

At the same time, the intractability of superordinate beliefs means that all fans, irrespective of education, background, or ideology, use unverifiable faith in certain football beliefs in order to smooth their personal uncertainties as well as improve their social mobility.

I proposed that we all 'have faith' in some superordinate beliefs as a natural consequence of owning a mind. If faith in superordinate beliefs stretches beyond religious and spiritual commitments, then atheism in the sense of an absence of faith, does not exist. Of course, atheism in the religious context does exist, as does football disinterest. Yet, every mind relies upon faith in some superordinate beliefs where the specific content is unique to each mind. This is why, of course, football comes in so many iterations depending upon cultural context.

Football persists because the mind is primed for certain forms of belief, of which football is prototypical. The mind seeks to grasp and fiercely defend concepts that make sense personally and socially, despite often defying objective reason. Belief is the currency of thought, and faith in football players, teams, and clubs offers a powerful return on investment. In addition, football fandom concentrates the mind's capacity to hold ideas that galvanise groups and cultivate belonging. Believing when it is advantageous to do so comes naturally because it leads to both personal and social opportunities. *Football is on the brain because believing is in the brain.*

CONCLUSION – BELIEFS AS THE MIND'S LOCKER ROOM

On the surface it might seem that deep sport fandom doesn't make sense strictly on the basis of a cost to benefit calculation. After all, committed fans make many costly sacrifices in support of their team; an investment rewarded in success and glory for only a small number of fans. However, a closer analysis reveals that the investment versus return profile that most fans experience goes well beyond basking in reflected glory. In

fact, the ironic secret of strict fan groups is that they offer value for those willing to pay the price of entry. Although expensive to belong to, they offer unique social returns that cannot be duplicated without real sacrifice. It is this very sacrifice that confers committed fans with a powerful sense of purpose, meaning, belonging, and satisfaction because the cost discourages freeloaders, leaving the remaining fans to bond through a common acknowledgement of worthiness and authenticity.

There are several ways in which football fanaticism delivers rewards greater than a crisp and superficial cost to benefit formula might reveal. All of them are managed through beliefs.

First, fans use their football beliefs to manage uncertainty and to sidestep the need to puzzle through a confronting and confusing world. It's less effort to avoid the need for demanding explanations to life's weird natural phenomena and random personal events. It is much easier to find meaning in something tangible and understandable. As it happens, humans tend to land on the simplest answers possible, often via heuristics supported by inherent cognitive biases.

As I have argued throughout this book, prosaic answers to intractable questions streamline decision-making at the cost of accuracy. Complex answers need time, so they add significant labour to decisions, adding a heavy cognitive burden in the process. Having something strong to believe in cuts through all the uncertainty. Football fandom can therefore provide the kind of decisive meaning that melts away some of the obdurate contradictions, confounding choices, competing priorities, and bleak emptiness of modern human life.

Building on fandom's role in the suppression of uncertainty, it can also play an instrumental role in attenuating the more pervasive but less

tangible anxieties that skulk in human consciousness, and which are connected to existential concerns like grief, despair, and mortality. To some extent we are all plagued with such deeper worries but generally tend to bury rather than resolve them.

I am not making any claims that football fandom can sort out the human condition or substitute for religion, but it can reduce anxiety. Fans belonging to groups feel more connected and less alone in the world. Fans turn to each other for support that goes well beyond anything related to football. And, although not as psychologically laudable, fans can use their football focus to avoid questioning some uncomfortable realities, as well as distract themselves from the unpleasant, unpalatable, and unattractive.

Fandom brings reassurance, softening the impact of life's persistent disappointments. To an extent, even fear can be quashed with an appropriate belief. It is a mental program that is linked directly to perceptual mechanisms responsible for focusing the mind on survival. Deep fandom shifts the focus to something more appetising.

Perhaps more than any other benefit, beliefs patch over uncertainty and doubt with a suppressive bandage fashioned from hope. Because uncertainty leads to worse psychological states like fear and despair, belief in something better over the horizon can distract from a sobering and uncomfortable present reality. For football fans, hope based on belief creates the illusion of predictability, which acts as a cognitive wedge propping open the door to psychological security.

My 'cognitive wedge' theory of beliefs helps to explain why parochial football fandom can yield more far-reaching consequences. Strident belief in a team drives the wedge into doubt, in the process channelling

a sliver of hope like the sun through the cracked door of a darkened room. From there a fan can peer into the brightness and the reassuring glow of its warmth. Where there's light there's certainty. Even for the fan whose broader life is burdened with fearsome challenges, football's weekly illumination can offer one predictable, comforting, and uplifting flicker of confidence in a better future. Believing is like breathing;[236] so engrained that it's almost always unconscious, and so vital that it's a source of life-giving oxygen.

Another personal reward associated with fandom is more humdrum, coming in the form of structure and organisation to social life. Because a person's quality of life is influenced by their place in the social sphere, fandom can offer even the most socially marginalised person a role with value and purpose. Not only that, since the value of one fan to another is determined by their commitment and passion, a feverish fan can find social acceptance quite readily, avoiding some of the usual traps of social discrimination.

That does not mean that football fan communities do not establish social hierarchies infused with discrimination, but it is helpful that membership revolves around a transparent social order that can be achieved by any self-identifying individual so long as they exemplify certain values and display the right signals of commitment. Fandom, like religion and class, establishes and perpetuates social order, a force to support a particular view of conduct, and a social glue encouraging bonding and cooperation.

The brain's cognitive mechanisms are naturally predisposed to believe in certain things more effortlessly than others. Over time, humans develop cultural systems like religion and sport that gain

leverage from these predispositions. As a combination, belief and cultural content interact symbiotically, reinforcing each other, in the process conferring significant personal and social benefits.

Deep football fandom therefore serves two major functions: as a system of self-maintenance, and as a system of self-transcendence.

Superordinate football beliefs have an instrumental value; they are useful. Being useful in the smart phone world is more likely to be about dealing with gaslighting than avoiding a predator. Survival is not what it used to be, and assuming a football identity means wearing belief-plated armour to shield against all the dangers the world can impose. Some superordinate beliefs like those associated with football trade precision for protection and negative realities for positive illusions.

Although fan minds are the stewards of football beliefs, individual cognition also contributes to social dynamics, especially through collective group behaviours.[237] As I have tried to demonstrate throughout this book, marrying a cognitive and social perspective can help to reveal how extreme fanaticism can come about.

As individuals affiliate with a fan group, they simultaneously loosen their connection to other groups. Gradually, fans reinforce their identification, and in some cases of extreme fanaticism, establish kinship-like bonds drawing them more closely to group conformity and a sense of collective identification. Social outgroups fade in importance as a fan blurs their personal distinctiveness with the group's identity.

With a diminished input from outgroups, a fan's beliefs, opinions, and ideas are unchallenged from external competition, their personal narratives blended or even subsumed by a master narrative held common to members of the fan group. The presence of counterintuitive and

counterfactual content and ideas within a fan group's master narrative can add to the bonding effect because ingroup members must continually rehearse and defend this content from outside criticism.

In addition, because the content will not be accepted by a majority of people, ingroup fan members share ownership of a unique narrative, in turn fortifying the bonding effect. As a result, the fan group coalesces both psychologically and socially over a shared fight and common enemies; the former drives ingroup altruism and latter fuels outgroup rancour.

In short, the strongest groups bond together then fight others. Groups with the highest proportion of cooperation naturally work together better. From an evolutionary perspective, group cooperation enhances survival, which in turn leads to greater reproduction and group longevity.

Further, groups tend to bond better when competition with other groups is intense, leading to the paradoxical conclusion that conflict between groups helps each group bond together and prosper.[238] With bonding comes tribal belonging; a sense that others in the group are similar, or 'like me'. Studies show that groups are helpful or hurtful towards others based on this kind of tribal, perceived similarity.[239] As exemplified in football, fans sharing the same affiliation exercise a high tolerance towards their fellow fans, leading to an immediate affinity and comradeship based on the perception of shared identification.[240]

To summarise, in-group solidarity plus out-group hostility leads to stronger fan beliefs[241] where the difference between 'us' and 'them' gets stretched.[242] In the process of forming tribal allegiance and affiliation, fans' personal life narratives drift toward alignment with a 'master' narrative common to the group. As social psychologists have found, group

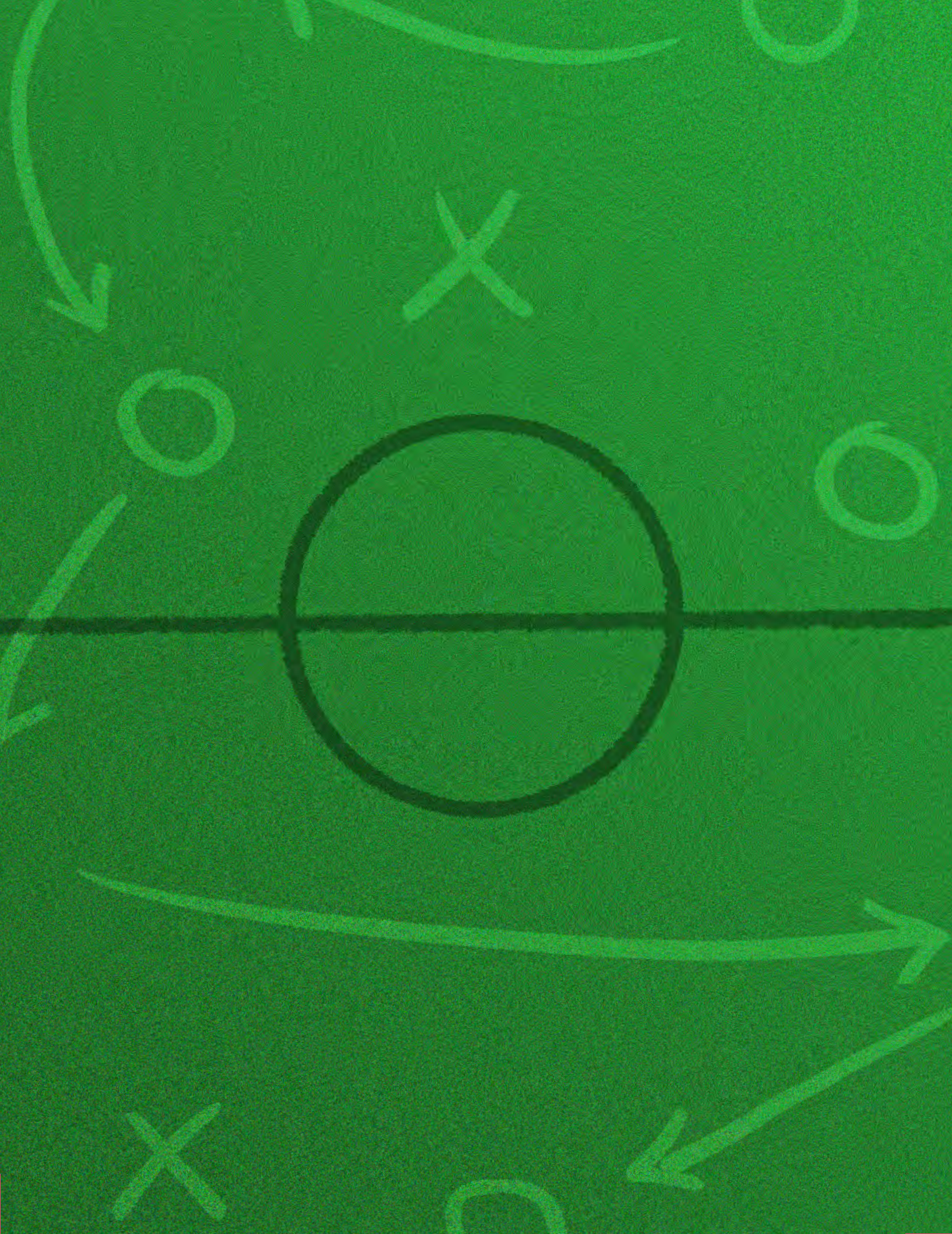
master narratives can mingle with personal ones reorienting them in alignment with the common voice.[243]

As fans, our most exercised beliefs are asymmetrical, more useful than accurate. It turns out that whether a belief is true is its least important characteristic. Although on the surface more accurate beliefs should be better than less accurate ones, football beliefs play a far more complex role in our cognitive careers than just homing in on the truth.

If we're honest about it, deep down there's a powerful urge to believe that our lives are part of some grand cosmic script and that our thoughts and actions have meaning in the universe's epic tale. To think otherwise invites a dreadful existential despair for many. Religion offers one avenue for a decent night of sleep, but there are secular options too.

A fleeting corporeal existence it might be, so we had better make the most of it and impress upon this world our watermark in the little time available before we vanish forever. In the midst of this desperate, hardwired impulsion to be important—to have purpose—we naturally turn to performances that demonstrate our value, and which provide culturally rewarding signals to attenuate that buried awareness that life has no meaning and that nothing we ever do during our 2.5 billion heartbeats accounts for anything on the cosmic ledger. What remains are those things in life that contrive the strongest beliefs: tribe, family, identity, ideology, love, career, and of course, sport.

While football beliefs provide entertainment, they also tint our self-concepts, inflame our passions, commandeer our allegiances, twist our opinions, feed our addictions, contrive our meaning, starve our objectivity, and drown our sorrows. Which is why we have football on the brain.



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