

Trust Processes in Sport in the Context of Doping

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Abstract Trust is a relatively rare explored research field in sport. This is surprising, because different trust constellations can be expected in sport. Besides, constructs intrinsic to sport, like self-efficacy, social resources or group cohesion, might at least be correlated with trust.

Doping seems to place the trustworthiness of sport itself at serious risk. The doping problem is a constant part of elite-sports, which displays a new dynamic due to increased digital media use. The Olympic sports federations and anti-doping agencies are responsible for the fight against doping. The aims of doping prevention are to encourage a clean environment and to control athlete's behaviour. Sport in general is attacked by the public on two grounds: that that sport is neither able nor willing to fight doping successfully.

Using the model of trust proposed by Mayer et al. (The Academy of Management Review, 20:709–734, 1995), we aim to adapt the construct of trustworthiness in terms of the different trust relationships in elite-sports by referring to current circumstances in sports, including the use of digital media. The possibilities of transferring this trust model are discussed. Therefore, as well the antecedents of trust as the risk factors for athletes, sports federations and spectators are to be reflected. Furthermore, the importance of the trustworthiness of the different protagonists in sport for the success of the fight against doping will be discussed. A special focus is on the changes of communication between athletes, spectators, federations and anti-doping agencies because of the effects of the digitization and forthcoming mediatisation of communication methods.

Keywords Sport • Doping • Trustworthiness • Anti-doping agency • Substance abuse treatment

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1 Doping and Trust

Doping is a risk for every athlete: The risk of being detected is combined with a risk of conviction, a long suspension or a serious loss of image. Also, an athlete can lose the opportunity to reach his or her highest aim in life in terms of success as an athlete, because the athlete's career might be ended or at least suffer a devastating setback.

Health consequences, or social effects like exclusion from a sports team or the loss of friends and social support in the setting of sport, might be further risks for athletes who engage in doping.

But what would it mean if not only doping itself but also not to dope were a risk for the athlete? This would be the case if the athlete could be sure that his or her opponents were taking performance-enhancing drugs without being detected. In this case the athlete would be at a disadvantage in competition against his or her opponents if he or she did not also take performance-enhancing drugs.

At first glance, this scenario, in which a whole sport is affected by doping, seems unrealistic. But if we consider cycling, which has suffered huge damage to its image due to doping over the last 20 years, it seems that such a situation has existed in sport: In the late 90s cycling was at its peak: athletes like Marco Pantani, Bjarne Rijs, Jan Ullrich or a bit later Lance Armstrong were competing against each other in extreme rivalry. The average speed of the Tour de France increased annually, even as the demands of the routes became greater. Years later it was shown that almost all the top competitors used doping during these years. What had happened? An explanation could be that different trust relationships were seriously damaged by the occurrence of doping possibilities. An athlete has to evaluate his or her probability of winning. The athlete must take into consideration whether he or she is disadvantaged in comparison with others by not taking performance-enhancing drugs. This is in particular the case if doped athletes are not detected by the responsible agencies for the control of doping, like sports federations and the World Anti-Doping Agency (WADA). If other elements in the sport system like physicians, support staff or team chiefs not only tolerate doping but also support the use of dope by athletes, the athlete who does not use such drugs would probably estimate his or her chances of winning as being quite low. In that case the risk that accompanies a decision not to dope and to accept a disadvantage in relation to a large proportion of one's opponents might be perceived as greater than the risk of one's use of dope being detected. Accordingly, the athlete has to consider whether there is a higher risk in doping or in not doping, when he decides for or against doping. To renounce doping, the athlete must trust the system in his or her sport averts a situation in which opponents can take performance-enhancing drugs without being detected. Here, the athlete has not only to assess the trustworthiness of his or her opponents but also the trustworthiness of sports federations, which have the task of ensuring doping-free conditions and of prohibiting doping, and of the anti-doping agencies, which detect and sanction doping. Only if the athlete has trust that the other parties stand for a doping-free system, in which he or she can be

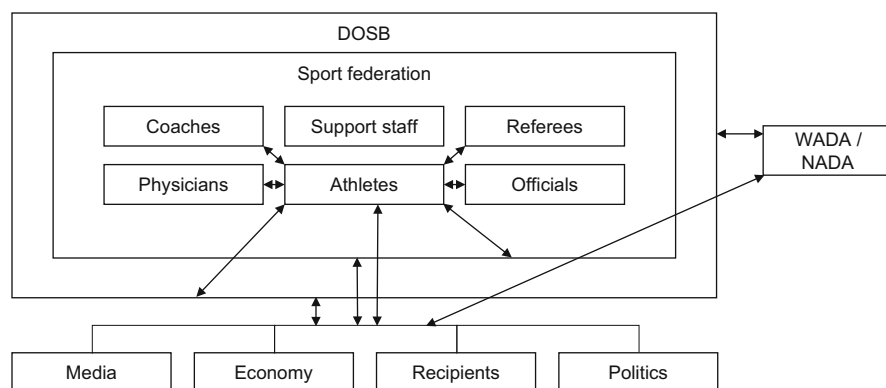


Fig. 1 Trust relations in sport

competitive and will suffer no disadvantages without resorting to any doping substances, might he or she take the risk of rejecting doping and trying to be a “clean” athlete (Fig. 1).

In the following sections the trustworthiness of the three main protagonists (athletes, sports federations and WADA/NADA) in respect of doping is analysed from different perspectives. We examine not only the relationships within the sport but also the influence and demands of external factors that invest in sport, like politics, economics, spectators and media.

2 Definitions of Trust

To evaluate the trustworthiness of the different protagonists in sport, the model from economical science that is introduced at the beginning of this book is adapted to the setting of sport. Mayer et al. (1995, p. 712) define trust as follows: “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.”

This willingness to trust is based on the evaluation of the person or organisation that is to be trusted. Mayer et al. (1995) summarize these assessments under the three antecedents of trust: ability, benevolence and integrity. In the case of doping, athletes have to evaluate whether the other athletes are able to reach their desired level of performance without the use of any illegal substances. In addition, they evaluate whether another athlete will try to get an advantage in comparison with themselves and other athletes and wants to harm the chances of the other athletes (failure of benevolence); and whether an athlete actually believes in the basic principles of sport, like fair play or equality of chances, and behaves in accordance with those principles (integrity). This applies with respect to both the integrity of the athletes, and so to their values, principles and attitudes to sport, and also to their

benevolence to sport and the sports system. Only if they are clearly willing to respect the fundamental principles of the sport can they be regarded as trustworthy.

In addition to assessing the trustworthiness of the other person, the propensity to trust is added as a second factor. Propensity to trust concerns the trait to tend to be more trusting or to be more suspicious, i.e., it concerns attitudes within the person that trusts. Based on Rotter (1967), it follows that the athlete's own personality is a factor that affects the tendency to be suspicious or trusting. Propensity to trust is a stable personality trait that is common to different kinds of behaviour. It can be characterized by personal development, cultural background or family dispositions (Mayer et al. 1995, p. 715). Thus, the most powerful form of this property in the direction of trust is blind trust. Therefore, the factor 'own propensity to trust' works as a moderator between the perception of the antecedents and the decision whether or not to trust. Thus, it can also be assumed that a person who is doubtful/unconvinced that a sports system prosecutes and prevents doping tends to use doping more than a person who believes in the integrity, ability and benevolence of other athletes, the sports federation or the WADA.

The existence of trust does not necessarily mean that trusting behaviour results. Besides the perception of trustworthiness there is another important factor that effects the decision: the perception of risk. There is a consensus that risk is necessary for the existence of a trust situation. The perception of the extent of a risk might lead to a decision not to trust even though both perceived trustworthiness and own propensity are high. In the model of trust proposed by Mayer et al. (1995) the evaluation of the circumstances is a factor that moderates the relationship between trust and risk-taking behaviour. However, this moderation can be maximal: In sport, an athlete could have maximum trust in his or her opponents and the anti-doping system, but nevertheless use doping substances to be sure of reaching the highest level of competition.

Finally, after a decision to trust or not to trust, the trustor will evaluate the outcome of the situation. For an athlete who renounces doping because he or she believes that one can be successful without doping in his or her sport, a case of doping would be a reason to change his or her behaviour in the future.

Where the result of the trust decision is to reject the risk, the outcome will be evaluated by analysing which decision would have been better for the trustor. An athlete would assess whether it was necessary to take performance enhancements or whether he or she would have been as successful without them. This evaluation of the results will be incorporated in further trust decisions and has a direct influence on the perception of the antecedents of the trustees.

Another factor Mayer et al. (1995) emphasize is the relationship between trust and control. Conceptualising the model of trust, Mayer et al. (1995) neglect this factor, but in their own review (Schoorman et al. 2007, p. 346) they add that these two factors are not necessarily mutually dependent, but that control might moderate the interrelation between trust and risk. For the situation of athletes it can be assumed that they have comparatively little control on doping behaviour in their sport. They can control their own behaviour only and will compare it with the perceived attitudes of the other protagonists.

3 Trustworthiness of Athletes

When an athlete is announced as a member of a national youth team or reaches a certain performance level in team sports, he or she is already obliged to comply with the rules of the anti-doping code. That athletes reach an arrangement to adhere to the rules established by the WADA means here is an internal contract to reduce the complexity of the possibilities in sport. Athletes trust their opponents meet the laws and will not try to evade them. This might mean there is a risk for athletes, because they cannot control whether other athletes meet the demands of the anti-doping code. Control is entrusted to sports federations and the WADA. Sports federations are responsible for preventing, prohibiting, and punishing doping. The WADA has a legislative and oversight function, making the rules and checking that they are met by all protagonists. The trustworthiness of these three players in sport (i.e., athletes, sports federations and WADA) is to be examined in this and later sections of this chapter.

To evaluate whether athletes are trustworthy in terms of their doping behaviour it seems first to be necessary to analyse the possible reasons for doping use. A first model to predict doping behaviour of athletes is by Donovan et al. (2002). It was developed based on a request of the American anti-doping agency and can be reduced to an analysis of given literature in sport science and health science. The authors developed a model that is based on cost/benefit considerations (Fig. 2). Besides threats, costs and benefits the authors add social, individual, and objectively given parameters to the model.

The model itself is hermeneutic, which means that there is a lack of empirical evidence for the parameters named in the model (Mazanov and Huybers 2010). The actual influence of the analysis of costs and benefits and the accuracy of the somewhat vague explanations of parameters like personality and reference groups cannot be proved. But parallels to the ideas of trust research can be found. For example, the influence of personality traits and the assessment of legality or morality of the behaviour (comparable to the antecedent integrity) are similar to the trust model of Mayer et al. (1995).

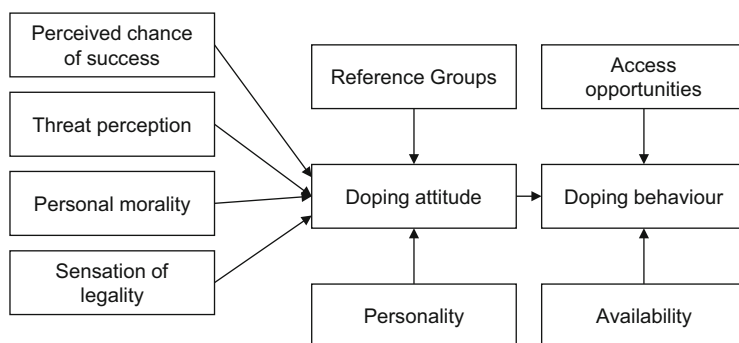


Fig. 2 Adaption of the model by Donovan et al. (2002) explaining possible factors of doping behavior

Strelan and Boeckmann (2003) focus, in another explanatory approach, on possible deterrence mechanisms that influence doping behaviour, such as controls and education work, moral concerns, social effects and health consequences. They argue that doping behaviour is due to rational reasons in that thoughts about deterrence arguments and positive effects of doping are weighed against each other. The weight assigned to factors leads to a decision about doping; and the pathway to that decision can be moderated by situational factors like the perception of the prevalence of doping in a sport, experiences with penalties, the perception of actual competitiveness, the professionalism of the sport, the perception of the sports federation as the responsible agent, and the kind of substance involved in doping. Strelan and Boeckmann (2003) consider three possible kinds of sanction: first, legal consequences that would create high personal costs; second, social sanctions like exclusion from social groups (e.g., training groups); and self-centred consequences like a sense of guilt or a lack of self-worth. In addition, health consequences can appear as a deterrent (Strelan and Boeckmann 2003).

Benefits can be assumed to include material benefits like prize money and sponsorship; and the chance of greater success for the athlete's own career. Also, social factors like appreciation or personal factors like satisfaction with the results might be consequences (Strelan and Boeckmann 2003; Fig. 3).

A further model by Petróczi (2007) considers attitudes towards doping and doping behaviour. Based on the theory of planned behaviour (TPB, Ajzen 1985), it integrates perceived competitiveness as a part of behaviour control. This component can be seen as the perception of the given conditions in a sport, which also means evaluating the risk that goes along with a non-doping behaviour.

The model shows two further predictors of doping: Petróczi and Aidman (2008) argue that the motivation of the athletes has a significant influence on their doping attitude and behaviour: The higher the orientation of a person towards winning, the greater is the probability that the person will be open to doping. For this hypothesis she finds only partial evidence in an empirical study: Direct influence can be found only for the kind of motivation in terms of athlete's attitudes, not in terms of athlete's actual behaviour. However, other authors also point out the fact that an athlete's general motivation might be an important influence on doping attitudes (Dietz et al. 2013).

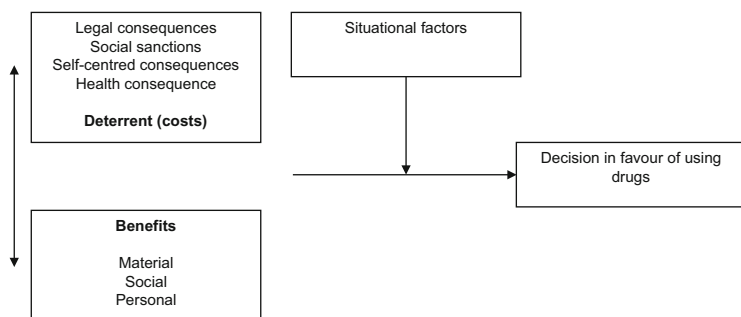


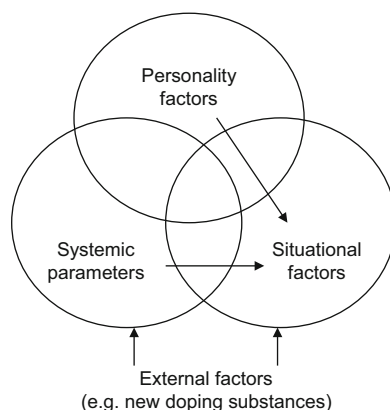
Fig. 3 Model of doping behaviour, adopted by Strelan and Boeckmann (2003)

A second factor Petróczi includes in her model refers to athletes' beliefs about doping. Beliefs about doping are defined as the attitudes of athletes towards the question whether performance-enhancing drugs, such as those currently banned by the WADA, should be legalized. This parameter can be compared with the antecedents benevolence and integrity in the trust model by Mayer et al. (1995).

Petróczi's (2007) model was used and expanded in further research (Mazanov et al. 2008; Petróczi et al. 2011). Petróczi and Aidman (2008) highlight that besides doping attitudes and beliefs about doping other factors that are not intrinsic to athletes influence the doping decisions of athletes. This represents a kind of paradigm shift in psychological research on doping: Whereas in former studies the athlete using dope was at the centre as the only responsible party, now other elements of the sport system have become the focus of research for the first time. Social and situational factors are also said to be potential reasons for doping behaviour. In the model that has not been empirically proved, next to personality factors systemic parameters influence athletes' decision making regarding doping. These systemic factors are described as the perception of beliefs about doping within the sports federation, and the general and the subjective perception of the prevalence of doping in the sport and within the opponents. These factors, and actual events like new doping substances, new detection formats or actual cases of doping are considered to influence behaviour. The model (Fig. 4) also shows reciprocal effects between factors within and around the athletes. For example, personality traits might influence the perception of the particular sport system and the sports federation.

Athletes have different reasons to use performance-enhancing drugs. These reasons are influenced by systemic and situational arguments and the evaluation of those arguments by athletes. Further, not only costs and benefits but also motives and beliefs about existing doping behaviours influence the decision-making process. There are parallels found between the paradigms concerning athletes' attitudes to doping and the trust model of Mayer et al. (1995): e.g., the suggestion in the doping paradigm that other parties in the system are evaluated regarding their

Fig. 4 Reciprocal influence on the situation in which an athlete uses or does not use doping substances (adapted by Petróczi and Aidman 2008)



behavior is paralleled in the trust model by the antecedents to trust; the own personality seems to be a significant factor in both models (cf. propensity to trust) and the situation in a sport and the given parameters that are to be estimated might be compared with the risk perception in the trust model.

Athletes are in direct competition with each other and therefore evaluate the trustworthiness of their opponents and draw conclusions related to their doping behaviour. At the same time they will also estimate situational factors, risks and the intentions of others. While these are reciprocal effects of trust, athletes are also in one-sided trust relationships: customers and investors in sport, politics, media, economics and spectators also judge the athletes regarding their trustworthiness and behave in ways that are based on these judgements. One of the new digital options for athletes to present themselves as trustworthy or to evaluate opponents as trustworthy are social media like Facebook or Twitter, where athletes have the opportunity to provide a personal channel for self-presentation. In contrast to times of traditional media like television or newspapers, athletes now have the chance to contact their recipients more directly and thus try to have an impact on the recipients' perception of themselves.

For economics and for media representatives, athletes are promotional items. They invest in sports by sponsorship or buying broadcasting rights or by funding elite sports. These investors hope for benefits and advantages to themselves from their commitment. For sponsors, these benefits are economic income through promotional activity or an increase in their perceived image by association with the extraordinary performance of an athlete. They might hope that recipients associate the success of an athlete with the success of the company or brand mark. Policy supports sport for at least two reasons: On the one hand, sport is an important part of civil society. On the other hand, countries compete with each other and, as a question of prestige, it is important that national athletes are successful compared with athletes from other countries. Elite sport also creates role models for society. Media invests in sport because they believe in the entertainment effect of sports. This leads to a greater perception and use of the offers of a media programme. For example, a higher perception of sports that media present has an effect on the viewing figures of television programmes, which in turn leads to higher income through advertising.

The responsibility for these circular processes is the obligation of athletes and the sports federations. Investors trust that players in sport will meet expectations. So, through external factors, athletes are put under pressure: Possible consequences of a failure of the athletes or of their not meeting demands can be extremely high, because the investors could stop necessary financial support. The customers of sport take a risk while supporting and investing in sport. These risks could be that athletes do not reach the expected performance, so that the investment is not efficient; or that they even lose in terms of their image and reputation because of a failure by the athletes. This would be the case if an athlete took performance-enhancing drugs. Pöppel et al. (2014) show that athletes have different possibilities to promote themselves via different media channels. They can use platforms like Twitter, Facebook, Instagram etc. to make themselves more popular. Also, these platforms

give the opportunities to publish own statement about competitions, results and also suspicions like in doping issues to save their own image and reputation.

However, these two risks—to fail performance or to get addicted to doping—conflict with each other: Bette and Schimank (2006) emphasize that all investors expect maximum performance of the athletes, but for some athletes the consumption of performance-enhancing drugs can be necessary to meet the demands. For the athletes this creates a dilemma, in which they have to weigh the risks and reach the desired performance. That doping cases mean an immediate decrease of trust can be shown by different examples: the withdrawal of German public television from broadcasting the Tour de France can be explained by an extreme decrease of trust in cycling and in the protagonists of this sport. This decision had far-reaching consequences for all parties involved. Other examples are the termination of sponsor's contracts after the revelation of the Lance Armstrong doping case or the petition of the German political party Bündnis 90/Die Grünen to cancel all financial support for cycling sport after the doping cases in 2005. But not only politics, media, and economics can withdraw their trust, also spectators can lose their trust in athletes. Scandals like doping cases, game manipulation or cheating can lead to a lack of trust by the public (Breuer and Hallmann 2013).

4 Trustworthiness of Sports Federations

If the model of trust by Mayer et al. (1995) is transferred to the relationship between athletes (trustor) and sports federations (trustee) it is first to be clarified whether a risk relationship between the federation and the athlete exists. In the previous section the cost/benefit model of Strelan and Boeckmann (2003) was introduced, in which doping has a high risk of being detected. This opinion, that doping creates a higher risk than non-doping, must be questioned if the trustworthiness of sports federations is our focus. In Petróczi and Aidman's (2008) paper a possible interpretation of the decision to dope or not to dope is that athletes use performance-enhancing drugs because it is the better, or even the only, decision for success in their sport. If the conditions in sport or in some sports disciplines actually are characterized this way, it is not doping behaviour but non-doping that is a behaviour that carries risk. The athlete would be vulnerable to having a disadvantage in comparison with other (doping) athletes. The subjective norm (TPB, Ajzen 1985) of the sport would be constructed by doping as the normal behaviour of participants.

The sports federations, as the organizers of sport, are responsible for setting the norms in a sport. They are responsible for the prosecution and sanction of doping. So, the sports federations regulate the penalties for doping, because it is their task to guarantee fair conditions to the athletes (WADA 2014). If the sports federation fails to suppress doping, a non-doping athlete will be at a disadvantage compared with his opponents, who exploit the failure of the federation by taking performance-enhancing drugs. Petróczi and Aidman (2008) underline that athletes care about

being surrounded by doped athletes, which signifies a perceived vulnerability for the athletes.

Therefore, an athlete will evaluate his or her sports federation by judging whether the federation handles its tasks successfully and will weigh the risks of doping and non-doping. In other words, the athlete weighs whether the anti-doping work of the federation is trustworthy or not. This means that the ability of a sports federation to provide fair conditions for athletes can be interpreted as the assessment of its professional and technical competencies in anti-doping work, e.g., sufficient and efficient doping controls. The benevolence of a sports federation can be assessed by the effort it makes to help athletes. In that regard, athletes will evaluate whether the federation takes the side of those athletes who take performance-enhancing drugs by protecting them or of those who reject doping. The perception of the integrity of a sports federation can be explained by its endeavour to provide fair conditions for all athletes. Also, an athlete could ask whether the federation fights doping transparently or tries to obscure it. Figure 5 shows the model of trustworthiness adapted to the setting of athletes who trust their sports federation regarding its anti-doping work.

Bette and Schimank (2006) mention in this context the double accusation against sports federations regarding their anti-doping work. On the one hand, it is questioned whether federations have the ability to prohibit doping. This is supported by the fact that the search for new doping substances would always be one step ahead of research into doping detection. So, sports federations are only able to react to the behaviour of athletes. Further, it is argued that comprehensive control of athletes in training and competition is not possible. Also, a lack of financial resources for the fight against doping is assumed. A further aspect deals with the international comparability of anti-doping work. While in industrial

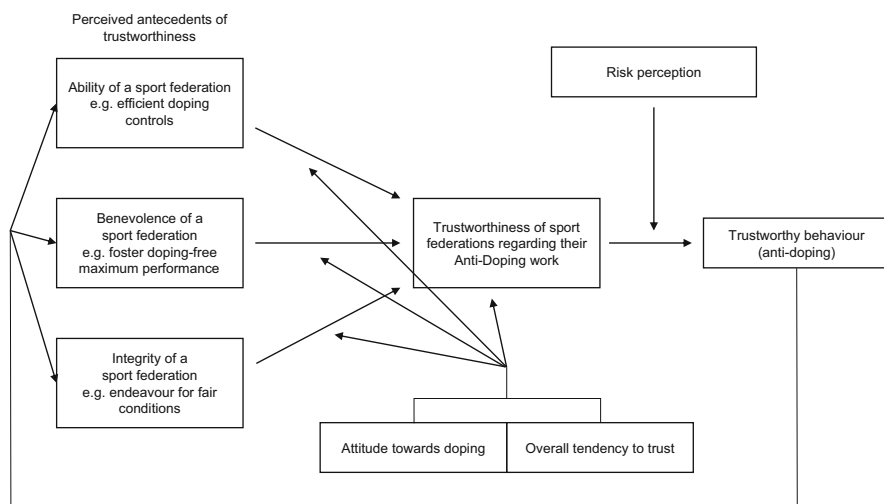


Fig. 5 Trustworthiness of sports federations regarding their anti-doping work

nations the national anti-doping agencies are sufficiently supported by the state, comprehensive monitoring of doping is not possible in many other countries. So the competencies of national and international sports federation to fight doping successfully are often questioned.

Even more serious is the accusation of some media representatives that not all sports federations are willing to fight doping (Bette et al. 2012). This suggestion refers to the antecedent of benevolence and to the antecedent of integrity. It is argued that federations do not want to detect doping because they depend financially on the success of their elite athletes. This would lead to a neglect of, or even support for, doping (which would mean a benevolent attitude to doped athletes). Furthermore, the federations are accused of not wanting to detect doping, because not only would negative consequences damage the athlete, but also they would damage the federations' image.

What must sports federations do to protect themselves against these critical opinions and to appear trustworthy regarding their anti-doping work? Sports federations should present the doping issue in a way in which they seem to be a credible enemy of doping. Being idealistic and emphasizing complete solutions to the doping problem is not to be considered as trustworthy (Bette and Schimank 2006). Therefore, anti-doping work is not to be perceived as a symbolic appeasement of a problem. Thus, anti-doping seems to be successful if the sports federation presents itself as a trustworthy player in the system. Augustin (2007a, b) points to the necessity of a positive image of the fight against doping. This can be achieved by:

- Giving anti-doping a positive image in public.
- Promoting the increase of health consciousness.
- Sending transparent messages.
- Inviting public and media to dispute doping critically.
- Promoting the fun of sport as well as individual performance.
- Showing a transparent and broad support of the fight against doping

However, it seems to be important not only that federations focus on winning the fight against doping, but also that their position is credible and reliable. Nevertheless, for any sports federation a doping case or even a suspicion of doping means a high level of organizational stress the federations have to avoid or even to minimize (Bette and Schimank 2006).

New possibilities to meet these expectations are given by new media and new ways of communication: Using digital campaigns or a well-structured homepage with information about their own Anti-Doping work, sport federations are able to change the perception of their trustworthiness (Dreiskämper 2014).

By focussing on own trustworthiness regarding their anti-doping work, sports federation might take a big step to reach the aims of anti-doping. Thus, successful anti-doping work does not totally prevent doping, but is possible for sports federations to be perceived as trustworthy and reliable. Therefore they have to state their position quickly and transparently if necessary (Dreiskämper 2014). This behaviour might counteract the double accusation levelled at sports federations. Also, it can be

an important contribution to the reduction of the contradiction between reaching the maximum performance and the fair spirit of sport. In particular, anti-doping work would be a central part of prevention for all protagonists in sport, investors and competitors, could believe in the trustworthy attitude and role of sports federations, as they are the organizing umbrella for all parties.

5 Trust and National and World Anti-Doping Agencies

Similar to the fact that sports federations present themselves as reliable parts of the anti-doping work, national as well as international anti-doping agencies behave analogously. In 2004, under the World Anti-Doping Code (WADC), a catalogue was released which was supposed to manage all kinds of matters and corresponding consequences with regard to doping (WADA 2015). The catalogue is based on two fundamental principles which can be seen as the aim of WADA: ‘the protection of the athlete’s basic right to participate in doping-free sport’ (WADA 2009, p. 6), which aims to encourage athletes in terms of health, fairness and equal treatment; and the ‘securing of harmonized, coordinated and effective anti-doping programs in an international as well as national context’ (WADA 2009, p. 6), which enables the detection of violations against anti-doping regulations to hinder or prevent doping (WADA 2009). WADA itself assumes the role of a legislator and controller since it is responsible for current anti-doping regulations as well as for doping tests and the prosecution of doping athletes through its national layers (Haug 2006, p. 71).

Consequently, WADA does not risk being accused of not fighting doping because it possesses a neutral, superior role within the anti-doping fight. Nevertheless, it also faces reproaches that it is one step behind dopers (Kayser et al. 2007, p. 3; Haug 2006, p. 91). However, WADA’s establishment has been a decisive point in the trust relationship between doping inspectors and athletes, caused by different regulations anchored in the WADC. Under these regulations a control mantle is installed which serves as a substitute for the trust in athletes and other protagonists in sport. Thus, professional athletes are encouraged to inform WADA about their current residence at any time. In fact, WADA’s ‘whereabouts-rule’ is extremely controversial and has been criticized from a contextual perspective (Bojsen-Møller and Christiansen 2010) as well as from an ethical perspective (Pawlenka 2012). Although the rule leads to the fact that athletes at a certain level of performance are constrained to reduce their privacy, the risk of undetected usage of doping substances is said to be reduced by it. Information about ‘whereabouts’ is secured digitally by the ADAMS-system (WADA 2009, p. 88). Thus, through this system athletes’ confidential data are available all over the world (Kayser et al. 2007, p. 2). This example is not the only one showing that effects of digitization have changed the sports, and especially the doping, environment. Because on the other hand it is easier for athletes to get information about the current anti-doping regulations respectively list of banned substances and methods via homepage or Apps (WADA 2015).

6 Effects of Digital Communication on Trust

Trust is not only necessary for sports federations in respect of their anti-doping work or for athletes in respect of combating doping. According to Luhmann (1979) it is an essential part of cooperation, because it reduces the complexity of life. Sports, especially at the most competitive levels, are complex systems, characterized by complicated relations between coaches, athletes, federations, support staff, and also media, economics, and politics. In addition, social intercourse has become even more complex due to digitization. Whereas sports events were formerly characterized by a time lag as information was transmitted solely by journalistic sources, such as television, radio or newspapers, the emergence of social media has changed this system completely (Sanderson and Hambrick 2012). Not only journalists report on sport events: athletes, federations, or recipients also disseminate information instantaneously (Hutchins 2011). These changes enable athletes and federations to appear more active and to present their services. Homepages are central information channels for athletes, federations and sports clubs. Media channels like Twitter, Facebook, or Instagram are used for commercials or reporting (Wallace et al. 2011). For recipients, like spectators or representatives from economics or sports, sport and opinion making become more complicated due to these changes of digitization. Whereas, in the times traditional media were paramount a small amount of already filtered and evaluated information was available, recipients now have to choose the information themselves from a high number of sources (Agichtein et al. 2008). Thus, the recipient has to decide which source is trustworthy and credible. For the doping discourse, this means that and sports federations are able to decide themselves whether they want to clarify their position in cases of doping. As the history of doping in German sport from the 1990s on reveals (Krüger et al. 2014), the increase of information sources also enhanced the complexity of the issue. When numerous German media reported on doping practices in the old West and East German states, the doping problem became more complex. Recipients, but also sport and media, are introduced to the doping problems more intensely. Due to the possibilities of the Internet, sports recipients not only expect a sophisticated clarification of the doping problem, but also statements from the parties involved. Therefore, digital communication is both a chance to enhance trustworthiness and a danger to perceptions of the trustworthiness of sports people and organizations: On the one hand, attitudes, actions, and intentions in the fight against doping can be presented transparently. On the other hand, federations and athletes are measured by how they position themselves in relation to doping. If such positioning is not successful or if another source is more credible in presenting a federation as non-trustworthy in their actions against doping, this can have negative consequences for the specific federation. These consequences encompass not only the image of a certain type of sport, but can also include far reaching financial losses, such as a cancellation of subsidies by the Governments or the cancellation of sponsorship agreements. Therefore, digitization forces athletes and federations to refer to topics like anti-doping measures in a transparent and a trustworthy manner.

7 Discussion

Doping is one of the greatest risks to trust in sports and in sport's protagonists (Meinberg 2010). Certain types of sports or sports federations have already suffered significant reputational and other losses as a result of doping scandals in the last decades (see Krüger et al. 2014). Not only because of that, trust should be a point of focus if the phenomenon of doping is observed. As shown in the previous sections, relations within the sports system are complex. Thus, the use of illegal performance-enhancing drugs is not determined solely by the athlete, his or her moral transgressions or personality traits. The athlete is part of a system, which he or she analyses and evaluates. It can be assumed that the decision for or against doping is based on an evaluation of the single components, chances and risks in top-class sports. Trust in the single components is a basic requirement for decision making: If the athlete is not convinced that he or she can compete successfully and win on fair terms because of a lack of trust in the anti-doping measures in place and the behaviour of other competitors, the decision will be seriously influenced.

The integrative model of organizational trust (Mayer et al. 1995) has been successfully transferred to various scientific domains (see also the chapters within this book referring to communication, psychology, or information systems), but it remains in question whether a transfer to the complicated trust relationships in sport is feasible. By adapting the trust model to sports, several parallels to the current doping research can be identified: It is assumed that the protagonists in sports evaluate each other and thus refer to parameters like integrity, benevolence, and ability. In addition, personality traits (see Strelan and Boeckmann 2003) or the assessment of own risk (Petróczi and Aidman 2008) have an influence on decision making in sports. The existence of risk is an integral part of the trust model, combined with a surrendering of control. Exactly this phenomenon occurs in the case of athletes: If they trust their sport as free from doping they give up control to the sports federation and anti-doping agencies. Further, those parties with a control function in sports have to trust athletes to stick to the rules and principles. However, trust is reduced due to the amount of controls and regulations that exist. This fact can be transferred to an analysis of trust: Because of the high number of doping cases in the different types of sport like cycling or track and field, anti-doping interventions have been extended, which leads to a new evaluation of the antecedents of trustworthiness of the specific actors, as in the trust model of Mayer et al. (1995). Thus, adaptation of the existing model to sports appears to be reasonable.

Nevertheless, limitations to the adaptation of the trust model to sports can be named: Further research is necessary to answer the question whether the relationship between sports' protagonists is a trust relationship, which can also be understood as an interpersonal trust relation. The relationships between the customers of sport, like media, economics, politics, and spectators, and athletes and federations can be regarded as forms of initial trust (see Rousseau et al. 1998) without extended prior knowledge to assess the antecedents of trustworthiness. A direct relationship

is, mostly, not involved. Further research is necessary to clarify why sponsors invest in sports, teams or athletes and thus engage in a trusting action.

A further question refers to the perception of risk and alternatives to athletes' behaviour. Whereas risks are apparent for athletes, the complexity of the system becomes obvious when we consider the debate concerning the double accusation made against top-class sport: for federations, trust is accompanied by the risk that their athletes might engage in doping. If they reduce this risk by more frequent use of doping controls, they increase the danger of own losses. The concept of risk is even more challenging when we consider the incorporation of recipients of sport. They face the risk of being disappointed by their idols in whom they have invested time, money, or passion, but it is unclear whether this is an interpersonal relationship accompanied by an obvious risk. The current trust model does not encompass these complex and branched relations: further research is necessary.

Current research regarding the doping problem and the prevalence of doping (Pitsch and Emrich 2012; Pitsch et al. 2007) indicates that sport might face a trust crisis in the near future. Also, stimulated for example by the clarifications regarding the history of the institute for sports medicine in Freiburg, including several proofs of doping in diverse types of sport the current doping discourse shows that doping is a major threat for the ideas and principles of sport. The opportunities to conduct the fight against doping successfully are supported by the dissemination of new media and their ability to contact athletes, federations, recipients and media directly. In this chapter, several parties that are involved in the doping issue are introduced. They all are to be trustworthy parts of the system and they all have different possibilities, including new media, to avoid further doping crises for sport in future.

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