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THE HIDDEN INFLUENCES BEHIND
HOW SPORTS ARE PLAYED
AND GAMES ARE WON

TOBIAS J. MOSKOWITZ *and* L. JON WERTHEIM

SCORECASTING

*The Hidden Influences
Behind How Sports Are Played
and Games Are Won*

Tobias J. Moskowitz



and L. Jon Wertheim



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SCORECASTING

To our wives, to our kids . . . and to our parents for driving us
between West Lafayette and Bloomington all those years

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INTRODUCTION

It was the summer of 1984 in Ortonville, Michigan, a lakeside blip on the map somewhere between Detroit and Flint. The second session of Camp Young Judaea—province to a few hundred kids from the American heartland—was under way, and Bunk Seven fielded a formidable softball team.

There was one problem. In keeping with the camp's themes of community and democracy and egalitarianism and the like, the rules dictated that every member of the bunk was required to bat and play the field. Although eight members of Bunk Seven ranged from capable to exceptional softball players, the ninth was, in a word, tragic. One poor kid from Iowa whose gangly body resembled a map of Chile—we'll call him Ari, thus sparing anyone potential embarrassment—was a thoroughly pleasant bunkmate, armed with a vast repertoire of dirty jokes and a cache of contraband candy. Unfortunately, Ari was sensationally nonathletic. Forget catching a ball. Asking him to drink his "bug juice" from a straw would mean confronting the outer limits of his physical coordination. Robert Redford was starring in *The Natural* that summer, and here, on another baseball diamond, was the Unnatural.

Not surprisingly, when Bunk Seven took the field, Ari was

dispatched to the hinterlands of right field, on the fringes of the volleyball court, the position where, the conventional thinking went, he was least likely to interface with a batted ball. The games took on a familiar rhythm. Bunk Seven would seize an early lead. Eventually, Ari would come to the plate. He would stand awkwardly, grip the bat improperly, and hit nothing but air molecules with three swings. Glimpsing Ari's ineptitude, the opposing team would quickly deduce that he was the weak link. When it was their turn to bat, they would direct every ball to right field. Without fail, balls hit to that area would land over, under, or next to Ari—anywhere but in the webbing of his borrowed glove. Eventually he'd gather the ball and, with all those ungovernable limbs going in opposite directions, make a directionless toss. The other team would score many runs. Bunk Seven would lose.

A few weeks into the summer, the Bunk Seven brain trust seized on an idea: If Ari played catcher instead of right field, he might be less of a liability. On its face, the plan was counterintuitive. With Ari behind home plate, his clumsiness would be on full display, starting with the first pitch, and he'd figure prominently in the game, touching the ball on almost every play.

But there was no base stealing allowed, so Ari's woeful throwing wasn't a factor. He might drop the odd pop-up, but at least the ball would be in foul territory and the batter wouldn't advance around the bases the way he did when Ari dropped balls in right field. With the eight capable players in the field, Bunk Seven didn't let too many runners reach base. On the rare occasions when a runner might try to score, there was usually sufficient time for the pitcher or first baseman to cover the plate, gently relieving Ari of his duties—something that couldn't be done as easily on a ball batted to right field.

There was a more subtle, unforeseen benefit as well. On pitches that weren't hit, it took Ari an unholy amount of time to gather the ball and throw it back to the pitcher. This slowed the game's pace considerably. The pre-bar-mitzvah-aged attention span being what it is, the opposing team began swinging at bad pitches, if

only to bypass the agony of waiting for Ari to retrieve the ball. And Bunk Seven's pitcher started tossing worse pitches as a result.

Ari never perfected the fine art of hitting, and eventually he ran out of contraband Skittles. But once he was positioned behind home plate, Bunk Seven didn't lose another softball game the rest of the summer.



For two members of Bunk Seven—a pair of sports-crazed 12-year-olds from Indiana, one named Moskowitz and the other Wertheim—this was instructive. The textbook strategy was to conceal your least competent player in right field and then hope to hell no balls were hit his way. But says who? By challenging the prevailing wisdom and experimenting with an alternative, we were able to improve the team and win more games.

We've been friends ever since, bound in no small part by a mutual love of sports. Now, a quarter century later—with one of us a University of Chicago finance professor and the other a writer at *Sports Illustrated*—we're trying to confront conventional sports wisdom again. The concepts might be slightly more advanced and the underlying analysis more complex, but in the forthcoming pages of *Scorecasting*, we're essentially replicating what we did on the camp softball field. Is it really preferable to punt on fourth down rather than go for it? To keep feeding the teammate with the hot hand? To try to achieve the highest available spot in the draft? Is there an *I* in *team*? Does defense truly win championships?

As for the sports truisms we accept as articles of faith, what's driving them? We *know*, for instance, that home teams in sports—in all sports, at any level, at any time in history—win the majority of the games. But is it simply because of rabid crowd support? Or is something else going on? As lifelong Cubs fans, we know all too well that without putting too fine a point on it, our team sucks. But is it simply because the Cubs are unlucky, somehow cursed by the baseball deities and/or an aggrieved goat? Or is there a more rational explanation?

Even though sports are treated as a diversion and ignored by highbrow types, they are imbued with tremendous power to explain human behavior more generally. The notion that “sports are a metaphor for life” has hardened into a cliché. We try to “be like Mike,” to “go for the gold,” to “just do it,” to “cross the goal line,” to “hit the home run.”

The inverse is true, too, though. Life, one might say, is a microcosm for sports. Athletes and coaches may perform superhuman feats, but they’re subject to standard rules of human behavior and economics just like the rest of us. We’ll contend that an NFL coach’s decision to punt on fourth down is not unlike a mutual fund manager’s decision to buy or sell a stock or your decision to order meatloaf rather than the special of the day off a diner menu. We’ll try to demonstrate that Tiger Woods assesses his putts the same way effective dieters persuade themselves to lose weight—and makes the same golfing mistakes you and I do. We’ll explain how referees’ decision-making resembles parents deciding whether to vaccinate their kids and why this means that officials don’t always follow the rule book. We’ll find out how we, as fans, view our favorite teams much the same way we look at our retirement portfolios, suffering from the same cognitive biases. As in life, much of what goes on in sports can be explained by incentives, fears, and a desire for approval. You just have to know where to look . . . and it helps if you have data to prove it.

Many of the issues we explore might seem unrelated and, in many cases, reach far beyond sports, but they are all held together by a common thread of insight that remains hidden from our immediate view. Exploring the hidden side of sports reveals the following:

- *That which is recognizable or apparent is often given too much credit, whereas the real answer often lies concealed.*
- *Incentives are powerful motivators and predictors of how athletes, coaches, owners, and fans behave—sometimes with undesirable consequences.*

- Human biases and behavior *play a pivotal role in almost every aspect of life, and sports are no exception.*
- *The role of luck is underappreciated and often misunderstood.*

These themes are present in *every* sport. The hidden influences in the National Football League are equally present in the National Basketball Association, or Major League Baseball, or soccer worldwide. The presence of these factors across many sports highlights how powerful and influential their effects are.

We're expecting that many of the statements and claims we'll make in the following chapters will be debated and challenged. If so, we have done our job. The goal of *Scorecasting* is not to tell you *what* to think about sports but rather *how* to think about sports a little differently. Ambitiously, we hope this book will be the equivalent of a 60-inch LCD, enabling you to see the next game a little more clearly than you might have before.

We may even settle a few bar fights. With any luck, we'll start a few, too.

WHISTLE SWALLOWING

Why fans and leagues
want officials to miss calls

If you don't have at least *some* sympathy for sports officials, consult your cardiologist immediately. It's not just that refs, umps, and linesmen take heaps of abuse. It's the myths and misconceptions. Fans are rarely so deluded as to suggest that they could match the throwing arm of Peyton Manning or defend Kobe Bryant or return Roger Federer's serve, but somehow every fan with a ticket or a flat-screen television is convinced he could call a game as well as the schmo (or worse) wearing the zebra-striped shirt.

This ignores the reality that officials are accurate—uncannily so—in their calls. It ignores the reality that much like the best athletes, they've devoted years of training to their craft, developed a vast range of skills and experiences, and made it through a seemingly endless winnowing process to get to the highest level. It also ignores the reality that most referees aren't lucky sports fans who were handed a whistle; they tend to be driven, and smart, and successful in their other careers as well.

Consider, for instance, Mike Carey. The son of a San Diego doctor, Carey was a college football player of some distinction until his senior year, when he injured his foot in a game. Any ambitions of playing in the NFL were shot, but that was okay. He

graduated with a degree in biology from Santa Clara University and, an incurable tinkerer, founded a company, Seirus Innovation, that manufactures skiing and snowboarding accessories. Carey even owns a number of patents, including Cat Tracks, a device that slips over a ski boot to increase traction.

In his first year out of college, though, Carey realized that he had a knack for overseeing football games. Part of it was an ability to make the right call, but he also had a referee's intuition, a sixth sense for the rhythm and timing of a game. Plus, he cut a naturally authoritative figure. Just as a pro football player would, he showed devotion to the craft, working his way up from local Pop Warner games to high school to Division I college games to the NFL, where his older brother, Don, was already working as a back judge. Carey reached the pinnacle of his officiating career when he was selected as referee for Super Bowl XLII, the first African-American referee assigned to work the biggest event on the American sports calendar. (Don Carey worked as a back judge for Super Bowl XXXVII.)

Played on February 3, 2008, Super Bowl XLII was a football game that doubled as a four-quarter passion play. Heavily favored and undefeated on the season, the New England Patriots clung to a 14–10 lead over the New York Giants late in the fourth quarter. A defensive stop and the Patriots would become the first NFL team since the 1972 Miami Dolphins to go through an entire season undefeated—and the first team to go 19–0.

As the Giants executed their final drive, with barely more than a minute remaining, they were consigned to third down and five from their own 44-yard line. Eli Manning, the Giants' quarterback, took the snap and scrambled and slalomed in the face of a fierce Patriots pass rush, as if inventing a new dance step. He ducked, jived, spun, and barely escaped the clutches of New England's defensive line, displaying the footwork of Arthur Murray and the cool of Arthur Fonzarelli.

Finally, in one fluid motion, Manning adjusted, planted a foot, squared himself, and slung the ball to the middle of the field. His

target was David Tyree. It was surprising to many that Tyree was even on the field. Usually a special teams player, he had caught only four passes all season and dropped a half dozen balls during the Friday practice before the game. (“Forget about it,” Manning had said to him consolingly. “You’re a gamer.”) Compounding matters, Tyree was defended by Rodney Harrison, New England’s superb All-Pro strong safety.

As Manning scrambled, Tyree, who had run a post pattern, stopped, and then loitered in the middle of the field, realizing that his quarterback was still looking for an open receiver. As the ball approached, Tyree jumped, reaching back until he was nearly parallel to the field. With one hand, he snatched the ball and pinned it against his helmet. Somehow, he held on to it for a 32-yard gain. Instead of a sack and a fourth down, Tyree and Manning had combined for an impossible “Velcro catch” that put the Giants on the Patriots’ 24-yard line. Tyree would never catch another pass in the NFL, but it was a hell of a curtain call.

Four plays later, Manning would throw a short touchdown pass to Plaxico Burress and the Giants would pull off one of the great sports upsets, winning Super Bowl XLII, 17–14. It was “the Tyree pass” that everyone remembers. No less than Steve Sabol, the president of NFL Films and the sport’s preeminent historian, called it “the greatest play in Super Bowl history.”

The play was extraordinary, no doubt about it, but the officiating on it was quite ordinary. That is, the men in the striped uniforms and white caps did what they usually do at a crucial juncture: They declined to make what, to some, seemed like an obvious call. Spark up YouTube and watch “the Tyree play” again, paying close attention to what happens in the backfield. Before Manning makes his great escape, he is all but bear-hugged by a cluster of Patriots defenders—Richard Seymour and Adalius Thomas in particular—who had grasped fistfuls of the right side of his number 10 jersey. Manning’s progress appeared to be stopped. Quarterbacks in far less peril have been determined to be “in the grasp,” a determination made to protect quarterbacks that awards

the defense with a sack when players grab—as opposed to actually tackle—the quarterback.

To that point, Mike Carey was having the game of his life. Everything had broken right. He had worked the Patriots-Giants game in the final week of the regular season (several weeks earlier), and so he had an especially well-honed sense for the two teams. “Just like athletes and teams, we were in the zone that night,” he says, “both individually and as a crew.”

More than two years later, Carey recalls the Tyree play vividly. He remembers being surprised that Manning hadn’t used a hard count in an attempt to draw New England offside—that’s how locked into the game he was. When the ball was snapped, Carey started on the left side of the field but then backpedaled and found an unobstructed view behind Manning. A few feet away from the play, alert and well positioned as usual, eyes lasering on the players, Carey appeared poised to declare that Manning was sacked. And then . . . nothing. It was a judgment call, and Carey’s judgment was not to judge.

“Half a second longer and I would’ve had to [call him in the grasp],” says Carey. “If I stayed in my original position, I would have whistled it. Fortunately, I was mobile enough to see that he wasn’t completely in the grasp. Yeah, I had a sense of ‘Oh boy, I hope I made the right call.’ And I think I did. . . . I’m glad I didn’t blow it dead. I’d make the same call again, whether it was the last [drive] of the Super Bowl or the first play of the preseason.”

Others aren’t so sure. Reconsidering the play a year later, Tony Dungy, the former Indianapolis Colts coach and now an NBC commentator, remarked: “It should’ve been a sack. And, I’d never noticed this before, but if you watch Mike Carey, he almost blows the whistle. . . . With the game on the line, Mike gives the QB a chance to make a play in a Super Bowl. . . . I think in a regular season game he probably makes the call.”* In other words, at

* It bears mention that Dungy made these remarks on an NBC broadcast while talking to his colleague Rodney Harrison, the defensive back who was covering Tyree on the play.