

The Research of Evidence Examination and Evaluation Rules of Court of Arbitration for Sport in Doping Case

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Abstract: *The Court of Arbitration for Sport is the most authority to hear doping cases, adhering to the idea of sports autonomy, it established the evidence examination and evaluation special rules of doping cases by relying on scientific evidence as the presumption basis and by means of the free proof methods. These rules make a leap in the legal reasoning, using circumstantial evidence as the basis of verdict, breaking through the limitation of admissibility of evidence and being reasonable in a certain period of time. This setting is conducive to cracking down on doping violations and improving the trial efficiency of doping case, however, with the development of science and technology, the science of doping detection becomes increasingly complicated, and the trust basis of scientific evidence is shaken, which exposes some problems such as the confusion between the admissibility and reliability of scientific evidence, and the anomie of doping inspection procedure. In view of this, the evidence examination and evaluation of doping case should expand the scope of examination of the arbitration tribunal, mandatory application of illegal evidence exclusion rules, the reliability of adverse analytical finding should be examined, and the normative role of corroboration evidence rule in non-analytical positive case should be taken seriously.*

Keywords: *the doping; evidence; examination and evaluation; scientific evidence*

1. Introduction

The examination and determination of evidence in doping cases refer to the activities in which judges investigate and argue the relevance, admissibility, probative force, and credibility of evidence during the process of handling disputes arising from doping violations, ultimately confirming the probative capacity and effectiveness of the evidence. In recent years, doping cases have been occurring frequently, and the issue has attracted significant attention from the global sports community.

The Court of Arbitration for Sport (CAS), known as the "Supreme Court of the sports world," is the most influential institution for handling doping cases. As a result, its rules for examining and determining evidence are highly representative and set a benchmark for other sports-related legal proceedings. The CAS adheres to the principles of fairness, impartiality, and independence, ensuring that athletes and sports organizations can trust the arbitration process. The CAS is responsible for resolving disputes related to doping issues, including disputes between athletes and sports organizations, between sports organizations themselves, or even between different countries. In doping cases, the CAS is often called upon to determine whether an athlete or sports organization has violated anti-doping rules and, if so, what sanctions should be imposed. Given the complexity and scientific nature of doping cases, the CAS's approach to examining and determining evidence in these cases requires a high level of expertise and understanding of the latest scientific developments in the field of anti-doping. The CAS relies on a range of scientific evidence, including laboratory test results, expert opinions, and other relevant information to assess the merits of each case.

By examining and determining evidence in doping cases, the CAS aims to ensure that the truth is uncovered, and justice is served. This process helps maintain the integrity of sports competitions and protects the rights and interests of athletes who compete fairly. Additionally, the CAS's rigorous approach to evidence examination and determination in doping cases serves as a deterrent to those who may be tempted to use prohibited substances or engage in other forms of cheating in sports. The examination and determination of evidence in doping cases by the CAS play a crucial role in maintaining the fairness and

integrity of sports competitions worldwide. As the most influential institution for handling doping cases, the CAS's rules for examining and determining evidence are highly representative and have a significant impact on the global sports community.

2. General Rules for Examination and Determination of Evidence

The examination and evaluation of evidence in doping cases refers to the process by which arbitrators assess the relevance, admissibility, weight, and credibility of evidence during the hearing of doping cases. The ultimate goal of this examination and evaluation is to confirm the competency and effectiveness of the evidence. Typically, the examination and evaluation of evidence can be separated into two aspects: admissibility and reliability. The former involves assessing the evidence's competency, while the latter concerns the effectiveness of the evidence. This examination and evaluation process plays a critical role in ensuring the fairness and impartiality of the arbitration proceedings, by ensuring that only relevant and credible evidence is used to reach a just and accurate decision.

2.1. Rules for the Adoption of Evidence

Evidence competency means "the quality or condition of being admitted to evidence in a hearing, trial, or other proceeding"^[1]. The adoption of evidence is to confirm whether it is qualified to enter the "gate" of litigation, which is an application of evidence law and subject to the adjustment of admissibility rules. The term "admissibility rule" refers to the set of regulations determining what type of objects or materials can be accepted as evidence in a legal proceeding. This rule acts as a "filter" to assess the admissibility of evidence and is further divided into categories such as rules for illegal evidence, character evidence, hearsay evidence, and opinion evidence. These rules aim to ensure the legality, authenticity, and reliability of evidence in order to maintain the fairness and impartiality of the trial process.

It is important to note that the admissibility rule is not static and can be adjusted based on the specific circumstances of each case. For example, in certain cases, evidence that may not normally be considered admissible may be admitted if it is deemed relevant and necessary for the resolution of the case. Additionally, the rules for admissibility of evidence may vary between different legal systems and jurisdictions. However, in general, the admissibility rule serves as a crucial tool in ensuring that only relevant and reliable evidence is used in the legal proceedings, thereby safeguarding the rights of all parties involved and maintaining the integrity of the judicial process.

2.2. Rules for the Credibility of Evidence

Evidential efficacy refers to "the proving effect and strength of evidence to the facts to be proved in the case"^[2]. The examination and evaluation of the efficacy of evidence is to judge the credibility or reliability of the evidence "admitted", "to confirm whether it is sufficient to determine the facts of the case"^[3]. This is a matter of innermost definition of the fact-finder. Judges are required to demonstrate according to practical reason and dialectical logic. Due to the complexity of real life, the legal evidence system which regulates the efficacy of all kinds of evidence in advance cannot meet the needs of modern society ruled by law. Therefore, we should adhere to the principle of free proof, follow the methodology of evidence analysis, and confirm through empirical inference, which is the so-called "discretionary evaluation of evidence". It is worth noting that discretionary evaluation of evidence does not mean arbitrary judgment, the judge's evidence is still subject to the rules of publicity of judge's mental impression, corroboration rules and so on.

The above rules are the main rules governing the examination and evaluation of evidence in litigation, but they are different in doping cases at the Court of Arbitration for Sport (CAS). CAS is praised as "the supreme court of world sports", as the most influential body for doping cases, its examination and evaluation of evidence rules are of great significance to the trial of doping cases.

3. Special rules of evidence examination and evaluation of CAS in Doping Cases

The special evidence rules for doping cases refer to a series of principles and methods adopted by the Court of Arbitration for Sport (CAS) when handling doping cases, which differ from traditional litigation evidence rules. These special evidence rules are mainly reflected in three aspects: the factual presumption in doping-positive cases, the indirect evidence determination in non-analytical positive cases, and the exclusion of the admissibility rules in doping cases. These special evidence rules enable CAS to

effectively cope with the development of doping manufacturing technology, actively combat new types of doping violations, and respect the principle of sports autonomy.

3.1. Presumption of fact in adverse analytical finding cases--Reliance on scientific evidence

The concept of "Scientific Evidence" originates from the Common Law system, which refers to "Fact or opinion evidence that purports to draw on specialized knowledge of a science or to rely on scientific principles for its evidentiary value"^[4]. CAS in the process of the doping cases, often by means of science and technology is needed to find out the fact that athletes doping violations, such as doping tests, samples collection and preservation technology, biological passport, etc., the science and technology on the arbitration tribunal ultimately to be present in the form of evidence is the scientific evidence. CAS places great reliance on scientific evidence, which is often considered as the basis of decision without substantive review. In doping cases, the most representative scientific evidence is Adverse Analytical Finding (AAF), which is a positive report issued by the World Anti-Doping Agency (WADA) through its authorized laboratory as a party to a doping case. It can be regarded as the important evidence, sometimes even the only evidence^[5], to identify athletes doping violations, such cases are known as "drug positive cases". For example, in the "Simon Vroemen v. KNAU & ADAN case"^[6], Dutch steeplechase athlete Simon Vroemen was ruled out of the 2008 Beijing Olympics after a AAF. In this case, CAS held that the arbitrators had no right to review whether the doping detection methods of authorized laboratories met the international quality certification standards, and as long as there were banned substances in samples A and B, athletes could be determined as doping violations. From the perspective of legal reasoning, there is a significant leap in logic in presuming doping violations directly from a AAF report. That is, regardless of whether the samples are contaminated, whether the doping detection technology is scientific and reasonable, whether the athletes have subjective faults, and other links, the AAF report is directly linked with doping violations. In fact, scientific evidence such as AAF is mostly circumstantial evidence and cannot prove the main facts of a case alone. The so-called "scientific evidence never tells a complete story"^[7]. The reason why CAS was "beyond reasonable doubt" in its determination of doping violations is based on high expectations and trust in scientific evidence.

3.2. Determination of circumstantial evidence in Non-Analytical Positive Case--Based on the "Principle of free proof"

Non-Analytical Positive Case is "cases in which an athlete is suspected of using or attempting to use doping, and the anti-doping agency, in the absence of laboratory Positive results, confirms the athlete's use or attempted use of doping based on other evidence"^[8]. The determination of non-analytical positive cases by CAS comes from Principle of free proof, which means that CAS allows both parties to use any method of evidence to prove whether athletes constitute doping violations in the process of hearing non-doping positive cases. It is the specific expression of the principle of "absence of legal prohibition means freedom" in the examination of evidence of non-analytical positive cases by CAS.^[9] According to this principle, much of the evidence that would not be admissible in a traditional lawsuit can be admissible to prove the fact that an athlete is guilty of doping. For example, in "UCI v. Alberto Contador Velasco & RFEC & CAS" case, anonymous witness testimony and polygraph test results were accepted as evidence by CAS.^[10] The principle of free proof method is formed under the double background of rapid development of doping manufacturing technology and relatively backward anti-doping rules. On the one hand, traditional doping detection method cannot effectively cope with the new doping violations, on the other hand high sensitivity detection method will lead to the emergence of false positive results, rely on the lab test report to prove the doping violations has obvious limitations, on the basis of scientific trust of anti-doping rules system faces the challenge of new technology. In fact, any set of rules can't avoid the existence of the lag and rigidity, anti-doping rules for the establishment of nature is not exceptional also, therefore, need corresponding anti-doping principles supplement rules of evidence, proof method freedom principle is based on the demand, it can make the anti-doping agency to respond effectively to the development of manufacturing technology, doping Cracking down on the new type of doping violation is beneficial to the exercise of athletes' right of defense, and the most important is to provide a theoretical basis for CAS to examine and evaluate the new type of evidence.

3.3. Admissibility Rule exclusion in doping cases -- Based on sport autonomy

As previously mentioned, the admissibility rule acts as a "filter" to assess the competency of evidence, determining the qualifications of evidence and originating from the common law system, widely applicable in litigation activities worldwide. However, in cases of drug use in sports, the International

Sports Arbitration Court excludes the application of the admissibility rule. The reason for this is due to the unique nature of self-regulation in the sports industry. This exclusion reflects the recognition by the International Sports Arbitration Court of the importance of preserving the autonomy of the parties' intentions in anti-doping matters, and the need to balance the interests of all stakeholders in the ongoing fight against doping in sports.

Firstly, the specialization and particularity of sports activities preclude the intervention of judicial system. Sports autonomy is the basic principle of modern sports activities and also the ideal state pursued by sports associations and organizations of various countries. Sports autonomy means entrusting the participants of sports with the power to manage their internal affairs independently. In terms of content, sports organizations have the right to formulate norms, and at the same time achieve the purpose of self-management by applying internal norms in individual cases. In terms of nature, "the internal norms of sports organizations more reflect the professionalism and particularity of the industry"^[11]. Its normative content and value orientation are very different from legal norms, for example, the pursuit of pure procedural justice in sports competition, It is to look at the problem from the perspective of result justice. As long as the athletes and referees strictly abide by the rules, the result of the game will be regarded as fair, regardless of the subjective will of the athletes, whether the rules are reasonable, whether the audience emotional acceptance, whether the referee made mistakes and other issues. This is quite different from the value of justice pursued by judicial activities. Judicial personnel lack professional advantages in the regulation of sports activities, and will inevitably make value judgments that are not in line with the interests of sports organizations in the trial of complex cases. The connotation of sports autonomy requires the exclusion of judicial intervention. Therefore, admissibility rules based on judicial activities may not always be appropriate in doping cases belonging to sports disputes, and it should be excluded from application by the Arbitral Tribunal for Sport. For example, in the "WADA & UCI v. Alejandro Valverde & RFEC" case^[12], CAS held that as an independent arbitration body, it was not subject to the interference of other judicial organs or the rules of admissibility, and could adopt illegally collected evidence as the basis for its decision.

Secondly, the anti-doping rules are contractual. The core feature of sports law is a system of self-regulation, which is the embodiment of the concept of sports autonomy in sports law. A typical example is the anti-doping rules. Anti-doping rules can be seen as a contract reached by mutual agreement between the athlete and the sports organization. For sports activities, unified rules and the protection of rules are its core values, and it is very necessary to punish the possible violations. Athletes who use doping illegally are regarded as a breach of contract, and should bear the corresponding liability for breach of contract, namely doping punishment. The reason why doping cases caused by doping punishment are tried by arbitration is based on the autonomy of the parties. CAS regarded the testing methods and banned substances list as agreed in the anti-doping rules as the result of consensus between the anti-doping organization and the athletes, Out of full respect for the autonomy of the parties, the arbitrator will not examine the admissibility of the evidence.

4. Problems existing in rules of evidence examination and evaluation in doping cases

Due to the differences between judicial cases and doping cases in evidence review and determination rules, the rules for doping cases face three challenges: firstly, the shaky foundation for the trustworthiness of scientific evidence; secondly, the confusion between the adoption and credibility of scientific evidence; and thirdly, non-compliance in the doping testing procedures.

4.1. The foundation of the presumption of reliance on scientific evidence is shaken

"Scientificity is the essential characteristic of scientific evidence, but science is often uncertain, which also determines the uncertainty of scientific evidence"^[13]. The traditional anti-doping system is built on the basis of the full trust of doping detection technology, which is manifested in the presumption of the fact of positive drug test cases. Scientific evidence plays a decisive role in determining the doping violation of athletes. As mentioned above, CAS believes that the presence of AAF indicates a doping violation. However, with the development of pharmaceutical manufacturing technology, there are many substances and methods that can evade doping detection, such as THG produced by BALCO, gene stimulants, etc. "A new test should be tested many times before it can be used, and WADA can use a new test only if it wants to."^[14] Such sloppy practices have led to a spate of false positives, such as the Okcharov case, in which athletes tested positive for eating meat raised with clenbuterol. In legal reasoning, the truth as a minor premise must be true in order for legal reasoning to be effective. We

generally adopt the method of falsification, that is, using experience, science, logic and other knowledge to expose the falsity of its premise. If the falsity cannot be found, it can be judged as valid. In other words, when a laboratory drug test results are positive, the possibility of contamination of samples, irregular sampling procedures, unreliable testing methods and other causes must be excluded before the existence of doping violations can be presumed. In the past, CAS has considered positive results for reasons other than doping violations to be extremely rare, but technological developments have been surprising, and now, The increasing number of false positive test results resulting from non-doping violations, and the logical and empirical questioning of doping charges against athletes based solely on positive test results, have undoubtedly shaken the basis of the presumption of reliance on scientific evidence.

In handling disputes involving anti-doping violations, the Court of Arbitration for Sport (CAS) follows the principle that the drug testing methods and banned substance lists agreed in the anti-doping rules are norms established and agreed upon by anti-doping organizations and athletes through equal negotiations. Therefore, CAS does not evaluate or question the legality, reasonableness, or persuasiveness of these pieces of evidence, but rather respects the autonomous will of both parties involved in anti-doping matters and makes arbitration decisions based on these pieces of evidence.

4.2. Confusion between scientific evidence admissibility and reliability

The application of science is not a panacea for all the complex problems that the fact-judge must solve. Arbitrators, as fact-finders, should not have too high expectations for scientific evidence. Like other evidence, scientific evidence also has problems of admissibility and reliability. As mentioned above, the so-called admissibility and reliability are two aspects of evidence examination and evaluation. The admissibility rule of scientific evidence is excluded by CAS, so arbitrators can directly adopt scientific evidence without reviewing it when hearing doping cases. However, this does not mean that the admissibility of scientific evidence can also be ignored. In doping cases, "the examination and evaluation of scientific evidence determines that it is first a category issue and then an individual issue."^[15]

Specifically, whether a AAF report can be used as a basis for a final case depends first on whether the scientific principles, testing methods and testing techniques based on the report are scientific and reliable, which is the admissibility of evidence. CAS based on the trust and respect of sports autonomy of science, presuming that the testing methods and standards used by anti-doping organizations are scientifically, and to conclude that testing reports are reliable through accredited laboratories of anti-doping organizations, is to confuse the issue of admissibility and reliability. Because the admissible evidence is not necessarily reliable, the doping detection technology is very complicated, and problems may occur in the extraction and storage of samples, the operation of testing instruments, the analysis and interpretation of experts and other links, which may lead to errors in test results. Therefore, the reliability of the AAF report as scientific evidence is crucial. Arbitrators should not blindly adopt the scientific evidence that has been admissible. The acceptance stage examines the reliability of a doping test method, while the acceptance stage examines the reliability of a test report. The former is the basis of the latter, which is an extension of the former. Therefore, it is important for the arbitrators to carefully examine the reliability of the test report before reaching any conclusions based on the scientific evidence. This involves considering factors such as the qualifications of the laboratory and the experts involved, the accuracy and precision of the testing equipment, the proper handling and storage of the samples, and any potential sources of error or bias. Additionally, the arbitrators should also be familiar with the current state of scientific knowledge and advancements in the field of doping detection, as well as any relevant legal and regulatory standards.

Ultimately, the reliability and credibility of scientific evidence in doping cases is critical to ensuring a fair and just outcome. The arbitrators must approach this evidence with a careful and critical eye, avoiding blind acceptance of what has been deemed scientifically acceptable. They must be vigilant in considering all relevant information and in considering the potential limitations and weaknesses of the evidence, in order to make well-informed and impartial decisions.

4.3. Doping control procedures are out of order

Illegal obtained evidence generally refers to evidence obtained by investigators in violation of legal authority, procedure or other improper methods. The exclusionary rule of illegal evidence is to prevent investigators from abusing their power to collect evidence by refusing to accept illegal evidence, so as to ensure human rights and highlight procedural justice. However, as mentioned above, illegal evidence exclusion rule as part of the admissibility rules, in doping case can be ruled out the applicable, this means

that CAS for anti-doping agency inspection activity's laissez-faire attitude, anti-doping agency inspection application in a state of a lack of oversight. There are already problems of unequal status and rights between anti-doping organizations and athletes, CAS on the evidence rules and not be restricted to the anti-doping agency forensics behavior, this is bound to cause the behavior of the doping test procedures anomie, and aroused the suspicions of the justification for doping test. For example, in the "WADA V. Sun Yang & FINA", International Doping Tests & Management (IDTM) had problems in its sample collection team notification procedure, member qualification certificate and sample storage procedure during the anti-doping control process. This has led athletes to question the validity and legality of collecting samples. Doping control has a great impact on the rights of athletes. On the one hand, according to the results of the inspection, doping is an absolutely untouchable "forbidden zone" in the field of sports competition. If an athlete is found guilty of doping violation, he will face punishment such as ban from competition and cancellation of results, and his career will basically be "pronounced death sentence". In view of the severity of doping punishment, some scholars believe that doping cases have the characteristics of "quasi-criminal". On the other hand, the inspection itself may also infringe upon the legitimate rights of athletes. For example, the "whereabouts rule" stipulated by WADA requires athletes to report their daily life track in detail, which infringes upon the privacy of athletes. In the "WADA V. Sun Yang & FINA", the IDTM sample collection team chose to collect samples at night, which obviously violated the athletes' right to rest. Therefore, we should take a cautious attitude towards the doping control procedures. Unfortunately, the current doping control procedures are seriously inadequate in the inspection of the qualification of the subject, operating procedures, external supervision and restriction. CAS is responsible for restraining anti-doping organizations and protecting athletes' human rights as the "last line of defense". And evidence rules is an important means of judge restrict executives, merely out of respect for the sports autonomy and for anti-doping work efficiency considerations shall be allowed to check the behavior of the anti-doping agency that does not conform to the modern rule of law spirit also does not conform to the anti-doping work, because it is likely to lead to doping control the abuse of power, As Montesquieu said: "All those who have power are apt to abuse it. This is an immutable lesson. People with power use power until they reach the limits." However, the abuse of inspection power will make athletes and the general public question the results of doping inspection, thus affecting the legitimacy and legitimacy of the whole anti-doping system.

5. Improvement of evidence examination and evaluation rules in doping cases

To address the issues in the evidence review and determination process for doping cases, we need to enhance the rules governing this process. This primarily involves expanding the scope of the arbitration tribunal's review of evidence, mandating the application of the exclusionary rule for illegal evidence, and assessing the reliability of positive drug test reports.

5.1. Expand the scope of examination and evaluation of the arbitral court on evidentiary issues

First of all, from the nature of doping arbitration, doping arbitration has the tendency of "public" and judicature, which is obviously different from ordinary civil and commercial arbitration. However, the rules of evidence examination and confirmation of doping arbitration are still determined by the way of consultation between the parties. As mentioned above, CAS does not review WADA's banned list and testing methods, because of the contractual nature of the anti-doping rules. Anti-doping rules are regarded as intra-industry norms with contractual nature established by the agreement between athletes and sports organizations, and are applied by the arbitral court. Even if there are unreasonable aspects in the anti-doping rules, they are no longer within the scope of the arbitration court due to the autonomy of the two parties. But the real situation is that the athlete, as a party to the rules, does not necessarily express his intention voluntarily, at least not completely voluntarily. In the process of establishing rules, athletes can only passively accept rather than actively negotiate, because if they do not accept the rules, they will not be able to participate in relevant competitions, which is the consequence that most athletes cannot bear. The autonomy of will in the field of contract law requires both parties to be on an equal footing and to be able to freely express their will, while anti-doping organizations are in a monopoly position of participation right, which is obviously unequal to athletes. As Rawls said "In order to treat all people truly equally, the law needs to compensate in an equal direction for the tilt caused by chance." Therefore, as a neutral judge, CAS should correct the unreasonable evidence rules of anti-doping organizations, and it is legally feasible to expand the scope of the arbitration court's examination and evaluation on evidence issues.

Secondly, the role of WADA is to ensure that athletes participate in doping free sports, and make

every effort to detect, contain and prevent the use of doping.^[16] So it will do everything it can to combat doping violations, be willing to use rudimentary testing methods and technologies and actively expand the list of banned substances. From the perspective of an anti-doping executive, WADA is justified in this way, and to some extent, it is conducive to the level playing field of sports competitions. But the role of CAS is different. Its task is to determine the facts of cases, apply the law and rules correctly, and protect the legitimate rights of athletes from being violated. Therefore, the arbitrator should maintain a neutral attitude and conduct a comprehensive review of the evidence submitted by both parties in the doping case, rather than tendentious confirmation of certain evidence. Only in this way can pseudoscience be used in arbitration and its impartiality be questioned.

In a word, based on the particularity of doping arbitration and its role as a fair judge, the arbitral court should break through the restrictions of anti-doping rules and expand the scope of evidence examination and evaluation in both jurisprudence and practice. Considering the unique nature of doping arbitration and the role of the arbitration tribunal as an impartial adjudicator, it is necessary to break through the constraints of anti-doping rules, both from a legal and practical perspective, and expand the scope of evidence review. This means that the arbitration tribunal should not only focus on the strict application of anti-doping rules but also consider broader aspects such as the fairness and integrity of the process, the rights of the involved parties, and the overall development of sports. By doing so, the tribunal can better balance the interests of all stakeholders and contribute to the ongoing fight against doping in sports, while still upholding the fundamental principles of justice and fairness.

5.2. Compulsory application of the exclusionary rule of illegal evidence

In order to fight against doping violations and maintain the fair environment of sports competition, WADA established the world anti-doping system based on the World Anti-Doping Code (WADC) and formed a series of doping inspection rules. However, such a system has an obvious tendency, which emphasizes the supervision, inspection and punishment of athletes' behavior, but rarely involves the protection of athletes' legitimate rights. CAS as a neutral adjudicator, considered that the public interest of anti-doping sports was higher than the individual interest of athletes, and the evidence obtained from infringement of athletes' rights was also admissible. However, as discussed above, the adoption of illegal evidence will allow the abuse of doping control power, thus eroding the legitimacy and authority of anti-doping. The exclusionary rule of illegal evidence is widely applied in the field of criminal procedure, because it can effectively prevent the abuse of search power and achieve the purpose of protecting human rights. Considering the quasi-criminal nature of doping cases, it is necessary and feasible to apply the exclusionary rule of illegal evidence to doping cases.

The exclusion of illegal evidence is divided into compulsory exclusion doctrine and discretionary exclusion doctrine. The former refers to the case where evidence is obtained illegally, the evidence should be excluded, and the court has no discretion. The latter means that the court has the discretion to exclude. These two exclusionary principles are often aimed at different forms of evidence or different degrees of illegality. Generally speaking, for illegally obtained confessions, countries usually adopt compulsory exclusionism and exclude them uniformly. For example, China's Criminal Procedure Law stipulates the absolute exclusion of verbal evidence, including oral confession. As for the material evidence obtained illegally, the practices of various countries are different, that is, compulsory exclusion is adopted, such as Italy. Some also adopt discretionary exclusionism, such as Britain and Japan. Therefore, it can be seen that the exclusionary rule of illegal evidence is not invariable, it is adjusted according to the actual situation, with strong flexibility and adaptability. In the process of examination and evaluation evidence, CAS can choose different exclusion methods according to its own situation and evidence form. Even from the standpoint of fighting against doping violations, the strict liability of athletes and the low standard of proof applied to anti-doping organizations that CAS has long insisted on are tilted in favor of the "conviction" of athletes.^[17] Compulsory application of the exclusion rule of illegal evidence will not affect the efficiency of detoxification agents. By contrast, the exclusion rule of illegal evidence can take into account the value pursuit of fighting against doping violations and protecting athletes' human rights, so it should be applied compulsively.

5.3. Reliability review of AAF reports

The uncertainty of scientific evidence requires us to put the reliability review of scientific evidence in the first place, and the positive drug test report is no exception as a kind of scientific evidence. In practice, CAS has abandoned its review of the reliability of scientific evidence on some key issues in doping cases, particularly, it does not review the prohibited list and testing methods developed by the

WADA. At the same time, due to the confusion of admissibility and reliability of the two links, it directly confirms the reliability of AAF reports. However, as discussed above, scientific development prospective makes it more and more questioned, only to review reliability through doping cases throughout the period of the accepting and adopting of scientific evidence, to eliminate "junk science" is applied to the doping case, ensure the impartiality and authority of the arbitration.

The review of the reliability of AAF reports should be differentiated between accepting and adopting. The acceptance link inspects the reliability of a certain doping test method, while the acceptance link inspects the reliability of a specific test report. Therefore, the reliability review of positive drug test reports should be divided into two steps. The first step is to examine whether the testing methods and standards on which AAF reports are based are scientifically sound. Reliable detection methods and standards are often verified by repeated experiments. If the doping detection methods and standards themselves are not fully verified, the test results generated will inevitably be unreliable, and the arbitrators will not be able to adopt them as evidence. The second step is to conduct an individual review of a specific AAF report. In this process, the arbitrator shall, based on specific evidence, comprehensively review whether the extraction and storage of drug test samples conform to the procedures, whether laboratory equipment and operators are competent for testing requirements, and whether the ability and character of testing experts are trustworthy. In short, the establishment of the "two-step" review rules for the reliability of AAF reports can ensure that the arbitrators have a correct understanding of scientific evidence, get rid of their superstitions about science, and promote them to truly undertake the responsibility of reviewing and identifying evidence.

5.4. Corroboration rules for Non-Analytical Positive Case

Based on the principle of free proof, the CAS considers that in Non-Analytical Positive Case, evidence including athletes' self-admission out of court, testimony of anonymous witnesses, polygraph test results, athletes' biological passport and other evidence can be used to prove the facts related to doping violations. It is worth noting that the credibility and reliability of these evidences often have problems, and other evidences must be supplemented to determine the case. In Non-Analytical Positive Case, the admissibility and reliability of evidence are at the discretion of arbitrators, but the formation of discretionary evaluation of evidence must also be scientific. Therefore, it is of great practical significance to emphasize the corroboration rules in Non-Analytical Positive Case.

First of all, "The probative force of evidence refers to the degree or magnitude of evidence effect on factum probandum, which is the degree of relevancy."^[18] Word evidence, such as athlete's confession out of court and the testimony of anonymous witnesses, belongs to direct evidence and has strong proof power. For example, in "USADA v. M. & IAAF", the CAS used an out-of-court admission as the only evidence to determine the case.^[19] However, relevancy is only a necessary condition for evidence admissibility and reliability, while credibility is a sufficient and necessary condition. A high level of evidence probative force does not mean a high degree of credibility. It is very dangerous for arbitrators to draw judgment conclusions only by adopting word evidence such as self-admission and anonymous witness testimony. In fact, in criminal proceedings, verbal evidence alone cannot be used as a basis for a final decision. Even in civil proceedings, the judge is very cautious about accepting evidence such as the parties' self-admission and the testimony of anonymous witnesses, and usually regards this kind of evidence as evidence with low credibility. In view of the seriousness and quasi-criminal nature of the consequences of doping cases, corroboration rules should be applied to such evidence to ensure the discovery of the truth. Secondly, lie-detection results, biological passports of athletes and other evidences are circumstantial evidences, which are weak in proof and need to be combined with other evidences to form a complete evidence chain as the basis for determining the facts of the case. More importantly, according to Professor Waltz's classification of scientific evidence, polygraph test results, biological passports of athletes and other scientific evidence are in the intermediate state, which is likely to be universally recognized scientific evidence. The reliability of such evidence is not clear, so "limited adoption" should be adopted,^[20] it is expected to be reinforced by other evidence. In this way, the evidence can be used effectively and the blind adherence and superstition of judges to scientific evidence can be eliminated. As mentioned above, CAS has high expectations for scientific evidence. There is no denying that the application of scientific evidence does improve the cognitive ability of arbitrators, but identifiers cannot be judges, and scientific facts are not the same as the facts of the case. Belief in science cannot be naturally transformed into belief in scientific evidence, otherwise it will produce a series of bad results. In the criminal procedure, many wrongful convictions come from the blind following and superstition of scientific evidence. In order to protect the human rights of athletes and prevent pseudoscience from being used in the prosecution of athletes, it is necessary to establish corroboration

rules of scientific evidence.

6. Summary

CAS is currently the main body for hearing doping cases worldwide, and its rules of evidence have important reference significance for the construction of the arbitration system of doping cases in China. However, we should also pay attention to the deficiencies of CAS in the process of reviewing and identifying evidence. From the perspective of evidence law, this paper summarizes the special rules of evidence examination and confirmation in the hearing of doping cases by the CAS. These rules are based on the tradition of sports autonomy and the need of anti-doping work efficiency. However, with the change of the world anti-doping situation. The traditional examination and evaluation rules cannot effectively respond to the development of doping manufacturing technology and the actual needs of athletes' rights protection. We should seize the opportunity presented by the revision of China's Sports Law to enhance the legal framework surrounding doping cases. On one hand, we can use the Court of Arbitration for Sport's (CAS) corresponding rules as a model to develop evidence rules for doping cases that align with international standards. This would help ensure that China's legal approach to doping cases is consistent with global best practices, fostering greater cooperation and understanding in the international sports community.

On the other hand, it is crucial to deeply reflect on the existing problems within China's current doping examination and evaluation rules. By addressing these issues, we can make the rules more consistent with the principles of evidence science and better suited to China's specific context. Some potential areas for improvement include enhancing the reliability and accuracy of doping test results, ensuring proper procedures are followed during testing and sample collection, and providing better education and resources for athletes to prevent unintentional doping violations.

Additionally, it is essential to promote transparency and fairness throughout the entire process of handling doping cases. This includes strengthening the independence and impartiality of relevant institutions, providing athletes and sports organizations with access to a fair and unbiased appeals process, and fostering a culture of openness and accountability within the sports community.

Finally, efforts should be made to raise public awareness about the dangers of doping and the importance of clean and fair competition. This could be achieved through educational campaigns targeting athletes, coaches, and the general public, emphasizing the health risks associated with doping, the ethical implications of cheating, and the long-term consequences for an athlete's career and reputation. By taking these steps, China can build a more robust and effective legal framework for addressing doping cases, ultimately contributing to a cleaner, fairer, and more competitive sports environment both nationally and internationally.

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