

# ***Equestrian Federations and the Welfare of the Horse***

*An analysis of the national and international rulebooks of equestrian federations  
and their provision regarding horse welfare*

by

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Submitted in partial fulfilment of the requirements for the degree of Master of Science, program  
Public Administration, University of Twente

2019

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Acknowledgements:

I want to thank my parents, for their love, encouragement and constant support.

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## ***Abbreviations***

<b>BD</b>	British Dressage Association
<b>BDRs</b>	Rulebook of the British Dressage Association
<b>BE</b>	British Eventing Association
<b>BERs</b>	Rulebook of the British Eventing Association
<b>BEF</b>	British Equestrian Federation
<b>BS</b>	British Show Jumping Association
<b>BSRs</b>	Rulebook of the British Show Jumping Association
<b>FEI</b>	International Equestrian Federation
<b>FN</b>	German Equestrian Federation
<b>H.dv. 12</b>	German cavalry manuals, from 1912
<b>TD</b>	Technical Delegate
<b>TierSchG</b>	German animal welfare law
<b>GRs</b>	General regulation FEI
<b>DRs</b>	Dressage Rulebook FEI
<b>SJR</b>	Show Jumping rulebook FEI
<b>STM</b>	Steward Manual FEI
<b>EVTNRs</b>	Eventing Rulebook FEI
<b>VETR</b>	Veterinary regulations FEI

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# ***1 Introduction***

In a report to the European Commission Martina Pluda stresses equestrian federations to deal with welfare issues (Pluda, 2015). In her report, it becomes clear, that self-regulations are common in the equestrian sport. Problems with this circumstance lay in the human desire to succeed. This can threaten horse welfare, at competition on all levels. Pluda makes clear: equestrian federation impose measures to ensure good welfare practices. The common pressure to perform can threat the welfare of the horse.

This research is an exploration to gain new insights on provisions regarding the welfare of the horse during national and international competitions. We aim to gain insights into the concept horse welfare. At the same time, we want to understand how the rulebooks of different equestrian federation address this issue. This study aims to develop a baseline for future research in equestrian science and public administration.

Threats to welfare at competitive events requires public sector intervention. During competitions, the horses are high performing athletes, unable to voice complaint. Therefore, the national federations as public organizations need to detect and process cases of unfair treatment, abuse and other threats to welfare. The rulebooks are in place to regulate these events. Therefore, the rules can secure horse welfare at competitions.

The International Equestrian Federation (FEI) is the governing body of equestrian sports on an international level. Founded in 1921, nowadays the FEI governs eight disciplines of the equestrian sport on a global level. Next to the Olympic disciplines of dressage, show jumping and eventing, the FEI governs the disciplines of para-dressage, combined driving, endurance, reining and equestrian vaulting. The equestrian federation's governance structure is like a complex political body (chapter 4.1). Therefore, changes in the rulebooks are an intervention to the public sector of the equestrian community. Different means can initiate rationales for interventions in the public sector, three of them being suitable for equestrian federations and the competitive sport. Engaging multiple stakeholders (e.g. Riders, officials and scientists) can enable federations to create comprehensive and scientifically backed rules to ensure horse welfare can raise the rule acceptance.

During competitive events, the equestrian federations monitors the riders and controls if they treat

the equine athletes according to the rules in places. This controlled environment creates an action arena, which allows officials act in welfare threatening situations. OThough large parts of the equestrian sport are self-regulating (Pluda, 2015), the welfare of the horse must be from highest priority. During competitions officials can control critical situations.

This study compares different rulebooks of the FEI, FN, BD, BE and BS assess how equestrian federations intend to ensure the welfare of the horses during competitive events. We identified the following research question:

*What are the provisions regarding the welfare of the horse established by national and international equestrian federations and how do the provisions differ across the national and international rulebooks?*

Next, we present the research background, followed by additional research question to clarify the main research question.

## **1.1 Research Background**

It is impossible to monitor horse welfare on a global base. During competitions, officials and spectators monitor the welfare of sports horses. It can compromise the welfare of sports in several situations (e.g. during a horse's training at home, during transportation or during veterinary examinations). While it does not bound most of these situations to a regulated and restricted environment, during competitive events control mechanism are in place to prevent welfare threatening situations. The rulebooks of the equestrian federations are the base for officials to make decisions. This scenario enables us to consider the welfare of the horse in a regulated environment. Compared to analysing the horse welfare competitions provide structures that help to conduct a systematic qualitative analysis.

We will perform the analysis on multiple levels, more precisely on a meso- and macro-level. The international equestrian federations (macro) and the national equestrian federations (meso) provide the formal structures for equestrian competitions, therefore the rules that my impact horse welfare sets on these two levels.

All rulebooks of the equestrian federations are policy documents. An organization with governance structures created them to regulate competitive events. The rules are binding for the people and horses involved in equestrian competitions. They punish violations of these rules e.g. by sanctions

or suspensions (c FEI, 2018). Therefore, a policy analysis helps to gain a deeper understanding of the documents.

As stated above the FEI is not the only equestrian federation. National federations regulate national competitions. Their rulebooks will contain similarities to the FEI rulebooks, but we can expect significant differences. The rulebooks also define which tack (equipment used for the horses) is allowed or prohibited during competitions and/or during the warmup.

## **1.2 Research Questions**

To provide an answer to the research question mentioned above, we divide this study in four sub-questions. The dependent variable in this study is the welfare of the horse. This research seeks to investigate whether the equestrian federations' rulebooks promote the welfare of the equine athletes during competitions. The unit of observation are the national and international rulebooks of the federations we selected for this research.

To define the welfare of the horse, we use approaches from equestrian sciences and materials published by the different equestrian federation to formulate a comprehensive working definition. Based on this definition, we need to develop stable welfare indicators that help to analyze the rulebooks of the equestrian federations.

Therefore, we need to explain the term “welfare of the horse”, which leads to the first sub-question.

### *1. What are the theoretical components specific to the welfare of the horse?*

To understand the provisions taken to ensure horse welfare by the equestrian federations, we are going analyse the rulebook of the national and international equestrian federations.

Using the following sub-questions, we seek to identify the provisions presented by the FEI and the national federations to secure horse welfare during competitions.

### *2. What are the provisions regarding the welfare of the horse as codified in the rulebooks of the international equestrian federation?*

### *3. What are the provisions regarding the welfare of the horse as codified in the Leistungsprüfungsordnung of the German equestrian federation?*

### *4. What are the provisions regarding the welfare of the horse as codified in the national*

*rulebooks of the British Dressage Association, the British Eventing Association and the British Show Jumping Association?*

For the analysis, we assess the national rulebooks under the welfare indicators that we developed alongside the nominal definition of welfare of the horse. Then we compare the selected paragraphs to the international equivalent, and to the other national rulebooks. We want to find recognizable differences, which promote or threaten the welfare of the horse in the different rulebooks. We can expect the rulebooks to differ, with under due to different historical origins and different stakeholders involved into the elite sport. The dimensions of physical and mental health connect to the subjective feelings of a horse. The research question sets out to gain knowledge about whether the rulebooks of the equestrian present provisions that help to ensure the welfare of the horse during competitive events.

We structure the remainder of this research as following. Chapter 2 discusses the theory starting with a theoretical framework, before we assess the welfare of the horse from a theoretical perspective and discuss the concept of rules. In chapter 3, we introduce the research design, including our case selection, data collection and analysis method. In the end of this chapter, we explain the limitations to the research design. In chapter 4, we analyse the governance structures and rulebooks of the FEI. In chapter 5, we analyse the FN rulebook. We analyse the rulebooks of the British equestrian associations in chapter 6. In the Last chapter, we will discuss our results; answer the research questions before drawing a conclusion.

## **2 Theory**

Conducting this research, we want to understand how the rulebooks, as regulative tool for equestrian competitions, benefit the welfare of the horse. We understood, that the rules do not function on their own. Officials enforce them, weather they guard the correct procedure of an event or handle critical situations. In other words, welfare-threatening situations require action. The institutional analysis and development framework (IAD) allows us to investigate situations that require action, from different perspectives. Moreover, the framework allows us to take the environment of the situation into account. For this research this are competitive events, under one of the discussed rulebooks.



To answer our research questions, we present the theoretical background to derive a research design (chapter 3). In this chapter, a closer look on the concept of rules, followed by an introduction to the institutional analysis and development framework. We will use the framework to conduct the analysis using public administration and equestrian science. Next, we connect the theory of collective action and adapt it for this research. Followed by a brief introduction to network theory. In the last part of this chapter, we discuss the concept of rules. In the last part of this chapter, we analyse the concept of horse welfare using different perspectives. Using equestrian science, textbooks and the rulebooks of the equestrian federations to gain for a better understanding of the importance and the origin of horse welfare, which we will use to formulate a definition of the welfare of the horse, and we discuss the concept of rules.

## 2.1 Institutional Analysis and Development Framework

Elinor Ostrom developed institutional Analysis and Development framework (IAD) in 1990. The framework was revised multiple times (e.g. Ostrom 2006, Ostrom 1994) and it presents a multi-layer approach to the analysis of rules and institutions. The framework enables the researcher to consider the entire institutional governance structure. At the same, it is possible to focus on parts of the governance structure. (Ostrom, 2006).

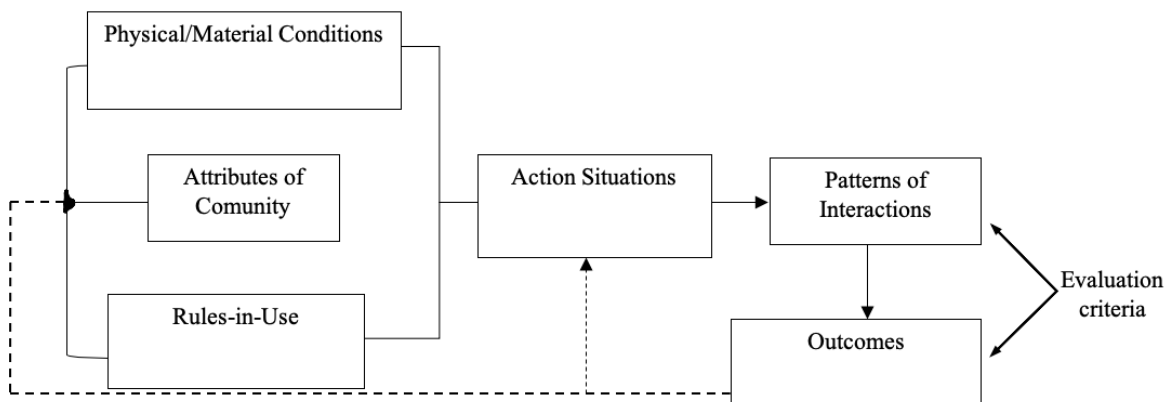


Figure 1- Framework for Institutional Analysis (Adapted from Ostrom, 2007)

This framework enables researchers to gain insights on how different governance systems enable individuals to solve problems. Figure 1 shows the framework broken down into its key elements. The action situation is the heart piece of the framework. Sometimes referred to as action arena, an action situation is a context where individuals interact. To analysis action situations, we need to

identify all actors. Moreover, the rules in place need to be clear to the actors. Finally, yet importantly, the costs or benefits each action bears must be clear (Ostrom, 2006). Overall, this model enables researchers to investigate under what conditions actors do act in their own favour or in favour of the group.

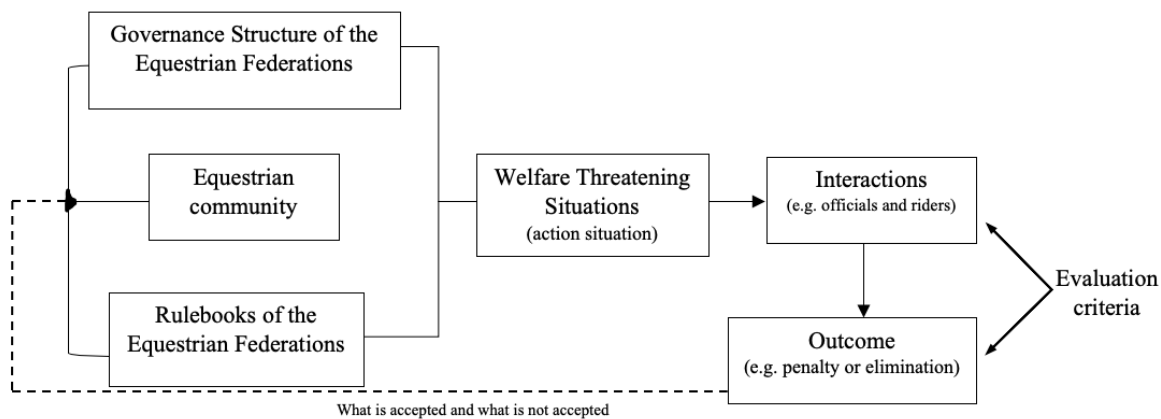


Figure 2-IAD Framework for the Equestrian Sport (Adapted from Ostrom, 2007)

In the IAD framework, institutions can be groups from various couleur. Federations evolved from multiple interest groups; this makes it the IAD framework suitable for the analysis. The reason for this is the possibility to zoom in and out of governance structures and to analyse the matter on multiple levels (Ostrom, 2007). As a multi-level conceptual map, the IAD allows use the entire framework as well as parts of it (zooming in). This allows us to frame parts of the governance structures for an analysis of a specific action situation (figure1 and 4). The framework consists out of three sections: the attributes of the community, formed by the surrounding conditions and the rules in use. The action situation or action arena (figure 3) which enables us to analyse a specific situation taking internal and external conditions into account. The last part of the framework are patterns of interaction which influence the outcome.

Considering an equestrian federation in this framework, its governance structure describes the condition, which shapes any actions taken. The equestrian community shares the common interest of horses. The community consists out of individuals that actively participate in horse riding, athletes that actively participate in competitions, breeders, trainers, officials, veterinarians and others who are involved with horses. Their common interest forms their basis of communication

which is not structures on the lower levels (e.g. in leisure riding) and highly structured in the professional international sport (communication between the federations and the riders). The rules in use are the rulebooks of the equestrian federations alongside national legislation that may apply. Since this research focuses on rulebooks that concern competitive events. In this case, an action situation a welfare-threatening situation during a competitive event.

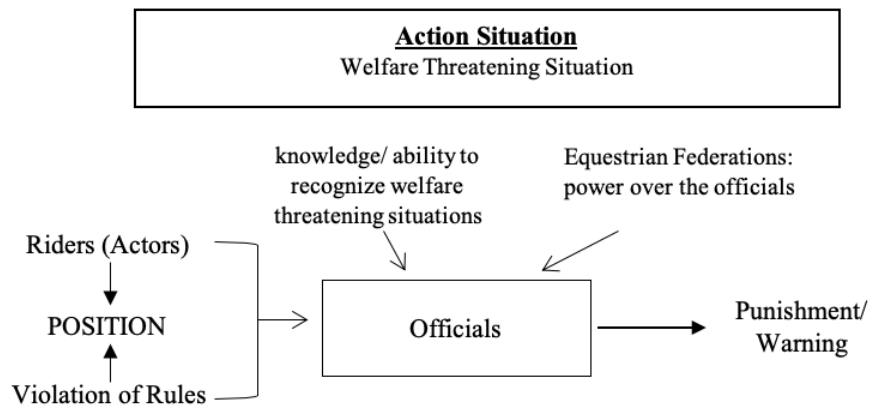


Figure 3 - Action Situation IAD for the Equestrian Sport (Adapted from Ostrom, 2007)

Figure 3 shows the environment of a rule-breaking situation. An official recognizes a welfare-threatening situation and decides to step in and voice a warning or punishment. The corresponding equestrian federation needs to provide the knowledge for officials to enable them to recognize welfare threatening situations and they need to motivate them to handle such situations appropriately.

Using the IAD framework for an analysis of sports organizations is innovative. When considering the frameworks, it becomes clear, that the network of equestrian federations fits this model, because it considers different actors while it allows the focus on one situation of action. The IAD allows researchers to take the problems of collective action into account, which can be a mechanism for a change of the rulebooks.

## 2.2 Collective Action

Collective action is a mechanism that can trigger a policy change (Schlager, 2007). Members can initiate collective action in an institution on various levels. Collectively interest groups such as a policymakers can initiate a change. We relate the IAD framework to collective action, as introduced above alongside the IDA framework by Ostrom in 1990.

The theory explains collective action based on three theoretical models: The tragedy of commons, the prisoner dilemma and the logic of collective action (Schlager, 2007; Ostrom, 1990). The common-pool theory recognizes that a set of attributes of resources combined with support for collective action will make free riders neglectable. The network of the equestrian federation's characteristics are strong connections between different individuals and the different federations. Strong network connections develop and grow through common interests, shared values, shared resources or a common goal (Frederickson, 2016). While the national equestrian federations are independent from each other, they share a common goal: providing governance for equestrian sports events. Equestrian federations share a common interest in horses and equestrianism. As mentioned before, collective action can trigger policy change. Therefore, it is important to keep in mind that change of the rulebooks of the equestrian federations in favour of the welfare of the horse happen if a common acceptance of good welfare practices raises in the equestrian community. Additionally, the network of the equestrian federations must promote their shared values to secure them. The common interest in enhancing the welfare of the horse creates a diverse network with members from veterinary science, equestrian science and animal welfare research. It connects institutions involved in the equestrian sport and organizations that promote animal welfare.

Equestrian science provides the knowledge needed to improve the rulebooks of the equestrian federations. For this purpose, the FEI and national equestrian federations need to be open for change. Collective action based on scientific research can push change in the equestrian community.

### **2.3 The Concept of Horse Welfare**

To establish the context of horse welfare, we want to define the welfare of the horse. For this purpose, we use information from different perspectives. We need a comprehensive definition to ensure the welfare of the horse and the safety of the rider. For this purpose, we need a measurable and objective approach based on scientific evidence (Randle & Waren, 2017).

Literature states, "It was impossible to give welfare a precise scientific definition." (Duncan, 2005). Despite this, Duncan states in his paper, that a definition should include the physical and mental health of an animal. We should consider the harmony of an animal with its environment (Duncan, 2005). This chapter views the concept of welfare from different angles, to find indicators that help to identify rules that affect the welfare of the horse in the further research.

Dressage, eventing and show jumping are the only Olympic disciplines featuring non-human athletes. Horses used for competitive sports are in the need for special protection. While a human athlete can voice a complaint, we need to protect horses from abuse and mistreatment. Animal welfare law (e.g. TierSchG, 2006) protects horse welfare. For competitive sport on an international level, the FEI sets the rules and requirements for the competitors, which not only aim to generate equality among the athletes but also to ensure the welfare of the horses that take part.

The innovative idea of this research is to combine institutional analysis with veterinary science. The rulebooks of the equestrian federation are an output of the organization that created them. Therefore, these regulative documents reflect the position of the organizations on the welfare of the horse.

### 2.1.1 The regulative perspective

When approaching the welfare of the horse from a regulatory perspective, we use two main sources. The first source are national and international laws, which aim for animal welfare (e.g. EU Directives<sup>1</sup> and national laws<sup>2</sup>). This paper focuses on the welfare of the horse during competitive events therefore the rulebooks of the international equestrian federation (FEI), as well as the rulebooks of the national equestrian federations (e.g. FN, BEF etc.) are appropriate regulative sources.

The code of conduct of the international equestrian federation assembles loose sets of requirements. To maintain the welfare of the equine athletes, the FEI must enforce the requirements collectively. The code of conduct divides into five sections (1. General Welfare, 2. Fitness to compete, 3. Events must not prejudice Horse welfare, 4. Humane treatment of horses, 5. Education).

In the beginning of the code of conduct, the FEI states that horse management practices need to be compatible with the best<sup>3</sup> horse management practices. There are no clear indications given that define “the best” practices. Input oriented approaches that are based on the measurement of resources, like the quality of the food and water, a horse’s health and stabling need to be backed up with clear information what “the best practices actually are (Waren & Randle, 2017). Following

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1 Council Directive 2004/68/EC

2 TierSchG, 2006

<sup>3</sup> “Stabling and feeding must be compatible with the best Horse management practices. Clean and good quality hay, feed, and water must always be available.” (Appendix C; FEI, 2013)

the code of conduct a veterinary expert must be available “Veterinary expertise must always be available at an Event. If a Horse is injured or exhausted during a Competition, the Athlete must stop competing and a veterinary evaluation must be performed.”<sup>4</sup> As well as, “Wherever necessary, Horses should be collected by ambulance and transported to the nearest relevant treatment centre for further assessment and therapy. Injured Horses must be given full supportive treatment before being transported.”

Duncan’s broad “working description” for animal welfare together with the FEI’s code of conduct for the welfare of the horse allow to gain first ideas about horse welfare. The ability of animal to adapt to its environment without suffering (Duncan, 2005) is essential for its welfare. This adaption should be possible for a horse if stabling and feeding is compatible with the best horse management practices and clean and good quality hay, feed and water is constantly available for the horses ((b)FEI, n.d.).

The second dimension of the welfare of the horse is the physical health. For this purpose, multiple indicators help to assess the how comprehensive the different rulebooks are when ensuring the physical health of the horses. One indicator e.g. is the presence of veterinarian experts, as well as their power to step in, if they see a threat to a horses’ health.

### 2.1.2 Equitation Science

The field of “Equitation science”, we consider horse welfare from a scientific perspective, by using scientific methods to assess the topic objectively (Dyson, 2017). Reviewing recent literature from this field, we conduct the research from a veterinary perspective focusing on the physical and psychological wellbeing of the animal.

Riders and others involved with horses, mostly rely on practices based on traditional methods (Randel, 2016). The ones handling the horses often know them well, and they trust their feelings and experience when taking decisions.

To ensure the welfare of the horse during horse shows, there is a need for welfare indicators based on equitation science. Following the quote “what we can measure we can manage” (Waren

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<sup>4</sup> “Veterinary expertise must always be available at an Event. If a Horse is injured or exhausted during a Competition, the Athlete must stop competing and a veterinary evaluation must be performed.” (FEI, 2013)

& Randel, 2017), a scientific approach is the only option, to ensure the welfare of the horse in a secure and standardized order. Warren and Randle, stress that there is a need for stable welfare indicators, which allow testing a horse's welfare status during training and during competitions.

The psychological welfare relates to good and bad experiences made subjectively by a horse (Waren & Randle, 2017). In this context, animal welfare defines as a "state of animal in relation to its life and experiences, including its mental wellbeing (feelings) as well as the physical state." Following Waren and Randle, we conclude psychological welfare is incredibly important, considering the general welfare of the horse. It links psychological welfare to the physical welfare. A practical example for this is stressed horse produces more stomach acids, which significantly raises the development of gastric ulcer (Henderson, 2007).

First, we need to identify the people who affect the horse regularly. These are, for example, the riders, owners or grooms of the horse. Negative psychological effects, such as stress, fear or extensive pain (to achieve short-term success) can arise from intense horse management practices (Waren & Randle, 2017). It is possible to recognize stress and fear, not only due to pressure put on the horse but also in interaction with humans. We can conduct the assessment, by evaluating the behaviour of the horse, its heart rate and even the eye temperature of the horse. This can help to get scientific indications for the welfare of the horse (Waren & Randle, 2017). Those who often interact with equids can usually recognize behaviour, which shows stress or fear. It is important to educate riders to recognize these signs. Extreme behaviour can misinterpret by riders. If a horse shows extreme behaviour frequently, it normalizes the behaviour. Riders must pay attention and recognize fear, stress and pain.

Researchers found positive emotions that a horse experience. If a horse experiences pleasure or happiness, it actively searches for resources such as food (Waren & Randle, 2017). Another sign is a high motivation or a preference for a specific situation. While showing fear and stress via facial expressions and a change in heart rate, the same shows if a horse experiences pleasure. Horses can show affection, not only to other equids but also to humans. As Warren and Randle (2017) stress, it is important to find an objective assessment of these indicators, to ensure positive welfare by promoting recourses pleasurable for horses.

Another important fact of welfare is sustainability. Horses should be handled and treated in a way that ensures their physical and mental health during the "active" career (e.g. while competing), and

after retirement. The FEI states in their code of conduct for the welfare of the horse (FEI GRs, 2018), that “horses must be treated sympathetically and humanely when they retire from competition.”

For defining horse welfare, we consider different perspectives. The regulative perspective included national and international animal welfare laws. The FEI Code of Conduct for the Welfare of the Horse gives a broad description of the welfare of the horse. Though it is vague, it helped to develop the welfare indicators.

Scientists aim for measurable studies, with reliable and significant results. The studies in equestrian science helped to identify the influence of certain rules on horse welfare (Kienapfel, 2010). The field of equestrian science helps to understand the effects of e.g. training methods and equipment. By this means, a scientific perspective helped to understand if certain rules, which would secure the welfare of the horse, backed up by scientific studies.

Based on these insights, we define horse welfare as *the physical and psychological wellbeing of the horse, which is moving in harmony with its environment*. We must keep in mind that the training of horses bases on traditional methods; this factor can lead to different perceptions of a horse wellbeing. Therefore, we need an approach based on scientifically measurable factors.

## **2.4 The Concept of Rules**

We can define rules as mutual understandings of individuals involved in a group (Ostrom, 2006). We enforce rules to clarify if an action is prohibited, permitted, or restricted. Rules are also an effort to achieve an order predictable for the users. We can create rules for different groups. Families may have internal rules, the same holds for schools and businesses. A governmental body formulates rules in form of legislation. Sports federations do have internal rules for their members. These rules establish an order for the federations by e.g. manifesting governance structures and hierarchies. When considering rules in sports it is important to keep in mind that the main purpose of the rulebook is to secure a fair environment.

We formulate rules using verbal methods (language); this can threaten the validity of a rule (Ostrom, 2006). When formulating rules, a lack of clarity can affect implementation the rule. The ones enforcing the rules need to understand them without room for interpretation.

As stated above, we create rules to construct an order for an institution. The words used to map the



rules are always simpler than the phenomena they refer to (Ostrom, 2006). People enforcing these rules, need sufficient knowledge, to take the right actions.

The term mutual understanding or shared meaning of members of an institution are essential for strong formulated rules. We can expect a mutual understanding from the equestrian society because the members have a common interest. We need to keep in mind, that on an international level, the cultural backgrounds may affect the perception of the rules, since values can differ (Schwartz, 1994). The formulation of the rules needs to be coherent to minimize the threat of misinterpretation and to ensure fair grounds for the members of the institution. Understanding the rules and norms of an organization is the first step for a deeper institutional analysis. In this research, the deeper understanding of the rules will help to identify whether a rule is in place to secure the welfare of the horse. Another possibility is to recognize if a rule compromises or enhances horse welfare.

## **2.5 Conclusion Chapter 2**

During this chapter, we introduced different theoretical constructs from public administration and equestrian sciences. Resuming we can state, that the rules published by the equestrian federations address stakeholders of the equestrian sport. Officials and riders at competitions need to use the rules. The riders need to be aware of the rulebooks to follow them. Officials need to detect rule breakage and to apply the rules to handle action situations.

In the next chapter, we will present the methodology (chapter 3), which forms the basis for our analysis (chapter 4-6).

## ***3 Methodology***

This chapter explain the transition from theory to analysis. For this purpose, we will present the research design followed by an introduction to the case selection and data collection. Next, we will introduce the data analysis method. Finally, we discuss the limitations of the data collection and research design.

### **3.1 Research design**

This exploratory case study uses a cross-sectional approach. We chose an exploratory case study,

to gain first insights into equestrian federations and their efforts to secure horse welfare during competitive events.

The federations revise the rulebooks on an annual basis<sup>5</sup>. For the purpose of this research, we used the 2018 rulebooks for the analysis. Alongside, we took rule amendments and changes published before the end of 2018 into account. The cross-sectional research design still applies, because rather than analysing the data over time, the focus resides on the content of the rules. This bears no threat to the causality, because the amendments do not affect the former rules. We will conduct the data collection by reviewing the rulebooks of a set of equestrian federations. Since we conduct a document analysis, the selected methods do not affect the data collected. Therefore, data collection is unobtrusive.

We used a deductive coding approach, by using knowledge and theoretical concepts from equestrian science and theoretical textbooks (FN, 2012 & 2016). In the previous chapter, we used our definition of horse welfare to develop welfare indicators that will help us to analyse the collected data (chapter 2.1). We used an interpretative approach to understand the practical meaning of the rules (Lune & Berg, 2016). For this purpose, we can assume that the content of the rulebooks purpose is communication. Therefore, the communication of the rules to the stakeholders of the equestrian sport is essential for the implementation. The systematic analysis allows identifying the meaning and intention of the data, which will help to understand the scope.

### **3.2 Case selection**

However, the equestrian sports consist out of many diverse disciplines, for this research the focus lay on the so-called “English disciplines”: dressage, eventing and show jumping. The reason for this lies in their respected historical background. All three disciplines originate from military riding. The principals of the cavalry are transferred into the modern sport, to explain how to train horses. All three disciplines require similar equipment. In 1912, the equestrian sport became Olympic. During the Olympic Games, teams from different nationalities compete in the disciplines of dressage, eventing and show jumping on the highest international levels.

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<sup>5</sup> FEI and UK rulebooks are annually revised. LPO is revised fully every few years amendments are included annually.

We decided to analyse the rulebooks of the international equestrian federation, because they act as a guideline for other federations. Though the rulebooks of the national equestrian federations are fully independent from the FEI rules, representatives and experts of the national federations create the international version. These experts are mostly delegates of national federations. For the selection of the national federations, it was important that the federations provided digital access to their rulebooks. The reason for this criterion was the data collection and sorting into categories using Microsoft Excel.

Next, we narrowed the possible federation down, by selecting Federations that publish their rulebooks in English or German. We choose this selection to avoid language bias<sup>6</sup>. To compare the rules for a set of disciplines, it was important that the selected federations oversee the three Olympic disciplines. In the end, we selected the German equestrian federation and the corresponding British associations. Both the British and the German organizations have different approaches concerning their rulebooks compared to the FEI. While the FEI publishes one main rulebook, which divided by, discipline<sup>7</sup>. The FN publishes one rulebook for competitive sports applying to all disciplines. In the UK, each discipline has their own Federation/Association, which act independently, overseen by the British Equestrian Federation (BEF). The rulebook of the BEF does not provide additional rules addressing to the actual competitions. For this reason, we neglect the BEF rulebook from the purpose of the analysis. The advantage of limiting this research to only three disciplines is that their similar background enables us to conduct a comprehensible analysis of the data. On the downside, this research does not provide a full overview over all equestrian disciplines. Moreover, being a certified dressage trainer<sup>8</sup> for English riding I have preliminar theoretical knowledge about equids.

The consequence of the selection of the FN, BD, BE and BS is, that both countries have a deeply founded equestrian community grown over decades. Therefore, the federations can improve horse welfare. Therefore, the selected federations do not present a diverse picture, considering the economic and historical background and the importance of horses in these countries.

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<sup>6</sup> Corresponds to the author's language skills

<sup>7</sup> There are rulebooks for the disciplines, as well as a general rulebook and veterinarian regulations.

<sup>8</sup> Trainer B Leistungssport Schwerpunkt Dressur

To define the welfare of the horse, we choose a theory-based approach. By discussing different approaches to welfare, we were able to create a working definition (Chapter 2).

### **3.3 Data collection method**

After selecting the cases, the data collection process begun. For this research, we conducted, a data analysis. We conducted the primary data collection using a verbal and unobtrusive method.

We used pre-developed welfare indicators to develop categories to identify rules that concern the welfare of the horse in the different rulebooks (Table 1). For this purpose, we sorted the collected by discipline and federation. In the next step, we matched rules that concern the same issues (figure 4). The first table concerned the general rules; the second table concerned the code of conducts for the welfare of the horse and the ethical principles of each federation. Each discipline sorts into individual tables; the same holds veterinarian rules and specific equipment regulations.

Considering the welfare of the horse, the first indicator used to determine the influence of the rulebooks on the general welfare of the horse is abuse of horses during competitions as well as during schooling. Another indicator we use is the permitted equipment. Drawing- or pull-rains are critically acclaimed because they can simplify the use of critically methods of training such as LDR<sup>9</sup> or Rollkur<sup>10</sup>. Wrongly used equipment can harm a horse's wellbeing (Christensen, 2014). Educative mechanisms to prevent such misuse as well as control mechanisms, such as horse inspections are another indicator for the welfare of the horse during competitive events (table 1). Using these categories simplified the actual document analysis. There is a possibility that a rule sorts into multiple categories. Mechanisms are indicated by procedures such as horse inspections, which are in place to ensure fair and horse friendly competitions (e.g., equipment controls.) The category protection of horses refers to regulations indicating that they are in place to secure horse welfare. Rules such as age restrictions or a maximum number of tests per day are part of this category. Other indicators are in place to recognize stress compromising the psychological welfare of the horse. Indicators of this category like presented in table 1. The FN rulebook enables officials to eliminate riders if they conclude that their horse is not up to the demands required (LPO, §66).

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<sup>9</sup> Low Deep and Round is a practice where horses are led into a deep head position to stretch that is supposed to engage relevant muscle groups in the horses Body.

<sup>10</sup> Rollkur describes a practice where the Horse is forced into an unnatural neck position with the head towards its chest

Category	Indicators	Welfare mechanisms	Examples
<b>(Recognition of) threats to welfare /Definitions</b>	<u>Abuse of horse:</u> <ul style="list-style-type: none"> <li>- electric shock</li> <li>- Sensitising/ desensitising</li> <li>- no adequate food and drink</li> <li>- Insured horse</li> <li>- Jabbing the horse in the mouth with the bit or any other device</li> <li>- Using equipment or device which causes excessive pain to the horse upon knowing down and obstacle</li> <li>- Rapping.</li> <li>- Riding and pressing an exhausted or tired horse</li> <li>- Riding an obviously lame Horse</li> <li>- Excessive use of whip, bit and/or spurs</li> <li>- Horses bleeding</li> </ul>	Stewards Judges / Ground Jury Official Veterinarians Horse Inspections	ARTICLE 243 ABUSE OF HORSES ( All forms of cruel, inhumane or abusive treatment of Horses, which include, but are not limited to various forms of rapping, are strictly forbidden (see JRs Art. 243.2) 2.2. Excessive use of the whip The whip may not be used to vent an Athlete's temper. Such use is always excessive; The use of a whip on a Horse's head is always excessive use; A Horse should never be hit more than three times in a row. If a Horse's skin is broken, it is always considered excessive use of the whip; The whip is not to be used after Elimination; An Athlete identified as misusing or excessively using the whip will be disqualified and may be fined at the discretion of the Ground Jury. (JRs)
<b>Protection of horses</b>	<ul style="list-style-type: none"> <li>- Rules that are in place to ensure overworking</li> <li>- Age restrictions for horses</li> </ul>	Minimum age to compete Restriction on daily starts Restrictions on daily schooling during events	Section 1 8. Age of horses and ponies The age of a horse/pony is taken from 1 January in the year in which it was born. The minimum age from which a horse may compete is four years old. Horses competing at PSG level and above must be at least seven years old. Horses competing at Grand Prix must be at least eight years old. (BD)
<b>Mechanism</b>	Procedures used at competitions to ensure welfare	Officials Horse inspection Boot & Bandage control	Article 1013 Limb Sensitivity Examination Requirements 1. At Events where Limb Sensitivity Examinations will take place, as described in Article 1049, the OC must provide a GJ member to support the Examining Veterinarians and access to administrative facilities. (FEL, VETRs 1013)
<b>Restrictions / Equipment</b>	Forbidden and allowed equipment	Boot and Bandage control Bit control Stewards monitoring warm up and schooling areas	Article 428 Saddlery 4. <u>Gadgets</u> . Martingales, breast plates, bit guards, boots, any kind of gadgets (such as bearing, side, running or balancing reins, nasal strips etc.) and any form of blinkers are, under penalty of elimination, strictly forbidden. See Article 430 of the Dressage Rules. 5. <u>Decorations</u> . Any decoration of the Horse with extravagant items, such as ribbons or flowers, etc. in the tail, etc., is strictly forbidden. Normal plaiting of the Horse's mane and tail, however, is allowed. (DRs)
<b>Psycho-logical welfare</b>	Indicators of stress <ul style="list-style-type: none"> <li>- Head weaving, shaking or lowering and tossing</li> <li>- Unwanted movements</li> <li>- Kicking</li> <li>- Jumping</li> <li>- Open mouth, extreme chewing (Christiansen, 2014)</li> </ul>	Stewards and Jury monitoring riding Warning cards and verbal warnings Disqualifications	6.3 Riders can be disqualified if their horse is obviously not up to the demands of the class. 6.4 Horses, that were trained using forbidden methods during the warm-up (compare. § 52.2) for this test and horses that were consciously overworked by the rider. 6.5 Horses, that elude action from their rider, can be disqualified for the entire competition. (LPO, §66.6)

Table 1- Welfare indicators

### **3.4 Operationalization of the Theoretical Concepts**

Considering the IAD we introduced in the theory section, the welfare indicators help to identify rules that are in place to handle or prevent an action situation. The stakeholders must accept, that the welfare of the horses is of the highest priority during competitions. They need to recognize “happy athlete” as a horse, that is psychologically and physically sound and moves in harmony with its environment. Based on this definition, officials can handle action situations. Considering figure 2 the equestrian community, formed by their mutual interest, organizes itself through the different equestrian federations (e.g. the FEI) and their rulebooks. Competitive riders must follow the rulebooks during competitive events. Applying the theory, officials handle action situations by using the rulebooks during competitions. For this research, an action situation is a welfare-threatening situation. If a rider abuses his horse and breaks a rule, officials need to interact with the rider, to find a solution and ensure the horses wellbeing. Officials use the rulebooks as well as their general knowledge to evaluate the situation (Figure 3). Additionally, they can request experts, such as veterinarians to verify their decision. The outcome is a fair solution which accepted by the equestrian community and that secures the welfare of the horse. For this research, we focus on the regulative aspects of this framework. Therefore, we analyse the structures of the competitive equestrian sport, by analysing its rules and its structures on an international level. Additionally, we aim to understand how the provisions regarding horse welfare differ on a national and international level. Considering the action arena, this aspect helps us to understand what knowledge riders and officials have when entering an action situation.

### **3.5 Data analysis method**

As written in chapter 3.2, we decided on a set of rulebooks and developed our theory. Based on our theory we formulated a set of welfare indicators to identify rules that consider horse welfare during equestrian competitions. Now we will introduce our data analysis method. We conducted the coding of our data as following.

In the first step, we analysed the FEI rulebooks using the welfare indicators. Following this step, we conducted an analysis of the national rulebooks. Here, we used the FEI rulebooks as a guideline; therefore, we added rules concerning the same matter to the same row. Figure 4 shows an example for the data collection. In this extract from the excel sheet, one can see in the first column the FEI article, followed by a corresponding FN rule and BD rule.

FEI	FN	BD
<b>ARTICLE 430 EXECUTION OF THE TESTS</b> <b>7.5. Unauthorised Assistance.</b> Any outside help by voice, signs, etc. is considered as illegal or unauthorized assistance to an Athlete or to his Horse. An Athlete or Horse receiving unauthorised assistance must be eliminated.	<b>§ 517 „Fremde Hilfe“</b> Als verbotene „Fremde Hilfe“ wird jede Einmischung eines Dritten mit der Absicht, die Aufgabe des Teilnehmers während der LP zu erleichtern oder seinem Pferd zu helfen, angesehen. Unerheblich ist, ob der Dritte dazu aufgefordert wurde oder nicht. In Zweifelsfällen entscheiden die Richter endgültig. Lediglich die Rückgabe von Brille und Kopfbedeckung und die Hilfeleistung bei Unfällen sind jederzeit erlaubt.	<b>BD section15</b> <b>151. Outside assistance</b> The Judge is to eliminate a rider who is given any outside assistance designed to help them improve their performance during a test. This rules applies once the judges bell has rung to signal the start of the test. See Rule 174.

Figure 4- Example from Data the collection: Table Dressage

In the next step, we printed every sheet and separated the rules regardless their association and discipline. During this process, we identified five basic categories of rules (Table 1, chapter 3.2). Using the comparison of the rules as our definition of horse welfare, we selected a set of rules, showing possible positive or negative impacts on horse welfare during competitive events. Next, we analysed each rule of the selected rulebooks and sorted rules concerning horse welfare by discipline or background (general rules, codes and principals, show jumping, dressage, eventing, veterinarian, penalties and equipment). Additionally, we analysed publications such as steward manuals and guidelines for judges. We chose this method to gain a full picture of an action situation.

The systematic analysis focused on formulation and effectiveness of the rule. For this purpose, the theoretical concepts used to define the welfare of the horse are applied in order to understand the functioning and comprehensiveness of an individual rule. For this purpose, each rule was analysed in context of the IAD framework and the action arena.

### 3.6 Limits to the design and data collection

The research methods bear limitations. We chose a cross sectional research design based on a document analysis of the rulebooks for this research. Therefore, there is a possibility that the rulebooks only have narrow additional information (Bowen, 2009). We are aware that this framework is a theoretical construct and that it cannot represent the actual situation on national and international equestrian competitions.

This research is a base for future research. To get quantitative insights into the matter, we need to observe horse welfare of at competitions. Furthermore, the actions taken by officials can be of interest considering the enforcement of the rulebooks.

Due to the limitations on this research, we selected a limited set of rulebooks. Moreover, national equestrian federations publish their rule in the nation's official languages. This makes it hard to analyse these rulebooks on a broad scale without the threat of language bias and misinterpretations. Additionally, federations can restrict access to their rulebooks (e.g. FN paywall).

This research is an approach to combine equestrian and veterinarian science and a framework based in the research field of public administration. The limited research design is a result from the lack of research in this field. In the future, a greater data set could give the opportunity to research this topic from a quantitative perspective.

## ***4 Governance Structure & Content Analysis of the FEI Rulebooks***

The international equestrian federation provides governance structures for the international equestrian sport. In general, the organizational structure affects the rulebooks. In this chapter, we address our second sub question (*“What are the provisions regarding the welfare of the horse as codified in the rulebooks of the international equestrian federation?”*). For this purpose, we first need to understand the FEI as an organization before conducting the analysis of their rulebooks (4.2). For the analysis, we will start with the general regulations (4.2) of the FEI, followed by the dressage (4.3), eventing (4.4) and show jumping rulebooks (4.5).

### **4.1 The FEI Governance Structure**

Hundred-thirty-four national federations affiliate with the FEI; they provide similar governance structures for the equestrian sport on a national level (figure 5). The national federations send representatives to the FEI who meet regularly as the general assembly. The governance structure of the FEI provides different structures and mechanisms that enable the federation to decide on new rules.

The FEI is a multi-layer organization with the goal of making the equestrian sport fair. At the same time, the FEI aims to ensure horse welfare during competitive events. For this purpose, the federations use rulebooks that help to regulate events. A ground jury and stewards are in charge to implement the rulebooks on site. To understand how the rules are created and adapted we need to understand the FEI's governance structure. Figure 1 shows the structure of the FEI hastily. The figure shows that the FEI consists out of formal multi-layer structures.



It is complicated to introduce new regulations and to enforce them. The processes used to control this complex construct of rules and regulations during busy and faced paced international events. The construct of the FEI as a sports organization is highly bureaucratic. The governance structure of the federation consists out of seven main parts (Fig. 5). First, there is the general assembly. Each national equestrian federation, which affiliate with the FEI, sends a representative to vote on new rules and regulations during an annual meeting. Each federation has one vote, and they need a majority to change the rulebooks. The second part of the FEI's governance structure is the bureau. Its duty is to define the general strategy of the organization and to formulate the business and sports policies of the FEI <sup>11</sup>.

The president as well as his deputies forms the bureau, together with the chairs of the veterinarian committee<sup>12</sup>, the sports committee of the different disciplines, the athletes committee, the audit committee, the compliance committee and the chairs of the regional groups. The executive board acts as a sub-committee of the bureau. They have the power to make strategic decisions between the bureau's meetings.

### Extended FEI Governance Structure

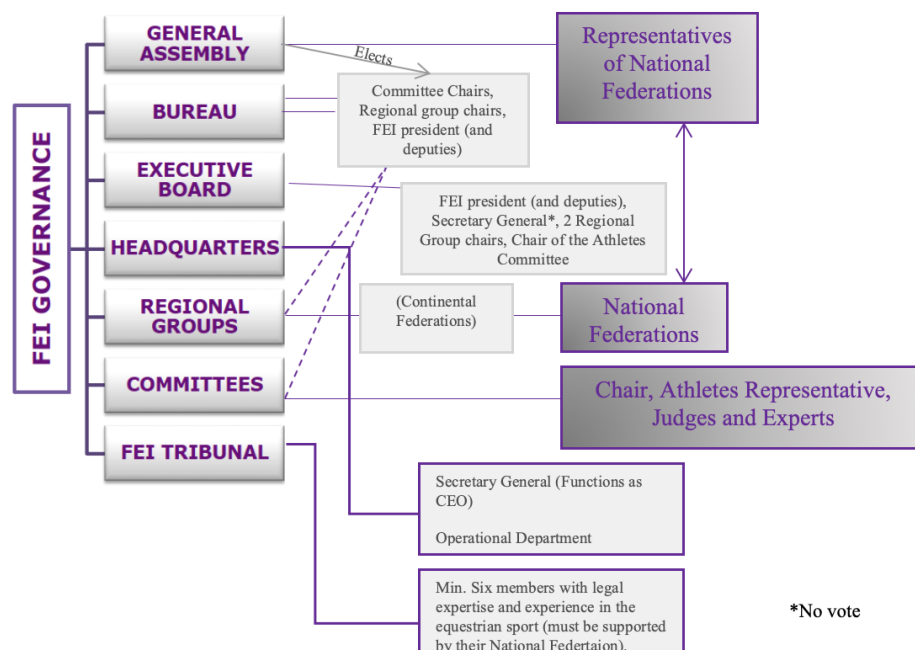


Figure 5-FEI governance structure (adapted from FEI, n.d.)

<sup>11</sup> Retrieved from: <https://inside.fei.org/myfeiguide>

<sup>12</sup> Committee that is in charge of rules regarding the veterinarian treatment of horses during competitions and during the training.

It consists out of the president of the FEI, his two deputies and the chair of the athlete committee, the secretary general and two other members. The president appoints these members, and the bureau approves them. The secretary-general is the CEO of the FEI, his task is to manage and lead the FEI Headquarters. He or she is responsible for financial and commercial issues and implementing the rules. The FEI Headquarters have different departments, reaching from the games operations department, which with under is coordinating the technical aspects of international championships, to the press relations department, which provides information and services to the international media. The regional groups (there are nine), have their own chairs, who represents the interest of the national federations within the group. These again report to the bureau of the FEI. As mentioned above, the FEI has several committees (14) which develop new regulations, give feedback to existing regulations and deal e.g. with safety and doping issues. Finally, yet importantly, there is the FEI tribunal. This is the judicative of the organization. It consists out of at least seven members, which have legal expertise and a deep knowledge of and experience in the equestrian sport. They decide e.g. about suspensions from the sport because of doping or the breakage of other rules.

The FEI therefore also flourishes a network of equestrians. The network connection between individuals and the different federations offer a forum for discussion between experts, officials and other stakeholders. The FEI governance structure enables the organization of large-scale equestrian competitions, with structures that intend to secure the safety of riders and horses. Figure 5 shows the complex governance structure of the FEI.

In the following, we inspect on the FEI rulebook. The FEI publishes several rulebooks each with a different focus. Next to the general rulebook, the specialized rulebooks per discipline focus on the rules and procedures during competitions, starting at the stabling of horses up to the qualifications for the Olympic Games. After having a closer look on the general regulations, we will discuss each discipline.

## **4.2 General Regulations**

The FEI's "General Regulations (GRs) are established to individual athletes and teams <sup>13</sup> compete

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<sup>13</sup> Appointed by the NF's

against each other under fair and equal conditions with the welfare of the Horse as paramount.” (FEI GRs, 2016, 100)

The general regulations are the baseline for FEI events despite of the discipline. Though many of the rules originate from an organizational manner (e.g. commercial rights), other rules may concern the welfare of the horse. As mentioned above, each discipline has its own rulebook. The FEIs dressage rulebook sets rules that are more detailed. This helps to govern dressage events. We want to point out, that rules do not stand alone, but always are used conjoined by the General Regulations, Veterinarian regulations and Statutes of the FEI.

Officials find blood on a horse, controlled by veterinarians and stewards (FEI VETRs, 526.4). Blood that locates on the horse’s flanks, leads to disqualification. If, during dressage tests, the head judge suspects blood on a horse, he will stop the ride and will inspect the horse. If officials find blood in the horse's mouth, they will eliminate the horse-rider combination (FEI DRs, 429.7.6). There is no possibility to appeal the elimination. In dressage, fresh blood on the horse’s mouth leads to direct elimination. An official FEI veterinarian decides if the horse is fit to continue, they can appeal the decision.

Mechanisms such as age restrictions on age or allowed starts per day help to ensure the welfare of the horse. A threat to welfare is the mental and physical excessive demand. Since this physical demand differs between the disciplines, different restrictions are in place. During FEI events a horse may only start twice per day in one competition (Show Jumping). Because of the high demands in international dressage tests, it only allows each pair to start once per day. Eventing competitions (one/three-day) restrict the amounts of starts to one per class (per horse). Age restrictions in place, for different difficult levels divided. Classes with growing demands and difficulty are exclusive for older horses.

The allowed equipment is different for each discipline, respecting the demands. Comparing the rulebooks of the equestrian federations we find, that they standardize the permitted length of whips. For all disciplines, the maximum length of a dressage whip is 120 cm and for a whip used for jumping over obstacles the maximum length is 75 cm. While for a dressage test the FEI prohibits the use of whips, it permits them in show jumping (Appendix A). We can explain the reason for the length restrictions when comparing in the rider's position in dressage to show jumping and eventing. In dressage, the rider has an upright position while in show jumping (and

eventing) forward seat position of the rider. Since the rider moves, his hands forward while jumping over an obstacle, the whip moves from the rider's upper leg to the horse's shoulder. Therefore, longer whip could be a potential danger to the horse's welfare. In dressage, we use the whip on the horse's flanks. The upward position requires a longer whip that gives the rider the possibility to use it without losing the connection to the bit.

### **4.3 FEI Dressage Rules and the Happy Athlete**

The term “dressage” originates from the French language and translates to training. During a dressage test, the rider and horse perform a set of movements in the gaits walk, trot and canter. The ground jury<sup>14</sup> judges the execution of these movements on a scale from 0 to 10. The ground jury evaluates the athletes based on the preciseness and quality of the movements performed, considering the overall performance of the horse as well as the general harmony of rider and horse.

The first chapter of the FEI dressage rulebook dedicates to the principals of dressage (FEI DRs, 401). Following the rulebook, the “object of dressage is the development of the horse into a happy athlete through harmonious education.” (FEI DRs, 401.1). Therefore, we assume, that a happy athlete equals to a physically and psychologically sound horse. Following the rulebook, the development of a horse into a happy athlete requires a harmonious education that considers possibilities<sup>15</sup>. The FEI introduces objectives and principals that link to the principals of dressage, because the goal of the happy athlete archives, if they ensure the horses' physical and psychological welfare. The term harmonious education defines as a training that considers physical capabilities while ensuring its welfare. Considering the principals of dressage (FN, 2012) the result from a harmonious education should be a calm, supple, loose and flexible horse that at the same time is confident, attentive and keen. This rule includes indications to recognize a “happy athlete”. Therefore, a happy horse moves rhythmic and regular way and with a general thoroughness of the horse.

#### **4.3.1 Regularity of Paces**

The FEI dressage rulebook defines the right pace for different gaits and movements extensively.

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<sup>14</sup> In dressage, the ground jury consists out of a panel between two and seven judges (including one head judge).

<sup>15</sup> e.g. age, physical capabilities and health

The regularity of paces indicates a relaxed and sound horse<sup>16</sup>. Irregularities indicate lameness, pain, stress or general discomfort. Therefore, irregularities can be a result of both physical and psychological discomfort. Accordingly, officials need to act if they observe reoccurring irregularities in a horse's movements. Freedom of paces indicates a natural movement of the horse. A horse can get out of pace, due to extensive and excessive exposure of the rider to the horse. One example for this are irregular paces due to too much rein aid, which can cause the horse to amble<sup>17</sup>. The Dressage rules of the FEI define the three gaits of the horse as following.

*"The walk is regular, free and unconstrained. The trot is free, supple, regular and active. The canter is united, light and balanced. The hindquarters are never inactive or sluggish. The Horse responds to the slightest indication of the Athlete and thereby gives life and spirit to all the rest of its body." (FEI DRs. 401.3)*

This definition helps officials to assess the quality and regularity of the horse's footfall in all three gaits. In general, irregularities due to stress will show best in the gait walk due to its complex footfall (FN, 2012). Whereas physical problems are easier to recognize in trot. Errors in the regularity can be either mistakes in the spatial regularity<sup>18</sup> or temporal regularity<sup>19</sup>. By defining and explaining the gaits extensively, the FEI ensures that their ground juries and stewards have a reliable source of information. To ensure the welfare of the horse in dressage, it is important, that officials use these principals as base for their decisions.

#### 4.3.2 Harmony and Looseness

The next indicator is the harmony, lightness and the ease of movements (Article 401.1 DRs). The movements in dressage should always result from as little visible exposure of the rider to the horse as possible. In this context, the FEI states:

*"The Horse thus gives the impression of doing, of its own accord, what is required." (FEI DRs, 401.2)*

Therefore, we can assume that the FEI prohibits riders to force their horses into performing certain

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<sup>16</sup> "The regularity of the paces is fundamental to Dressage." (FEI DRs, 401.7)

<sup>17</sup> Amble: irregularity of pace in the gait walk

<sup>18</sup> Horses steps are different in length in an irregular manner

<sup>19</sup> Irregularity due to timing of legs

movements. Rather than forcing riders should engage them to perform. On the one hand this rule can be recognised as a measure that secures the psychological welfare of the horse. Unfortunately, this rule is quite broad. Narrow indicators of discomfort and stress would help to recognize cases where the horse not gives the impression of performing of its own accord. The FEI underlines their intention with following statement.

*“By virtue of a lively impulsion and the suppleness of the joints, free from the paralysing effects of resistance, the Horse obeys willingly and without hesitation and responds to the various aids calmly and with precision, displaying a natural and harmonious balance both physically and mentally.” (FEI DRs, 401.4)*

To achieve a resistance free performance, without indications of stress or fear (Table 1), the horse needs to be relaxed from inside out. A willing and relaxed indicates an “happy athlete”.

#### 4.2.3 Impulsion

The next indicator is the “lightness of the forehand and the engagement of the hindquarters, originating from a lively impulsion.” (FEI DRs, 401.1)

When considering the anatomy of the horse about 55% of the horse’s bodyweight lays on the forehand, while only 45% of the weight distributes naturally on the hindquarters (FN, 2016). In dressage, the goal is to lighten the forehand and engage the hindquarters to take more bodyweight, where it has more muscles. This essential factor enables the horse to distribute its weight equally on all four legs, and therefore helps to prevent joints of wearing (FN, 2012). The rider should engage the horse’s hindquarter, so that the horse lifts his legs in a more powerful and energetic motion. This causes the horses back to swing and which helps to maintain a horse’s health (FN, 2012).

#### 4.2.4 Contact and Throughness

The last indicator is the “acceptance of the bit, with throughness<sup>20</sup> (Durchlässigkeit) without any tension or resistance.” (FEI DRs, 401.1) In other words, the horse should “seek” a connection to

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<sup>20</sup> Throughness short for “throughlettingness“(literal translation from the German word “Durchlässigkeit”, describes a state in which the riders influence on his horse go freely through the horses body (USDF, 2015). To gain this state, the horse needs to fulfill all stages of the trainings pyramid (Appendix D)

the bit, to achieve a steady, non-forced connection from the rider's hand to the horse's mouth (FN, 2012). According to the FEI, "In all the work, even at the halt, the Horse must be "on the bit". A Horse is "on the bit" when the neck is raised and arched according to the stage of training and the extension or collection of the pace, accepting the bridle with a light and consistent soft submissive contact. The head should remain in a steady position, as a rule slightly in front of the vertical, with a supple poll as the highest point of the neck, and no resistance should be offered to the Athlete." (FEI DRs, 401.4)

Therefore, a horse should be willing to perform. Unwillingness can be defined e.g. (Considering Table 1) resistance of the horse in the head region, an open mouth or a tossing of the head. Officials that monitor the schooling and competing of the horses must notice any threats to the welfare of the horses. The right head-neck position is important for the horse's welfare. Several studies showed that the hyperflexion of the poll and neck could lead to an increase in the stress level of the horse, which is shown in conflict behaviour (Christensen, 2014).

Moreover, these rules, together with the definition (FEI DRs, 402-418) are the basis for the ground jury to place their judging on. The ground jury marks the different movements of the dressage test considering the previously discussed aspects, as well as the level of preciseness in executing the movement. The Ground Jury has, always, the authority to eliminate riders and horses due to welfare threatening issues.

Article 419 of the FEI's dressage rulebook states that an International Dressage Event was established in 1929. The goal was to "preserve the equestrian art from the abuses to which it can be exposed and to preserve it in the purity of its principles" (FEI DRs, 419), and that these principles could be handed down correctly to the future generations of athletes. This article is therefore in place to underline the importance of the principles mentioned above (FEI DRs, 402-418).

Different dressage tests have different degrees of difficulty. As more difficult a test is, as higher is the required minimum age for the horse. This has different than it is unattractive for riders to push their horses to an elevated level at an early age.

The awareness of a horse's capabilities and limitations is important to protect its welfare. For this purpose, age restrictions for young horses are in place. Special tests for young horses, matching

their capabilities help to ensure their welfare while giving them the chance to gain experience in international competitions. The FEI dressage rules include dressage test for four-year-old horses. Young horses' classes are exclusively part of national events (FEI DRs, 421)<sup>21</sup>. Moreover, the rulebook includes special test for other young horses (five to seven years of age). This measure prevents the overworking of young horses.

#### 4.3.5 Monitoring and Mechanisms

A steward is an official at events authorized to supervise international events. The FEI states that stewards, “ensure that the welfare is respected and that a level playing field is provided for all athletes participating at the event.” (FEI Steward Manual Dressage, 2008)

The aim of stewarding is next to the protection of equine welfare, ensuring fair play and the support of the organizers and officials of an event, in line with the FEI's rules and regulations. A team of stewards led by the chief steward fulfil different duties such monitoring the schooling of the horse or assisting during horse inspections. Stewards hold a key function for ensuring horse's welfare during events. Their duties supervise dressage tests and the warm up areas. Additionally, officials are in charge of the supervision of the stables and the on-side security. Stewards have direct contact with the athletes and have the duty to monitor the stables, schooling areas and warm-up areas.

Stewards oversee reporting violations of regulations and rules as well as threats to the welfare of the horse to their chief. The chief steward can issue warnings by himself. Nevertheless, he should discuss incidents with the TD or the president of the Ground jury.

Article 422.3.6 of the dressage rulebook restricts schooling horses anywhere apart from the official training areas where steward supervise the athletes exercising. The stewards can report any behaviour that threatens the welfare of the horse. Moreover, they can step in and in certain cases and sanction a rider with a yellow warning card (Chief Steward, FEI Steward Manual Dressage). At the same time, forbids training without the present of a steward. By this means, the FEI aims to prevent the use of forbidden methods or equipment when athletes are unsupervised. This rule can be disabled if an official or a veterinarian act in the interest of the health and welfare of the Horse.”

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<sup>21</sup> National competitions can offer international classes (e.g. FEI classes for ponies and young horses)



(FEI DRs, 422.3.7)

The dressage rules state that the horse should be a “happy athlete”. For this purpose, the FEI provides background information, which enables officials to base their decisions on theoretical concepts.

#### **4.4 FEI Eventing Rules**

Eventing is the most demanding discipline in the equestrian sport combining dressage, show jumping and a cross-country. It combines a dressage test, a cross-country and show jumping test. Usually competition starts with dressage tests where two judges evaluate the performance. The following day<sup>22</sup>, the athletes go on the cross-country track. Here, the equine athletes need endurance and strength to finish the demanding course. The difficulty of the cross-country lays in the combination of solid obstacles and changing ground surfaces. In the final show jumping, the competitors ride a course of loose obstacles. After the high demands from the previous days, the overall fitness of the horse often decides the final ranking.

In addition to the cross-country specific rules, the eventing rulebook provides rules regarding the dressage and show jumping phases of the competition. Due to the high demands on the horse in this discipline, the awareness of the horse’s welfare is important to prevent accidents and injuries.

##### **4.4.1 Vision Statement**

The FEI eventing rulebook starts with a vision statement addressing the key points of the discipline. The rulebook states: „Eventing constitutes the most complete combined equestrian Competition, demanding of the Athlete considerable experience in all branches of equitation and a precise knowledge of his Horse’s ability, and of the Horse a degree of general competence, resulting from intelligent and progressive training.” (FEI EvetRs, 2018)

Due to the complexity of the discipline, this statement points out the importance of the correct principles of training and riding. This discipline is characterised by the riders and horses, which must be able to adapt to different conditions but still present themselves with harmony, confidence (“good picture”).

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<sup>22</sup> Three-day events (One day event the order is usually as following: Dressage, Show Jumping, Cross Country)

Moreover, the awareness and acceptance of the risk involved is important. Therefore, the FEI points out that “every effort must be made to ensure that, at each level, responsible Athletes are participating with progressively trained Horses in order not to be exposed to a higher risk than which is strictly inherent to the nature and level of the Competition.” (FEI EVETRs)

While this is not a binding rule that to secure the welfare of the horse, this mission statement does help to understand the importance of awareness of the risk involved for rider and horse in the sport.

The importance of knowledge and the awareness of the rider are key for maintaining horse welfare. The rider needs to consider what actions may endanger the horse’s welfare.

#### 4.4.2 Age restrictions

Like in dressage, there is a minimum age for horses to compete internationally. In eventing the age restrictions apply for all levels (FEI EVENTRs, 503.4). To start in international competitions a horse must be six years of age. On a three-star level (CCI/CIC\*\*\*) a horse needs to be seven years old. Championships and for four-star classes (CIC/CCI \*\*\*\*) the horses need to turn eight during the current year<sup>23</sup>. The minimum age for horses to compete in certain classes helps to secure the welfare of the horse, because it motivates riders not to train the horses excessively at an early age. Since horses are only able to adapt fully to advanced exercise slowly after finishing their length grow (FN, 2016).

#### 4.4.3 Monitoring and Rule Enforcement

As in the other disciplines, several officials are in charge during competitive events, to ensure the equal chances of the athlete, and to monitor the welfare of the horses. The ground jury must eliminate horses during competitions if they recognize it is lame, sick or exhausted.

In eventing, the ground jury does not only judge the dressage test, they are also in charge to monitor the other two events, (cross-country and the show jumping phase). The general duties of the ground jury include the responsibility of judging the competitions together with “settling all problems that may arise during its jurisdiction.” (FEI EVENTRs, 515.2.1)

Moreover, they have the full authority to eliminate athletes if they are unfit to continue. Unfit athletes may lose the control over their horse and therefore can threat not only themselves and other

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<sup>23</sup> There are no international classes for young horses in eventing

individuals but also their horse's welfare ("dangerous riding"). The ground jury is responsible for monitoring and acting in cases of dangerous riding and the abuse of a horse. All together, they hold a key position to ensure the welfare of the horse. Another of their key tasks that is in place to increase safety is the inspection and approval of the cross-country and show jumping courses together with the Technical Delegate (TD) and the course designer. Together with the TD, they jointly decide if the course is safe enough and if they see the need alter the course to increase safety (FEI EVENTRs, 515.2.2). Another mechanism to secure the welfare of the horse are horse inspections (Table 1). The ground jury and the veterinarian delegate conduct a horse inspection. Such an inspection is part of every international competition. In eventing (three-day events) two horse inspections lead by the ground jury together with a veterinary delegate and the TD are mandatory (FEI EVENTRs, 515.2.3).

The technical delegate is an official at a FEI event who oversees inspecting and approving the facilities at the grounds, the event takes place. Since the TD<sup>24</sup> has the authority to modify e.g. the cross-country course, he is a key person considering the welfare of the horse during eventing competitions. The TD approves the courses for cross-country and show jumping. Additionally he inspects the arenas and facilities for schooling (FEI EVENTRs, 515.3.2) As the code of conduct for the welfare of the horse states, the ground surfaces on which horses are schooled and on which they compete need to be suitable, safe and designed in to minimize the threat of injuries (FEI, Code of Conduct). The TD needs to ensure that this is the case during the actual test.

During the cross-country course, the TD has additional authority. He stops and warns athletes be in cases of dangerous riding, riding an exhausted horse, excessive pressing of a tiered horse, riding an obviously lame horse or the excessive use of whip or spurs (FEI EVENTRs, 515.3.5). Appointed<sup>25</sup> experts form the arbitration and investigation panel. These panels render disputes between the officials and the athletes. In the case of a serious accident of the horse, this panel must report to the ground jury (FEI EVENTRs, 515.3.6).

During all FEI events, a stewarding team assists the organizers, ground jury and the TD (FEI EVENTRs, 515.7). Due to their function, they are key actors responsible for assuring the welfare

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<sup>24</sup> TD like members of the ground jury are curated by the FEI, organizers can invite officials for their events (further restrictions apply, (f) FEI, 2019)

<sup>25</sup> Appointed by the FEI; non-competing experts

of the horse, regardless the discipline. One of their duties is the boot and bandage control, this only applies in show jumping and eventing (FEI, JRs 257.2.3; EVENTRs, 224), since in dressage, the FEI forbids leg protection during the test. These controls are obligatory at *Grand Prix* and *Nations Cups* and during the class endowed with the highest prize money (FEI EVENTRs, 244). They FEI recommends conducting controls during all classes. Such controls are a mechanism to maintain the welfare of the horse. This mechanism is in place to detect any abnormalities, sensitivities or injuries on the horse's legs, flanks or mouth, as well as irregularities of the equipment used. The horse's legs are inspected, but also its mouth, to ensure that no prohibited items such as tongue-ties or mouth guards (covering the teeth) are used (FEI, Steward Manual for Show Jumping, 1046).

#### 4.4.4 Horse Inspections

While horse inspections are an effective method to ensure horse welfare, in eventing they are of an even higher importance. Horse inspections give officials the possibility to observe and check the physical appearance of a horse. Additionally, horse inspections allow officials to check the equipment of horse and rider extensively.

Arriving at an international event, an officially appointed veterinarian identifies each horse (via an implanted microchip) checks the vaccination history and the general state of health of the horse (FEI EVENTRs, 524.1). At one-day events, this examination also includes the first horse inspection. The first horse inspection take place before the dressage test. Inspections are open to the public. Under the public eye, there is more pressure on the officials to follow the Code of Conduct and secure the welfare of the horse. During the first horse inspection, the ground jury as well as the veterinary delegation inspect the horses, presented by their athletes from the ground. The officials have the “right and the duty to eliminate from the Competition any horse that they judge is unfit” (FEI EVENTRs, 524.2). The second horse inspection takes place before the final jumping test<sup>26</sup>. Especially the cross-country demands endurance, strength and motivation of the horses. To continue into the next phase, a horse must prove to be fit to continue. For this purpose, horse inspections are safety mechanism to ensure the welfare of the horse. While these officials can eliminate any horse at any time during the competition if it is “in his opinion”, (FEI EVENTRs, 524.3) lame or unfit to continue.

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<sup>26</sup> Three-day events

#### 4.4.5 Horse Abuse

Abuse of the horse is the most prominent threat to the horse's welfare. The FEI defines abuse as "an action or omission, which causes or is likely to cause pain or unnecessary discomfort to a Horse" (FEI EVENTRs, 526.1). The FEI Rulebooks include a list of examples of abusing behaviour such as riding exhausted horses, obviously lame horses and pressing tired horses extremely forward. Another form of abuse is rapping. Rapping<sup>27</sup> describes harmful techniques to make a horse jump higher or more carefully at competitions (FEI, JRs, 243). The rulebooks forbid rapping and riders and their horses will be disqualified from all competitions for a minimum of one day if they are caught applying the method.

#### 4.4.6 Whip Use

The excessive use of the whip is a form of horse abuse (FEI VETRs, 526.3). The whip is used excessively, if it is used "to vent Athlete's temper (FEI VETRs, 243.2.2) or if it is used on a horse's head. The FEI has a narrow definition about how often a whip may be used in a row. The rules state, that "a horse should never be hit more than three times in a row." (FEI VETRs, 243.2.2). This quantitative approach quite well follows the argument about what is measurable is manageable by Randel and Waren (Waren & Randel, 2017).

In the case of elimination, riders cannot use the whip afterwards. This rule is in place to prevent punishments of the horse due to "bad performance" or bad tempers of the athlete. In the case that broken skin, whip use is always excessive use and therefore abuse of the horse.

Quantifying whip use makes it easier for officials to identify and prosecute abusing behaviour. In contrast, animal welfare is a delicate issue that includes ethics and reason. Additional indicators of abusing whip use back up this rule. This enables officials act if they detect cases of (possible) horse abuse.

#### 4.4.7 LDR / Rollkur

The stewards are advised to be proactive and to step in if they detect abuse (FEI STM Dressage, 8). In the eventing steward manual, an additional mark has been added considering the abuse of a horse. The Steward Manual forbids "excessive repetitive exercise in an unnatural posture (such as

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<sup>27</sup> E.g. hitting the horse's legs from the ground while the horse jumps over an obstacle.

too much over- bending, lunging for a long time on a tight circle, etc.)” (FEI STM Eventing, 2.2.2).

The FEI’s policy towards LDR is not explicitly part of the rulebooks. However, the stewards are instructed to intervene if extreme flexions of the neck occur over a longer period. At the same time, the horse’s neck may not be forced into a stretched. The FEI permits extreme flexion for a short amount of time (max. ten minutes consecutively<sup>28</sup>). Considering the welfare of the horse, veterinarians and well-known equestrians criticize this regulation<sup>29</sup>.

If the ground jury does not directly witness a case of abuse, the need to report the incidences as soon as possible to the ground jury through the secretary of the organizing committee or cross-country control centre as appropriate. A statement from one or more witnesses ideally support the report. The final decisions are in the hand of the ground jury.

The eventing rulebook takes the dangers of the sport into account. Strict rules are in place that penalizes actions, which threaten rider or horse. Therefore, the rulebook does promote horse welfare.

#### **4.4 FEI Show Jumping Rules**

Show jumping is one of the most popular disciplines. At the same time, the discipline had negative press during the past decade<sup>30</sup>. The public pressure called for tighter rules, to ensure the wellbeing of the horses.

##### **4.4.1 Obstacles**

To secure the safety and welfare during jumping, it is forbidden to physically hold an obstacle (FEI JRs, 201). This rule is in place to work against the threat of rapping during jumping (abuse of the horse). The FEI only permits obstacles to use at events, if the organizing committee provides them. This measure benefits the welfare of the horse, due to the reducing threat of material used that might harm the horse (e.g. heavy and sharp poles). This rule also aims to minimize the risk of injury of the horses. Disqualifications are an effective method of punishment in competitions. Officials sanction cases as described above with disqualification. In more severe cases, harder incentives

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<sup>28</sup> Rule is under construction (Müller, 2019)

<sup>29</sup> e.g. Klimke, Balkenhol, Heuschmann

<sup>30</sup> E.g. When There Is Blood on a Horse, Is It an Accident or Abuse? The International New York Times. (Nir, 2018)

can follow.

#### 4.4.2. Equipment

It is important for horses to have full vision especially while jumping over obstacles. For this purpose, the FEI forbids the use of blinkers in all disciplines. The narrow the vision field, so they bear a threat to the safety of horse and rider. In general, the use of blinker is under the punishment elimination (FEI DRs, 428; EVENTRs, 539.2.3). Like in the other disciplines' rains must be fixed directly to the bit<sup>31</sup>. This rule therefore indirectly bans drawing reins, which are a threat to the safety of rider and horse, especially during jumping<sup>32</sup>.

### **4.5 Conclusion Chapter 4**

In the beginning of the chapter, we aimed to identify the provisions taken by FEI regarding the welfare of the in the rulebooks of the international equestrian federation.

An interesting aspect found during the revision of the rulebooks is, that unlike the dressage and eventing rulebooks, there is no explicit mention of the welfare of the horse in the FEI Show Jumping rulebook<sup>33</sup>. While the dressage rulebook aims to turn the horse into a happy athlete and the eventing rulebook dedicates a full chapter to the welfare of the horse. We can answer the sub-question about what the provisions regarding the welfare of the horse of the FEI are, as presented in their international rulebooks, by stating that in general the all FEI rulebooks include such provisions. We found provisions concerning horse abuse in all FEI publication under investigation. The provisions are strict, but still may leave room for misinterpretation. Horse inspections are an effective provision to secure horse welfare. Not only being part of the rule, inspection enable officials enforce rules and assess the physical welfare of the horse in a structured way. Especial in pre-show inspections, measurable factors are assessed, such as rhythmic movements, health certificates and the sensitivity of limbs. Age restrictions and maximum classes per day are provisions, that prevent overworking. The FEI introduces provisions in form of equipment restrictions. The federation bans and limits tack and auxiliary aids, for safety reasons, as well as to

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<sup>31</sup> The JRs allow the use of bit less bridles like Hackamores, in this case the rains have to be fixed directly to the bridle

<sup>32</sup> Drawing rains are fixed on the saddle belt, generally between the horse's front legs. Horses may step into them, especially while jumping.

<sup>33</sup> Apart from the obligatory code of conduct

ban threats to horse welfare.

While they divide the FEI rulebook into a separate publication for different demands, the German rulebook covers all rules that concern competitive events in one publication. In the next chapter, we will analyse the LPO, the rulebook of the German equestrian federation.

## ***5 Content analysis of the LPO***

The FN is the German national pendant to the FEI. The German equestrian federation oversees the disciplines riding, driving and vaulting for both the amateur level and for the elite performance sport. In this chapter, we aim to answer our sub-question, to identify the provision taken by the FN regarding the welfare of the horse codified in the Leistungsprüfungsordnung<sup>34</sup> (LPO). For this purpose, we will first explain the structure of the rulebook, followed by an analysis of the FN ethical principles (5.3). Next, we will dive into the FN's regulations concerning the enforcements of the rules (5.4), followed by the analysis of rules concerning organizational matters (5.5) and the use of equipment (5.6) before drawing a first conclusion.

The LPO is the rulebook of the FN that assembles the rules and regulations for competitive horse competitions on a national level in Germany. The LPO defines the dos and don'ts during competitive events. Compared to the rulebooks of the other federations, it provides the rules for the disciplines of dressage, driving, show jumping, and vaulting combined in one book. The approach of including all discipline into one rulebook bears the threat of overlooking discipline specific situations. The positive effect of this approach is an all-around solution, with a more comprehensive general approach to horse welfare. It divides the rulebook in four parts: The general provisions, special provisions, the legal order and implementing provisions.

The general provisions include rules, which are not bound to any discipline, such as obligatory vaccinations. In the special provisions, we can find the discipline specific rules. These two parts include the main set of rules, which concerns horse welfare, and the fairness of the sport. The legal order concerns the legal provisions during LPO events. The implementing provisions are additions to rules from the first two parts that clarify them to enable the implementation of set rules. Rules

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<sup>34</sup> Translated from German: Performance Testing Regulation



from the last two parts, can affect horse welfare, but both are more likely to concern implementation mechanisms.

The FN published a collection of books, which are guidelines for the elementary and advanced training of riders and horses. “The principles of Riding<sup>35</sup>” (Richtlinien für Reiten und Fahren Band 1, 2012) is the first of a set of six books. These books form guidelines for the training of riders and horses, vaulting, driving, the feeding and stabling of horses as well as longeing.

The principals of Riding originate from the Hdv.12<sup>36</sup>. They aim to promote a vivid and modern educational system, based on the principals of the dressage masters<sup>37</sup>. Nevertheless, additional new findings help to improve the systematic trainings system that is published as under the title the principals of riding<sup>38</sup> (Richtlinien für Reiten und Fahren Band 1, 2012). The principals of riding is a more elaborated version of the principals of dressage from the FEI rulebook. The rulebooks of the FN often refer to these publications, to explain e.g. the right neck position of a horse. Moreover, signs of stress and pain are stated in the guidelines which are indicators for officials to enforce the rules such as §52 during competitions.

## 5.1 Ethical Principles

Different to the FEI, the FN does not have a code of conduct, instead they formulated an ethical code which they agreed on in 1995 (LPO, 2016), known as “Die Ethischen Grundsätze des Pferdefreundes<sup>39</sup>”. The name already implies that its focus lays not on the horse in the sense of equestrian sports, but on the horse as a companion. According to the ethical principles, the person responsible for the horse is the one who is handling it. At competitive events, this includes the rider, grooms as well as the owner. In certain cases, this also includes veterinarians and stewards. By this means, the FN makes everyone responsible who is involved with the horse, not limited to the rider and to the officials are responsible for the horse’s welfare.

Exceptionally, the principals do not only include the physical welfare of the horse. The FN points

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<sup>35</sup> Richtlinien für Reiten und Fahren

<sup>36</sup> German Kavallerie Manual from 1912

<sup>37</sup> Ancient dressage masters such as Xenophon formulated rules and observations of equestrians in the ancient Greece

<sup>38</sup> The FN specifies the basics of English riding, Band 1. The educational publications cover topics starting from grooming horses, over cleaning equipment to the theoretical principals of riding.

<sup>39</sup> Translated from German: “The ethical principles of the horseman”

out that the physical and psychological welfare and health of the horse are from highest priority (FN, 2012). By this statement, the FN does not only accept the factor that there is more to the welfare than a horse's physical health and general wellbeing as discussed in the second chapter.

The FN emphasize in their ethical principal the importance of education of riders and the preservation of the historic knowledge about horses<sup>40</sup>. This statement represents the values of the federation. It is in line with their educational publications, which refer to in the LPO. The education of those interacting with horses is an important part of ensuring the welfare of the horse. Only if they raise awareness and spread knowledge can reduce welfare-threatening situations during competitive events effectively. Therefore, the FN uses the Principles of Riding as a ground line. The education and encouraging of young people are important not only to secure a cultural good but also to take scientific research from the field of equine sciences into account. This knowledge helps riders and other stakeholders in the sport to decide regarding their horse's wellbeing on theoretical knowledge.

The use of horses in relation to its capabilities and work ethics is an aspect that underlines the importance of welfare<sup>41</sup>. The FN prohibits the use medications or unethical methods to enhance the performance. As stated earlier in this chapter, certain methods of training are a threat to the welfare of the horse. Therefore, "non-ethical methods" are the opposite of ensuring a horse's welfare. As part of the ethical principles, this statement is a reminder for athletes not to put success over a horse's welfare. The FN emphasizes the importance of responsibility. The welfare of the horse depends on those who take care of them<sup>42</sup>. The caretakers are responsible for ensuring the horses welfare not only during competitions, but also at all time.

Overall, these ethical principles are promoting the welfare of the horse not only during competitive events, but also away from competitions. The ethical perspective allows an evaluation of incidence.

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<sup>40</sup> "The knowledge about the history of the horse, about its needs and the handling of it are cultural goods in our society. These are to keep and to pass on to the next generations." (LPO, 2016)

<sup>41</sup> "The use of horses in sports, (riding, driving or vaulting) on any level, need to be in relation to its natural abilities and cooperation. The use of medications and or non-ethical methods are to decline and need to be avenged" (LPO,2016)

<sup>42</sup> "The responsibility of the person for the him to entrusted equid lasts until the end of the horse's life. The person needs always to act responsible in favour of the horse." (LPO, 2016)

Horses welfare needs not only to be ensured, but also the treatment of horses need to be ethically acceptable. Though the principals are not binding, they clearly state the values of the FN.

## **5.2 Influence of the National Law**

Settled in Germany, the FN's rulebook the rulebook must be in line with the local animal welfare law (TierSchG, 2006). The German national law prohibits to amputee any organs or organ-like parts (TierSchG §6, 2006). Whiskers are located around the eyes and the mouth on the horse's head. They are part of the sensory system of horses. The whiskers help the horse to sense close foreign objects (McGreevy, 2012). This mechanism protects the physical welfare of the horse, by supporting the sensory system of the horse. While in German national law forbids clipping, in other countries this practice is still common due to aesthetic preferences<sup>43</sup>. National law backs up the rule, strengthening its eligibility. On the one hand the FN is in charge to monitor and to prosecute cases of clipping. On the other hand, law enforcement can prosecute cases and therefore help to ensure the welfare of horses in general. The LPO pick up the national law under §66 alongside general restrictions for competitors. Another aspect of this law, which enhances welfare, is that it effects every horse competing in Germany, despite the discipline or the country of origin (international and national events that take place in Germany).

## **5.3 FN General Rules**

The respective paragraph in the LPO (§66) restricts horses from competing, if officials detect fresh blood (before or during test), the test is interrupted by the judge in charge and the horse is examined by the veterinarian in charge. Federations use this method to detect ill-treated horses. This rule explicitly implies for cases of fresh blood in areas where exposed to the rider. This addition to the rule ensures, that fresh blood origination e.g. from a mosquito bite, has no consequences for the competitors.

With the newest publication of the LPO (2018), the FN adapted their rules for the preparation and warmup areas at national horse shows. Previously, one member of the ground jury was in charge to observe all warm-up ring. Since 2018, every single preparation ring needs to have one official appointed person who monitors the warm up. The observation can either be conducted by a member

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<sup>43</sup> In some regions, the whiskers are shaved, because it is perceived as pretty.

of the grand jury or a specialized steward (“Hilfsrichter”) (LPO, §54). The previous problem was that it was physically impossible to ensure the welfare of the horse during the warm up during competitions. The rule was a first step to enhance the wellbeing of the equine athletes during competitive events in Germany. To answer the question asked above, it can be stated, that following the previously indicators for welfare, the criteria catalogue of the FN enhances the welfare of horses during competitive events (LPO). It offers not only concrete explanations and examples that simplify the recognition of welfare threatening cases on the side, but also help a faster processing of these.

In paragraph 52.2 of the LPO, the covers the case of unfair behaviour of competitors towards another and especially towards horses. This article directly addresses the welfare of the horse by prohibiting aggressive exposure that causes distress or pain. The LPO forbids overextension of the horse’s neck. To ensure welfare, it prohibits certain trainings methods that e.g. involves rapping and the use of prohibited equipment. This measure can ensure the welfare of horses during competitive events, if the above-stated stewards and judges’ monitoring functions they perform correctly their monitoring functions. Horses competing are subject to the FN’s horse inspections and controls at events, mostly performed by officials and officially appointed veterinarians (LPO, §67). Those officials act as the executive organ of the organization. Therefore, §52.2 directly influences the welfare of horses during LPO events. During competitive events in Germany, officials proceeds cases of unfair behaviour. This statement represents the values of the federation. It is in line with their educational publications, which refer to in the LPO. The education of those interacting with horses is an important part of ensuring the welfare of the horse. Only raising awareness and spreading knowledge concerning horse welfare can reduce welfare-threatening situations during events effectively. Therefore, the FN uses the Principals of Riding as a ground line. The education and encouraging of young people are important not only to secure a cultural good but also to take scientific research from the field of equine sciences into account. This knowledge can help riders and other stakeholders in the sport to decide regarding their horse’s wellbeing on theoretical knowledge. The FN punishes riders that conduct unfair behaviour abroad<sup>44</sup>. Regulatory measures are in place, to ensure the welfare of a horse away from competition grounds. Examples for this are cases, which damage the reputation of the equestrian sport. The

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<sup>44</sup> Compare §920 of the LPO

treatment of horses in an “unequestrian” (unreiterlich) manner, (e.g. by torture, abuse, inadequately nourishes, stables or transport a horse) are a threat to its welfare, and therefor covered under this paragraph.

Veterinarians must be on side during LPO competitions. The FN grants exemptions if a veterinarian is on call within a radius of 15 minutes to the show grounds. The presents of an officially recognized veterinarian is always obligatory during cross-country tests (LPO, §40.2).

## **5.4 Enforcement of the rules**

### 5.4.1 Criteria Catalogue

In 2014, the FN published a criteria catalogue for stewards and members of the ground jury. These help to evaluate situations during the warmup at competitions that may or may not threaten the welfare of a horse and therefore require action. They present different indicators that help officials to classify a situation in one of three categories. The FN labels the first category horse friendly situations. They name the second category “conscious issues” (Appendix A). Actions that fall into this category require further observation and monitoring of the rider and his horse, but no immediate action by the official. While monitoring such cases, they encourage the officials to consider their overall impression of the couple. Issues can result from miscommunication of rider and horse. The official in charge need to evaluate if the behaviour of the rider is acceptable under the surrounding circumstances. There is a possibility that the rider improves and therefore becomes “horse-friendly”, with no further action required. The rider is increasingly exposing his horse in an abusive way. Here the officials must deal with “non-horse friendly conduct”. Officials detecting non-horse friendly conduct need to take immediate action. If the incidence occurs during the warm-up, the official who can caution riders with verbal or written warnings and punish them by disqualification should address immediately the rider in question. The rider should realize his behaviour is threatening the welfare of his horse. Therefore, he members of the ground jury and stewards should address the rider in question (and his trainer) in an advisory and respective manner, before taking disciplinary actions.

The criteria catalogue stress officials to constant or frequently occurring signs of stress, pain or discomfort of the horse or behaviour of the rider that leads to discomfort. To simplify the application of the guidelines, we use categories such as the way of riding, the head-neck posture of the horse, its ears or the equipment used. These categories help officials to recognize situations,

which potentially risk the welfare of the horse in the warmup area.

While the LPO includes the criteria catalogue, it fulfils a similar task as the steward manual of the FEI. The catalogue is a measure to assure the welfare of the horse during competitive events in Germany.

## **5.5 Organizational Matters**

We need to mention, that besides the organization of equestrian competitions, the LPO also provides guidelines for the execution of competitive events. In this context, the LPO states that the organizers can cancel a competition because of major forces (“höherer Gewalt”, LPO, §32). Major forces can be anything from heavy weather over threats of epidemic diseases to other catastrophes. This measure is in place to ensure safety and horse’s welfare during extreme conditions. Such situations can compromise the welfare of the horse physically (e.g. epidemic disease) and psychological (e.g. stress because of extreme weather).

Veterinarians must always be on side during LPO events. They can grant exemptions for this rule. Here a veterinarian must be on call within a radius of 15 minutes to the show grounds. Exception cannot be granted during cross-country test where the presence of a veterinarian is obligatory at all times (LPO, §40.2).

### **5.5.1 Age Restrictions**

The FN has strict age restrictions for competing horses. With higher difficulties and higher demand, horses need to be older. Special classes for three-year-old horses help to familiarize them with competitions. On the one hand, we can question that we put young horses in a stressful situation. On the other hand, such classes have basic demands and may help the horses to handle stressful situations from a young age.

## **5.6 Tack and Equipment**

In Germany, boots and bandages are not to change after entering the warm up area (Show jumping). Exiting the warm area for this purpose is prohibited (LPO, § 70c). Any changes need to be supervised by an official (member of the ground jury or steward), if this is not the case, the behaviour is prosecuted under the aspect of unsportsmanlike behaviour (unsportliches Verhalten). The same holds for any boots, which have other functions than protecting the horse’s legs. In the LPO, the

process of changing the leg protection of the horse described in detail. For this purpose, mechanisms are in place to secure the welfare of the horse. A mechanism to prevent the manipulation is the prohibition of changing the leg protection<sup>45</sup> (if fitted correctly when entering the warm up arena). If leg protection disturbs the horse in some way<sup>46</sup> officials can allow riders to change the equipment. This rule aims to ensure that athletes do not tighten the boots or add sharp elements to them, to make the horse jump higher. Another mechanism to ensure manipulation is that in the case of forgotten leg protection, a horse must be accustomed to the boots including jumping over obstacles in the warm up area. The German equestrian federation has no restrictions on whip use formulated. While the allowed length of the whips is in line with the international standards, there is no explicit rule in place about the usage.

The term unsportsmanlike conduct also concerns aggressive exposure on the horse, which leads to stress or pain. The “criteria catalogue” underlines this implicit indication for the usage of the whip for judges. In the catalogue the FN states that rough and incorrect use of “auxiliary aids” (Appendix A) requires immediate action by the judge. If this happens occasionally, the judge or other officials should monitor the situation and step in if they feel the need. Any injuries that are a result of spurs and the whip also require an immediate action.

## **5.7 Conclusion Chapter 5**

We wanted to identify provision taken by the FN regarding the welfare of the horse in the Leistungsprüfungsordnung. We found several rules that provided provisions concerning horse welfare. The LPO provides strict restrictions on equipment, though, there is still room for improvement considering the permission of drawing reins for the warm up in certain show jumping classes (LPO, §68 & §70).

Recapitulating the FN’s rulebook, the main provision introduced by the federation is education. The welfare of the horse at competitions highly relies on the functioning of the educational system in Germany. The approach of one rulebook for all disciplines does help to create a mutual understanding of horse welfare across the different disciplines.

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<sup>45</sup> Horses can be sensualized by tightening the bootstraps too much. The horse may jump higher due to the pressure onto the lower leg.

<sup>46</sup> E.g. ill fitted, dirt, broken equipment or leg protection came out of place

Compared to the BE rulebook (chapter 6.2), the LPO does not provide detailed definitions regarding horse welfare. Here the FN refers to their set of guidelines for the equestrian sport. This system can lower the mutual understanding of a rule and may give more room for the individual interpretation of a rule. At the same time, this system enables the FN to provide information that is more detailed for educational purposes. To ensure the right handling of the horse, the FN must engage riders and trainers to use their “the principals of riding” to fully understand the intention of the LPO. All together yet again, the analysis of the rules showed that the provisions of the federation are only effective, if enforced correctly. While the FN emphasizes the ethical responsibility of humans towards horses, the LPO lacks measurable provisions regarding horse welfare. The lack of standardised measures for fitting the bridle and using the whip, weaken the provisions. The provisions presented above and, in the analysis, were introduced by the FN to secure the welfare of the horse.

Keeping these provisions in mind, we will now continue with the analysis of the rulebooks of the British equestrian associations.

## ***6 Content Analysis of the BD, BE and BS rulebooks***

While the British Equestrian Federation is the national governing body for equestrian sport in the United Kingdom, each discipline has its own association. The BEF has their own set of rules, but for the purpose of this research, these are not taken into account, due to the more elaborated rulebooks of the discipline specific associations. Contrary to the regulatory framework existing in Germany, in the United Kingdom each of these associations publishes their own rulebook. In the UK, there can be several associations for one discipline. We selected the associations, appointing the national teams for Championships and the Olympic games, and are in charge of the elite sport alongside the amateur classes.

In this chapter, we want to answer the fourth sub question by identifying the provisions taken by the British Dressage Association, the British Eventing Association and the British Show Jumping Association regarding the welfare of the horse as codified in their national rulebooks.

First then will analyse the rules of the British Dressage association (6.1), followed by an analysis of the rules of the British Eventing association (6.2), finally, will analyse the rulebook of the British



Show Jumping association (6.3) before drawing a first conclusion (6.4).

## **6.1 British Dressage**

The British Dressage Association (BD) is part of the British Equestrian Federation. They oversee all dressage competitions in the UK. The association publishes a revised rulebook on an annual basis. The rulebook includes a welfare procedure, similar to the FEI rulebooks.

### 6.1.1 Welfare Procedure and Code of Conduct

BD's welfare procedure aims to educate riders about horses' welfare. The welfare procedure does not exclusively address the riders. It aims stresses officials to be vigilant for welfare threatening situations.

The BD welfare procedure states that riders most often due to ignorance and over determination (BDRs, p.12) cause distress. In the welfare, BD reminds officials that the accusation of a rider of abusing his or her horse is a sensitive topic<sup>47</sup>. The association advises officials to handle cases of abuse carefully<sup>48</sup>. BD therefor assumes that approaching riders in with caution may lead to a cooperative behaviour. The cooperation leaves open to learn from the official's remarks. Which leads to the assumption that riders may not be aware of abusing a horse. In this context BD, differentiates cases of abuse into general welfare issues and serious welfare issues. While an official should discuss general welfare issues with a college. Officials report serious cases immediately to BD.

The procedure of BD includes several examples of situations that are valued as horse abuse (BDRs, p.12). While the list is an indicator for officials to handle welfare-threatening situations, these examples are statements, lacking explanations<sup>49</sup>.

Manifest distress of a horse, whether cause by the rider of other external factors is a threat to the welfare of a horse (BDRs, p.12). However, also in this case the rule does not appear to be complete as it lacks any explanation on the consequences that should raise if the distress is cause by abusive behaviour or by external factors. Recalling, the BD welfare procedure is no set of rules, though as

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<sup>47</sup> “any distress caused to dressage horses is almost always due to ignorance or over determined riding. Riders are usually very concerned when they are told that their actions amount to abuse and are anxious to co-operate.

<sup>48</sup> The person on the ground must keep this in mind when assessing the situation and act accordingly.” (BDRs, p.12)

<sup>49</sup> Example: “The bit must never be used as punishment.” (BDRs, p.12)

part of the rulebooks, it is a provision that aids the implementation of rules by the officials.

Summarizing, the BD welfare procedure aims for officials at competitive events. Explanations that are more detailed raise the comprehensiveness of the rulebook and makes it accessible for other actors (e.g. riders).

The association monitors competitions injuries. This enables them to detect the source of an injury by analysing irregularities, risk factors, and the frequency of competitions. Nonetheless, the rulebook lacks additional information on the execution of the mechanism. This mechanism has high potential for securing the welfare of the horse (BDRs, p.12). If injuries are collected in a database, the data may give new knowledge about threats to the physical welfare of the horse.

### 6.1.2 Equipment

While, BD does set a minimum of the length of spurs for pony riders, no limitations on spurs for other classes exist. The question rises, why such spurs that are likely to causes injuries are allowed in the first place. This contradicts with the BD's own welfare procedure<sup>50</sup>. If every rider-horse combination would have a compulsorily equipment checks, this control mechanism could work effectively. Only allow a selection of spurs, which are less likely to cause injuries, would reduce the risk of welfare threatening situations.

### 6.1.3 Noseband Controls

The 2019 edition of the BD rulebook<sup>51</sup> included a new rule, which introduces noseband checks. As discussed in chapter 2.1, the tightly fitted nosebands are a threat to horses' welfare. The newly introduces control is conducted as follows:

*“Prior to warm up for competition, competitors may have a physical noseband check. This will be performed by a BD approved steward. If nosebands are considered too tight the steward will ensure they are loosened. This check is performed by inserting one finger into the side of the noseband in front of the cheek piece. If the finger(s) cannot be inserted or it is very tight, this will be deemed to be unsatisfactory. A full tack and horse welfare inspection will be conducted on conclusion of the test. If nosebands are found to be too tight or equipment which is not permitted*

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<sup>50</sup> “To use spurs excessively or persistently so as to injure the horse, if a judge/steward sees a spur that is likely to cause injury they can ask the competitor to remove them.” (BDRS, p.12)

<sup>51</sup> The rulebook was published in November 2018)

*has been used, the combination will be eliminated. “(BDRs 2019 Edition)*

At first sight, this rule is a provision that aims to secure the welfare of the horse. A physical noseband check is the only option to ensure correctly fitted nosebands during competitions. Respecting the anatomy of a horse's head, the noseband usually fits below the cheekbones on the upper part of the nasal bone (fig.6). If fitted correctly, this position avoids pressure on the infraorbital nerve block, which is located under the cheekbone. At the same time, it avoids too much pressure on the more fragile lower part of the horse's nasal bone. The cheek-piece of the bridle<sup>52</sup> is fitted parallel to the cheekbone. During the noseband check, one finger is inserted at the side of the noseband near the cheek-piece. Considering the anatomy of the skull of a horse it is scientifically proven, that this location is not a good indicator of the tightness of the noseband (Kienapfel, 2010). Research shows that the most reliable method of checking a noseband is to do it above the nasal bone. If the noseband is checked on the side of the head, the soft tissue will be misleading (Kienapfel, 2010). The IESE' taper gauge is scientifically proven to be a reliable instrument to measure the tightness of noseband during competitions, instead of using a steward's finger, as a varying measurement.

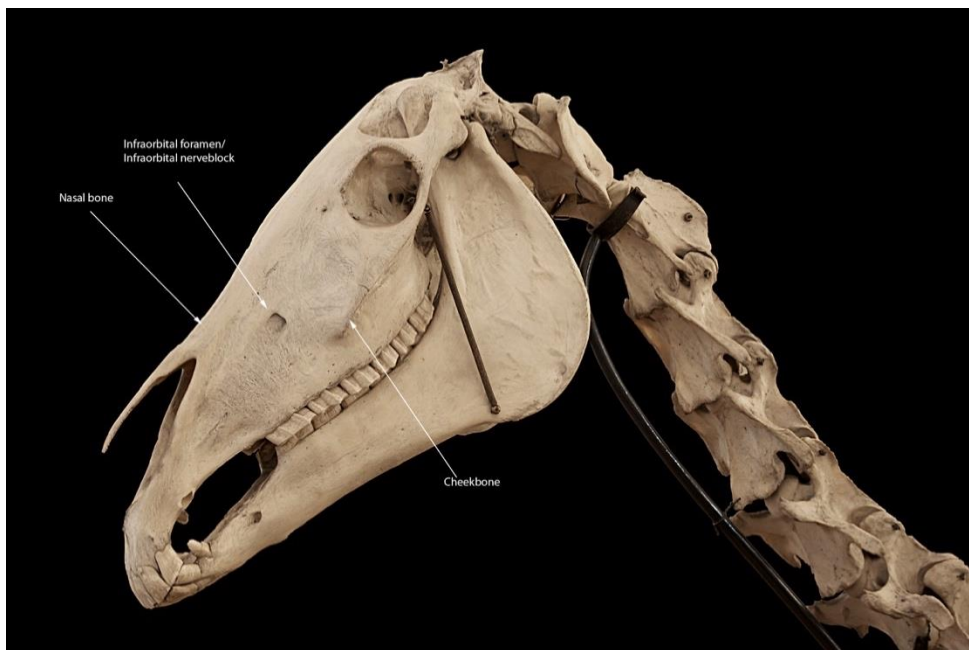


Figure 6 -Anatomy of a horse skull (Jebulon , 2011)

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<sup>52</sup> Bridle; is a piece of tack fitted on a horse's head while riding. Usually it consists out of the bit, the noseband, a neckpiece, cheek-pieces and the reins.

At first, the rule proposed by the BD federation seemed to be promising. Stewards performing noseband checks are a mechanism to enhance the welfare of horses during competitions. However, taking the research as well as the anatomy of the horse into account, this rule is not effective. Moreover, the method proposed is misleading and not scientifically validated. One can even say, that this rule is not in line with the welfare procedure of the BD, since it states, “tack should be correctly fitted to avoid pain.” (BD, Welfare Procedure).

In brief, the BD rulebook has a diverse set of rules. Rules, which contribute to the welfare of the horse. This is an example for a provision taken by BD to secure horse welfare that may lead to the opposite.

## **6.2 British Eventing**

Overseeing the most demanding discipline, British Eventing (BE) has the task to create a rulebook, which does secure the fairness of the sport, safety as well as the welfare of the horse. For this purpose, BE rules out any form of abuse by prohibiting all forms ill-treatment and abuse of a horse<sup>53</sup> such as extensive whip use.

### **6.2.1 Whip Use**

The British Eventing association regulates the use of the whip by stating how to use it. For this purpose, they set four general points. The whip is only allowed to be used for a good reason<sup>54</sup>, at an appropriate time<sup>55</sup>, in the right place<sup>56</sup> and with appropriate severity<sup>57</sup> (BERs, 5.5). For each point given, the rulebook provides additional information, making the rule more comprehensive. To use the whip for good reason, the rider must ensure to use it as an aid to encourage the horse forward or as a reprimand (BERs, 5.5) but never as to vent the rider’s anger.

The term “appropriate severity” is quantified by BE, by allowing riders to use the whip three times in one incident. Following the high demands of the cross-country, this is not a threat to horses’

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<sup>53</sup> “Competitors must never ill-treat or abuse a horse in any way whatsoever.” (BERs, 5.5)

<sup>54</sup> “For a good reason, as an aid to encourage the horse forwarded or as a reprimand. Use of the whip to vent a Competitor’s anger is excessive.” (BERs, 5.5)

<sup>55</sup> “At an appropriate time, namely when the Horse is reluctant to go forward under normal aids of the seat and legs or as a reprimand immediately after a Horse has been disobedient. Use after elimination always excessive.” (BERs, 5.5)

<sup>56</sup> “In the right place, namely down the shoulder or behind the leg not never overarm. Use on a Horse’s head, neck etc. is always excessive.” (BERs, 5.5)

<sup>57</sup> “With appropriate severity. As a reprimand only. However; it should never be hit more than three times for any one incident. Use of a whip which causes injury, e.g. broken skin or a weal, is always excessive.” (BERs, 5.5)

welfare. In eventing, the right rhythm and speed are important to maintain safety for the horse and the rider. Therefore, it is important to be able to reprimand the horse with the auxiliary aid, in order to prevent accidents. Moreover, the design of a cross-country course makes it impossible to live count the whip strikes during the entire course, since different officials monitor each obstacle (combination).

The formulation of the examples, regarding whip use is coherent. The BE rulebook combines at the one hand an example how the whip should be used, followed by a statement that explains when the use of the whip is excessive<sup>58</sup>. This formula makes it not only easy to understand the nemesis of the rule, but it also helps to close loopholes, which can be a threat to horses' welfare. The use of spurs as a reprimand is categorized as abuse (BE, 5.5). Injuries that are resulting from the use of spurs are always excessive and therefore penalized under the aspect of abuse.

#### 6.2.2 Disobedience

Disobedience can be the result of insecurities and fear. Resistance can be an indication for pain and for overextension. To step in severe cases, BE introduced a rule that allows officials to step in (BERs, 6). If a resistance exceeds twenty seconds, the athlete will be eliminated. This rule enhances the welfare of the horse on various levels. Firstly, if the horse is in pain, the elimination protects the horse's physical health. There is always a possibility that the rider and /or the horse are not up to the high demands of the eventing competition. Especially in the cross-country, a lack of trust can lead to resistance at an obstacle.

#### 6.2.3 Horse Falls and Accidents

Due to the high demands on the horse rider combination, falls of horse and rider are common. Horse involved in accidents during the cross-country will be inspected, to ensure if they are fit to travel home or if they need medical care by a veterinarian.

A mechanism to monitor and secure horse welfare on a long-term basis is the observation of accidents and horse falls. In reoccurring cases of such an accident, officials will step in (BERs, 3.8.5). If a horse falls more than three times within 24 months, the athlete and the horse are suspended and the risk management committee as well the cross-country advisory committee of

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<sup>58</sup> Excessive use is always abuse of the horse and therefore forbidden.

the BE handles the case. In the case that one official is unsure and ongoing concerns he may refer to the chief executive for the BE. The two committees evaluate the case based on horse welfare due to an overall long-time observation of the situation. This includes the circumstances of the accidents. The investigation seeks to clarify if the accidents were the result of the rider's action or if the horse had issues, which led to the accident.

Dangerous riding describes a situation in which a rider handles a situation not appropriately and takes too much risk (BERs, 5.6). BE provides in depth explanations on different scenarios that consider dangerous riding. In the cross-country, the right speed as well as the balance on the rider have a significant impact on the safety of both the rider and the horse. Again, BE does list examples which are easy to understand. The well-formulated examples enable officials to detect rule violations and act upon them.

Concluding we can say, that British Eventing association formulated a coherent rulebook. This helps athletes and officials to act in favour of the horse. It considers the high demands of the discipline and includes measures to monitor and regulate situations that threaten the welfare of the horse.

### **6.3 British Show Jumping**

The BS organizes competitive show jumping in the UK. The federation publishes a Members handbook, which includes a set of rules for competitions.

#### **6.3.1 Whip Use**

Following the rulebook of BS, the whip is considered to be “used” if the rider takes one hand off the reins to strike his horse<sup>59</sup>. The rider's arm is not allowed to be risen above his or her shoulder. Following the BS rulebook, the whip is not allowed to be used at the horse's flanks; it should only hit the rump of the horse, behind the saddle. (BS Members handbook, 103). Officials have to disqualify riders misusing the whip. BS prohibits whip use after an elimination of a rider-horse combination. Moreover, any marks or broken skin are always categorised as misuse of the whip and is penalized (BSRs, 103). Different to the FN rule (compare 5.7) marks or blemishes anywhere on the horse are the result of excessive use. Summarizing, the whip and the spurs are no reprimands.

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<sup>59</sup> Therefore: No use if he uses the whip on the horse's shoulder.

BS uses measurable criteria that enables judges to evaluate a critical situation and act in cases of horse abuse.

### 6.3.2 Rapping

BS considers rapping<sup>60</sup> as abuse. Under paragraph 103, the federation includes an in-depth explanation of this practice. Rapping was publicly criticised during the early 1990's when prominently Paul Schockemöhle was secretly filmed using that practice on one of his horses, while being prepared for sale (Murphy, 1992). While this practice may not be exclusive to show jumping, associated with this discipline. The definition of BS includes an in-depth explanation of actions which are counted to the practice of rapping. No third party can change the ground lines or the obstacle in any way or fix an obstacle during warm up and in the ring.

Rapping is a serious threat to horses' welfare, since this practice does artificially bring horses to jump higher. For this purpose, the senses of the horses are tricked and/or tools are used to sensible the horses' legs. Rule 103, BS gives officials a guideline to recognize abusing actions. Moreover, this rule enables rider to gain knowledge about welfare threatening methods. We found rules that set incentives when abuse is whiteness (e.g. the misuse of the whip can lead to disqualification; BSRs, 202).

### 6.3.3. Tack

The use of draw reins<sup>61</sup> is a threat to the welfare of the horse (BSRs, 120). This tool enable rider to force a horse's head down into a forced necks position. BS does not explicitly ban these rains from their competition. Only if the rider has a special permission from a judge. BS uses explicit explanations (e.g. rule 120.5<sup>62</sup>). This leads comprehensive rules benefitting the welfare of the horse. Despite the rules discussed above, the BS rulebook does not provide explicitly provisions concerning the welfare of horses during competitive events. Again, the main factor to maintain the welfare of the horse is the monitoring and observation of competitions by officials. This is the only

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<sup>60</sup> Rapping describes an artificial technique that intends to make horses jump higher. E.g. by holding a pole over an obstacle in the moment the horse intends to jump. If the horse feels the pole on the legs, may jump higher, due to the fear of hitting a pole.

<sup>61</sup> also known as running- or check-reins

<sup>62</sup> "The use of tongue straps is forbidden. The use of string, fine wire, twine or cord in or around a horse's or pony's mouth is also forbidden. Properly constructed tongue guards, which are detached from the reins and bit, are permitted." (BSRs, 120.5)

efficient option to enforce the rules and regulations formulated. In brief, the BS rulebook does include several rules that help to secure the welfare of the horse.

## **6.4 Conclusion Chapter 6**

Summarizing we state, that all three associations do include provisions that help officials to secure the welfare of the horse on the competition grounds. The disciplines are fully independent due to the three associations. Therefore, there is no collective understanding across the disciplines of horse welfare. Interestingly, the Eventing regulations are part of the most elaborated rulebook, while the Show Jumping rulebook is the least elaborated out the British rulebooks in this analysis. This pattern is like the FEI rulebooks, where the show jumping rules do not mention the welfare of the horse while the eventing rules emphasize it in their vision statement.

Answering the fourth sub-question, we found provisions regarding the welfare of the horse in the rulebooks of the British equestrian association. In the light of horse welfare, BS and BE have quantified measures on whip use and resistance to minimize the threat of horse abuse. BS introduced a rule to define the correct fit of the noseband. Nevertheless, the provision is not benefiting the welfare of the horse, considering the anatomy of a horse skull. While some provisions are more elaborated (BE) others lack additional information, which may hinder the enforcement of the rules (BS). Overall, we can say that narrow make more comprehensive rules. Such definitions will help riders to understand the rules and enables them to follow them.

## ***7 Discussion and Conclusion***

In the beginning of this research, we proposed the question what the provisions established by the national and international equestrian federations regarding the welfare of the horse. To conduct this research, we combined two fields of research to gain first insights into the effects of policy on horse welfare.

Our first sub-question set out to identify the elements specific to the welfare of the horse. For this purpose, we defined the horse welfare as the physical and psychological wellbeing of the horse, which is moving in harmony with its environment. Using the definition, we identified five different categories of rules. Each category concerns different elements that are specific to horse welfare. Definitions provide background information and theoretical concepts. Mechanisms provided the



organized structures for officials for inspections. Restrictions address limited or forbidden equipment, training methods or the “use” of the horse. Psychological welfare includes rules that indicate stress and e.g. aim to minimize the stress for the horses. The category protection of the horse elements specific to horse welfare focusing on physical measures such as horse inspections.

Based on this definition, we can answer the first research question by stating elements specific to horse welfare do aim to ensure and enhance the physical and psychological wellbeing of horses. Next to this definition, other components influence horse welfare. A strategic and strengthening training, aiming for thoroughness is an elementary component to the welfare of the horse. Maintaining welfare, by ensuring correct stabling and feeding are part of a horse’s welfare. A final component is a sound horse, which indicates its physical wellbeing. Summarizing, all components are specific to the welfare of the horse, indicating its physical and psychological wellbeing.

Using the IAD framework, we identified that action situation during equestrian competitions is a welfare threatening situation. Officials have the power to mediate in an action situation. The rulebooks are not only part of the attributes of the equestrian community, at the same time, they are the evaluation criteria for officials identify and evaluate a welfare-threatening situation and take measures if needed. Therefore, we used the five categories to identify provisions regarding the welfare of the horse considering the rulebooks of different equestrian federations that help to prevent or mediate a welfare-threatening situation.

The second sub-question set out for identifying provisions taken by the FEI to ensure horse welfare in their rulebooks. On the way to this question, found and analyzed provisions regarding the welfare of the horse as presented in the rulebooks of the FEI, we first analysed the governance structure of the FEI to gain a better understanding of the origin of the FEI rulebooks. Member federations can influence the rulebooks, but the federations are not obliged to change their national rulebooks to hold up with the international standards. The governance structure and the FEI’s rules and regulations, form a regulative structure that aims to ensure the fairness of the sport and to secure the welfare of the horse. The separation of the FEI rulebooks that the formulation considering horse welfare differs recognizably between the discipline specific rulebooks. While the dressage rulebook aims to turn the horse into a happy athlete, the eventing rulebook stresses the responsibility of the rider and the people involved towards each other and the horses. The show jumping rulebooks has no clear focus considering the welfare of the horse. Despite the obligatory

code of conduct, there is no direct mention of horse welfare. In contrast to the dressage and eventing rulebooks, the show jumping rules objectify the horse. Meaning that the rulebooks focuses on facts rather than taking the psychological wellbeing of horses into account. The veterinarian rulebook and the general rulebook of the FEI bring a general consent about the welfare of the horse into the sport. Provisions, such as horse inspections are set across all disciplines. The FEI must use this advantage, to create a mutual understanding of horse welfare and the elements specific to this topic. By this means, the international federation can enhance the provisions taken to secure horse welfare in their discipline specific rulebooks. Through the research, it became clear, that it is not possible to focus purely on the rulebooks. The execution of the rules linked to additional publications such as the steward manual.

Based on this, we can answer the research question by stating that the FEI includes provisions in their rulebooks, in the form of definitions, mechanisms and restrictions. In addition, the code of conduct for the welfare of the horse sensibilises stakeholders for welfare threatening situations. Horse inspections are effective provisions, to ensure that only physically sound horses can compete. The strict blood rule of the FEI enables officials to act without any appeal of the rider, if they detect an injured horse. Age restrictions and limited starts per day are provisions regarding horse welfare, it prevents riders overworking their horses. Summarizing, the FEI presents provisions regarding horse welfare. To actively enhance the welfare of the horse during competitions, the provisions require enforcement in form of controls and observation by officials.

The third sub-question aimed to detect provisions regarding the welfare of the horse as presented in the German national rulebook namely the LPO. While analysing the LPO, we identified several provisions that aim to secure the welfare of the horse at national competitions in Germany. The ethical principles introduced by the federation are no rules. Nevertheless, they are an important part of the rulebook. They are reminder of the horse as an animal with physical and psychological needs. So, the FN creates a mutual understanding of the general needs of a horse. Due to the structure of the LPO, the rules concerning horse welfare are applicable for every discipline, while some provisions are discipline specific. Provisions, such as the prohibition of clipping the horse's whiskers, are a direct measure to secure the physical wellbeing of the horse. The FN's criteria catalogue provides indicators for officials simplify the detection of horses in distress. Considering the LPO, we can conclude, that the FN has provisions in place concerning horse welfare.

Federation	Rule	Summary	Provision regarding Welfare / Type	Actors involved/ addressed
FEI	DRs 401	Happy Athlete	<ul style="list-style-type: none"> <li>- <i>Definition:</i></li> <li>- how to recognize a comfort/ discomfort in a horse</li> <li>- Education: information for riders (trainings scale)</li> </ul>	<ul style="list-style-type: none"> <li>- Officials: definition</li> <li>- Competitors: education</li> </ul>
FEI	DRs 422.3.6	Restrictions on where to school a horse on the competition grounds	<ul style="list-style-type: none"> <li>- <i>Restriction</i></li> <li>- Ensure that welfare threatening methods of training are not used during schooling</li> </ul>	<ul style="list-style-type: none"> <li>- Stewards: obliged to monitor the schooling areas</li> <li>- Riders and trainers</li> </ul>
FEI	EVENTRs 503.4	Age Restrictions	<ul style="list-style-type: none"> <li>- <i>Restriction</i></li> <li>- Ensure that young horses are not overworked</li> </ul>	<ul style="list-style-type: none"> <li>- Horse owners and Riders</li> <li>- Stewards (during Horse Inspections)</li> <li>- Technical Support (Application process)</li> </ul>
FEI	EVENTRs 526.1	Abuse of the Horse	<ul style="list-style-type: none"> <li>- <i>Mechanism</i></li> <li>- Recognizes abusive behaviour towards horses</li> </ul>	<ul style="list-style-type: none"> <li>- Stewards and Members of the Ground Jury (incl. TD)</li> <li>- Riders (information on what is abuse)</li> </ul>
FEI	JRs 201	Obstacles, which ones are allowed to be used, and how	<ul style="list-style-type: none"> <li>- <i>Restriction</i></li> <li>- Prevent Rapping</li> <li>- Ensure Fairness</li> </ul>	<ul style="list-style-type: none"> <li>- Stewards (Monitoring)</li> <li>- Riders, Grooms/Trainers</li> </ul>
FN	Criteria Catalogue	Criteria for Officials for recognizing welfare threatening situations (especially during warm up)	<ul style="list-style-type: none"> <li>- <i>Mechanism/Definition</i></li> <li>- Information for officials on handling welfare threatening situations</li> </ul>	<ul style="list-style-type: none"> <li>- Officials</li> </ul>
FN	LPO §52.2	Unsportsmanlike behaviour, abuse of the horse	<ul style="list-style-type: none"> <li>- <i>Mechanism</i></li> <li>- Defining welfare threatening situations / horse abuse</li> </ul>	<ul style="list-style-type: none"> <li>- Officials (How to recognize)</li> <li>- Riders (effected by restrictions)</li> </ul>
BE	BERs 5.5	Whip Use	<ul style="list-style-type: none"> <li>- <i>Restriction</i></li> <li>- Information on how (not) to use a Whip</li> </ul>	<ul style="list-style-type: none"> <li>- Riders</li> <li>- Officials/ Ground Jury</li> </ul>
BS	BSRs 120.5	Equipment: Use of Thong Straps	<ul style="list-style-type: none"> <li>- <i>Restriction</i></li> <li>- Detailed information on restricted equipment</li> </ul>	<ul style="list-style-type: none"> <li>- Riders</li> <li>- Stewards / Officials (Trainers and others interacting with the riders)</li> </ul>

Table 2-Examples for Provisions that Address the Welfare of the Horse

The fourth research question aimed to detect provisions regarding the welfare of the horse as presented in the national rulebooks of BD, BE and BS. The BS rulebook quantifies threats to welfare makes, which makes it easier for officials to act (“What you can measure you can manage”). Like its international equivalent, the BS rulebook lacks specific provisions on horse welfare. It is important to provide significant information for riders and officials. The rulebook of BE is an example for narrow rules that leave no room for interpretation. Comprehensive rules help riders to understand the boundaries. At the same time this rule, provides information for officials, they need to handle welfare-threatening situations in a coherent manner. The BD rulebook provides several provisions to maintain horse welfare in general. Especially, the monitoring of competition injuries can be an effective measure to identify horse abuse on a long-term scale.

Concluding we can state, that the three associations provide provisions regarding the welfare of the horse. We stress, that the association needs base their rule creation on scientific research to ensure that the intention of the rule matches the reality. The separation of the association does create separate groups with different values. Their head organization, the BEF needs to ensure, that its different association are driving towards a mutual understanding of horse welfare.

Using the knowledge gained during the document analysis, we can answer our final research question. In the beginning of this research we asked what the provisions are established by national and international equestrian federations. We found set provisions regarding the welfare of the horse. The provisions have different intentions. In table 2, we present a set of examples of provisions regarding horse welfare we found in the rulebooks. Considering table 2, we can conclude that there is a relationship between the type of rule and the actors addressed. Restrictions prominently address riders. These types of rules are important for riders to compete. Rider’s awareness of such rules is essential for their actual preparation for the competition while mechanisms and definitions address officials.

While mechanism provide information for officials to handle e.g. a welfare-threatening situation (action situation), definitions provide knowledge that helps to identify e.g. welfare threatening situations. Restrictions secondarily address officials. They use them to judge the competition in a fair and equal manner. While this study concerned the welfare of the horse, most of the rules selected intents to protect horses.

The equestrian federations use their rulebooks, to ensure the ethically correct treatment of horses

during competitive events. The rulebooks of the equestrian federations are a tool for officials to recognize and manage welfare-threatening situations on any scale. The federations use ethical codes, vision statements and codes of conducts as provisions regarding horse welfare. They help to voice opinions and values on horse management practices. Despite the provision implemented into the rulebooks, equestrian federations need to ensure, that their governance structures enable officials to perform their duties mindfully.

The study of the rulebooks in the light of the welfare of the horse demonstrated that all equestrian federations want a respectful treatment of the horse in the sport. To ensure the physical and psychological soundness of the competition horses, an ethical treatment with respect to the horse's nature is the only way to perform harmoniously together with a happy athlete.

## **7.1 Recommendations**

In the following part, we will provide recommendations for equestrian federation on how to create rules that are more comprehensive. We will give recommendations for future research.

A recommendation for the equestrian federation is to motivate people to become stewards could be to provide educational programs and trainings camps, where they cannot only learn to steward but also e.g. improve their own riding. On a national level, local clubs and associations could arrange a regular meeting of stewards, where they can informally exchange their experiences and develop suggestions for improvement. Especially on national competitions, more stewards can help to increase the amount of horse inspections. By this means, monitoring the correct handling of horses during the warm-up to take action in welfare-threatening situations. Compared to national events, international events provide tighter control, since every horse needs to undergo at least one-horse inspection. Usually fewer athletes compete internationally compared to national events. The cost of an in-depth monitoring of the athletes are easier to manage for international events due to higher entrance fees and generous sponsors. National events often rely on volunteers. Therefore, it can damage to the sport to force international standards onto national competitions.

Comprehensive rules must be understandable for all stakeholders in the equestrian sport. Based on scientific research, the rules of the federations must be controllable. For this purpose, we stress to use quantified identifications. Therefore, it is important that the rulebooks are accessible not only for the officials but also for the riders. To ensure the, riders and officials for this purpose, the rules

need to be formulated in a clearly and structured, including strict boundaries, that allows officials to evaluate welfare threatening situations and act upon them. When regulating e.g. the use of the whip, examples of how and how not to use it (BE).

While the federations include provisions regarding horse welfare in their rulebooks, they should establish stricter and more detailed rules to promote and enhance horse welfare during competitive events. For this purpose, they have to facilitate their current rulebooks by providing access to information and by education, everyone involved in the equestrian sport. Officials must punish poor performances, and the equestrian federations should promote outstanding welfare procedures. By this means, they can facilitate their current rules, to ensure horse welfare. It is important that the stakeholder involved in the sport do understand and accept the rules. For this purpose, we should use a multi-stakeholder approach for revising the rulebooks. We must consult experts from the field of equestrian science to ensure that practices introduced in the rulebooks help to ensure the welfare of the horse. By engaging actors such as riders, trainers and grooms, the federations can raise the acceptance of the rules within the equestrian community. For this purpose, surveys and interviews on different levels (e.g. amateur and professional riders) may help to plan the rules coherently, understandable for the actors involved in the sport.

The data gained from such surveys and interviews can develop further educational programs to create a common understanding of horse welfare. Engaging these stakeholders may also consider which information they are missing to understand the welfare of the horse. The federations then should facilitate that knowledge by e.g. providing educational information for different age and experience levels. They should involve officials in the creation and revision of rulebooks. They are the people who implement them. Therefore, officials may know frequently occurring welfare threatening situations during competitions. Officials can evaluate if introduced practices such as specific horse controls are actually manageable and relevant for ensuring horse welfare. A possible LPO rule can be formulated as follows.

*30 minutes before the start of the first class, the warm-up ring should be observed and monitored by one steward or judge. For larger classes additional personnel may be appropriate. To recognize welfare-threatening situations, stewards and judges must consider the criteria catalogue. Stewards (or judges) must inspect every horse's mouth when they exit their test. In show jumping and eventing classes, boots and bandages must be controlled. The auxiliary aids*

*used by the Rider must be checked after the completion of their test.*

As mentioned, multiple times above, the education of riders is from the same importance. The federations should offer education materials easy to access. Existing educational programs, they are often expensive. Providing educational materials for children, teenagers and adults would not only educate them about welfare, it would also create a common understanding about the welfare of the horse. Trainers can use an online accessible database with free material to educate their students. On their educational platform (FEI Campus), the FEI provides courses and materials for educational purposes. Approved by the FEI, the materials address English-speaking adults. The National Federations should develop a similar database, but also target younger and older people new to the sport. Educational materials aimed to different age groups, helps to ensure that information spreads to promote horse welfare.

Since this study was an exploration into horse welfare from a public administrative perspective, we have recommendations for future research. For this research, it was not possible to study the actual effect of the rulebook on the welfare of the horse during competitive events. Future studies can use the concept of this research to conduct a quantitative study using the welfare indicators we developed to analyse more rulebooks of different federations and for different disciplines. When creating a larger dataset, we can code the rules based on their comprehensiveness on horse welfare. To get a better understanding on how rules should be formulated the use of interviews and surveys for officials and riders may enable future researchers to gain information on the awareness of the stakeholder on the importance of horse welfare in the equestrian sport. The interpretation of rules by officials may lead to interesting information that may help federations to change their rules to minimize misinterpretations. We state, that the key to ensuring horse welfare during competitive events are the controlling mechanisms. Stewards, Judges and other officials need to be well trained and present during events. Tighter controls and more stewards can help to enforce the current rules more.

Considering the IAD framework, it is important to stabilize the action arena. For this purpose, the officials need all information and knowledge possible to handle welfare-threatening situations in favor of the horse. The key to ensuring horse welfare during competitive events are the controlling mechanisms. Stewards, Judges and other officials need to be well trained and available and present during events. Tighter controls and more stewards in general can help to enforce the current rules

more. We need more comprehensive rules and clear definitions to raise this impact. We realized throughout this research that the work of stewards and judges is essential for horse welfare during competitions. Without them monitoring and controlling during events, the rulebooks do not work.

Today, their ethical principles and code of conducts do promote horse welfare. Never the less, the codes and principals formulated broadly. Clear statements and definitions are essential to overcome cultural differences and to have a common ground. This can be part of the code of conduct or part of a new more elaborated section within the rulebooks. The definitions should clearly address the physical and psychological welfare of the horse. Eventually, the federations must give clear examples of welfare threatening situations. Additionally, they could add information on how to avoid them. The FEI does have a mutual understanding of what horse welfare is. This is especially important for international competitions where people with different cultural background come together and compete.

Therefore, we urge the federations to promote and educate people from the equestrian sport and motivate them to become a steward.



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## Media

### Figure 1-3:

Adapted from: Ostrom, E. (2007). Institutional rational choice. *Theories of the policy process*, 21-64.

### Figure 5:

FEI. (n.d.). FEI. (2018). Governance structure of the FEI. Retrieved on 1, February 2018, from <https://inside.fei.org/myfeiguide>; edited

### Figure 6:

Jebulon (Photographer). (2011, 16th of January). Horse skull neck vertebrae cheval crâne vertèbres cervicales Alfort [*photograph*], Wikimedia Commons, [https://upload.wikimedia.org/wikipedia/commons/2/2f/Horse\\_skull\\_neck\\_vertebrae\\_cheval\\_cr%C3%A2ne\\_vert%C3%A8bres\\_cervicales\\_Alfort.jpg](https://upload.wikimedia.org/wikipedia/commons/2/2f/Horse_skull_neck_vertebrae_cheval_cr%C3%A2ne_vert%C3%A8bres_cervicales_Alfort.jpg), accessed 13 November 2018

### Appendix C

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### Appendix D

Jahnke M, Trainings Scale Graphic, based on FN (2012). *Richtlinien für Reiten und Fahren* (29th ed., Vol. 1, Richtlinien Für Reiten Und Fahren). Warendorf


# Appendix A – FN Criteria Catalogue

Criteria Catalogue published by the FN

<http://www.pferd-aktuell.de/misc/filePush.php?id=13898&name=Criteria+Catalogue>

## Observation of horse and rider


Reference for classification and evaluation especially for judges in the practice areas/warm up arena

 <b>Way of Riding</b>	<b>Horse friendly conduct: No need for action!</b>	<b>Conspicuous issues: Observation / Monitoring</b>	<b>Non-horse friendly conduct: Need for immediate action!</b>
<b>Way of Riding</b>	<ul style="list-style-type: none"> <li>• harmonious, in good cooperation</li> <li>• understanding, sensitive</li> <li>• confident, consistent, appropriate, technically correct in application of the aids and in the use of auxiliary aids, also in conflict situations</li> <li>• comprehensible and fair</li> </ul>	<ul style="list-style-type: none"> <li>• incorrect application of the rider's aids or techniques</li> <li>• constant backwards actions with the hand or moving about from side to side (sawing on the mouth)</li> <li>• causing a tight head-neck posture</li> <li>• situational inappropriate driving aids and use of the whip and spurs</li> </ul>	<ul style="list-style-type: none"> <li>• aggressive behaviour</li> <li>• inappropriate emotional outbreaks</li> <li>• specific implementation of techniques deliberately aimed against the horse</li> <li>• conscious and obvious backwards actions with the hand or moving about from side to side (sawing on the mouth)</li> <li>• rough and incorrect use of aids and auxiliary aids</li> <li>• injury through spurs, whip, bit, equipment</li> <li>• any use of force (e.g. punishing horse with rough rein aids)</li> </ul>
<b>Paces / Gaits</b>	<ul style="list-style-type: none"> <li>• mostly good regularity of movement, supple, well-balanced</li> <li>• evenly swinging</li> <li>• with corresponding "enjoyment of movement"</li> </ul>	<ul style="list-style-type: none"> <li>• situational insecurity or dysfunctional tension in the sequence of movement</li> <li>• disturbances in rhythm or balance</li> <li>• particularly dull paces</li> <li>• strikingly cumbersome sequence of movement (tiredness, exhaustion, excessive strain, ...)</li> </ul>	<ul style="list-style-type: none"> <li>• constant or repeated disturbance in rhythm or balance</li> <li>• lameness – repeated bolting or bucking</li> <li>• constant, excessive head shaking</li> <li>• continuously repeating significant resistance (e.g. rearing, etc. ...)</li> <li>• consistent and extreme faltering in the paces</li> </ul>
<b>Back</b>	<ul style="list-style-type: none"> <li>• supple back</li> <li>• harmoniously swinging in rhythm with the motion</li> <li>• regular, supple contracting and relaxing of the muscles</li> </ul>	<ul style="list-style-type: none"> <li>• making the back hollow, possibly in connection with a high posture of the head</li> <li>• tense, not swinging back</li> <li>• or bucking in response to the rider's aids</li> </ul>	<ul style="list-style-type: none"> <li>• strikingly hollow back</li> <li>• constant, repeated bucking</li> <li>• constant, uncontrolled and unspecific kicking</li> </ul>
<b>Mouth</b>	<ul style="list-style-type: none"> <li>• closed mouth</li> <li>• content, supple chewing</li> <li>• animated salivation</li> <li>• supple, moving and salivated lips</li> <li>• occasional opening of the mouth</li> </ul>	<ul style="list-style-type: none"> <li>• grinding teeth</li> <li>• open mouth</li> <li>• cramping of lips</li> <li>• showing of teeth</li> <li>• protruding tongue (to front or side)</li> <li>• tongue above the bit</li> </ul>	<ul style="list-style-type: none"> <li>• tongue pinched/turned blue</li> <li>• blood and rawness in or around the mouth or blood in saliva</li> <li>• open, bleeding bare or even raw patches</li> <li>• constantly open mouth in connection with rein aids</li> </ul>
<b>Head-neck posture</b>	<ul style="list-style-type: none"> <li>• according to the classical principles</li> <li>• the horse's face briefly in front of or at the vertical</li> <li>• momentarily deeper head-neck posture with the horse's face slightly behind the vertical</li> <li>• in extended posture forwards/ downwards</li> <li>• on the bit</li> <li>• genuine relative elevation</li> <li>• on long reins</li> <li>• with loose reins</li> </ul>	<ul style="list-style-type: none"> <li>• the horse's face behind the vertical</li> <li>• restricted head-neck posture</li> <li>• absolutely raised head</li> <li>• clearly resistant above the bit</li> <li>• clearly against the bit</li> <li>• repeated shaking of the head</li> <li>• occasional extremely deep head position in connection with restricted or tight head-neck posture</li> </ul>	<ul style="list-style-type: none"> <li>• extreme posture positions with fixation caused by specific influence</li> <li>• physical contact of the mouth with the chest caused by the riders influence</li> <li>• deliberate, extreme over flexing sideways</li> <li>• continuous extremely deep head position in connection with restricted or confined head-neck posture</li> </ul>



# Observation of horse and rider

Reference for classification and evaluation especially for judges in the practice areas/warm up arena

	Horse friendly conduct: No need for action!	Conspicuous issues: Observation / Monitoring	Non-horse friendly conduct: Need for immediate action!
<b>Eye / face</b>	<ul style="list-style-type: none"> <li>• alert</li> <li>• relaxed</li> <li>• aware of the environment</li> <li>• attentive</li> <li>• sometimes also excited</li> </ul>	<ul style="list-style-type: none"> <li>• bulging eyes</li> <li>• watching with wide open eyes – tensions and cramping in the eye area</li> <li>• conspicuous rolling of the eyes</li> </ul>	<ul style="list-style-type: none"> <li>• constant or repeated abnormalities of the eyes (bulging eyes, etc...)</li> <li>• dull, introverted apathetic expression</li> <li>• injuries or acute medical problems/ anomalies in the eye area</li> </ul>
<b>Ears</b>	<ul style="list-style-type: none"> <li>• ears pricked</li> <li>• both ears calm, relaxed movement of ears in rhythm with sequence of movement</li> <li>• content, attentive movement of ears</li> <li>• one ear or both backward concentrated towards the rider</li> </ul>	<ul style="list-style-type: none"> <li>• ears laid flat back</li> <li>• constantly pointing backwards</li> <li>• hanging limply downwards to the sides</li> </ul>	<ul style="list-style-type: none"> <li>• ears clearly and constantly lain back in tense manner</li> <li>• pressed extremely downwards to the sides (due to pain or exhaustion)</li> <li>• outer/inner injuries of the ears</li> </ul>
<b>Tail</b>	<ul style="list-style-type: none"> <li>• swinging harmoniously with the horse's movement</li> <li>• carried in light and free manner, swinging</li> <li>• swinging to-and-fro</li> <li>• swishing the tail for its natural purpose (warding off flies)</li> </ul>	<ul style="list-style-type: none"> <li>• tail carried crookedly</li> <li>• clamped, sometimes pinched tail</li> <li>• repeated swishing of tail</li> </ul>	<ul style="list-style-type: none"> <li>• constant and fierce swishing of tail</li> <li>• constantly very clamped tail</li> </ul>
<b>Nostrils / breathing</b>	<ul style="list-style-type: none"> <li>• relaxed snorting</li> <li>• relaxed working nostrils</li> <li>• regular breathing, possibly higher breathing sequence with nostrils working more intensively, appropriate to the sporting activity</li> </ul>	<ul style="list-style-type: none"> <li>• excessive snorting or coughing</li> <li>• nervous function of nostrils, short of breath</li> <li>• raised, cramped nostrils</li> <li>• conspicuous respiratory sound</li> </ul>	<ul style="list-style-type: none"> <li>• constantly, cramped, raised nostrils and even pulling up of upper lip</li> <li>• conspicuously loud respiratory sound (when strongly developed with suspected lack of oxygen supply, shortness of breath)</li> <li>• purulent or bloody discharge from nostrils</li> <li>• wounds or blood in or at nostrils or nose-line</li> </ul>
<b>Sweating – amount</b>	<ul style="list-style-type: none"> <li>• moderate sweating</li> <li>• normal sweating taking into consideration the sporting exertion and weather condition</li> </ul>	<ul style="list-style-type: none"> <li>• strong sweating over whole body</li> <li>• clear localised formation of foam</li> </ul>	<ul style="list-style-type: none"> <li>• extreme and wide-spread formation of foam, even as far as spreading of foam over the whole body</li> </ul>
<b>Equipment</b>	<ul style="list-style-type: none"> <li>• professional and animal-friendly fitting of equipment [noseband (sufficient room for chewing and breathing) saddle, leg protection, etc. ...]</li> <li>• appropriate, technically correct use of double bridle occasionally with curb reins taken up with angle of approx. 45°</li> <li>• appropriate, technically correct use of equipment / special bridles</li> </ul>	<ul style="list-style-type: none"> <li>• conspicuous tightening of equipment, apparently incorrectly tacked up (saddle, bit, noseband, brushing boots, girth, bandages, etc...)</li> <li>• too tight or loose double bridle</li> <li>• conspicuous use of special bridles</li> </ul>	<ul style="list-style-type: none"> <li>• incorrectly or too tightly tacked up and / or unreasonably restricting the horse's movement</li> <li>• preventing mouth and / or tongue activity</li> <li>• injuries or bloody bare or even raw patches caused by the equipment</li> <li>• incorrect usage of double bridle with double bridle reins held too tightly</li> <li>• extremely shortly buckled curb chain</li> <li>• incorrect use of special bridles</li> </ul>

## ***Appendix B - Auxiliary Aids***

Table of auxiliary aids

Federation		Whip	Spurs
FN	Dressage	120 cm*	4,5 cm *** length was introduced to ensure that (in jumping) the rider clearly needs to l
	Show jumping	75 cm*	4,5 cm
	Eventing	75 cm*****	4,5 cm****
BEF	BD	120 cm	“(…) mandatory from advanced level upwards.” BD Section 14, 124
	BS	75 cm (min. 45 cm)	3 cm / 2,5 cm **
	BE	75 cm*****	4 cm
FEI	Dressage	120 cm / 100cm **	Compulsory (DRs Art 427.4)/ 3,5 cm ** (not compulsory for pony and children classes)
	Show jumping	75 cm	4 cm
	Eventing	75 cm*****	4 cm ***
*Incl. lash ** Pony classes ***incl. rowel ****incl. rowel no *****cross country phase			

Table 3- Auxiliary Aid



## ***Appendix C – FEI Code of Conduct for the Welfare of the Horse***

Retrieved from:

[https://inside.fei.org/system/files/Code\\_of\\_Conduct\\_Welfare\\_Horse\\_1Jan2013.pdf](https://inside.fei.org/system/files/Code_of_Conduct_Welfare_Horse_1Jan2013.pdf)

The FEI requires all those involved in international equestrian sport to adhere to the FEI Code of Conduct and to acknowledge and accept that at all times the welfare of the Horse must be paramount. Welfare of the horse must never be subordinated to competitive or commercial influences. The following points must be particularly adhered to:

### **1. General Welfare:**

#### **a) Good Horse management**

Stabling and feeding must be compatible with the best Horse management practices. Clean and good quality hay, feed and water must always be available.

#### **b) Training methods**

Horses must only undergo training that matches their physical capabilities and level of maturity for their respective disciplines. They must not be subjected to methods which are abusive or cause fear.

#### **c) Farriery and tack**

Foot care and shoeing must be of a high standard. Tack must be designed and fitted to avoid the risk of pain or injury.

#### **d) Transport**

During transportation, Horses must be fully protected against injuries and other health risks. Vehicles must be safe, well ventilated, maintained to a high standard, disinfected regularly and driven by competent personnel. Competent handlers must always be available to manage the Horses.

#### **e) Transit**

All journeys must be planned carefully, and Horses allowed regular rest periods with access to food and water in line with current FEI guidelines.

### **2. Fitness to compete:**

a) Fitness and competence

Participation in Competition must be restricted to fit Horses and Athletes of proven competence. Horses must be allowed suitable rest period between training and competitions; additional rest periods should be allowed following travelling.

b) Health status

No Horse deemed unfit to compete may compete or continue to compete, veterinary advice must be sought whenever there is any doubt.

c) Doping and Medication

Any action or intent of doping and illicit use of medication constitute a serious welfare issue and will not be tolerated. After any veterinary treatment, sufficient time must be allowed for full recovery before Competition.

d) Surgical procedures

Any surgical procedures that threaten a competing Horse's welfare or the safety of other Horses and/or Athletes must not be allowed.

e) Pregnant/recently foaled mares

Mares must not compete after their fourth month of pregnancy or with foal at foot.

f) Misuse of aids

Abuse of a Horse using natural riding aids or artificial aids (e.g. whips, spurs, etc.) will not be tolerated.

3. Events must not prejudice Horse welfare:

a) Competition areas

Horses must be trained and compete on suitable and safe surfaces. All obstacles and competition conditions must be designed with the safety of the Horse in mind.

b) Ground surfaces

All ground surfaces on which Horses walk, train or compete must be designed and maintained to reduce factors that could lead to injury.

c) Extreme weather

Competitions must not take place in extreme weather conditions that may compromise welfare or safety of the Horse. Provision must be made for cooling conditions and equipment for Horses after competing.

d) Stabling at Events

Stables must be safe, hygienic, comfortable, well ventilated and of sufficient size for the type and disposition of the Horse. Washing-down areas and water must always be available.

4. Humane treatment of horses:

a) Veterinary treatment

Veterinary expertise must always be available at an Event. If a Horse is injured or exhausted during a Competition, the Athlete must stop competing and a veterinary evaluation must be performed.

b) Referral centres

Wherever necessary, Horses should be collected by ambulance and transported to the nearest relevant treatment centre for further assessment and therapy. Injured Horses must be given full supportive treatment before being transported.

c) Competition injuries

The incidence of injuries sustained in Competition should be monitored. Ground surface conditions, frequency of Competitions and any other risk factors should be examined carefully to indicate ways to minimise injuries.

d) Euthanasia

If injuries are sufficiently severe a Horse may need to be euthanised on humane grounds by a veterinarian as soon as possible, with the sole aim of minimising suffering.

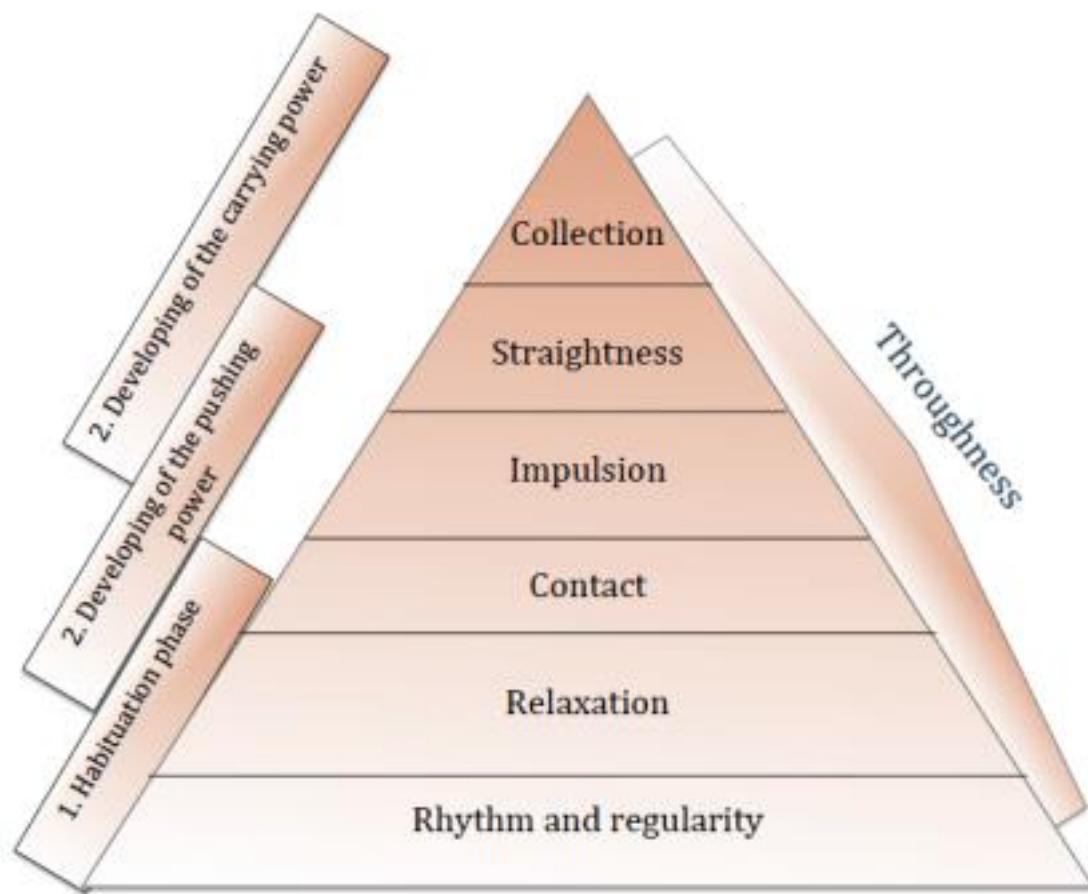
e) Retirement

Horses must be treated sympathetically and humanely when they retire from Competition.

5. Education:

The FEI urges all those involved in equestrian sport to attain the highest possible levels of education in areas of expertise relevant to the care and management of the Competition Horse.

## *Appendix D – The Trainings Pyramid/Scale*



Appendix D- Trainings Scale Graphic by Marilen Jahnke (data based on: FN, 2012),