CLEANUP HITTERS

The steroid wars and the nature of what's natural.

by Steven Shapin
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One young man leads another to a toilet stall, cautiously looking around to make sure they're not being observed. Then he has him lower his trousers so that he can get at his buttocks. What follows is a matter of enormous public interest. Years later, President George W. Bush makes a speech condemning it. Congressional hearings are held to investigate it and to frame public policy.

It is the summer of 1988; the toilets are in the home locker room of the Oakland Athletics; and Jose Canseco is injecting Mark McGwire with anabolic steroids. Or so Canseco recounts in "Juiced: Wild Times, Rampant 'Roids, Smash Hits, and How Baseball Got Big" (Regan Books; $25.95). "It was really no big deal," Canseco writes. "We would just slip away, get our syringes and vials, and head into the bathroom area of the clubhouse to inject each other." By the late nineteen-nineties, according to Canseco, teammates were pairing off together in bathroom stalls with such regularity that it became an object of clubhouse drollery: "What are you guys, fags?"

Anabolic steroids are synthetic variants of such naturally occurring hormones as testosterone. They're called anabolic because they work in "constructive metabolism," during which simple materials provided to the gut or the bloodstream are built up into complex living tissue. Among the main effects that athletes want is a boost of skeletal muscle mass, and anabolic steroids help you get big fast. Canseco says he started doing anabolic steroids and growth hormone in 1985—the first baseball player to use steroids "in a serious way," he claims—and he put on twenty-five pounds of solid muscle in just a few months. More followed. McGwire grew massive, too, and he and Canseco became known as "the Bash Brothers."

Canseco explains that oil-based anabolic steroids require a large-gauge needle, so you have to be careful where you inject yourself. If you're a baseball

player, you don't want to use your quad or calf muscles, because it may hamper your running, or your shoulder muscles, because you're doing a lot of throwing and catching. That leaves the buttocks. It takes a lot of practice to be able to do it yourself; when you start out, you need a little help from your friends. Once you become more accomplished, you can inject yourself, and then you'll want to become "an ambidextrous injector," he says, "because you definitely are going to want to hit both sides of your glute." (If you keep hitting the same spot, he warns, "it can get nasty.") Steroid use, as Canseco tells it, is itself a form of athleticism. Different steroids do different things: if you want just to build muscle mass, one sort will do; if you want to run fast, there are steroids to increase your fast-twitch muscle fibres. The congeries of bodybuilding substances Canseco claims to have used includes Deca-Durabolin, Winstrol, Equipoise, and Anavar, as well as human growth hormone. He delightedly recalls that early in his steroid-fuelled career he was dubbed "the Natural."

Canseco writes that steroid use is no big deal, but he's wrong. President Bush made the remarkable decision to use his 2004 State of the Union address to denounce its dangers ("The use of performance-enhancing drugs like steroids in baseball, football, and other sports is dangerous, and it sends the wrong message—that there are shortcuts to accomplishment, and that performance is more important than character"). The U.S. Anti-Doping Agency sees it as a threat to sportsmanship ("Deterring the use of drugs in sport is necessary to preserve the integrity of sport in the United States"). The National Institute on Drug Abuse is alarmed at a range of irreversible side effects associated with steroid use by bodybuilding adolescents. There are fans who now wonder, say, whether there should be an asterisk by Barry Bonds's home-run record. And, of course, it's a criminal offense to possess anabolic steroids without a valid prescription.

Among the justifications for banning these substances are their side effects. For males, these may include breast development, atrophied testicles, and reduced sperm count, as well as baldness, severe acne, jaundice, tremors, an enlarged prostate, problems in liver and kidney function (with the possibility of tumor formation), hypertension, elevated risk of stroke and heart attack, and mood swings—the enhancement of masculine aggressiveness popularly known as " 'roid rage." When administered to adolescent bodies still in the course of development, steroids may cause permanently stunted growth; their use has been implicated in some teen-age suicides. Sentiment against steroid use also flows from a widespread sense of fair play and equity. The ideal of the level playing field translates broadly into the belief that all competitors should come to play with normal bodies, functioning normally.

So it may come as a surprise that "Juiced" celebrates steroid use as part of a new era of "clean living" in baseball, driving out alcohol, cocaine, marijuana,

and even amphetamines—the "greenies" that Jim Bouton wrote about in "Ball Four," back in 1970. With the "trend toward better fitness that came with steroid use," Canseco maintains, "you saw bigger, stronger, faster, and *healthier* athletes, instead of those raggedy, run-down, pot-bellied ball players of previous eras." Steroid use among athletes has clearly aroused national passions, but passionate arousal isn't the ideal frame of mind for reasoned debate. Are the medical and moral evils of steroids in competitive sport really so unambiguous?

Nothing in "Juiced" suggests that Canseco was using steroids under a physician's care, or even on a doctor's advice. He seems to have had himself periodically checked out by doctors, but that's all. He was, instead, part of the great civic tradition condensed in the old motto "Every man his own physician." Canseco learned the techniques of steroid use by noticing how his own body reacted to the chemicals, and adjusting dosages and combinations accordingly. Yet steroid use also belongs to the history of mainstream modern medicine, and John Hoberman's excellent "Testosterone Dreams: Rejuvenation, Aphrodisia, Doping" (University of California; $24.95) tells much of the story of how and why steroids came to the pharmacy shelves.

In the late eighteen-eighties, a septuagenarian French physiologist named Charles-Édouard Brown-Séquard announced that he had been rejuvenated—and had the arc of his urine lengthened—by injecting himself with extracts from the sex glands of a dog and a guinea pig. Brown-Séquard's "organotherapy" created a considerable market for these crude extracts, and by the nineteen-tens the transplant of animal testicles and testicular extract was heralded as a treatment for homosexuals, who could thereby achieve an "energetic and manly aspect." But the real breakthrough came with the artificial production of androgenic and estrogenic hormones in the nineteen-thirties, especially the synthesis of testosterone in 1935. In testosterone, the medical profession saw hopes for restored virility and vigor, the extension of life, the cure for a range of disease, the management or elimination of sexual deviance, and enhanced performance in a variety of life functions. That year, *Newsweek* declared that the hormone could prevent "premature sterility and feminine characteristics in men."

In a familiar pattern, the transformation of previously "natural" features of human life into diseases marched in step with the trade in hormones: one medical historian calls them "drugs looking for diseases." Testosterone has, in recent years, been prescribed for "the andropause"—the decline in testosterone levels supposedly suffered by many men over sixty-five—and for women who consult doctors for low libido. Elder sex is completing the transition from deviance to embarrassment to a chemically assisted new normal. It's the pharmaceutical version of "If you build it, they will come," and you can find a

parable to this effect in "Juiced." Canseco says that when he joined the Texas Rangers he introduced Rafael Palmeiro to steroids, and Palmeiro's newfound prowess on the field led to a lucrative deal to endorse Viagra.

So there has always been the thinnest of lines between medical augmentation and medical restoration. Is the task of the physician to maintain and restore normal function? If so, what is to count as normal? Or is it to enhance and release the full range of human potential? Hoberman plausibly predicts that "the future of testosterone drugs will evolve within the contest between [a] wide-open medical ethos"—one that approves medical interventions to enhance a range of life functions—"and our traditional sense that a well-lived life follows a natural trajectory from birth to death and that aging is a fate, not a disease."

Hormonal therapies lie right at the heart of these tensions, along with the chemical dosing of rambunctious kids, gastric-bypass surgery, and the more exotic forms of infertility medicine. Hoberman worries that "physicians who cater to patients' demands that are motivated by vanity or social fashion diminish the stature of practitioners by making them as much beauticians as healers." But who is to judge what pain is suffered by the obese or the wrinkled, not to mention the parents of aggressive and inattentive children? And who has the right to say which conditions you must live with and which you may mobilize the resources of chemical or surgical art to avoid?
The notion of what is normal—and, therefore, of what physicians may seek to restore and what they should leave untouched—isn't arbitrary, but neither is it unambiguous. A recent celebration of the biotechnological future, Ramez Naam's "More than Human: Embracing the Promise of Biological Enhancement" (Broadway Books; $24.95), points out that athletes' use of injectable erythropoietin (epo) to boost their red-blood-cell count, and thus their endurance, may come to be replaced by some sort of gene therapy—a once-and-for-all introduction of the genes allowing individuals to produce a higher level of red blood cells as long as they live. Is it an unnatural result when it's produced by your own undrugged body?

When anti-doping organizations condemn steroids as a threat to the "integrity" of sport, they take a view about what should count as artificial enhancement and what as legitimate treatment. So it's worth noting that anabolic steroids not only helped Canseco turn into a home-run-hitting monster but also, he says, allowed him to recuperate from a series of back surgeries which could otherwise have ended his career. "I was on steroids and growth hormone," he recounts of his third surgery, "so I guess they accelerated the natural healing process."

There's overwhelming evidence that professional cycling, and particularly the Tour de France, is a chem lab on wheels, but even here the line between

the augmentative and the recuperative use of drugs is deeply unclear. Scaling the Alpe d'Huez is painful, and rebounding from *hors catégorie* climbs to ride the next day calls for extraordinary recuperative powers. Is it unethical for a doctor to assist cyclists in managing that pain and restoring that extraordinary version of "normal" function which allows them to do their job? Physicians who make their living doing so can plausibly see themselves as healers. Spectators following the Tour de France seem to understand that. Even at the height of the doping revelations of 1998, the public continued to show their support for the cyclists. And one reason they did so was, as Hoberman says, "their appreciation of the physical ordeal the riders had to endure. Many ordinary people who depended on cigarettes, caffeine, or alcohol to make it through their days had no trouble sympathizing with men whose suffering could be read on their drawn and haggard faces."

In one way or another, we've always been juiced. When coffee and tea were new in the Western world, they were seen as powerful (and often dangerous) mind- and body-altering substances. The historical anthropologist Alan Macfarlane has recently argued for a causal link between the rise of British tea-drinking and the burst of physical energy that accompanied the Industrial Revolution. Opiated artists and coke-stoked musicians inspire both a tragic sense of damaged lives and a widespread appreciation of their chemically modified imagination and chemically managed psychic pain. And what do we say about the socially transformative effects of the steroidal birth-control pill? Do we put an asterisk next to the sexual revolution?

So the notion of the natural doesn't resolve the baseball issue; nor does the notion of harm or the notion of proper medical practice. The right question to ask is whether steroid use among competitive athletes is *fair*. To be sure, the definition of what's fair (as opposed to what's cheating) isn't any less contestable than the notion of what's normal. Nothing but shifting cultural preference lies behind our view that Lance Armstrong is not cheating if he sleeps in a pressure chamber to boost his red-blood-cell count but would be cheating if he used epo; or our view that it's all right to use methylxanthines (the stimulants in coffee) but not ephedra. These are ethical matters, and although ethical judgments are historically changing and culturally variable, the conventions express who we are and what we value. We can't live without them. It's possible to imagine a future in which the medically supervised and regulated juicing of athletes will become the norm. (Even then, "natural" athletics would undoubtedly continue as a specialty taste, comparable to the organic-foods section in the supermarket.) But it's impossible to imagine any competitive sport or social practice in which some forms of advantage-seeking aren't defined as cheating and sanctioned accordingly. To complain that the rules are contingent and somewhat arbitrary is beside the point: games are the

celebration of such rules. That's what makes them games.

It's a matter of debate what damage "proper" steroid use might cause to baseball players and other athletes, as is the precise extent of current use. Hoberman maintains that steroid use is the natural consequence of the hyper-competitiveness and performance anxiety of our entire culture, and, if he's right, steroids are the price we pay for the spectator goods we demand. I suspect the matter is more complicated than that. The public is perfectly aware that the demand for performance creates the conditions for cheating in sport, as it does for fraud in science or in bookkeeping. But at the same time much of the public holds cheaters accountable for succumbing to competitive pressure. We've now decided that steroid use crosses the line. Yes, we're the ones who drew that line, and we could have drawn it somewhere else. But what of it? To understand all is still not quite the same as to forgive all. ♦