

## **Commercialization in Professional Cycling 1950–2001: Institutional Transformations and the Rationalization of “Doping”**

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The rediscovery in the past four years of the widespread and highly organized use of performance-enhancing drugs—known as “doping”—in professional cycling has thrown the sport into a period of turmoil. Through a critical historical analysis, the article argues that profound institutional changes introduced into professional cycling by the sport’s governing body both facilitated and reflected the increasing commercial penetration of the sport. These institutional transformations put new pressures on team managers and racers, leading to significant changes in team organizations and rider preparation, in part fostering a new social organization of doping practices.

Dans les quatre dernières années, la découverte de l’utilisation répandue et hautement organisée des drogues permettant d’améliorer les performances en cyclisme professionnel a jeté le sport dans une période de bouleversement. Par le biais d’une analyse historique critique, cet article suggère que les changements institutionnels profonds apportés au cyclisme professionnel par les administrateurs de ce sport ont facilité et reflètent la pénétration commerciale grandissante de ce sport. Ces transformations institutionnelles ont constitué des pressions nouvelles sur les athlètes et les gérants d’équipe, ce qui a mené à des changements significatifs dans les équipes et dans la préparation des cyclistes. En retour, ceci a favorisé une nouvelle organisation sociale des pratiques de dopage.

The scandal-plagued 1998 edition of the Tour de France has quickly become a major chapter in the recent history of doping in sport. The controversy was initiated by a customs check on the Franco-Belgian border of an official car, driven for the Festina team by support worker Willy Voet en route to the race, that uncovered a large cache—in the hundreds of doses—of illegal performance-enhancing drugs (Voet, 2001). Voet’s confessions to the police—followed by the subsequent publication of both the detailed diaries he had kept for most of his career, as well as the memoirs of Festina team director Bruno Roussel—sent shockwaves through the sport. Festina racers and support staff along with riders from other teams were removed from the race and subjected to interrogation while the Tour of ’98 degenerated into a series of police raids and rider strikes that together nearly ended the race. The investigations exposed a systematic doping program of stunning scale, organization, and efficiency in Team Festina; doping was routine for, and evident to, all team members and personnel, accepted (even if with reservations) as part and parcel of the successful organization of a modern cycling team (Roussel, 2001;

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Voet, 2001). Continuing developments over the past three years have only reinforced suspicions that such a program was by no means unique to Festina and had become the norm for many major teams.<sup>1</sup>

The “Festina affair” provoked the question: just *what* was going on in professional cycle racing? To casual cycling fans and the general public one seemingly plausible answer was that doping was a recent development in cycling, now destructively spun out of control. However, even a cursory examination of cycling’s history reveals that doping—that is, the ingestion of banned substances presumed to enhance athletic performance—has been with the sport from its inception. In fact, “sting” operations striking in their similarity to the “Tour of ’98” took aim at numerous Belgian races in 1965 (Rabenstein, 1997, p. 122; Woodland, 2001a, p. 50). In the words of Willy Voet, “Doping, in any shape or form, has always been an integral part of the culture of top-level cycling.” (Voet, 2001, p. 58) This is not to say, of course, that the doping products employed and the social organization of their use haven’t changed over time. To those more familiar with the sport and its long association with doping, but still stunned by the scale and sophistication of contemporary doping programs revealed by the Festina affair, Ivan Waddington’s recent analysis may prove to be more instructive. He argues that the current situation emerges from the particular conjuncture of two larger trends: the increasing medicalization of life and sport, and the increasing competitiveness of sport (Waddington, 2000, pp. 122, 127). Evidence presented herein supports the claims that medical science plays a larger role in contemporary cycling than in the past, and that racers, managers, and fans perceive the sport to be more competitive than ever before. Nevertheless, I believe that Waddington’s two core tendencies, taken at this high level of generality, are of insufficient analytical precision to adequately advance our understanding of “what has been going on in pro cycling.”

Thus, taking Waddington’s increasing medicalization and competition as a starting point I try to answer two basic questions with this article: *How* was professional cycling made more competitive? *In what ways* was this increasing medicalization institutionalized in the sport? I argue that specific and profound institutional changes were quite actively introduced into cycling by the sport’s governing body, institutional transformations intended to promote professional cycling by “rationalizing” and “modernizing” the sport. This rationalization process (a) deepened the commercialization of professional road racing, which was its express purpose and (b) pushed new competitive pressures on racers and the teams that employ them. This altered competitive environment (with new *kinds* of competition, not necessarily an abstract *increase* in competition) supported innovations in the organization of teams that proved fertile ground for similar innovations in the social organization of racer training and doping, thereby institutionalizing these new relations between medicine and cycling.

### Commercialization and Rationalization

From the outset it must be clear: professional cycling *is* commercial cycling. This sport offers up no tale of an idyllic, pre-commercial past later sullied by the cynical demands of business and money making. Throughout the period examined here—and even well before—cycling teams served as advertising and publicity vehicles for commercial concerns in return for monetary support. Thus my focus is not on the *advent* of commercialization as a discrete event, but instead the *degree*

of commercialization and its specific *impact* over time. Fears of the “over-commercialization” of cycling have been an almost constant presence within the sport over the past fifty years.<sup>2</sup> Commercialization has also figured prominently within the field of the sociology of sport (Whannel, 2000, p. 296)—or at least commercialization is an oft-cited factor in studies of sport and society. This paper does not aim to produce a general theory either of sport’s relation to capitalism and modernity, nor of the commercialization of all sport at a general level. My more modest intention is to establish and then analyze the ways in which commercialization has operated in cycling, how it has impacted the social organization of the sport and the practices of riders.

Much of the existing commercialization of sport literature is surprisingly unhelpful in making sense of the case of pro cycling, at least in the fashion advocated here. Although commercialization is frequently invoked as a causal factor in sports studies, few such studies actually attempt to spell out the specifics of how and why commercialization had the impact that it did on the actual sporting activity under investigation. Thus an ongoing debate regarding sport and globalization takes the role that commercialization has played in the diffusion and expansion of sports internationally quite seriously, but offers little insight into the impact that this process has had on the “micro” level of the play of the game and mentality of its players, not to mention the organizational structures which channel and impinge upon this activity.<sup>3</sup> Work of a more “culturalist” bent has also taken commercialization as central to the contemporary moment, positing a “sport-media complex”—or a “global media-sport complex”(Maguire, 1999)—that emerges from late-capitalism’s reliance on “mass *cultural* manufacturing . . . as a principal *mechanism* and *source* of capital accumulation”(Andrews, 2001, p. 134). Yet again, work from this perspective illuminates the macro-historical forces that have impacted sport as a general social institution while illuminating much less at the level of individual sports and their particular histories and structures.

Part of the problem has been the centrality of U.S. sports and sports structures in a good portion of existing studies. The league and franchise system by which most major sports in North America are organized shares little in common with the considerably less centralized structures of elite-level professional cycling. As one example, George Sage’s excellent attempts to dissect the power of money in U.S. collegiate and professional sports—and the general role of commercial sports in the political economy of the world-system—unfortunately offer up little insight into the operations of professional cycling, primarily because the locus of control and profit-making is much more diffuse and anarchic in cycling than in the major U.S. sports (Sage, 1998, 2000). In the same vein, work on the global expansion of football reinforces the relatively unique political power structures governing cycling, in which the crucial control of television broadcasting rights does not rest with the governing agency, limiting the insights that can be drawn by analogy from this otherwise informative case (Sugden & Tomlinson, 1998).

Fortunately, John Hargreaves has imposed some order on this multitude of approaches with a typology of the forms of commercialization in sport that enumerates four distinct types (Hargreaves, 1986, pp. 114-15).<sup>4</sup> Thus sport can (a) be run as a commercial enterprise itself (Hargreaves cites professional boxing as a key example), (b) receive money from commercial sources but remain organized along non profit-seeking motives, or (c) assist in the sale of sport commodities (such as equipment and clothing). Professional cycling falls under his fourth form

of commercialization, one in which, “sport may aid capital accumulation indirectly, by making an accommodation with capital such that the former functions as a sales adjunct to the latter through the medium of sponsorship and advertising.” (p. 115) Hargreaves emphasizes that: “Market pressure imposes an instrumental rationality on sporting institutions, just as it tends to do so on the institutions that comprise civil society as a whole, *but this does not necessarily transform them into capitalist enterprises* [italics added]” (p. 114). Professional cycling teams are not strictly capitalist organizations but rather rely—through Hargreaves’ “accommodation” of sponsorship—on capitalist enterprises for their funding. That is, although the team is not organized as a profit-making endeavor itself, the capitalist logic of the sponsoring corporation is still brought to bear on the team in so far as it serves as a promotional branch of the firm.

Critical for this investigation is his recognition of a push for “instrumental rationality” as the mechanism by which “market pressure” is transmitted and applied to the commercialized team. Of course, Hargreaves’ terminology parallels that of Max Weber (1968), who theorized “formal” rationality as “quantitative calculation or accounting” (p. 85) applied to the means and ends of a given social (generally economic) action. Weber saw formal rationality’s focus on pecuniary “efficiency” as the hallmark of capitalist modernity. Allen Guttman has, in a number of works, advanced a similar Weberian thesis in the form of a typology used to distinguish modern sport from other forms of ludic activity (Guttman, 1978, 1994, 2000). At the heart of Guttman’s analytical apparatus lies Weberian rationalization—under the guises of role specialization, bureaucratization, quantification, as well as rationalization proper—as the central underlying force in the modernization of sport (Guttman, 1978, p. 16). Guttman is certainly cognizant of commercialization, but seems to discount its influence, theorizing commercialization as itself another variant of modernization: “Most of the diseases of modern sports, however, have infected all modern societies and cannot be associated simply with commercialization” (p. 73) Given his larger-scale concern with the development of sport as a general social institution, Guttman may well be correct; in the context of this study his overall thesis isn’t challenged directly so much as it is problematized and complicated by the more specific details of the case at hand.

Following these theorists, I argue that it is precisely this trend toward increasingly formally-rational structures, ones designed to facilitate higher degrees of calculability in various aspects of the sport, that has driven changes in the sponsorship and organization of professional cycling. As such, the argument is very much in line with Guttman’s theses. However, I depart from his argument in so far as I more directly link the pressures associated with increasing commercialization—rather than a more nebulous notion of “modernization”—to the rationalization of professional cycling. Thus, as commercialization deepens within the sport we can expect a greater emphasis placed on formal rationality or efficiency both at the institutional levels of the sport and at the unit level of individual teams and their riders.

## Data and Methods

There are two major hurdles encountered when attempting a critical scholarly analysis of professional cycling: the standing of pro cycling itself in the academy and at large in North America, and the inherent difficulties of addressing

illicit and “immoral” activities within the sport. Notwithstanding a recent increase in attention paid to bike racing in the U.S. resulting from Lance Armstrong’s successes in the Tour de France, elite (European) professional bicycle racing remains firmly on the fringes of the U.S. sporting scene—as does domestic professional racing, for that matter. The lack of general public interest effects a similar lack of scholarly attention paid to the sport; as one illustration, the comprehensive, 570-page *Handbook of Sports Studies* yields a *single* reference to “cycling” in its index (Coakley & Dunning, 2000). Suffice it to say that the research of those scholars interested in bicycle racing must be undertaken in a comparatively pragmatic and resourceful fashion. Not surprisingly, most of the few existing studies of bicycle racing within the sociological literature acknowledge these difficulties and rely, at least in part, on their authors’ own experiences as fans of, and participants in, bicycle racing (Albert, 1991; Palmer, 1998, 2001; Williams, 1989). A similar reliance on the opinions and observations of “experts” serves as a critical source of documentation in this paper in two ways.

Firstly, as these others have done, I rely on my own experience within the world of bicycle racing as a crucial source of information. I have been engaged as an avid fan of, and participant in, bicycle racing for 14 years. Importantly, I spent the 1997 season racing as an elite amateur with a French team, affording me direct insight into the customs, practices and general culture of bicycle road racing as it exists in its “heartland.” The presence on our team of a highly ranked French rider offered many opportunities to race in a number of prestigious international amateur events, both in France and Spain, with many of the biggest and most respected amateur teams. It is from this milieu that most professionals emerge; indeed, a number of riders I raced with—including a former roommate—have since gone on to professional careers in Europe and the U.S. and my former team has since become a “feeder” for a major professional squad. This experience as an elite rider in France offered a very privileged contact with the daily operations of bicycle racing. Importantly it also gave me particular insight into the second problematic area mentioned above, the illicit practices of doping and other “immoral” activities within the scene. Not surprisingly, there are few ways in which “outsiders” can penetrate the inner sanctum of racers engaged in illegal doping short of intentional subterfuge and surveillance. My time in France, although not in the professional ranks, offered an entrée into these generally closed social spaces—the “backstage” of racing—where normally hidden and illicit activities were brought into the open and discussed more freely.

The second form of expert information employed herein is analysis of a large volume of primary and secondary writings on the sport culled from magazines, papers, personal correspondence, websites, and books. This paper reflects a substantial review of existing English-language books and periodicals on racing history supplemented as well by many French sources. I also rely on a number of interviews with major administrative and organizational figures within the sport published in cycling magazines and news sites, as well as works published by leading cycling historians.

### **Professional Road Racing 1950-2001: Three Phases**

Before engaging the historical argument, a brief review of two key aspects of the sport at the organizational and institutional levels is required. A professional

road bike race is a *team* endeavor won by an *individual* racer. The essential organizing force acting on a bike race is the presence of wind resistance. By riding closely behind another cyclist, a racer can diminish their effort by about 30%; this technique of “drafting” serves as the foundation for much of the tactical work involved in winning a bicycle race. Clearly the presence of teammates willing to assist in this task of fighting the wind greatly increases one’s chances of success in a race.<sup>5</sup> Although a strong team cannot win without a strong individual leader, a strong leader cannot win races with any consistency without a strong team supporting him. Thus, the basic organizational unit of the professional cycling world has long been—and continues to be—the team; these teams are supported by a principal commercial sponsor and referred to by that sponsor’s name.

Institutionally, the Union Cycliste International (henceforth, UCI) serves as the governing body for the sport. The UCI is charged with the administration and promotion of professional and amateur competitive cycling and stands above the individual national cycling federations. As such, the UCI sanctions all “official” races, controls licensing, adjudicates disputes within the sport, creates the rules and regulations which govern the sport, measures and validates records, and is charged with the general promotion and expansion of the sport on a global scale.<sup>6</sup> The UCI’s jurisdictional control has shifted over its 100 year history (Wilcockson, 1992b). For the first sixty years of its existence the UCI oversaw the whole of international cycling, amateur and professional. In 1964, under pressure from the International Olympic Committee to eliminate the possible influence of professionalism on Olympic cycling, the UCI divided itself into two sub-federations: the *Fédération Internationale du Cyclisme Professionnel* (FICP) for professional racing, and the *Fédération Internationale Amateur de Cyclisme* (FIAC) for amateur Olympic racing (Ibid). With the admission of professionals into the Olympics in the 1990s the FICP/FIAC power split was eliminated and full governing authority reverted back to the UCI in 1993.

The history of bicycle racing, in all its forms, is a substantial one well beyond the scope of this article. Here the focus is solely professional road racing across a smaller span of time, from 1950 up to the present. The analytical schema of the argument dictates the historical narrative be broken into three phases: the pre-reform, or “classical,” period from 1950-1984, the period of rapid change and reform from 1984 to 1989, and the post-reform contemporary period from 1989 to the present. For each period I will review three key areas of change: team organization and sponsorship, racing organization (or the inter-team dynamics of the sport), and rider preparation.

### ***The Classical Period: 1950–1984***

*Team organization.* What is referred to here as the classical period coincides with road racing’s full maturation as a major popular sport in Western Europe. Pro racing was marked by very little specialization by riders, and powerful hierarchies and customs that dictated the operation of races and organization of teams. The standard team consisted of under fifteen riders with only a few staff members dedicated to keeping the team running behind the scenes; such workers would be a mechanic or two, the team director and an assistant, and the *soigneurs* who looked after the riders’ health and recuperation. A single racing squad was drawn from this roster for each event with the assumption that a few riders would

be sick, injured, or out of form at any given time. Up until the early 1950s, manufacturers of cycling goods sponsored teams.<sup>7</sup> The 1953 and 1954 seasons witnessed the controversial arrival of the *extra-sportif* (or non-sporting goods) sponsor with the entrance of teams supported by Nivea beauty products and St.-Raphaël alcoholic beverages (Woodland, 2000c, p. 82). Thus, across the classical period professional cycling teams were funded by commercial, or “trade,” sponsors but this support was far from generous, as evidenced by the lack of significant administrative infrastructure and low salaries. Sponsorship in this period relied on teams to generate publicity exposure and general good will—the basic relationship that remains to this day—but its commercial sophistication was circumscribed both by the limited geographical mobility of most teams (discussed in more detail in the following section) and the extent to which sponsors of modest means could adequately provide for a team as well as accurately ascertain the true economic benefit to be derived from sponsorship.

Major teams were almost always structured around a single dominant leader—occasionally two—expected to garner nearly all of the team’s results. Racers lacking the talent and/or charisma to assume a leadership position were relegated to a subordinate worker role as indicated by their designation as *domestiques* or *gregarios*.<sup>8</sup> These professional workers oftentimes held non-cycling jobs during the off-season months when they weren’t racing, as team salaries during the season were frequently too small to pay one’s year-round living expenses.<sup>9</sup> In the words of cycling historian Geoffrey Nicholson: “Few sports had such a rigid hierarchical system or treated the members of the team so unequally. In each team there would be a leader, and one or two senior ‘protected’ riders; the rest were *domestiques*—servants—which was a remarkable category to find in any sport. . . . To a degree it was an apprenticeship, but many *domestiques* burnt out whatever talents they had brought into the sport before they had a chance to display them” (Nicholson, 1991, p. 18). For the bulk of “professionals,” such a designation was more nominal than concretely meaningful in practice. Team leaders made enough money to support themselves training and racing year round, but very few cyclists attained any lasting wealth from racing. Most returned to low-prestige occupations upon retirement having saved very little money during their racing years. Pro cycling in this classical period was mainly a “blue-collar” sport practiced by the sons of the lower classes for fans from the same milieu (Nicholson, 1991, p. 17).<sup>10</sup>

Professional racing was an insular sport with most riders hailing from four western European countries: Italy, France, Belgium and Spain. The smaller countries of Switzerland, Holland, and Portugal also contributed a number of riders. A few individual riders from Britain maintained racing careers with Continental teams, some with major success. Many professionals and teams rarely left their respective home countries to race, focusing instead on events of regional or national significance. Races outside of Western Europe were extremely rare and were generally treated as novelties—as were non-European riders. Professional cycling up to the mid 1970s was certainly not a global sport, and indeed couldn’t even be considered a true *European* sport if one applied a strictly geographical definition to that label, particularly given the Communist states’ withdrawal from commercial sporting competition.

*Race organization/inter-team dynamics.* Because only a small number of team leaders were expected to deliver the major results during this era, the bulk of

racers cared very little about their own results. The resulting atmosphere was one of marked fraternity amongst racers who spent many months on the road doing similar races under similar hardships. These conditions gave rise to customary practices and “rules of the road” — some of which are still known today — that governed the forms of competition deemed acceptable, as well as the expected level of sportsmanship amongst the racers. Team leaders, the stars of the sport, were respected by workers from all teams, not just their own. Thus, deference to the authority of experience strongly discouraged actions such as going on the attack in a race when a rival or his teammates were stopped for a “toilet” break at the side of the road or held up by a mechanical problem with the bike.

Low pay for the majority of riders combined with this rigidly hierarchical structure to support a number of practices that ensured those on the lower-rungs of the hierarchy were at least minimally compensated. A dominant motivation for most riders during this period was the rather immediate one of earning enough money to be able to simply afford to remain in the sport. Professional racers in the classical period might reasonably be compared to the wait-staff at restaurants in the U.S. that earn a base-salary below the level necessary to sustain themselves but manage to survive through the customary social institution of customer tipping, with support racers relying on similar arrangements to augment meager wages. Indeed, the modern team organization evidently sprang from such pragmatic needs for livelihood on the part of workers and racing success on the part of a star when, in the 1953 edition of the Tour de France, French star Louison Bobet convinced a reluctant group of teammates the overall victory could be his so long as his teammates sacrificed their ambitions in support of his success; his promise to divide the winner’s substantial prize-money amongst the team sealed the deal (Woodland, 2000c, pp. 163-164). Such an arrangement became the norm in the classical period.

Similar intra-team arrangements were most conspicuous in the *critériums* in France and the *kermesses* in Belgium, races of ambiguous competitiveness oftentimes run more as exhibitions or spectacles in smaller towns and villages, particularly following the Tour de France (Abt, 1990a, pp. 81-82). These races were—and still are—routinely “fixed” in advance by the riders, guaranteeing a popular rider or recent Tour de France standout would win. In return, prize money would be split amongst participants, ensuring that all riders benefited from playing their “part” in the fix. In the classical period, the post-Tour de France *critérium* circuit served as the financial backbone for many racers, the period during which time they might earn the bulk of their earnings for a season (Abt, 1990a, p. 82; Kimmage, 1998, pp. 96-98). Team leaders would frequently insist that their domestiques be included in their appearance contracts for the lucrative circuit, rewarding sacrifices made throughout the season. The buying and selling of races, although not nearly as routine outside of the *critérium* circuit, spilled over into other races, a fact acknowledged by rider Tom Simpson when he noted the regularity of reporting such race bribes to the government: “You just wrote ‘bribe paid to . . .’ and the name of the rider, and the tax man was happy, presumably because he could then check the other man’s figures and make sure the bribe showed up there as well”<sup>11</sup> (Woodland, 2000b, p. 125).

In the final analysis, all of the arrangements detailed here — the hierarchical intra- and inter-team structures, the fixing of race results and paying of bribes, the low salaries — functioned in a rather organic fashion to reinforce and support each other in the classical period. Star rider Rik van Steenbergen, referring to the demands



of making a living racing bikes in the classical period, summarized these customary arrangements in 1967<sup>12</sup>:

Sometimes I had to ride in Paris and then immediately after the race get into my car and drive for ten hours to Stuttgart, where I was back on my bike again. Things like that happened every week. There was nothing you could do. An organizer wanted this star and that star on his bill and he paid handsomely for it. Another organizer wanted those same stars a day later. . . . The top riders were obliged to be fresh each time and they couldn't do that without stimulants. Nobody could or ever will be able to do that because there are no such things as supermen. *Doping is necessary in cycling* [italics added]. (Woodland, 2000c, p. 57)

*Rider preparation.* Mimicking the low level of material afforded by teams, rider training and preparation remained relatively unsophisticated during this period. There were few, if any, major breakthroughs or innovations in the realm of training between 1950 and the mid 1970s that represented cumulative advances in training knowledge building upon prior findings in a scientific fashion. Conventional wisdom during this earlier period had been that racers should spend the bulk of their winter and early spring months doing long, slow endurance rides while pedaling easy gears to develop a deep fitness “base” as a foundation for the season. Team training camps were sometimes convened, but these too lacked scientific oversight and relied more on the paternalistic lead of more experienced riders for direction (Fotheringham, 1999b, p. 55). Early season races in sunnier climates were used as “training” races, a chance to begin introducing race-level stresses to the body without the pressure for high performance. Fatigue and fitness levels were “measured” subjectively by the rider and coach’s opinions on the subject. When harder efforts were prescribed they were often undertaken in a fashion designed to simulate a race experience rather than by any objective criteria.<sup>13</sup> Coaches and trainers normally were team directors or other administrative figures in the team who had most likely been successful racers in the past. These trainer figures—even those not affiliated with teams but known to be experts in the field and thus consulted by individual racers—were rarely certified doctors or medical experts. Indeed, there was little interplay between medical science and the training of professional cyclists.

Bicycle racing and doping were partners from the start.<sup>14</sup> With the arrival of amphetamines in the early 1950s, doping grew more effective and common, although during this era the official legal stance on doping was turning against the practice. Citing a former racer from the 1960s named Manfred Donike (who himself published a book on doping), Rabenstein argues that, “the consumption of amphetamines became almost a matter of course in top sports during the 1960s, ‘so that from 1960 to 1967 no professional cyclist would take part in an important race without being doped’” (Rabenstein, 1997, p. 122). Professional cycling was one of the first sports to institute mandatory drug testing at events, introducing such controls in 1966 (Verbruggen, 1999).<sup>15</sup> Racers strongly opposed these early attempts at drug testing (Cashmore, 2000). The Frenchman Jacques Anquetil, one of the best racers of all time, was notorious for frankly acknowledging doping, frequently making comments like, “Yes, I dope myself. You would be a fool to imagine that a professional cyclist who rides 235 days a year in all temperatures and conditions can hold up without a stimulant” (p. 193). Rabenstein cites at least

seven other pro racers from the era who shared such an attitude publicly — including British professional Tommy Simpson, who would later die from amphetamine use and dehydration in the Tour de France (Rabenstein, 1997, p. 123). Such a pragmatic stance was also reflected in the comment from Van Steenbergen cited in the last section, one unconcerned with the pursuit of ceaseless athletic improvement (in the “higher, faster, stronger” mold) but rather with facilitating a host of practices that, taken as a whole, allowed for the material reproduction of riders and the sport.

The social organization of doping was governed by structures of custom in the classical period, initiated and administered by individual racers mainly with the assistance of coaches and/or other racers. With the move to the legal ban of doping beginning around 1967, the practice had to go “underground” where it might be sheltered from public and official view. Drugs were procured through trainers or coaches and dosages determined by word-of-mouth exchange based on amateur trial and error and a collection of “old wives tales” (Voet, 2001, pp. 39-41). In this sense, the social organization of doping in cycling merely reflected the social organization of training and rider preparation prevailing at the time. Amphetamines and other stimulants — though still used to this day (Delbeke, 1996) — are rather crude performance-enhancers that certainly do not require a complex and carefully monitored medical regimen and the oversight of a medical doctor; these are “race-day” drugs an individual racer can utilize for important events. As in many sports (Todd & Todd, 2001, pp. 70-77), unregulated anabolic steroids were widely used in cycling in the 1970s under conditions similar to those structuring the use of amphetamines (Rabenstein, 1997, p. 124; Voet, 2001, pp. 38-41). Although team administrators, support staff, and teammates were all involved in the organization and expansion of doping during the classical period, such participation was informal and left doping as a loose system reliant on informed speculation combined with traditional knowledge.

### ***Transition and Reform: 1984-1989***

Nineteen eighty-four brought significant enough changes in the realm of training and team structure to prompt one historian to label it the “year of the revolution in modern cycling” (Sidwells, 2001a, p. 71). Here, we might modify the statement to read, “the *beginning* of the revolution in modern cycling,” for such changes didn’t impact all aspects of the sport equally.

*Team organization.* Although still a very small minority, non-European racers were beginning to make inroads into cycling. Most symbolically significant, a contingent of racers from Colombia made their first appearance at the Tour de France in 1983, returning in 1984 to significant success (Abt, 1990a, pp. 89-93). This new inclusive spirit had no doubt been hastened by the growing presence of English-speaking riders from the U.K., Australia and, to a much lesser extent, the U.S.A. Frequently referred to as the “Foreign Legion,” this group of Anglophone riders generally passed through the French amateur system before signing professional contracts with continental teams (Guinness, 1993). The first continent-based American professional team — sponsored by the “7-Eleven” chain of convenience markets — arrived in 1985 (Alexander & Ochowicz, 1986, p. 91). Significant national chauvinism still existed, though, as evidenced most acutely by the experiences of Foreign Legion riders Stephen Roche in the 1987 Giro d’Italia (Abt, 1990a,

pp. 122-123) and Robert Millar in the 1985 Vuelta a España (Tour of Spain; Abt, 1990a, pp. 94-97).<sup>16</sup> In short, an influx of foreign riders signaled changes afoot in pro cycling, but initially barely altered the traditional arrangements within the sport as these riders were assimilated.

The arrival of American racer Greg LeMond—who had not followed the French amateur path paved by the Foreign Legion—presented a more profound shift in traditional team arrangements, principally in the area of salary negotiations and pay scale. For the 1985 racing season, LeMond signed to the year-old French team (called *La Vie Claire*) organized around the most dominant racer of that era: Bernard Hinault. LeMond brought a new, harder-edged bargaining style to the table and walked away with a contract for \$1 million over three years, a sum far exceeding anything that a racing cyclist had ever been paid before (Abt, 1990b, pp. 82-84). The signing of LeMond's "million-dollar contract" sent shockwaves through the sport, quickly raising the pay scale for all major stars. The *La Vie Claire* team itself also represented a new breed of commercial sponsor, organized, as it was, by French entrepreneur Bernard Tapie, who sought to quickly build the world's best team through expensive acquisitions of a number of star riders—all in a self-described attempt to "drag professional bicycling into the twentieth century." (Abt, 1990b, pp. 82-88) In hindsight *La Vie Claire* serves as a leading example of the new kinds of team sponsors entering the sport in the mid to late 1980s. Sponsorship began to move away from the small-scale, "shoestring" endeavors of the classical period and toward the more sophisticated marketing tactics of large corporations. The Dutch multi-national PDM was another such pioneer in the area of more commercially astute sponsorship. Upon entering the sport as a sponsor of one of the largest teams in the late 1980s, PDM "expected to get seven times the money [invested] in publicity value. Before becoming a sponsor, the company had taken a poll of ways to achieve instant recognition, and believed that professional bicycling was quicker and cheaper than any other means" (Abt, 1990b, p. 138). The commercialization of pro cycling was deepening, with larger firms beginning to apply a different, more rational and commercialized, logic to team sponsorship.

*La Vie Claire* also represented a shift in other aspects of team structure, as noted by American rider Andy Hampsten in 1985:

The team is not structured so we all have to work for one person. The most important thing is for the team to win. Whoever wins is secondary. In our philosophy, in our guidelines, a *La Vie Claire* rider has to win and we always work for each other. It used to be there's one captain on a bicycle team and everybody has to work for him. Paul Koechli [team director] prefers it to be the team has to win but he wants each rider to be out there thinking, "Here's my moment—if I can go for it now, I'll have the whole team working for me." (Abt, 1990a, p. 49)

In truth, tentative steps toward such intra-team arrangements actually began to emerge at the end of the classical period, in the mid-1970s. Although the more traditional team organization was still to be found in the majority of teams, more pioneering team directors—such as Peter Post on the TI-Raleigh team, Cyrille Guimard on *Gitane*, and Giancarlo Feretti on *Bianchi*—were beginning to organize their teams in a less hierarchical fashion (Fife, 2001, pp. 74-75; Fotheringham,

2000; Sidwells, 2001b). Nonetheless, the traditional team organization remained the norm during this period.

*Race organization/inter-team dynamics.* Although some very significant changes were being felt in team organization and training, the organization of competition in events and the inter-team dynamics of cycling remained relatively unaffected until rather late in this transitional period. Indeed, Bernard Hinault is now viewed as the last real *patron* of the sport (Truysers, 2001), a term used to denote a rider who's total dominance inspires such fear and respect on the part of other riders that he is looked to as the de facto "boss" of the sport. Hinault won his record-tying fifth and final Tour de France in 1985, but his "reign" had extended from the mid-70s until the mid-80s. This kind of dominance by a single rider—characteristic of the classical period—still marked cycling up until Hinault's final season in 1986.

*Rider preparation.* In 1984, Italian champion racer Francesco Moser, whose previously bright career was beginning to dim, shattered the world hour record that measures distance covered by a lone cyclist in an hour. Moser stunned the cycling world both with his new, aerodynamic bicycle and his scientific training regimen leading up to the record. Seeing an ageing pro whose career began in the classical period set such a record by adopting the new-fangled technology of the "funny" bike (named for its heavily sloped rider position and solid, carbon honeycomb and oddly-sized "disk" wheels) and scientific training methods was another indicator that older ways of doing things were now somewhat suspect. Moser's training program relied on a newly developed portable heart-rate monitor and the careful oversight of physiologist Professor Francesco Conconi.<sup>17</sup> Conconi and his protégé Dr. Michelle Ferrari would become cycling's best-known and well-regarded doctors in the 1980s, a reputation they would maintain up until the turn of the century. The previously moribund world of training made great scientific leaps across the 1980s, principally as a result of Conconi and Ferrari's work.<sup>18</sup>

Changes in the practice of doping remained *evolutionary* and minimal during this transitional period, particularly in comparison to the more *revolutionary* advances noted in the science of training. Although the use of amphetamines continued, apparently the more significant developments came with refinements in the use of steroids (Kimmage, 1998, p. 42; Voet, 2001, p. 58). Major U.S. successes at the 1984 Olympics in Los Angeles were later marked by a scandal involving the use of "blood-boosting" by American athletes, a practice whereby donor blood was collected, its oxygen-carrying red cells separated from other blood components, and the red cells re-injected into the athlete soon before competition (DeCrosta, 1985). Although controversial at the time, the Olympic blood-boosting scandal seen in hindsight served more as prescient foreshadowing for a major paradigm shift in doping that would arrive six years later than as any revolutionary change in the mid-1980s.

### ***Institutional Reform: The Mondialisation Campaign***

Professional cycling in this transitional period was thus marked by a number of trends that had yet to be unified in any coherent manner; the sport was in a period of flux. Many of these nascent trends would find their advocate in the new president of the FICP, Hein Verbruggen, an administrator without a strong

background in cycling. What Verbruggen perceived was a sport in stagnation, maybe even decline. As he said in 1992, “Five years ago, cycling was an old train that stopped somewhere in the middle of nowhere” (Truyers, 1992, p. 30). In the same vein, Greg LeMond wrote: “European cycling had stagnated in the 1970s and the sport had taken on a vanilla-plain, proletarian stamp that it was desperately trying to shake” (LeMond & Gordis, 1990, pp. 346-347).

Verbruggen sought to remove a number of purported fetters on the development of a “modern” sport. He looked to broaden the scope and scale of cycling, drawing in new riders and fans from throughout the world with more competitive and exciting races and more stars contending for victory. In Verbruggen’s view, the traditional star-rider system had stifled bicycle racing:

Every time, in the past, it was necessary that the stars alone win. Everything was arranged so they would win, even when the stars weren’t necessarily the best. With the help of their teammates, the races were controlled and not always contested as they should be. In one phrase, the strongest didn’t always win. (Guinness, 1990, p. 35)

Verbruggen focused on two major scourges, as he saw them: the buying and selling of races (Guinness, 1990), and doping (Tytgadt 2001). The reform measures thus introduced by Verbruggen were all interrelated, but can be reduced to three main actions: Globalization/*Mondialisation* of the sport, the creation of a World Cup competition, and a computerized rankings system governing admission to races.<sup>19</sup>

*Mondialisation*—as it was referred to in the original French—was more of an overall guiding philosophy than any single organizational reform. *Mondialisation* aimed for a global expansion of cycling intended to attract new riders from, and new fans in, places previously untouched by cycling. In Verbruggen’s vision this meant expanding the racing calendar to include races outside of Western Europe as well as opening the sport to more teams and racers hailing from non-traditional cycling nations. As discussed above, there was already a nascent *mondialisation* at work before the FICP’s institutionalization of the concept with the advent of the “Foreign Legion” and the Colombian teams. *Mondialisation* also coincided with the collapse and reintegration of the Communist nations of Eastern Europe and helped to quickly integrate excellent racers from those regions into the ranks of the professionals.

The creation of a World Cup series of races addressed a long-standing concern within bicycle racing: recognizing and rewarding consistent rider performance in one-day races over the course of a long season. A version of such an award had existed for some time, starting in 1958 as the Super Prestige Pernod Trophy with only French events, but expanding to include events outside of France in 1961 (Henderson, 1970, p. 146). Such systems had simply attached a points structure to the pre-existing major races on the calendar, totaling them at the end of the year for a winner. The World Cup series went beyond this by actually designating a collection of races as marquee “World Cup” events. The World Cup relied on some of the older monuments of cycling but, most importantly, added a few newly formed races to the series each year on a rotating basis. These additional races gave the FICP a powerful lever over the tradition-bound racing calendar, as the FICP could now—through executive fiat—potentially *make* a race important even if it hadn’t been prior to the World Cup. With this tool at their disposal, the FICP could more

easily promote *mondialisation* by designating races outside of Western Europe as World Cup events, guaranteeing participation by the top teams and journalistic attention devoted to the new event. In practice, the FICP/UCI's ability to promote such non-European races was limited, as World Cup races in Canada and England were discontinued after only a few editions and a proposed event in Baltimore never materialized. Nevertheless, the original intention had been to use the World Cup format to offer a new season-long incentive to riders while also promoting *mondialisation*, a double mandate emphasized by Verbruggen in 1990: "Cycling has been European too long. The sport has to enlarge its outlook or it is lost. That's why we are going to organize big races everywhere in the world [the World Cup races]. We hope foreign companies will become interested enough in cycling to put money into teams" (Truysers, 1990, p. 60).

The final and most powerful reform enacted by Verbruggen was the creation of a computerized rankings system. Much as the World Cup was introduced to evaluate racers over a season's-worth of significant one-day races, the rankings system was designed to measure racers' performance throughout the season in all events. The system, which came to be referred to as "FICP"—and now "UCI"—points, involved ranking nearly all events on the calendar by type of race (stage race or single-day race), difficulty (in both distance and terrain covered), and traditional significance and prestige. Based on this grading of the races, varying numbers of FICP points were then assigned to riders based on their results in these races. Importantly, unlike in the World Cup series, this points system is not "top heavy," only rewarding the first few racers at each race. Instead, points awarded to racers go deep into the standings at races (and are even given out at relatively unimportant races), meaning that in the course of a season's racing nearly all professionals receive at least a smattering of points. In this way a scale broad enough to meaningfully classify all active professional racers was developed; these rider classifications are updated and published monthly during the season.

If a rankings system alone could be viewed as an FICP "carrot" to racers (*encouraging* them to compete for "overall" honors), the second component of the reform became the "stick" (*forcing* them to compete). For, concurrent with the creation of this points and rankings system, the FICP also altered regulations governing admittance to important races. Previously, race organizers had the authority to invite teams to be engaged in their races, oftentimes reproducing and preserving the regional characteristics of particular races. The FICP swapped this customary process for one in which the top teams on the FICP rankings would automatically be selected by the FICP for major races (like the Tour de France, Tour of Italy, World Cup races, and other major "classics" on the racing calendar). The criteria for ranking the top fifteen teams? FICP points. In addition to the individual rider rankings, the FICP/UCI also produces team rankings from a calculus of racers' points on each team. The advent of the rankings system for both teams and racers *in tandem with* the new rules for admission to the major races signaled a *profound* change in the political economy of professional cycling. The major races are precisely the reason major sponsors enter the sport since these events attract the bulk of media attention, particularly the highly coveted television coverage. Thus, entry into the major races directly determines which sponsors will realize the return on their initial sponsorship investment. The FICP/UCI points and ranking system would now serve as the gatekeeper to these crucial admissions.

### ***The Contemporary Period: 1990–2001***

By 1990 all of the FICP/UCI reforms were in place, their impact felt to a significant degree. Although the discussion below may on occasion extend its reach back to the reform period, it should be emphasized that 1990 has been chosen as the point at which the changes provoked by the reforms were truly institutionalized—rather than simply *introduced*—in the sport.

*Team Organization.* FICP/UCI points were first awarded 1986, but they only really started to have an impact in 1987 (Peiper, 1992). In that year, the rankings were first tied to admissions to major races, and the pressure to amass points—both individually as racers and collectively as teams—was first felt. At the level of team organization the major change was the decline of the intra-team hierarchy that had defined the sport during the classical period. Australian racer Allan Peiper recounted in 1992:

The points system was fun to begin with, but then came the rule of taking the five best-placed cyclists from each team, and adding their points together for a total team score. The top 20 teams could ride the World Cup classics and the Tour [de France]—the rest would miss out. So points became really important. Points *really* became money. The old system of team leaders and domestiques was to be undermined. (Peiper 1992, p. 91)

Team directors realized that the points-totals of their teams were the new basic currency in the post-reform sponsorship market, while sponsors realized that points were the key to media exposure and growth. On their side, riders realized that the days of selfless sacrifice were drawing to a close. Peiper was well aware of this himself, having spent much of his career in a worker role:

With no points, domestiques had no bargaining power at the end of the year. When it came time to talk contract, the sprints you had led out and the work you had done became overshadowed by ‘how many points do you have.’ [sic] Domestiques began to be inspired by points, and the desire to do well grew. (Peiper, 1992, pp. 91-92)

In the late 1980s and into the early 1990s, a new form of team organization was institutionalized. Following the direction of the early team-director pioneers of the late 1970s discussed earlier, the Italian “Ariosteia” team (and later “Gewiss”)—under the guidance of Giancarlo Ferretti—was first noted for successfully adopting a more egalitarian approach to hiring and team support. Ferretti set about hiring a number of top racers under the umbrella of a single team, rather than a single leader, offering each racer a leadership role and hence team support in different races. Ferretti’s approach allowed for a strong overall team with sufficient points to guarantee entry to top races, in addition to a more flexible hierarchy that could allow for potentially more victories in a season – provided that the top racers were given enough opportunities to garner results throughout the season. In this way the outright and uncontested dominance throughout the season of a single leader on a team was eliminated. The American 7-Eleven (later Motorola) team was another early adopter of this new, more egalitarian, organizational structure. Team director Jim Ochowicz was quite frank in attributing the structure of 7-Eleven to the FICP/UCI reforms:

What we have done is in response to the sport. The FICP has introduced two new systems: One is the Perrier (World Cup) and the other is the FICP world rankings. The rankings determine which teams participate in the World Cup, races like the Tour de France, and other major stage races. In order to compete in these events, we had to restructure the team. (Mantell, 1990, p. 52)

A constellation of “star” racers certainly still exists, however there are more stars per team and very few full-time support riders. Historian Les Woodland’s succinct summary: “These days teams have probable winners and likely winners. It could be anybody’s day. The star system is over” (Woodland, 2001b, p. 83). This view is clearly shared by retired Irish rider Sean Kelly, arguably the most dominant single-day racer of the eighties:

The UCI points system, the competition for Tour de France places and the preparation of the riders have all changed things. Every team has more winners now. In my time, there was only one, maybe two guys maximum, in each team with hopes of winning. (“Classics Special,” 2001, p. 47)

Real “domestiques” or “gregarios”—in the classical sense—are a rare breed in this new environment. As the aforementioned Francesco Moser put it:

Once the teams were built around one rider. Now everyone rides for himself. Racing’s more individual and it’s harder for a given team leader to win. . . . When I began, there were real domestiques in teams. When I stopped, they didn’t exist any more. (Woodland, 2000c, p. 92)

More precisely, old style domestiques have in some regards become media stars themselves in a somewhat paradoxical fashion, with their fame and market power drawn from the fact that they are so effective as sacrificial workers. These “super domestiques” are actually enormously talented racers frequently lacking the self-confidence or temperament to submit to the pressure for results commensurate with this talent. Instead, they have chosen to pursue careers as “watercarriers” as a means of relieving some of this pressure—a much different approach than that of the formerly anonymous team workers of the classical era.

These changes in team structure and organization were paralleled by shifts in team sponsorship, a process marked by deepening commercialization and an increasingly sophisticated and instrumental approach to the undertaking. As in the past, contemporary corporate sponsors extend their financial support as a means of generating increased media exposure, a portion of which still no doubt also falls under the category of “good-will.” Some sponsors also enter the sport in part from a corporate patron’s own personal interest in cycling (the Italian owner of the “Mapei” team is one such current example), while occasionally teams are supported by non-commercial sponsors like regional governments. Be that as it may, private corporations support all of the top twenty-two professional teams, although two of these teams—the Spanish “Once” and Belgian “Lotto”—are sponsored by national lotteries (Birnie, 2001). Furthermore, Mapei’s cycling fanatic owner’s team sponsorship is clearly not a mere indulgence of his personal passions: “We invest a lot in cycling because in most countries many of our clients are also interested in cycling. Our ‘Return on Investment’ is very good, and so that is why we sponsor cycling. In fact we recently decided to continue the sponsorship for another



three years *on the insistence of our marketing people* [italics added]"(Farrand, 1999, p. 59).

As Squinzi notes, money used to support a team is usually drawn from a corporation's marketing/advertising and public relations budgets and is viewed as an alternative to other possible avenues for media exposure. Sponsors assume, correctly for the most part, that their team's success in races will generate more "free" press coverage (e.g., more television time, magazine articles and pictures generated in the press coverage of racing) than could have been realized with the same amount of directly purchased advertising. Team sponsorship in the contemporary period thus follows the same general logic that structures the commercial bureaucracy of the global corporation, and is subjected to the same rational oversight applied to any other investment undertaken by that firm. Again from Squinzi:

Cycling is also ideal for Mapei because we can get worldwide exposure with just one sport. For example we recently had a team at the Tour of Langkawi in Malaysia. It's only a small race on the international calendar, but it was very important for Mapei because we have factories there, and the Malaysian and South-East Asian markets are important for our products. The race receives a lot of local media attention so we always send a good team. (Farrand, 1999, p. 59)

The "value-added" by sponsoring a team, and the instrumentally-rational logic of such an endeavor, was confirmed by a vice president for sales at the US Postal Service, sponsor of the team with which Lance Armstrong has won multiple editions of the Tour de France. Gail Sonnenberg stated: "Like any other sponsorship, it's about building our brand," continuing, "This is not something we do because it feels good"(Winter, 2000). Ms. Sonnenberg claimed that in 1999 the team "brought the post office \$10 million . . . more than offsetting the cost of being the team's title sponsor." The Managing Director of Danish corporation CSC echoes this sentiment regarding his firm's \$2.5 million dollar investment in a team: "We could have spent up to \$50 million dollars to have obtained the attention we've had so far. Cycling is perfect for branding a name"(Horsdal, 2001, p. 63) The largest teams now cost a sponsor around ten million dollars a year and small teams in the two- to three-million dollar range (Stevenson, 2001).

Not surprisingly, racers are paid substantially more than in the classical period; many first- and second-year professionals now make \$50,000–\$70,000 annually and top pros can make as much as \$6 million a year when endorsements are factored in (Fotheringham, 1999a). Base salaries on lower-ranked teams are around \$30,000, with a new "minimum wage" for cyclists of 15,000 Euros ("Minimum Wage Now Guaranteed," 2001). The level of material support (the amount and quality of equipment) for the racers has grown enormously as has the amount of medical oversight and training support. All teams now have at least one full-time doctor on staff—and more often two or three—and multiple traditional *soigneurs* who support the racers with massage, administration of medications, food during races, as well as coordinating transportation, lodging, and so on. All major teams now have custom buses and RVs providing racers with the necessary amenities on the road (showers, beds, laundry facilities), facilitating travel between races across Western Europe (Roussel, 2001, p. 39).<sup>20</sup> Teams are much larger now than ever in the past (some of the largest number in the thirties), and average team size in the first division is now 24 riders (Birnie, 2001, my calculations). Large teams are

split into different squads, each training for different objectives (different fitness “peaks” during the season) and attending different races. These smaller squads within larger teams oftentimes have little contact with team members in different squads for the bulk of the season, despite the fact that they wear the same racing jersey. Although the majority of riders still hail from Western Europe, an influx of Eastern Europeans (post-1989), North Americans, Australians, Scandinavians, Latin Americans and Britons has dramatically revised the “face” of professional cycling.

*Race organization/inter-team dynamics.* From the outset of the rankings system the most frequently heard complaint from the racers and team directors was the increasingly cutthroat nature of competition and the increased speeds in races. The “training” races of the classical period, used as a means of losing extra winter pounds in the company of fellow riders who had been out of touch since the last season, rapidly evolved into top-speed events as lower ranked racers tried to accumulate precious FICP points before the big-name racers came into form. Referring to one such long-standing early season event, Jean-François Quenet wrote in 1990: “There’s no getting around the fact that the Etoile de Bessèges is not just a training race. It’s turned into a serious international event, thanks to its enhanced financial status and those valuable FICP points” (Quenet, 1990). Team director Jim Ochowicz clearly shared this belief. When asked if the FICP points system had forced domestiques to race more aggressively, he replied:

Yes, that’s very much the case. Also the teams are becoming more competitive amongst each other for those points. . . . I’m only guessing, but I think the average speeds of the races in 1990 have increased by almost five percent; and the overall competitiveness of the players has increased 10 to 20 percent. Now, there are just a lot more riders who are fitter and more determined win bike races than ever before. (Mantell, 1990, p. 52)

The demise of the classical period’s hierarchical system of course freed more riders to pursue their own results, but with more riders needing and wanting those top results (and the FICP points associated with them) it ironically follows that getting those results becomes more difficult for everyone. Although the post-Tour de France *critérium* circuit still exists, it no longer occupies the central position in rider compensation that it once did. Potential Tour de France winners are now paid so highly, and are so specialized in their training for this one event, that they have little incentive to participate in the circuit. Team riders no longer rely so directly on race winnings for financial stability but are instead concerned with the more indirect financial pressure of obtaining a contract renewal for the next season, a goal best attained through good results in UCI-ranked races. Although the buying and selling of race results between riders and teams appears to still exist,<sup>21</sup> it seems that teams now pay bribes mainly to assure satisfactory results and coverage for sponsors, and riders do so when a bribe guarantees UCI points and improvement in market value.

Team directors and sponsors, not just riders, felt this increasing competition as well, as briefly mentioned by Ochowicz in his last quote. For administrators, the competition centered on hiring enough big-points riders and, most importantly, finding sufficient money to do so. In the winter of 1989, Greg LeMond signed with the French team “Z” for another record-breaking contract—this time worth more than \$1 million for a *single season* (specifically, the contract was worth \$5.5

million over 3 years; Abt, 1990b, p. 203). For a second time LeMond set off a pay explosion, particularly in the top-end of the salary scale; this time around, however, the stakes had been raised even higher. Star racers, like LeMond, now had FICP points to back up their clout and “market value.” The new salary and points dynamic came to a head in the early 1990s when global recession began to impact the availability of sponsorship money from large multinational corporations (Abt, 1992). The belt-tightening that began around 1992 induced a shake-out that altered the team landscape of the sport. With highly ranked riders demanding even more money, and with fewer sponsors willing to pay, a zero-sum game was being played and consolidation within the sport followed. Smaller teams that might have gotten by in the past by hiring mid-range riders and sending them to mostly mid-range races, with a few big media events thrown in via special invitation from a race director, simply couldn’t afford to field a team any longer; larger, more expensive, teams were left dominating the sport, a dynamic described in 1992 by John Wilcockson:

When one team is able to pad its ranks with so many top-ranked stars, there is a danger that even more of the smaller sponsors will decide that cycling is not a sport in which they can gain any success or publicity. . . . The smaller teams’ troubles have been exacerbated by the new rule that requires teams to be ranked by the total FICP points of their 10 best riders, not their top five. Only the big-money teams can afford to buy the best . . . leaving meager pickings for the rest. (Wilcockson, 1992a)

*Rider preparation.* The cycling season has grown longer, allowing riders only two months without racing during the year. Furthermore, these two months are still dominated by more relaxed (but voluminous) “base” training for the following season in addition to multi-week, team training camps. Scientific oversight of rider training is now the norm; all riders are now trained by specialized personnel either from their own team or contracted privately. The area of rider preparation in the post-reform period has thus been marked by the full institutionalization of scientific oversight.

The doping products currently *en vogue* in professional cycling represent a fundamentally different approach to performance-enhancement than many of their predecessors. The current drugs of choice appear to be: Erythropoietin (EPO), a hormone which stimulates the production of red blood cells thereby increasing the blood’s oxygen-carrying capacity; various anabolic steroids, which are used in cycling mainly to aid recovery rather than produce pure muscle bulk; human growth hormone (HGH), which works in a similar fashion to steroids with a much lower risk of detection; and, to a lesser degree, amphetamines and other stimulants (Rivier, Saugy, & Mangin, 2001). Steroids, EPO and HGH offer no direct and immediate advantage if taken on “race day.” These products work to augment and stimulate the natural training process, a process of “periodization” of gradually increased training stress applied to the body followed by recuperation which allows the body to compensate for anticipated future stresses with gains in strength and stamina. The successful application of these medicines to the training process thus demands a level of meticulous monitoring, calibration, and measurement beyond the capacities of the average professional rider. As such, these drugs represent a paradigm shift in both the physiological organization and the social organization of doping. If traditional doping provided an immediate performance “spike,” the new

epoch of performance-enhancing pharmacology would be best represented by an upward curve punctuated by periodic (and regular) plateaus. Each period of incline—as well as the plateaus—would be combined with the administration of an appropriate drug that would stimulate the natural body response above and beyond its normal level.

This is not to say, however, that the rise of increasingly specialized medical professionals within pro cycling teams has followed directly from the need for such practitioners to safely administer these sophisticated regimens. Rather, following Ivan Waddington, we might argue the inverse, namely that:

Far from being one of the key bastions in the fight against the use of performance-enhancing drugs in sport, sports medicine has actually been one of the major contexts within which performance-enhancing drugs have been developed and used. In this sense, it may be said that *the development of performance-enhancing drugs and techniques is not something which is alien to, but something which has been an integral part of, the recent history of sports medicine*. (Waddington, 2000, pp. 141-142)

Such a bold contention appears to be born out in the case of cycling. With the evidence revealed by the TVM and Festina team affairs, it was clear that each of these team's respective doctors were absolutely central to the development and reproduction to their systematic doping programs (Roussel, 2001; "TVM Trial: Suspended Sentences and Fines Handed Down," 2001; Voet, 2001, pp. 7, 89-91). More significantly, Conconi and Ferrari are currently under investigation by the Italian judicial system for allegedly administering a host of illegal substances—EPO being the most notorious—to riders individually under their care, a group estimated to number 63 of the sport's top athletes ("More Doping Allegations," 2000). In the case of professional cycling, the particular irony emerging from Waddington's comment above is that Prof. Conconi's research lab has received funding from the Italian Olympic Committee over the past decade to develop a reliable test for the detection of EPO ("Italian Allegiances: EPO Tracers the Hub in EPO Use," 1999). Should this ongoing legal investigation be supported by an affirmative court ruling, perhaps no better example could be found to support the idea that sport-medical science has played a major role in the refinement of the use of performance-enhancing drugs.

Strikingly, the advent of long-range planning in the realm of doping quite directly mimics similar developments in "legal" and "proper" training, many of which were most famously developed and advanced by Conconi and Ferrari. The concept of periodization—minus the addition of illicit drugs—has been one of the biggest advances in the realm of applied (legal) sports science in the past three decades (Friel, 1996, pp. 16-18). Importantly, the periodization approach has been further complemented and facilitated by the steady advance of various instruments designed to measure the performance and output of athletes.<sup>22</sup> The increasing volume and sophistication of training data these devices produce (Foster, 2001) has cemented the medical/scientific specialist's hegemonic position in the realm of rider preparation, further subsuming riders and teams to coach doctors. Star riders demand the services of "star" doctors to effectively manage and analyze the torrents of data unleashed by these devices. Riders and coaches are often in contact weekly or even daily during the season, with riders faxing the coach a printout of the day's training data and consulting about the following day's workout(s). Such

doctors frequently charge riders a percentage of their total salary, providing a direct incentive for the doctor to raise rider performance.

### Reprise and Conclusion

In the classical period we saw a comparatively old sport bound by long-standing, customary arrangements governing the organization of team structure, competition, training and doping. Although basically in equilibrium during most of the classical period, cycling was by no means moribund; changes were afoot as the sport entered the 1980s. The FICP/UCI reforms developed by Hein Verbruggen seized upon, and added to, a number of these nascent trends, formalizing and institutionalizing them in an attempt to uproot many of the “anachronistic” classical-era practices and thereby modernize and expand the sport. Verbruggen saw the broadening and deepening of commercial team sponsorship—combined with a global expansion of cycling’s fan base—as the key to expansion. The tools chosen to hasten this commercialization were the set of institutional reforms that imposed an increasingly formal rationality on the rankings and admissions criteria structuring professional cycling.

The less-hierarchical team organization characteristic of the post-reform period represents an effective adaptation to the new environment of increased commercial penetration and the formal economizing and calculability introduced by the reforms. Attempts to sell a team to a sponsor must be based on the pecuniary logic that motivates and structures the capitalist corporation. With access to the most popular and prestigious races governed by the distribution of FICP/UCI points, the acquisition and grouping of a larger number of better-ranked riders on a single team logically follows. Team sponsorship is a risk for a commercial sponsor, one based on the hopes and expectations that the team’s publicity generation value will exceed its sponsorship costs. The hierarchical form of team organization from the classical period was a riskier proposition in that it relied upon a single star’s success for team success, thereby also relying on that star’s luck, personal quirks, foibles and health. The new, post-reform team organization instead spreads the same risk over a greater number of racers, requiring each one be a better prospect for success than before. The points system places greater performance pressures on both riders and teams, demanding both organizational innovation (this new team form) in response to an altered institutional environment, as well as new training and preparation practices on the part of the riders.

The argument advanced has certainly *not* been that the increasing commercialization of professional cycling somehow led naturally and directly to an “out-break” of doping. Instead, I view the relationship between doping and commercialization principally as one of *unintended* consequences. The title of this article is meant as a double entendre, for the institutional transformations prompted by, and supportive of, increasing commercialization provided both the *rationale* for increasingly sophisticated doping while also *rationalizing* the organization of the doping process itself. The more powerful rationale for doping has been the increase in performance pressures felt by more riders. The rationalization—in the sense of increased means/ends efficiency—of the social organization of doping has developed from the rather coincidental increase in the size and organizational sophistication of teams that resulted from the FICP/UCI reforms as well as the increase in financial means provided by larger commercial sponsors. The

fundamental ends in professional bicycle racing—winning races and making a living—have not changed substantially over the past fifty years. What has changed, quite markedly, are the organizational forms and modern scientific tools that are placed at the disposal of those aiming for those same ends, in addition to new kinds of performance pressures placed on riders and teams. The presence of competition in the abstract has not changed, but the “rules of the game” by which competition is channeled and institutionalized have been altered, to evident and profound effect.

## References

- Abt, S. (1990a). *In high gear*. San Francisco: Bicycle Books.
- Abt, S. (1990b). *LeMond: The incredible comeback of an American hero*. New York: Random House.
- Abt, S. (1992, March). The French sickness. *Bicycle Guide*, 18-21.
- Albert, E. (1991). Riding a line: Competition and cooperation in the sport of bicycle racing. *Sociology of Sport Journal*, 8, 341-361.
- Alexander, D., & Ochowicz, J. (1986). *Tour de France '86: The American invasion*. South Pasadena, CA: Alexander and Alexander Publishers.
- Andrews, D.L. (2001). Sport. In R. Maxwell (Ed.), *Culture works: Essays on the political economy of culture* (pp. 131-162). Minneapolis: University of Minnesota Press.
- Bassons, C. (2000). *Positif*. Paris: Stock.
- Birnie, L. (2001, April). Teams 2001. *Cycle Sport*, 66-89.
- Cashmore, E. (2000). *Making sense of sports*. London: Routledge.
- Classics special. (2001, May). *procyling*, pp. 44-57.
- Coakley, J., & Dunning, E. (2000). *Handbook of sport studies*. Thousand Oaks, CA: Sage.
- Conconi, F. (1989). *Moser's hour records: A human and scientific adventure*. Brattleboro, VT: Vitesse Press.
- DeCrosta, T. (1985, March). The truth about blood boosting. *Bicycling*, 54-57.
- Delbeke, F.T. (1996). Doping in cycling: Results of unannounced controls in Flanders (1987-1994). *International Journal of Sports Medicine*, 17, 434-438.
- Donnelly, P. (1996). The local and the global: Globalization in the sociology of sport. *Journal of Sport and Social Issues*, 23, 239-257.
- Farrand, S. (1999, April). Signore Squinzi. *Cycle Sport*, 58-61.
- Farrand, S. (2001, August). Poisoned Giro. *Cycle Sport*, 48-51.
- Fife, G. (2001, May). The champion maker. *Cycle Sport*, 70-75.
- Foster, J. (2001). *Jonathan Vaughters: Small engine, finely tuned*. Retrieved July 2, 2001, from <http://www.bike.com/template.asp?page=2&lsectionnumber=2&lsectiondirectory=startline&date=7%2F2%2F2001>
- Fotheringham, A. (1999a, February). Bargain strikers. *Cycle Sport*, 46-50.
- Fotheringham, A. (1999b, March). Carry on camping. *Cycle Sport*, 52-55.
- Fotheringham, A. (2000, February). The top 10 teams of all time. *Cycle Sport*, 28-47.
- Friel, J. (1996). *The cyclist's training bible*. Boulder, CO: Velo Press.
- Guinness, R. (1990, January/February). The World Cup: Cycling in transition. *Winning Bicycle Racing Illustrated*, 30-32.
- Guinness, R. (1993). *The foreign legion: Breaking the barriers of European cycling*. West Yorkshire, England: Springfield Books.
- Guttman, A. (1978). *From ritual to record: The nature of modern sports*. New York: Columbia University Press.

- Guttman, A. (1994). *Games and empires*. New York: Columbia University Press.
- Guttman, A. (2000). The development of modern sports. In J. Coakley and E. Dunning (Eds.), *Handbook of sport studies* (pp. 248-259). Thousand Oaks, CA: Sage.
- Hargreaves, J. (1986). *Sport, power and culture: A social and historical analysis of popular sports in Britain*. Cambridge, UK: Polity Press.
- Henderson, N.G. (1970). *Continental cycle racing*. London: Pelham Books.
- Hoberman, J.M. (1992). *Mortal engines: The science of performance and the dehumanization of sport*. New York: The Free Press.
- Horsdal, S. (2001, October). The flat of the land. *procycling*, 56-63.
- Italian allegiances: EPO tracers the hub in EPO use*. (1999, December 29). Retrieved from <http://www.cyclingnews.com/results/1999/dec99/dec29news.shtml>
- Kimmage, P. (1998). *Rough ride: Behind the wheel with a pro cyclist*. London: Yellow Jersey Press.
- LeMond, G., & Gordis, K. (1990). *Greg LeMond's complete book of bicycling*. New York: Perigree.
- Maguire, J. (1999). *Global sport*. Cambridge, UK: Polity Press.
- Mantell, M.E. (1990, October 22). Feisty Jim Ochowicz: A sponsor chaser and coach. *VeloNews*, 52-53.
- Martin, S. (1992, July). Raging bull. *Bicycling*, 78-83.
- Messenger, C. (1968). *Conquer the world*. London: Pelham Books.
- Minimum wage now guaranteed. (2001, December). *Cycle Sport*, 16.
- More doping allegations. (2000, October 30). Retrieved from <http://www.cyclingnews.com/results/2000/oct00/oct30news.shtml>
- Nicholson, G. (1991). *Le Tour: The rise and rise of the Tour de France*. London: Hodder and Stoughton.
- Palmer, C. (1998). Reflexivity in global popular culture: The case of the Tour de France. *Anthropological Forum*, 8, 29-48.
- Palmer, C. (2001). Outside the imagined community: Basque terrorism, political activism, and the Tour de France. *Sociology of Sport Journal*, 18, 143-161.
- Peiper, A. (1992, March 2). The growing pangs of professional cycling. *VeloNews*, 91-92.
- Quenet, J.-F. (1990, May). Signs of things to come. *Winning: Bicycle Racing Illustrated*, 82-85.
- Rabenstein, R. (1997). Some facts about the history of doping in cycling competition. In N. Oddy and R. Van der Plas (Eds.), *8th International Cycle History Conference* (Vol. 8, pp. 119-130). Glasgow, Scotland: Van der Plas Publications.
- Rivier, L., Saugy, M., and Mangin, P. (2001). Principal doping substances and their side effects. Union Cycliste International. Retrieved from [http://nl-eds-01.adam.psi.com/english/health\\_sante/docs/side\\_effects.pdf](http://nl-eds-01.adam.psi.com/english/health_sante/docs/side_effects.pdf)
- Roussel, B. (2001). *Tour de Vices*. Paris: Hachette Littératures.
- Sage, G.H. (1998). *Power and ideology in American sport*. Champaign, IL: Human Kinetics.
- Sage, G.H. 2000. Political economy and sport. In J. Coakley and E. Dunning (Eds.), *Handbook of Sports Studies* (pp. 260-276). Thousand Oaks, CA: Sage.
- Sanders, W. (1979). *The bicycle racing book*. Northbrook, IL: Domus Books.
- Selle Italia Caught in Turin. (2001, March 31). Retrieved from <http://www.cyclingnews.com/results/2001/mar01/mar31news.shtml>
- Sidwells, C. (2001a, August). Rare groove riders: Eric Caritoux. *Cycle Sport*, 68-73.
- Sidwells, C. (2001b, June). Rare groove riders: Tommy Prim. *Cycle Sport*, 58-63.
- Simes, J. (1976). *Winning bicycle racing*. Chicago: Contemporary Books, Inc.

- Stevenson, J. (2001, May 7). *Cyclingnews talks with Mark Gorski*. Retrieved from <http://www.cyclingnews.com/interviews/markgorski01.shtml>
- Sugden, J., & Tomlinson, A. (1998). *FIFA and the contest for world football*. Cambridge, UK: Polity Press.
- Todd, J., & Todd, T. (2001). Significant events in the history of drug testing and the Olympic movement: 1960-1999. In W. Wilson and E. Dorse (Eds.), *Doping in elite sport*. Champaign, IL: Human Kinetics.
- Truyers, N. (1990, May). A global outlook. *Winning: Bicycle Racing Illustrated*, 60-62.
- Truyers, N. (1992, March 23). Verbruggen: World Cup founder has more ideas. *VeloNews*, 30-31.
- Truyers, N. (2001, December). The last patron. *Cycle Sport*, 62-65.
- TVM trial: Suspended sentences and fines handed down. (2001, July 18). Retrieved from <http://www.cyclingnews.com/results/2001/jul01/jul18news.php>
- Tytgadt, C. (2001, August 5). *Verbruggen interview #1: "Cycling should remain a poor-people-sport."* Retrieved from <http://eurocyclingnews.rivals.net/default.asp?sid=1041&p=2&stid=8115509>
- Verbruggen, H. (1999, April). A war we cannot win. *procycling*, 43.
- Voet, W. (2001). *Breaking the chain*. London: Yellow Jersey Press.
- Waddington, I. (2000). *Sport, health and drugs: A critical sociological perspective*. New York: Routledge.
- Weber, M. (1968). *Economy and society* (Vol. 1 and 2). Berkeley, CA: University of California Press.
- Whannel, G. (2000). Sport and the media. In J. Coakley and E. Dunning (Eds.), *Handbook of sports studies*, (pp. 291-308). Thousand Oaks, CA: Sage.
- Wilcockson, J. (1992a, February 10). Recession hits the Pro Peloton. *VeloNews*, 18.
- Wilcockson, J. (1992b, January 20). Verbruggen wins battle as cycling's big boss. *VeloNews*, 12.
- Williams, T. (1989). Sport, hegemony and subcultural reproduction: The process of accommodation in bicycle racing. *International Review for the Sociology of Sport*, **24**, 315-333.
- Winter, G. (2000, July 23). Trailblazing for the post office. Business Section in *New York Times*.
- Woodland, L. (1975). *Cycle racing: Training to win*. London: Pelham Books.
- Woodland, L. (2000a, January). Golden years. *procycling*, 54-84.
- Woodland, L. (2000b). Things ain't what they seem to be. . . . In G. Konrád and M. Konrád (Eds.), *Bikelore: Some Histories and Heroes of Cycling* (pp. 124-129). Sand Lake, MI: On the Wheel Publications.
- Woodland, L. (2000c). *The unknown Tour de France*. San Francisco: Van der Plas Publishers.
- Woodland, L. (2001a, August). The bitterest pill. *procycling*, 48-52.
- Woodland, L. (2001b, April). Domestique chores. *procycling*, 80-86.
- Zinn, L. (2001, July 2). Pink, black and blue. *VeloNews*, 15-16.

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## Notes

<sup>1</sup>Some more recent incidents have been the conclusion of the "TVM Trial" which found the team manager, doctor, and soigneur for the now-defunct Dutch TVM team guilty of possession and distribution of doping products resulting from the Tour '98 police raids ("TVM Trial: Suspended Sentences and Fines Handed Down," 2001), major police raids on the 2001 edition of the *Giro d'Italia* (Tour of Italy) stage race that appear to have uncovered



similar findings as the “Tour ’98” raids (Farrand, 2001; Zinn, 2001), a judicial investigation launched in Italy after a team car and hotel room check of the Selle Italia team uncovered a number of drugs (“Selle Italia Caught in Turin,” 2001), and the further insight into the “inside” world of pro cycling offered by the publication of the now-retired Christophe Bassons’ memoirs (Bassons, 2000) as well as the Voet and Roussel books cited in the text.

<sup>2</sup>Indeed, the Tour de France, normally contested by commercial trade teams, was altered in 1967 to a “national team” format. The Tour originally began as a competition between national teams and organizers hoped that a reversion to this format would stymie the growing influence of commercial sponsors (Woodland, 2000a, p. 70).

<sup>3</sup>For an excellent summary and analysis of this debate, see Donnelly, 1996.

<sup>4</sup>Hargreaves’ typology closely resembles that of George Sage (2000).

<sup>5</sup>Two informative articles take the peculiar social organization of competition and cooperation in bike racing as their object of study (Albert, 1991; Williams, 1989).

<sup>6</sup>The UCI’s Website (<http://www.uci.ch/english/about/index.htm>) states: “The mission of the International Cycling Union (UCI) is to develop and promote all aspects of cycling without discrimination of any kind, in close cooperation with National Federations and major associates.”

<sup>7</sup>This refers to the team’s primary “title” sponsor (all teams still receive sponsorship from cycling-related companies that produce equipment, clothing, and other cycling goods).

<sup>8</sup>This could entail protecting the leader in the pack by sheltering him from the wind and helping him hold a good position in the group, delivering additional water and food from support vehicles, setting a strong tempo at the front of the pack if demanded by the leader, or even disrupting other teams’ efforts to do so.

<sup>9</sup>Julio Jiménez recalled of his career in the 1960s “that a lot of the Spanish pros were working in the off-season as lorry [truck] drivers or plasterers. You would only make 4,000 pesetas a month as a pro so you had to get a job, really, with all the transportation costs you had to pay for. I didn’t work in the winter because I was quite a big name, fortunately” (Fotheringham, 1999b, p. 54).

<sup>10</sup>The class dimension of the sport has been compared to boxing in the U.S. (Martin, 1992).

<sup>11</sup>Such outright bribes, or monetary offers to other teams in return for assistance in ensuring victory in a race, were certainly pervasive in the French amateur scene. At this level, a frequent motive for bribe paying was the guarantee for a rider to win an important race that would greatly assist his pursuit of a professional contract. Under-performing teams needing results to please sponsors might also be willing to pay for a win if a team rider looked capable of taking the victory.

<sup>12</sup>Former professional rider, Paul Kimmage, provides an excellent account of the interpenetrated relationship between low salaries, team hierarchies, peer pressure, and doping that closely approximates the van Steenberg quote cited here (Kimmage, 1998, pp. 141-148).

<sup>13</sup>For examples of training guides (in English) espousing such approaches, see Messenger, 1968; Sanders, 1979; Simes, 1976; Woodland, 1975.

<sup>14</sup>See, in particular, Hoberman, 1992, for a detailed account of early experimentation with doping in cycling.

<sup>15</sup>Apparently testing began even earlier in France and Belgium but was not very effective and lacked legal support for enforcement (Rabenstein, 1997, p. 122). Verbruggen refers to testing by the international governing body with his dating.

<sup>16</sup>Both of these riders faced extreme hostility from fans as well as outright collusion by other riders along national lines in an attempt to stymie their respective challenges for victory in these races (Roche with success, Millar without).

<sup>17</sup>Prof. Conconi's own account of the record attempts can be found in (Conconi, 1989).

<sup>18</sup>LeMond greatly contributed to the diffusion of these new training theories and techniques in the English-speaking world with the publication of his own guide to training and racing in 1986.

<sup>19</sup>To avoid possible confusion, please recall that the FICP was the governing body for professional, commercial racing until 1993 when both amateur and professional racing were moved back under the administrative control of the UCI. For historical accuracy I will use the FICP when warranted, but the reader should keep in mind that in both cases we are referring to the governing body of the sport.

<sup>20</sup>These comments regarding material and health support for riders are drawn from my own observations visiting the Tour de France and other professional races as well as collected observations from various journalistic accounts (such as television coverage and magazines) that would be overly tedious and difficult to cite due to their volume.

<sup>21</sup>Former Festina team director Bruno Roussel has described numerous instances of such actions during his time at Festina (Roussel, 2001, pp. 84-85, 99-103, 101).

<sup>22</sup>The two main devices are wireless pulse rater monitors and power meters that measure a rider's effort in watts.

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