In the beginning of the 20th century, sports consisted in a minimum amount of physical activity. It was generally considered as dangerous and unhealthy because it encouraged people to push their limits too far. The medical profession used to advise teenagers against doing any sport, for fear that they would become too tired and, as a result, their bodies would not develop properly (Arnaud, 1980; Defrance, 2003). Nevertheless, during this period, some doctors became interested in sports. Some were former sportsmen, others had worked for the army (Pociello, 1999) which was involved in research to improve the physical skills of their soldiers. They observed that the body was a wonderful product of nature. Those doctors took photos to decompose the movements of the body and to understand how it worked. Hobberman (1992) showed that there was a radical change in the 30’s when physicians began to work with sportsmen. It would also become the case in France, but later, after the Second World War. In the 50’s, the context completely changed. The first reason is that the medical profession started to promote physical and sports activities to build up the exhausted and damaged bodies of French people, due to lack of food during and after the war. They asked the French Ministry of Youth and Sports for the creation of medical centres specialised in sports. In the beginning of the 60’s, sports doctors wanted to take care of high level sportsmen. Because, for them, practising sports was indeed healthy, Doctor Encausse (1962) emphasizes the advantages of doing some sport “Physical and sports education is absolutely both virile and morally essential to the rational upbringing of young people”. Pr. Vacher (1969) underlined that the practice must be moderate to achieve positive effects on health. For that, the medical profession had to supervise physical education. “It requires serious efforts, a considerable physical outlet, and progressive training. It must be watched, medically controlled, especially in the case of official competitions” (Dr Encausse, 1962).

During this period, we can observe the appearance of a new medical paradigm. Before, doctors who looked after sportsmen were clinical practitioners. They examined their patients in their surgeries only when those were already injured or sick. In the fifties, this model was predominant in the lectures on trauma in international medical symposiums. In the beginning of the sixties, another model appeared. It can be observed by studying the Sport Medicine International Federation symposiums : the fifty or so talks on trauma in the 50’s were replaced by hundreds of talks on sports training and the physiology of effort (Brissonneau, 2003). The new majority consisted predominantly in talks on sports training by doctors from the Eastern Socialist Bloc (Brissonneau, 2003). The subjects concerned the physiology of effort or training planning patterns for the most part. The concept of “health” changed when it departed from a clinical approach, which involved curing diseases, to a scientifical, medical approach aimed at keeping people healthy while being competitive. Research implied putting the bodies of sportsmen on high technology machines to examine their performance levels. The new approach was determined rationally and scientifically! “To be in good health” meant to be able to achieve high performances thanks to an efficient cardiovascular system. We can see this paradigmatic evolution with, in
1977, the sidelining of the old medical bosses of the surgeries of the National Sports Centres, to make room for physiological physicians working in proper medical research department.

The second reason for which the context changed is that, in 1958, General De Gaulle became the President of the French republic. In the context of the Cold War, he favoured policies aimed at restoring the greatness of France on the international scene. Such was the case in politics, economics and in sports too. France had to have champions, like the USA and the USSR. The latter countries had different models: the open sports structures of the American universities which recruited the best sportsmen, or the closed sports structures such as in the German Democratic Republic (GDR) where the best talents were gathered in one place (Passevant, 1972). A state sports policy was created in France by the then Minister of Youth and Sports, Maurice Herzog. This was a real change which put forward a policy of state governed sports (Loret, 2008) similar to that of the Eastern Bloc. The French sports management adopted a pyramidal structure. On the base, hundreds of sports clubs discovered potential young champions who were then trained in state structures by professional trainers.

The best ones would then go on to continue their training in National Sport Centres. Maurice Herzog developed the role and number of National Techniques Directors whose mission was to create a rational politics, to develop the number of sport members and the level of excellence within the Olympic federations (Fleuriel, 2004). He created the district and regional technique advisers whose job was to help the sports clubs develop and discover young talents. These champions were gathered in closed Institutions, similar to Coffinan’s “Total Institutions” (1979), where everything was designed to help the champions achieve the best possible performances. The best dieticians, trainers, teachers, physiotherapists and doctors were put at their disposal. The school timetables were organised around their training. The National Sport Centre was soon to be created, specifically for the best champions, in a forest in Paris. In 1974, the Ministry of Youth and Sports would also create special sections in some secondary schools, devoted to the intensive practice of a sport while following a normal academic syllabus: the “Sport-Etudes” Sections. Young people gifted in sports and potential champions, could study in those special sections.

The third reason for the change in the approach of high level sports training from an empirical model to a scientific one, results from the numerous contacts with the physiologists whose reference was the GDR and soviet models (Zartsiorsky, Mendveev, Platonov for example). This introduction, aims at showing how the sports model of the Eastern Bloc fascinated French politicians, physicians and trainers. It represented the epitome of a rational, scientific approach which optimized the chances of success. In the article we shall study the testimonies of several sportsmen who have used doping (2 athletes, 4 cyclists) in which they talk about their lives (Bertaux, 1997), their careers (Hughes, 1997), and we shall observe how they received the official standards on sports, health and ethics, and what they made of them in their daily practices. Those testimonies do not aim at describing ideal-typical careers but rather processes. We will see through two sports (amateur athletics and professional cycling) how our French empirical model has been constituted by a rational, scientific model to which a scientific doping model is added, first the American model, then that of the Eastern Bloc. It was all the more prevalent as it was promoted by a new medical care for sportsmen, the physiology of effort.

USA, the American way of life or the winning model

In the beginning of the 60’s, the use of anabolic steroids became common in high-level sports, especially in the sports which require physical strength (Dimeo, 2007). In 1965, Alain, had been training for a few years and was one of the best sportsmen in France. He favoured power training, from the beginning, and strongly believed in it. Contrary to other throwers at that time in France, for him, strength was an important element in his performance. That year, he completed his engineering degree with some professional work experience in Canada. He then called a famous American thrower trainer, who was in one of the best American Universities, in California. The latter immediately offered him to come and train on campus with some of the best world international throwers. He did not have to pay the very expensive university fees because of his sportsmen who needed to develop their muscles because it was not considered as cheating: it was a training technique, like any other, in accordance to the Olympic logic: to be the “Fastest, highest and strongest”. He quickly got results and he put on eight kilos which allowed him to beat his best performance yet, in body-building movements and in his different throws. Alain...
gave us a photography of himself when he came back to France and won shot put and discus during the French championship. His body was sculptural, tanned; he wore Ray Bans, the icon of the Californian dream! Some national French throwers confirmed; for them, he was (thanks to doping) the epitome of the American model: a winner. From this moment on, the use of anabolic steroids increased among the different throwers in France. At the same time, French athletes discovered how common the use of these products was among the American and Soviet athletes during the Olympics games in 1968 in Mexico, and 1972, in München (Dimeo, 2007) and during international matches.

With Alain, the model was a combination of both the American and Soviet models. It combined both an empirical and a scientific approach. Indeed, throwers tended to confuse body mass and strength. Therefore, they did everything to become bigger. I interviewed some French national shot put throwers; they explained how, in national training camps, they used to weigh themselves before and after each meal. They gobbled up vast quantities of food to put on weight, which is also the purpose of taking Dianabol. Before meals, or time off, athletes would offer steroid pills to each other, in the same way that smokers offer cigarettes. They thought that those pharmacological products were no more than super vitamins, which was confirmed by medical advertisements.

In the 50’s and the 60’s, the only international model was the American one. During the 70’s and the 80’s, with the support of the French State, the French Ministry of Youth and Sports’ reference model became that of the communist countries which successfully took over from that of the USA. The exchanges of knowledge were numerous; the best trainers and effort physiologists were invited to symposiums by the French National Sports Centres and the best French athletes often visited the different Eastern European countries.

**Sports training model reference: a departure from the American model, to adopt the model of the Eastern Bloc.**

Michel was one of the best French international throwers. He trained two to three times a week, enough to become a junior French champion. When he was nineteen - national military service was compulsory in France, and he joined a military sports centre, in the southern suburb of Paris. There, he discovered high level sports training: its pleasures and its obligations. So he passed from an ordinary social world to an “extra-ordinary” world (Papin, 2000), high level sports, a kind of bubble disconnected from social reality. All his life was centred on a single purpose: achieving the best possible performance. It governed his sleep, food, recovery, friends and lovers. Everything was made to optimize his training, records and competitive results. Inside this extra-ordinary world, standards were very different. During the first months, he trained with a high-level group of sportsmen who experienced some difficulties in accepting him. The other throwers were sceptical. They were laughing behind his back and calling him names such as “doped head”. However, he did not understand what they meant. During that winter, he discovered a new, hard way of training: his trainer modelled the USSR trainers. He often went to the medical centres of the National Sport Centres to have his injuries looked after and get help for his extreme tiredness. He passed different medical tests to regulate his trainings loads. Fortunately, he improved the record of France several times throughout the spring season, before important international competitions. It was on the occasion of a doping test that he discovered what « doping » really meant. The results were negative, which arose suspicion. The technical national director decided to allow him to take part in an international competition. There, he was confronted to the best world throwers, and the issue of doping. He saw some body sizes, morphologies which were impossible to achieve with a natural way of training. The issue of doping was much discussed among the French as well as the foreign athletes. Furthermore, some weeks later, a finalist thrower was tested positive. The following year, he took part in a competition in which he did as well as a Czechoslovak thrower. Some weeks later, in difficult climatic conditions, he lost against him, by many meters. Having returned to France, in his club, he spoke about it with his training friends who smiled: « Yes, you need to understand, in the Eastern Bloc, there are people who use products, anabolic steroids, it’s normal, don’t worry, continue your training (laughter). We can’t do anything about it, it’s just the way it is. Furthermore, don’t change, it would be bad for your health! ». So, he decided to speak to his trainer. The latter gave him some newspaper articles in which some international throwers talked about their daily use of doping. This information raised many questions: what was the point of training, why was doping legal in the Eastern Bloc, why were there anti doping tests in France? All these questions resulted in his decision to experiment with doping, and once he had made up his mind, his experiences were numerous and varied. On the one hand, he knew how easy it was to buy products in ordinary chemists. « You could find small knickknack: testosterone, Anadractime, creams, fantastic products! You could cover your body with cream and yet test negative ». He also bought some products from a bodybuilder friend in his power training gym. Furthermore, the latter gave him information: dosage to be strictly followed, « to be in the clear » in the anti-doping tests. He took Prodion, then Pantestone (testosterone) but he did not improve his body building records. He asked around him, in his club, in national training camps, for advice about doping, its use and dosage, to elaborate a coherent pharmacology-
training plan, learning by essays and error. He understood that, as for his training, he had to adopt a scientific approach.

The thrower confusedly felt that doping was in keeping with the logic of high level sports achievement: pharmacology was just another technique to master. The last phase of his evolution process happened in a training camp in the Eastern Bloc. One of his competitors invited him to his club where he could meet both a national trainer and some international throwers. The atmosphere was nice and, even if he did not speak their language, they all tried to communicate and share experiences: “That evening, we drank beers, or vodka. And one young athlete asked me how far I could throw. He appeared not to believe my answer and asked me whether I had to take drugs to achieve such results. I did not want to argue so I confessed that I did take drugs. He then believed me.”

The following day, the young athlete opened his toilet bag and showed him its content. “There were so many drugs: testosterone, anabolics, stimulants, even a cardiac accelerator. He used five different drugs every day.” Some days later, they walked past a pharmacy. He suggested they should enter and buy anabolic steroids, which they got very easily, over the counter. We notice that for the “Insiders” (Becker, 1985) - those who live in the extra-ordinary high level world of sports -, using anabolic steroids was not cheating, it was an element of their job. Sports colleagues helped each others to do their jobs, as professionals. It was what the media would discover in 1998, with the Festina Affair (Duret, Trabal, 2001), where 95% of the cyclist “Peloton” was found to be using doping which they casually would give one another.

Our French thrower also questioned the Russian athlete about the anti doping tests. He answered that he knew how to go round them. Doping was a part of his training, so were tests. We can observe how Michel slowly understood, as he interacted with the best athletes and effort physicians, that in order to win he had to adopt a global scientific approach. The accumulated testimonies of the international French wrestlers (who were at the same time competing in the Eastern Bloc countries) described the omnipresence of the research physicians in the sports structures during the competitions. At any time, they could help the sportmen within the framework of their performances. This new technical model for a global scientific approach was a far cry from the empiricism which still reigned, more or less undisturbed, in France (Roger, 2006).

This article will now focus on a different approach in cycling, for two reasons. It is a professional sport and France is the world professional high level reference. The training approaches changed after the internationalization of this sport in the mid 80’s. We also passed even more quickly.

Another approach, that of the French cyclists (1960-1980): dabbling into drugs

Between the 60’s and the 80’s, cycling was practised on each side by the Iron Curtain. Except for the “Race of the Future” across Europe, the contacts between Western and Eastern cyclists were rare because cyclists were professionals in the Western Bloc whereas they were amateurs in the Eastern Bloc. The sponsors, the best competitions and the money were all to be found in France. You could earn a living with cycling. The French cyclists (the Italians and Spaniards too) used drugs to overcome fatigue, most of the time, they used stimulants. They discovered them when they signed up their employment contracts. As the training loads grew heavier, they were advised by their peers on how to manage the difficulties. Learning about drugs was empirical; cyclists tried teaching by essays and error. He understood that, as for his training, he had to adopt a scientific approach.

The accumulation of testimonies of the international French wrestlers (who were at the same time competing in the Eastern Bloc countries) described the omnipresence of the research physicians in the sports structures during the competitions. At any time, they could help the sportmen within the framework of their performances. This new technical model for a global scientific approach was a far cry from the empiricism which still reigned, more or less undisturbed, in France (Roger, 2006).

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A rational approach: the American model completed by that of the Eastern Bloc

At the end of 70’s, the Tour de France became a declining competition. Felix Levitan, its director, wanted to boost the interest in the Tour, and for that purpose he wanted to find new heroes to look up to in this
particular competition. He therefore went to the USA, for two reasons, first to evaluate the possibility of developing the market for the sale of bicycles (Louy, 1986), and to evaluate the excellence of American cyclists. Some years later, the entrepreneur Bernard Tapie, wanted to develop his own brand of cycling gear “Look”. He hired an American champion, Greg Lemond who soon won some international races in Europe. He won The Tour de France as a member of Bernard Tapie’s team, in 1986. He brought with him a new rational, scientific model. “In Europe, the trainers didn’t understand me. They wanted me to follow their outdated, twenty-year old training methods. I read books about physiology; I favoured the quality of my training over the quantity which was the dominant method adopted by the others. I had a particular conception of what it was to be a professional. In Europe, to be a professional meant training all day long, as much as was humanly possible. For me, it meant to be organized in the best possible way: to write down my objectives and think about how to reach them. I created a new system, on my own, nobody could help or advise me”. 1989, was the year of the fall of the Berlin Wall, and many Olympic cyclists of the former Eastern Bloc became available to the international professional market. They were cyclists who had trained very hard and whose salaries were much lower than those of Western Europe. In 1990, they constituted 5% of the “peloton”. They brought the scientific sports approaches of both the former USSR and East Germany: a full training plan (physical, medical) focusing on one or two objectives. At the same time, new entrepreneurs became sponsors, bringing more money and greater expectations with regards to results. They all wanted to be largely represented in the Tour de France which was becoming the third most watched sports event in the world. The benefits of world advertising, resulting from having one’s own team at the Tour, were incredibly advantageous. Each cyclist would define his one or two objectives, necessarily including the Tour de France. Their tiredness and trainings had to be predictable and managed, in order to be successful on “the Day”. For that, the team of professionals supporting cyclists needed to be broader. A new generation of professionals was hired who were not directly connected to the world of cycling; among those the most important actors were effort physiologists, and scientific physicians. Thanks to scientific instruments, doctors could investigate bodies more thoroughly and determine which parts needed to be trained. Training became very precise. Interacting with this new kind of physicians, cyclists accumulated a large number of scientific information and, in particular on products, some of which they already knew about, and others they did not. They already used steroids and then started using peptide hormones. As for the training loads plans, the products were different according to the season: “Anabolic steroids used for quantitative training loads in winter and peptide hormones to improve fitness, just before going for your objectives” (Philippe, 1990’s). Over a short period, to optimize the effects of the product, “You adopt a pyramid like pattern. For example on a Monday, I would take half a pill; on the following Tuesday and Wednesday a whole pill, and on Thursday two pills. Then, I would decrease the amount of pill intake ” (Jean, 1990’s). Christian decided to do everything to win, he went to Italy to experience a total scientific approach. He stayed there several times, in training camps, where he followed a model in which many parameters (biological, physiological, psychological) were taken into consideration. So, each day, he would receive directives in which training loads were equated with the exact quantities of products. Many times a week, he would have lactates and blood tests. A Few weeks later, he scored a world performance.

Conclusion

From the 60’s, in the context of the Cold war, we can observe an increased demand for results in sports in France. The uncertainty of the performance in sports was no longer tolerated. So, the first available model to improve the French situation in sports was the American model, due both to the recent relationship established with America after the war and to the fact that it was the only sports winning model. It brought a certain rationality in its training methods. French sportsmen accumulated training information from sports newspapers or discussions during or after international competitions. Few sportsmen, such as Alain, had the opportunity to go and train in the best world sports training centres, in American Universities (plane tickets were expensive!). But, a new sports approach was adopted by the French Government, because they did not want to leave anything to chance. They chose the model of the Eastern Bloc, with the USSR as leaders. This model could be observed, at the international level, at the end of the 50’s, and won a huge amount of medals in the 60’s. It would reach a climax in the German Democratic Republic with the establishment of a high-level sports and doping state policy, which was to be revealed to the world later (Berendonk, 1992; Spitzer, 2003). The consequence was the adoption of the sports structures training references and scientific knowledge of the Eastern Bloc. Their impact was important because they developed the image of the “performing body” by whichever means necessary. With the increasingly heavy training loads resulting from this hard training, the pharmacopoeia became a necessity.

But through those cases studied, in athletics and cycling, we can observe a different evolution depending on the sports. The different degrees of closeness between a given sport federation and the Ministry of Youth and Sports is an element of explanation for these disparities. The French Athletics federation, which depends entirely on the Ministry of Youth and Sports for money, had no choice but to adopt and undergo the reorganization of the sports structures in the 60’s. So, the French athletes were given the Eastern Bloc model as a reference which was promoted by the Ministry of Youth and Sports, through its national trainers and the training
The new private cyclist structures took advantage of the Fall of the Berlin Wall to employ former socialist world leading cyclists at low cost. They brought with them their scientific approach. So, cycling passed, later than athletics, from an empirical drug using model to a scientific doping approach. They followed the same process but in a much shorter time sequence. To complete this analysis, we must underline that effort physiologists who started to work with cyclists in the 80’s were already active in athletics some ten years before (see the cases of Ferrari and Conconi in Italy for example). Secondly, this varied proximity with the Ministry of Youth and Sports explains the fact that the Olympic Games ethics is more important for the athletes who train with national trainers and state representatives. The information about doping did not circulate so easily and it was difficult to elaborate doping techniques. We met with more difficulties when interviewing athletes, than cyclists. The reason is that athletes are torn between the ethics of the Olympic Games and the Olympic logic which is “fastest, highest and strongest”. Cycling is a professional sport which depended a little on the Ministry of Youth and Sports between the 60’s and the 80’s. The ethics was to do the best job possible and doping was merely a technique to do one’s best. The arrival of new sponsors leaded to the arrival of new professionals who brought a new performance approach. Since the international Festina scandal, in 1998, in France, the French government has adopted an intermediate model : the Eastern Bloc technique model, which is more than ever present, but the former USSR and GDR drugs approaches have become illegal and trespassers are prosecuted (Brissonneau, Ohl, 2010). And through a constant and hard anti doping policy, the French Ministry of Youth and Sports has imposed its rules to professional cycling. If we analyze the situation in terms of results, these two sports have never had such poor results as in the last ten years, but it is difficult to establish a direct link between these recent bad results and the new French approach!

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