

The Tential Theory of Sporting Prowess

Abstract

The results of sport would not interest us if either they were necessitated or they were a matter of pure chance. And if either case were true, the playing of sport would seem to make no sense either. This poses a dilemma. But there is something between these two options, namely the dispositional modality. Sporting prowess can be understood as a disposition towards victory and sporting liabilities a disposition towards defeat. The sporting contest then pits these net prowesses against each other. The stronger will tend to beat the weaker but no more than tend. This makes sense of the sporting contest in which the weaker knows they still can win. The stronger team can lose though they don't tend to do so. The dilemma is thus escaped.

Why watch? Why play?

If we believed the outcome of a sporting contest was a *fait accompli*, it would have virtually no interest to us. Much of the excitement of watching sport comes from the knowledge that the result is in doubt, open, and up for grabs. If one knew the game was fixed, for instance, it would thereby lose all sporting interest for us, even if there were other non-sporting interests. This suggests that what truly interests us about sport is the idea that the outcomes are not a matter of necessity or determined. If we thought they were, something of the essence of sport would be lost. Similarly, one might watch a replay of a sporting event knowing already the outcome and while one might have a good reason to do so, and find some aspects of it useful or captivating, such interest cannot lie in the excitement one has in knowing the result to be undecided.

We do not want sporting outcomes to be necessary, it seems. Yet the alternative looks unattractive too. Suppose winning and losing in sport were really matters of pure chance, such that they might as well be determined on the toss of a coin. That would seem to be no better, if not worse. Coin tossing would not make for good spectator sport, nor do other games of pure chance such as roulette, as Kretchmar says (2012, 115). One might have an interest in roulette if one has placed a bet or has an interest in the one who placed the bet. But this is not a sporting interest, it should be said. There is nothing of sporting interest in pure chance, if the outcome is random. Why would we watch athletes toil and strive if that toiling and striving had no influence on the outcome? What would be the relevance of such actions? And what would be the interest in the sport result itself if it were a matter of pure chance? We might as well just enjoy the toiling and striving and pay no heed at all to the result, which would seem an irrelevance. Our interest in sport cannot, it seems, be premised on pure indeterminism. The athletes' actions must have some bearing on the outcomes.

This presents us with something of a problem when it comes to understanding the basis of sport. It would be of no interest to us if the outcome were necessitated but also no interest to us if the

outcome were a matter of nothing but chance. And this dilemma concerns not just our interests in watching sport but also it concerns those who play sport.

Suppose, for instance, that in football, the team that was higher in the league ladder always beat a team that was lower. The lower-ranked team literally has no chance, under this supposition. But what then is the point of them turning up? And even if they do turn up, what point is there in them trying? Similarly for the stronger team: if they know they will win, come what may, why should they take the contest seriously? Now there are indeed some individuals and teams in sport that do start to believe they are bound to win, but what is interesting about sport is that through complacency, such over-confidence often does result in a surprise defeat. Without that possibility, sport would seem to have no meaning or point for the competitors. No one should think when they start the game that the result is necessitated and it is very hard to see how they could effectively engage with the contest if they have that understanding.

Just as we would have no interest in watching a game where the eventual outcome was randomly determined, it is also hard to see why anyone would bother playing such a game of sport. Why would one bother training and preparing, for instance, if all one's efforts bore no relation to the outcome and did not help one win the contest? No one seriously trains to play roulette, for instance – nor any other game of pure chance – because that cannot affect the outcome. Indeed, it should not do so if it is to remain an honest game of chance as roulette is advertised to be. Instead, athletes attempt every preparation, mental and physical, and exert all available energy in an attempt to influence the result. But one cannot influence a result if it is either a matter of pure necessity or a matter of pure chance. Sport cannot be premised on either of these two options, therefore.

The metaphysics of determinism

Nevertheless, in metaphysics these two extremes – of necessity or randomness – are often presented as if they are indeed the only two options. There is a thesis of determinism, for instance, which tells us that all events in the universe are fixed by prior events (for an account of determinism, see Honderich 2005 and for a survey of the whole area see Kane (ed.) 2011). Given what has passed before, there is only one possible future. The total state of the universe at time t , together with the laws of nature, allow only one state of the universe at time $t + \phi$. All then becomes necessary even if our own experience of free will conflicts with reality. It feels as if we have free will but if one decides to step to the left rather than step to the right, one was determined to do so irrespective of the feeling of freedom one gains in introspection.

Determinism is a metaphysical thesis of philosophy. It is hard to see how it could have an empirical proof that was anything more than theoretical. But it seems to be a thesis that we cannot seriously believe if we are to have an interest in sport. Similarly, it is hard to understand how we should behave generally if determinism is true. Should we stop making decisions? We are not in a position to do so. And should we stop believing that our actions have any influence? Again, it seems hard to understand how we could do that. Necessity would then present a very general problem for conscious beings such as us, and the case of sport illustrates that problem perfectly.

We are not going into detail here on the issue of whether determinism is true or false. For the record, we think it false. Popper (1982: 28) made a good point: determinism is such a strong thesis – falsified by just one undetermined event, no matter how small – that we should consider it false by default. The burden of proof is then on the determinist; and they will have much work to do. But we neither intend nor pretend to give a convincing argument here, which would have to be developed at length. What is important, however, is simply the idea that a belief in the necessity of sporting outcomes would undermine entirely any motivation to play or watch it. We play and watch *as if* the outcomes are not necessary. That belief may well be false, if determinism turns out after all to have been true all along. And if so, our playing sport as if it is not a matter of necessity would itself have been determined. That seems a very unfortunate position in which to be.

A problem has been, however, that the free will debate has been framed in such a way that the alternative to determinism is considered to be the contingent, stochastic, chancy world. This latter thesis can be interpreted to mean that all is random or pure chance. As has been suggested, this seems no help in the case of sport and it is no help generally in gaining us free will, agency or autonomy. Just as we don't want to be slaves to necessity, we also do not want to be slaves to chance. To be free, we want not just that determinism is false but at the same time that we retain ultimate authorship of our actions (see Kane 1996, 4). If an action is determined by some random event occurring in one's brain, for instance, arguably one has lost that authorship. What is needed in order to gain free will is an indeterminism that does not undermine our conscious agency and subsequent responsibility. We will find that these metaphysical dilemmas surface in the case of sport, the proper understanding of which might even illuminate the more general free will problem.

The dispositional modality

Modality is a term that comes from the modification of a proposition (see Melia 2003). As well as saying that something is true, one could add that it is a necessary truth, using the modal operator of necessity. One might claim it is not merely true that night follows day but also necessary that it does so. And one might say that something false is nevertheless a real possibility. The door is brown but it is possible that it be white. This contrasts with the falsehood that $2 + 2 = 5$, which is not even possibly true. Are necessity and possibility the only modal values? Much contemporary discussion of modality proceeds as if so.

There is a space, however, between the modalities of necessity and pure contingency. We have argued elsewhere (Mumford and Anjum 2011a, ch. 8 and 2011b) that the main modality of causation is what we call the dispositional modality. This is a two in one modality: there is a tendency towards a certain outcome, but one that can be counteracted. Striking a match doesn't necessitate that it light. Something can go wrong. But striking a match bears some relation to the match's lighting that is more than pure chance. The match has a real disposition of flammability that brings about the lighting on those occasions where the struck match does indeed light. But even in those cases where the struck match lit, it need not have done so had something else been added: for example if someone at the same time blew on it. The idea of the dispositional modality is that the flammable object tends – but no more than tends – to burn in certain circumstances. The match disposes towards burning when struck where such a disposition is short of necessity. But a

disposition towards an outcome is more than pure chance. The match has no disposition to evaporate when struck, to double in size or to become organic. In a world of pure chance, presumably anything could follow anything else. But this does not seem to be the case in our world in which there are causal connections. Certain outcomes tend to occur, given what has followed, and we come to rely on these expected outcomes, even though we know expectations can sometimes be disappointed. It may take a couple of match strikes to get it to light but we know that striking it is the surest way to initiate that disposition.

More could be said about the dispositional modality, and about the metaphysics of dispositions or causal powers that sits behind it (see also Mumford 1998, Mumford 2004 and Molnar 2003). But the main task of this paper is to show how the dispositional modality makes sense of sport, both from a participant and spectator point of view, by avoiding the twin perils of necessity and pure chance in the determination of sporting outcomes.

Sporting prowess

The key to this solution involves understanding sporting prowess as a disposition, which then gives the holder a tendency towards victory. The total sporting prowess in relation to a particular sport will be formed by a complex of many different dispositions or abilities, both physical and mental. Being physically fit, strong and agile are useful in most sports. Some sports may require very specific prowesses, however, such as height being an advantage in basketball, weight being an advantage in boxing, a steady hand an advantage in snooker, and strong mental resolve an advantage in the marathon. One kind of prowess might be underlying whereas another is temporary. An athlete might try to get 'into the zone' so that for the short duration of the contest they are at the height of concentration exactly because this will increase their disposition to win. Tendencies typically come in degrees, just as a car windscreen and a wine glass might both be fragile but the latter to a greater degree than the former. So in sport, where strength is an advantage, clearly it is not an all or nothing matter. One person might be stronger than another, faster than another or better concentrated than another.

Some dispositions improve with practice (see Aristotle's discussion of virtue, for instance, in *Nicomachean Ethics*, 1114a onwards) just as one can become a better speaker of a foreign language the more one exercises that ability. For sports preparation, therefore, we practice more so as to build up a prowess and make it second nature. A goalkeeper might face numerous shots in training so that the ability to save a shot comes automatically when the situation arises in a real game situation. But some powers can also be depleted during the course of their exercise. Athletic energy, for instance, is notoriously subject to depletion through its use and when we use the term stamina we are talking about how resilient and long-lasting is someone's energetic capability.

Just as there are prowesses that tend towards success, we have to acknowledge that athletes have weaknesses or liabilities that tend away from success (see Mumford 2011, ch. 10). One athlete might be less observant than another, less concentrated, less agile, may have a fragile confidence or a weak knee, might be slow on the turn, understrength in the thigh muscles, and so on. Such liabilities subtract from an athlete's total sporting prowess. We can see that the overall aptitude of an

individual or team will be a net total of strengths (disposing towards success) minus weaknesses (disposing away from success).

The sporting contest can then be thought of as a contest between the different sporting prowesses of the competitors. Each athlete brings their own net strengths and skills to the competition and pits them against their opponent's and, in the case of team sports, adds them to the strength of their team which is then pitted as a whole against an opposing team.

The tendential view of the contest

Let us then return to the dilemma. Sport would have no point if the outcomes were either necessary or pure chance. How can we escape this? We do so by seeing that there is a third modal option: something that sits between the two unpalatable cases.

Each athlete or team brings their net sum of sporting prowess to the contest. These are set against those of the opposition. This allows us to make a further calculation. If the net sporting prowess of competitor A is greater than that of competitor B then there is an additional result: A will tend to beat B. This can be represented graphically in a vector diagram (figure 1) that shows the tendencies towards success of A and B and the net overall tendency – a resultant vector R – pointing in one direction or the other. A zero resultant vector is possible if two sides are overall evenly matched and they would then tend to beat each other in equal measure.

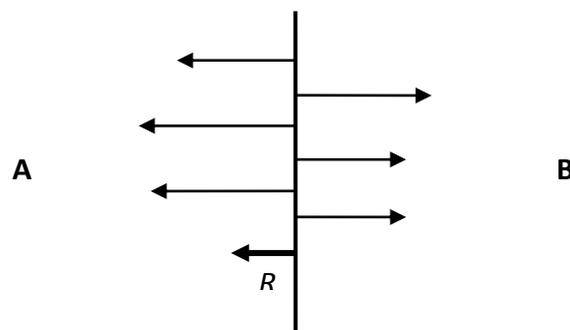


Figure 1: The net prowess of team A is greater than that of team B

This is where the dispositional modality of tendencies is vital. A is better than B and will tend to beat them, but this nevertheless does not mean that A must win and B must lose. There is no guarantee, no necessity. And this is just how we want it and how we must understand the sporting contest. B might know full well that they are weaker than A. Looking at the league standings would provide enough evidence of that. But there is indeed some reason for them to turn up and play. They can consistently accept both that A is stronger than them and that they still have a chance. Betting odds are precisely an attempt to estimate what those relative chances are, hence relative strengths of the competitors. A may have a tendency to win but in any one-off contest, B might beat the odds.

One could nevertheless expect that the more often A and B play, A's tendency to win will be manifested in a higher proportion of wins than B. This is why a league season, with all teams playing each other over a long time and many total contests, is a good way of measuring the relative strengths of the team. But competitions with one-off knockout ties and play-offs can be more exciting precisely because weaker teams have a chance of succeeding in a single encounter.

Some of this analysis appears in Kretchmar's (2005) account of game flaws. The more skilful interchanges there are in a sporting contest, the more likely it is that the better team's prowess will win out. Tendencies will manifest themselves the greater the number of trials, just as the distribution of heads and tails is not guaranteed to be 50:50 in any finite sequence of trials but will tend to 50:50 the greater the number of trials. The weaker team thus has a chance, just as a loaded coin in favour of heads could still on some occasions nevertheless land tails. But there is a crucial difference between coins and sports, which is that the outcome of the game is not chancy in this way. The players are real agents, able to affect the outcome by exploiting the other team's weaknesses and manifesting their own prowess to its maximum degree.

While this view sounds right, it is hard to agree that it constitutes a game flaw simply if a sport allows a weaker team to win. One should argue, instead, that this possibility is of the essence of sport. Without that possibility of victory, the weaker team really has no sporting motivation. Perhaps one might infer that Kretchmar would see the perfect sport to be the one that always delivered the win for the better team. But this would be very dull to watch and pretty pointless to play, as argued above. And this raises the bigger question of what is the point of sport. Contrary to what might be implied by Kretchmar's (2005) account, the point of sport is not to ensure that the strongest always wins. Kretchmar (2012) has since given a more nuanced view that acknowledges the role of luck in sport, to which we will return. Arguably, the point is not even to determine which is the strongest. Perhaps there are in any case better and more accurate ways of doing that: looking at the league ladder, measuring the players' weights and heights, or inspecting the record books, for instance. But if sport aimed to ensure the strongest wins, one really is asking the weaker just to turn up as a means to that end, with no chance of their own success. This would go against the fundamental tenet of Kantian ethics, which states that persons are ends in themselves.

Now of course one might think that the strongest always does win the contest simply because the victory is what determines who is the strongest from a group of competitors. But this view, what Loland (2002: 89) calls the cynical view, should be resisted. If the winner is strongest by analytic definition, it means that relative strengths and weakness would lose all their power to explain how victory and defeat is produced causally. The account developed thus far allows us to say that net sporting prowess is what produces, and thereby causally explains, the win. If, on the other hand, one takes victory as definitive of being the strongest, it is a trivial statement to say that the strongest team won. On the contrary, if relative strength causally explains the outcome then it is perfectly permissible, as it should be, to say that on a particular occasion the better team lost. This cannot be done if the winner is the best by definition.

The account explains how victory can be produced but without being necessitated. A disposition tends to success but doesn't guarantee it. There may be odd little events, unexpected and outside the control of the competitors, that deny the stronger side their victory. The sun might break

through the clouds and blind a tennis player just at the crucial point, the ball might bobble at the most inopportune moment, a perfectly good golf shot might be blown off course just inches from the hole, an old injury might flare up, an opponent might choose at random exactly the right weakness to exploit, and so on. One thing is to have the powers; another is to know how to use them, when to use them, how much to use, how to exploit a weakness and when to do so. Even the weaker skills, deployed at the right time in the right way, can beat stronger skills. Many of the factors that produce the outcome concern the deliberate sporting actions of the opponents and how they use their prowesses. And even in the cases where the weaker opponent does not get it right and secure an unexpected victory, it was a possibility that they did. Hence, even where the strongest wins, it was still possible that they lost had things been different. This shows that causal production, even where successful, is not the same as necessitation. We avoid, therefore, the peril of necessity robbing sport of its point.

The dispositional modality at work also avoids the peril of pure chance. It is no mere coincidence that those who practice and train the hardest thereby increase their tendency to win. Their prowess is a disposition towards success. If the connection between prowess and victory was a truly random one, no one would have any interest in developing their strengths and skills. In a world of pure chance, anything really could follow anything else and there would thus be no reason for spectators or participants to think that sporting outcomes were a result of the endeavours on the field. Playing a golf shot aimed perfectly at the hole could result in the ball going in any direction, or evaporating or growing wings and flying.

Instead, sporting prowesses are worth developing because while they cannot guarantee victory they nevertheless can tend towards it, dependent on a relative comparison with the prowesses of one's opponent. Having some disposition towards victory is what makes sport more than a game of chance such as roulette. The athlete has some influence over the outcome when they exercise their athletic abilities. In a game that is intended to be of chance alone, one is on the contrary barred from affecting the outcome. Someone may try to do so, with loaded dice, use of magnets and so on, but such causal interventions are illegitimate within those games. Sports will have their own rules about which interventions are legitimate – not all are – but the thesis is that for sport to have any point, the athlete's efforts must have a say in the outcome. The victor must have some authorship of the victory. It is not sole authorship because sporting outcomes will usually be a result of a struggle between opposing competitors. But the outcome has to be a result of such a struggle – a joint authorship – if those endeavours are to have a point and for sport to be of interest to those watching.

The account also explains the sense of indeterminism that is required. We saw that it could be taken to mean a world of pure chance, which we have already dismissed as no use to sport. But the other way in which it might be understood is simply as the negation of determinism. If the world is one that contains the dispositional modality, as we claim, then it is not a world of necessity. So it is not a deterministic world. But nor is it a world of pure chance. It is indeterministic in the weaker sense, meaning a denial of necessity. We have this third option, however. To deny necessity is not to go over to a world of complete contingency because there is the middle ground of the tendential view.

Chance, skill and luck

Recent discussions of the role of luck in sport arise from the sorts of concerns we have addressed here. But they do so without invoking the explicit dispositional modality of the tendential view, which we claim would clarify some important distinctions. On chance, for instance, Kretchmar has said:

Yet, we find chance elements in every game we play. Perhaps they have taken up residence because we have found no effective means for serving eviction notices. In sport's patterned chaotic world of bouncing balls, predicting the direction and height of the next bounce may be impossible both in principle and in fact. But the more interesting question may be this. Even if we could rid sport of this counter-agency variable, would we want to do so?
(Kretchmar 2012: 111)

Simon (2007) argues for skill as the foundation of sport, for which chance would be a threat to a just and true outcome. However, even though Simon sees no value from having chance in sport, he also thinks it compatible with the exercise of skill. In simple terms, the skilful competitor is one who is able to take best advantage of good luck or get into a position where they are most likely to benefit from it. A rugby ball could bounce left or right, for instance, but a skilled player knows exactly where to be and how to be poised to take optimum advantage, regardless of which way the bounce goes. In contrast, all of de Wachter (1985) Loland (2002) and Kretchmar (2012) accept chance as a welcome part of sport: Loland because it 'increases experiential values and adds to the openness of competitions' (94) and Kretchmar because 'We do not ... want sport to become a too finely tuned merit assessment machine' (112). Armed with the dispositional modality, it now seems possible to reconcile most of these views.

In the first place, we have distinguished the case of pure chance from our dispositional modality of tendency and we do not take it that the latter is simply another presentation of the former. There are indeed some elements of pure chance in sport: the referee tosses a coin to decide which team kicks off, some bounces of the rugby ball are beyond anyone's control, the sun might blind a player just as she is about to take a catch, in Australian Rules Football an umpire takes the throw-ins with his back to play, unsighted. Now there are a number of important questions concerning how much of this kind of pure chance that we want in sport. This is the kind of chance we take Kretchmar to be addressing in the above passage. Would we eliminate all such chance if we could?

From this, however, we are separating cases that exhibit the dispositional modality. Here, although the athlete's efforts do not guarantee their effects, they tend towards them in such a way that we rightly hold the player responsible for their outcomes. The golfer aims towards the hole, for example, in full concentration and a steady hand. The put sinks. Was the golfer responsible? Do they deserve credit? Certainly, we say. But the dispositional modality of causation tells us that even here the golfer did not guarantee the outcome: they merely produced it. A squirrel might have run across the green and stolen the ball. The ball might have been struck by lightning and incinerated. The

golfer had no guarantee against these interventions. But the shot played true and accurately strongly disposed towards the ball falling in the hole. Golfers retain control – some control – and even though they cannot control everything, their causal interventions in one degree or another tend towards certain results. As in golf, so in all other sports in some such way. The athlete's actions, even though short of necessitating their effects, add something significantly more than pure chance into the equation. Thus, if we define luck as something over which we have no control, then pure chance elements of sport fall into that category. An athlete's game-playing actions would not quite fit. Athletes contribute to outcomes. That may sometimes be thwarted by bad luck: where the squirrel steals a true shot. And there is good luck: where a shot is going wide but gets diverted into the hole by a gust of wind. But the fact that there could be lucky elements that might intervene and affect an outcome does not mean that the player had no control, if we divorce the notion of control from that of necessitation. Certainly if a player performs an action that tends towards a success and indeed produces it, then they are entitled to claim the credit.

It would therefore be a mistake to think of skill and luck as being in complete opposition, even though we have argued they are distinct. Certainly, sporting prowess should not be thought of as something that is entirely divorced from good and bad fortune. Any cause can fail to produce its effect due to the possibility of intervention. And whether or not those interventions occur is often itself beyond the competitors' control. While Loland and Kretchmar are willing to allow chance a place in sport, we now see that any hope of its complete eradication would be entirely chimerical. Any natural causal process is subject to prevention or interference (Mumford and Anjum 2011a: ch. 3). The admission of elements of pure chance into sport seems less puzzling once one realises that even those aspects over which we exercise control are not cases of total control or guaranteeing.

This line of thought does leave further questions. We might consider whether sports have exactly the balance right between chance and skill. If the best team lost too often, we might think that the sport does not adequately reward its own supposed excellences. But if the best team wins too often – virtually every time – we might start to find it dull to watch and lack motivation to play. But how this balance should be calibrated is partly a normative and partly also an empirical matter. If the best team wins 99% of the time it seems too predictable; if they win only 51% of the time, it seems too chancy. The popular and enduring spectator sports are almost certainly the ones that have got the balance about right, for this is sure to be a major factor in explaining our viewing behaviour.

But a second issue concerns the contested nature of luck and skill in sport. What the loser calls bad luck, the winner calls skill. After-the-fact narratives are constructed that tell the story of the game, from a point of view, explaining the source of the victory. Where luck goes one's way, it is tempting to put it down to ability. In defeat, it is tempting to dismiss one's own failings as poor luck. Such issues are not for here except but to acknowledge that luck and ability claims within the sporting discourse cannot always be taken at face value.

The meaning of sport

Whether sport has any meaning is a moot point. Best (1974) some time ago told us that sport could not be *about* anything. And it is also moot whether there is an essence of sport (see Møller and

Nauright (eds) 2003). Our initial task here was to make sense of our interest in sport. That rested, we argued, on the outcomes of sport being understood to be matters of less than necessity but more than pure contingency. This, we maintain, is an important enough conclusion, and escapes the dilemma with which we began. But it might also be wondered whether there is something more profound in this finding for the very nature of sport and life.

A picture has been painted of sport as a striving towards victory where this exhibits a defiant exercise of free will in the face of any threat from necessity. Sport provides an arena in which we offer our best. We try to exercise our abilities to their maximum, knowing that we are sometimes the weaker but also that even the weak may triumph over a stronger opponent if they can play their best game, exercising the right causal powers at just the right time, in the right way, and under pressure of competition. This clash of relative powers, the sporting prowess, shows us that there is a purpose in life that can be achieved even in the face of adversity. What better lesson can we take from sport out into non-sporting contexts? And what does this tell us about human embodied agency? In sport we face a voluntary attempt to overcome unnecessary obstacles, as Suits (2005, 55) put it. Why do we face unnecessary obstacles voluntarily? Their unnecessary nature shows that achievement of the lusory goals of sport is ultimately a worthless task. But it is in the exercise of our mental and physical abilities in sport, where they are not needed at that time for any practical purpose, that we truly reveal what is of intrinsic value to us. This much, Suits has told us. We have argued in this paper that what is of intrinsic value should include an account of the exercise of our agential powers as we try to achieve our goals. Sport is then a battle between these powers – these prowesses – and an assertion of our freedom as found in the dispositional modality of our causal agency.

Conclusion

A way has been found to resolve the dilemma that sport is of no interest if the outcomes are either necessitated or a matter of pure chance. Instead it has been argued that in sport we pit the abilities and skills of the competitors against each other where these are dispositions tending towards success, minus any liabilities that are dispositions tending away from success. The relative degree of prowess dictates who are the stronger and weaker competitors. But this relative strength constitutes only a tendency towards victory or defeat.

Such a tendency might be expected to produce victory for the stronger but there is a point in playing sport, and watching it played, precisely because that tendency can be counteracted by a relatively weaker opponent. Indeed, one of the most joyous outcomes in sport, when one otherwise has no interest in the outcome, is to see the weaker – the underdog – beat the stronger. This tells us something important about sport. It is not a flaw that the contest allowed the weaker to win. Rather, the possibility of such an outcome is of the essence of sport: a precondition of its very existence.

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