For decades, the American criminal justice system has been engaged in a “war on drugs” that critics say cannot be won. The enthusiasm for that war has been flagging for some time; a 1989 issue of the Quarterly (then called QQ) featured an article by Claudia Mills titled “The War on Drugs: Is it Time to Surrender?” In amateur and professional sports, however, the war on performance-enhancing drugs has been steadily escalating in recent years. Major doping scandals have roiled several sports, and drug testing has become ever more stringent. Yet at the time of the 2008 Beijing Olympics, where concerns about doping were pervasive, a few voices called for surrender.

Some commentators argued that the war on doping was futile, since the technological sophistication of the dopers would always outstrip, if only for a few critical weeks or months, the capacity to detect their work. Others, however, argued that even if the war could be won, it wouldn’t be worth fighting. As John Tierney wrote in the New York Times, “We all know the body can be improved. We all know Olympic athletes have the highest-functioning bodies in the world. They can call themselves natural, just as they used to call themselves amateur, but at some point that claim may seem the most unnatural thing of all.” To bolster his case, Tierney noted that the fans themselves include people “with laser-corrected eyes, chemically whitened teeth and surgically enhanced anatomies. Not to mention the pharmacopeia coursing through our veins.”

These are still minority opinions. Just a year before the Olympics began, Barry Bonds broke Hank Aaron’s lifetime home run record to a chorus of denunciation from sports pundits for his reported steroid use. Several months later, that chorus grew even more strident with the release of the Mitchell Report on doping in professional baseball, which gave Bonds lots of company and his detractors a surfeit of new targets. Along with cycling, the subject of frequent scandals involving widespread steroid use, baseball has now submitted itself to an intensive regime of drug testing and monitoring.

But even in the unlikely event that anti-doping measures are successful in their narrow objective of deterring illegal drug use, they are ill-equipped to deal with a wider range of biotechnological interventions, which may bring far more significant changes in the performance capabilities of athletes. Unlike steroids, whose possession is illegal and whose use is widely regarded as unhealthy, these new technologies, genetic modification in particular, may at some point become legal and safe. Also unlike steroids, these technologies won’t all be intended to confer a competitive advantage. Some, like the prosthetic limbs of runner Oscar Pistorius, will be designed to restore function lost to disease or disability; others, especially genetic modifications, will be intended for more general enhancement purposes. And in some cases, such as germline genetic engineering, the interventions will be undertaken not by the athletes themselves, but by their parents. To ban such technologies would be to ban whole classes of athletes, including some who would be incapable of compliance and others who would not be responsible for their enhancements.

Moreover, a ban on biotechnological enhancement would be hard to justify or maintain without a ban on other technological enhancements, like the performance-boosting swimsuits that predominated at the Beijing Olympics, and whose cost is bankrupting many small high school and college teams. The attempt to distinguish forbidden from permitted modifications on the basis of their external or internal location, or their natural or artificial character, has proven a particularly futile exercise in casuistry. Rather than

Unlike steroids, new performance-enhancing technologies may at some point become legal and safe.
criticize recent efforts to make such distinctions, I will just observe that the continuing uncertainty about the grounds for distinguishing forbidden and permitted modifications is likely to undermine the moral authority and practical efficacy of any regulatory regime.

As the reactions to the Beijing Olympics suggest, there appears to be a widening gap between the few who welcome, or at least accept, a brave new world of techno-sports and the many who want to keep sports natural and unadulterated. Both sides have contributed to that divide with exaggeration and naïveté. On the one hand, the opponents of doping and other technological enhancements often idealize the past and fail to appreciate the resilience of sports in the face of rapid change. The defenders of enhancement, on the other hand, underestimate the cumulative danger posed by abrupt, rapid, and accelerating change, and trivialize its social and moral costs. In arguing for a more discriminating, pragmatic approach, I will focus on two aspects of sports that give their performance and appreciation much of their depth and richness—the spectators’ identification with the performers, and the continuity and comparability of athletic achievement over time.

The collective pride we take in the triumphs of great athletes is only possible because we see those triumphs as in some sense our own, as the achievements of people like us in important respects. And we can sustain that pride over time only because we see those triumphs as surpassing, rather than diminishing or trivializing, those that came before. Enhancement technologies may threaten both our identification with the athletes and the character of competition over time. They may do so by increasing the physical differences between athletes and their fans, and by increasing the pace of change too quickly for athletes and fans to assimilate.

Biotechnological modifications are hardly the first innovations to pose these threats. But it is no endorsement of biotechnology to claim that it will merely accelerate trends that are undermining the value and appeal of athletic competition. I will suggest, however, that those trends are not as dire as the critics of enhancement suppose, and that technology will not contribute to them to the extent that its critics fear. In assessing those trends, I will consider the enhancements yielded by all forms of technological innovation.

One of Us

One way in which technological enhancements could erode our identification with athletes would be to transform them so radically that they were no longer human, or perceived as human. This transformation would deprive sports of what the philosopher Paul Weiss regarded as its very essence: “It is because he is an outstanding instance of what man might do and be that an athlete is an outstanding man. . . . Athletes are excellence in the guise of man.” For Weiss, the glory of athletic achievement redounded to humanity as a whole, not to the individual athlete. But if it is to do so, that achievement must manifest the latent excellence of human beings—it must realize a human potential. An athlete who could not be regarded as human could not manifest human excellence.

While some technological enthusiasts would welcome the transformation of mere humans into trans- or post-humans, no such transformation is likely to be achieved by the targeted enhancements contemplated for athletic competition. Even a far less radical change, however, would threaten the spectators’ ability to regard a great athlete’s triumphs as their own. To sustain such an identification, the spectators must see the athlete as like themselves in more than their shared humanity; they must feel a more specific kinship as well.

One powerful motif in American sports legends is that of the great athlete who grew up in the same neighborhood (or kind of neighborhood) as the rest of us, attended the same schools, shared the same tribulations, engaged in the same transgressions, and, even after success and celebrity, kept the same friends and frequented the same haunts. This is no Horatio Alger story, suggesting that any of us could have been that star; it is, rather, a story about the extraordinary as ordinary, about stars who have enough commonalities with the rest of us to sustain strong identification in the face of surpassing excellence. To proclaim that “Babe Ruth did it on hot dogs and beer” is not only to assert that he did it without cheating—it is to assert that he did it while eating and looking like one of us (or even worse).

Of course, similarity and identification come in kinds and degrees. As Michael Sandel observes, we admire both the relentless striving of the modestly talented Pete Rose and the effortless grace of the gifted Joe DiMaggio. But although we may identify more
strongly with the Pete Roses than with the Joe DiMaggios, even those athletes we admire for their awesome talent have well-publicized frailties and limitations that provide a foothold for our identification.

Admittedly, our commonality with sports heroes has always been exaggerated. But the myth of that commonality becomes increasingly difficult to sustain as athletes come to look less like us. The extraordinary talent of a star like Ted Williams—"the Splendid Splinter"—was not obvious from his physique; there was something thrilling in the realization that one of baseball’s greatest hitters looked like the proverbial 97-pound weakling, not like a chiseled Adonis. There is no similar thrill in looking at Barry Bonds.

When stars no longer look like us, live like us, or even talk to us, it may be harder to identify with them, to take vicarious satisfaction in their success. And no doubt drugs and genetic modification accentuate this trend. As Dr. Theodore Friedmann lamented in his testimony to the President’s Commission on Bioethics:

I think one has to have faith in one’s idols. When I was growing up, I lived just down the street from the Philadelphia Phillies player who was one of the neighbors and just another person. He was an athlete, but he was another one of us. I must say that in watching . . . baseball games, I no longer know what I am seeing. In a way, I feel a little robbed by not really having faith, not as much faith, as I had in my old idol. . . . I am now seeing bioengineering . . . and pharmacology more than I am sport.

It is easy to share his regret that the star player is no longer a neighbor, no longer “just another person.” But as Friedmann himself recognizes, the loss of identification has as much to do with the growing social and economic separation of such players as it does with the increasing physical differences between professional athletes and the rest of us. With many major-league athletes making seven-figure salaries, we are less likely to run into them down the block, and more likely to read about them in the gossip columns. Celebrity worship may be a debased form of appreciation, but that debasement has little to do with bodily modification.

In fact, our egalitarian style of back-slapping enthusiasm may be resilient against, if not downright impervious to, fairly radical bodily changes. Public and media hostility toward Bonds’s record-breaking home runs may be more a reaction to his arrogant manner than an objection to his outsize physique. It almost seemed as if Bonds wore his enlarged musculature as armor against the personal contact and identification that fans crave. An athlete with a different temperament might have inspired a very different response.

During the Beijing Olympics, the television coverage often paid as much attention to the ordinaryness of the athletes’ lives as it did to their extraordinary skill. The cameras focused in on the contenders’ families as they gripped their digital cameras and suppressed their anxieties: hence the relentless attention to Michael Phelps’s devoted mother and sister. Some of the greatest excitement at the games was generated by the success of athletes with whom the audience could most readily identify, like the 38-year-old mother who won the women’s marathon. Such footholds for identification are unlikely to be eroded by technological enhancement.

Records Made to Be Broken

The second threat posed by technology to the quality of athletic achievement derives from the magnitude and pace of technologically driven improvements. As the Olympic motto ("Swifter, Higher, Stronger") proclaims, records are made to be broken again and again.
But in a world where performance-enhancing drugs were legal, medically supervised for maximum effect, and almost universal among athletes, it is possible that past records would not even represent a challenge for most players. In such a world, record-breaking would diminish the past, not honor it in the way that gradual, hard-won record-breaking does.

This fear gains some credence from the public response to recent home run records. Babe Ruth’s held for more than 30 years, and finally fell, to intense if bittersweet acclaim, to one player by one home run (in a longer season). But that record, in turn, fell to two players in one season, by nine runs, and it was broken again a few years later. Whether or not any of the recent record-breakers used steroids, the sudden, dramatic escalation in home run hitting raises the specter of change so rapid that it threatens to attenuate the role of past achievement in the appreciation of present performance.

To be sure, rapid change in sport is not unprecedented. Before the “live ball” was introduced in baseball after the First World War, the home run record was 27, set in 1884. Less than two years after its introduction, that record had been doubled by Babe Ruth, who hit 54 home runs in 1920. Some commentators contend that the live ball altered the whole nature of the sport, replacing the game of sly tactical ingenuity epitomized by Ty Cobb with the competition of powerhouse hitting against high-velocity pitching epitomized by Ruth. Yet baseball absorbed these changes without a significant loss of continuity or popularity. It has remained the same game, even to the point where recent years have supposedly seen the resurgence of tactical over powerhouse hitting—more Ty Cobb and less Babe Ruth.

If we regard Cobb and Ruth as among baseball’s greatest players, while recognizing that their achievements are in an important way incommensurable, won’t future generations of fans make similarly qualified comparisons between Ruth and Bonds? Why couldn’t steroid use become one of the many factors adduced in the vociferous debates about comparative excellence that enliven sports-fan radio, like the various rule, practice, and equipment changes that have occurred over the past century, from the extension of the season to the introduction of the designated hitter?

Our attitudes toward performance are often mitigated by the implicit time- and technology-indexing of athletic achievement. A decathlon contestant in 2006 who did only slightly better in every event than Jim Thorpe did in 1912 would be urged to hold on to his day job. Thorpe is regarded as one of the greatest athletes of all time because of how he performed with the diet, training, and equipment of his time. The increased pace of improvement resulting from enhancement technologies would not necessarily alter this tacit division of athletes into chronological classes or diminish the veneration in which the greatest athletes of earlier generations are still held. While complaints about the trivialization of past achievements may be overstated, however, some degree of concern may still be warranted.

Why We Can’t Stop Worrying and Learn to Love Technological Enhancement

The resilience of sports, their capacity to absorb significant changes, is not unlimited. We see only the sports that have survived modification, a selection bias that
may make it hard to appreciate the toll taken by innovation on extinct or obscure sports. Moreover, even if a sport survives significant changes, it will not necessarily be improved by them. The legalized use of steroids, for example, might well make baseball a less subtle and artful game than it has traditionally been. So there may be reasons, apart from safety, to “proceed with caution” in accepting technological modifications of athletes.

Moreover, there may be grounds for concern about the cumulative impact of technological enhancements. The problem is not that physicians and scientists will replace athletes as the real competitors; the results of competition will almost certainly depend on the skill and tenacity with which the athletes exploit their enhancements. Rather, the problem is that the pace of technology may overwhelm the capacity of sports cultures to integrate it. As athletic enhancement becomes the province of biomedical science, its tempo is likely to accelerate rapidly. Imagine the impact on baseball if the fast ball had been introduced at the same time as the aluminum bat and the designated hitter rule. The transformation might simply have been too sudden and too great for baseball to retain its status as “our national pastime.” Changes in sports might be even more disruptive if they significantly alter the physical attributes of the players as well as their equipment and style of play.

Concerns about the pace and scope of change are provoked less by the grim prognostications of critics than by the upbeat forecasts of enthusiasts. Consider Andy Miah’s commentary on the eve of the Beijing Olympics, in which he contrasted two visions of sports:

On the Olympic stage, we revere the tradition of the amateur athlete. The archetype of this sporting hero arose in the late 19th and early 20th centuries and was made popular by the inspirational finishes (and soaring soundtrack) of “Chariots of Fire.” This athlete works hard, is naturally gifted and exploits those gifts to their greatest potential.

But today, another vision is shoving that one aside at sports’ highest levels. It is rooted in the democratization of technology—in a world where high-tech training regimens exist even at the junior-varsity level—and is part of a broader transition we are all making: using technology to improve everything, at every level.

It seems exceedingly optimistic to describe the diffusion of athletic technology as its democratization. For one thing, there is no reason to think that technology will reduce, rather than amplify, differences in “natural” ability. Unless we reach the unlikely point...
where athletes are reduced to “operators” of complex bodily machinery, it is likely that the strong will get comparatively stronger. Second, more extreme bodily modifications will have little appeal even to fairly ambitious amateurs. While junior-varsity athletes may enjoy getting buffed up with weight machines, they are less likely to want the kind of sports-specific enhancements zealous professionals will seek—modifications that are apt to be dysfunctional or at least ungainly in other settings. Thus, there is good reason to think that technology will increase the physical differences between amateur and professional athletes, with decidedly undemocratic consequences.

We may have resources to mitigate such effects. If, for example, the impact of biotechnological enhancement on athletic performance proves to be dramatic, we might establish separate leagues for the biologically enhanced—there are already proposals for their creation. Not surprisingly, commentators’ expectations about this prospect tend to reflect their beliefs about the legitimacy of the enhancements that would give rise to it. Those who view biotechnological enhancement as alienating and corrupting expect enhanced sports to become fringe entertainment, like professional wrestling or the more flamboyant Xtreme sports. Those more sanguine or enthusiastic about such interventions expect enhanced sports to become a big draw, luring away the best players and most avid fans. Natural sports may still have skilled practitioners and devoted fans but may become a more esoteric activity, somewhat like baroque concerts played on original instruments or historical reenactments free of obvious anachronism. Natural athletes may earn our admiration and respect for their principled refusal to use forms of enhancement that would give them greater skill and prowess. But when the ranks of enhanced athletes start to swell, the records set by the unenhanced may be marked by asterisks, indicating that they fall outside the competitive mainstream.

It is worth noting, finally, that the impact of technological enhancement may vary widely among sports. Some will be, to use Sigmund Loland’s term, more “vulnerable” to enhancement than others, more likely to face disruption and discontinuity. Individual sports like track and field, where success depends on a specialized skill, may be more affected by sudden enhancements in specific physical performances than are team sports where success depends on a mix of physical and cognitive skills. But even if a sport like baseball is not particularly vulnerable, it contains specific performances, like home run hitting, that are.

The impact of technological enhancement will also vary with other differences among sports. Some sports are played very similarly at the most competitive and the most informal, pick-up levels—basketball, baseball, soccer, and running come to mind. Others, like football, hockey, and many field events, are played very differently. It may be that the former depend more on gross similarities between players at all levels of ability and formality; if so, those sports may be more vulnerable to technological enhancements that increase the differences between various levels of play.

The impact of biotechnological enhancements on athletic competition will be complex as well as highly sport specific. It is clear, however, that unrestrained change in sports, with constantly morphing bodies and rules, is likely to attenuate the identification and continuity that give meaning and value to athletic competition—to varying forms of participation in, and appreciation of, sports. Defenders of technological enhancement are as prone to downplay these threats as opponents are to exaggerate them. I would suggest, however, that we can reduce these threats without engaging in a futile exercise in prohibition. To the extent that the threats arise from the sheer pace and scale of change, the injunction to proceed with caution may not be an idle plea for moderation, but a prescription for success.