

Lucia Gräschke

# **The Transportation of Animals by Air**

A Case Study on International Agreements and Lufthansa

University of Tampere  
Faculty of Social Sciences  
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## **Abstract**

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In the modern world, non-human animal life is increasingly regulated by legal rules. Many of these rules circulate globally. Despite the growing number of animal studies in the field of social sciences and sociology, the impact of globalization on non-human animal life has received little attention. This study contributes research to the intersection of globalization and animals, by exploring how local and international soft law regulations organize the transportation of animals by air.

The study will analyze how international agreements regulate the business of animal transportation by air, as an example, of governance beyond the nation-state. In detail, this study explores how internationally set agreements without binding legal force, here referred as soft law documents, construct authority, and how the local actor Lufthansa exercises power to position itself as an expert in the field of animal transportation by air. Furthermore, the study looks at common rules which organize the transportation of animals, as well as their local modifications.

Four international agreements — the Live Animal Regulations of the International Air Transportation Association, the Terrestrial Animal Health Code of the World Organisation for Animal Health, the Council of Europe Convention on the transportation of animals, the European Union Regulation 1/2005 — and 24 documents published by Lufthansa have been analyzed using a qualitative content analysis as a method.

Using the theoretical concept of soft governance, the analysis identifies that authority of soft law documents has been constructed by cross-references between the soft law documents. Furthermore, the local actor Lufthansa exercises epistemic work to manifest its position as a professional expert in the field of animal transportation. All documents agree on a set of rules, which organize the transport of animals. Together these rules create a template which ensures the successful transportation of animals. Apart from following the rules of this template, the local actor Lufthansa, further, modifies guidelines of the international

agreements. These modifications follow two kinds of editing rules. On the one hand, Lufthansa modifies time- and space- bounded features of international guidelines. On the other hand, Lufthansa adds additional rules when interpreting the international guidelines for its own, internal purposes.

The case study discusses the results in the perspective of the biopolitical management of animal life during the transportation and reflects on Lufthansa's attempts to improve the well-being of animals.

**Keywords:** Soft law governance, epistemic governance, editing rules, Scandinavian institutionalism, translation, circulating templates, Lufthansa, biopolitics

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## List of Abbreviations

<b>COE</b>	Council of Europe
<b>EU</b>	European Union
<b>OIE</b>	World Organisation for Animal Health ( <i>Office International des Epizooties</i> )
<b>IATA</b>	International Air Transportation Association
<b>CITES</b>	Convention on International Trade in Endangered Species of Wild Fauna and Flora

## **1. Introduction**

*The first so-called manned flight happened on the 14<sup>th</sup> of September 1783. On this late summer day, the inventor siblings Joseph and Étienne Montgolfier sent a balloon with a rooster, a duck, and a sheep into the air. In the hope that someday humans would be able to fly, the brothers had built and constructed balloons for decades. Their experiment took place in the courtyard of the palace of Versailles and even the French King Louis XVI was present. The animals flew for 8 minutes, and landed safe and sound about 2 miles away from the courtyard. The event entered the history of aviation as the first manned balloon flight following the lighter-than-air-principle- the dominant idea of flying at the time (Britannica 2017).*

Compared to the event of 1783, in today's world, the transportation of animals in an aircraft is as ordinary as the transportation of humans. Since the Montgolfier brothers sent animals into the air for experimental purposes, the modern transportation of animals has developed international rules and guidelines, which aim to ensure the survival of non-human animal life in the aircraft. The Montgolfier brothers organized their experiment in the yard of the French king, who was at the time a symbol of power. Clearly, the king has been interested in the experiment, because its success was also a demonstration of the power of the sovereign. At the time, technological achievements and scientific progress had been closely linked to the king's power as a sovereign. In contrast, in a globalizing world, the business of aviation has lost its connections to the traditional sovereignty of the state, because many airlines operate globally as multinational privately owned companies. Consequently, also the development of rules and guidelines in the field of animal transportation by air has been initiated by airlines and international organizations, and not by nation-states.

The transportation of animals by air is not the only field, where animals have become subject to rules and laws. In the modern world, non-human animal life is increasingly regulated by national and international legislation. Since the 1970ies, growing animal rights and animal welfare movements have encouraged the integration of animals into the legal system. Nevertheless, there is not much research on the position and regulation of non-human animal life in international agreements, or the global spread of norms and values, which construct the modern human-animal-relation. This thesis is one attempt to fill this research gap with a case study on the transportation of animals by air. In the field of aviation, international



organizations and multinational companies agree on rules, while national legislation can only offer a frame to guarantee the protection of animals within territorial borders.

This thesis is designed as a case study, which analyzes international agreements concerning the transportation of animals by air, as well as documents of the airline Lufthansa. The research has been guided by the following questions:

- *How is governance practiced in the field of animal transportation by air?*
- *How is the transportation of animals organized in the analyzed soft law documents?*
- *How Lufthansa uses and modifies guidelines of international agreements?*

To answer these research questions, I analyze four international agreements and 28 Lufthansa documents. Two of the four international agreements have a global orientation. The other two have a European orientation. In detail, one agreement is produced and published by the European Union (in the following EU), while the other one is produced and published by the Council of Europe (in the following COE). The collected agreements cover a period between 2004 and 2016. The analyzed Lufthansa documents contain openly accessible documents published by the Lufthansa group. These documents include customer information sheets and websites; news articles; general terms of conditions; the Lufthansa Shipper's Certificate; and six sustainability reports. The documents cover a time range of 2006-2017. A detailed description of the collected data can be found in chapter 4.

The documents have been analyzed with the method of qualitative content analysis and approached with concepts taken from new- institutionalism. The concept of soft governance (Mörth 2004) has been used to understand how soft law documents create governance in the field of the transport of animals by air. Furthermore, epistemic governance (Alasuutari and Qadir 2014) has been used to identify how the local actor Lufthansa exercises power to position itself as a professional expert in the field.

Commonly agreed rules which organize the transport of animals have been considered as a circulating template (Sahlin and Wedlin 2008). When international guidelines get translated into a local environment, they are edited according to different editing rules. The modifications of Lufthansa have been considered as part of an editing process, which follows two editing rules. These editing rules have been developed by Røvik (2007, 2016) and are recalled in Wæraas and Sataøen (2013); as well as by Sahlin-Andersson (1996) recalled in Sahlin and Wedlin (2008).

The outcomes of the analysis are further discussed in the perspective of recent research in the area of animal studies. In detail, parallels to studies which stress the biopolitical management of animals, are drawn.

My choice to use documents of the airline Lufthansa is justified by the position the airline takes in the field of animal transportation by air. Lufthansa is an example of a big multinational company. Lufthansa, with its subsidiaries, is one of the biggest passenger airlines and Lufthansa Cargo one of the biggest cargo airlines in the world. In 2016, the Lufthansa Group was ranked 10<sup>th</sup> in the number of passengers carried and 7<sup>th</sup> in the number of kilometers its passengers have traveled (Forbes 2018, Flight Global 2017). In the same year, Lufthansa Cargo was ranked the 7<sup>th</sup> in the amount of cargo which was transported (Aircargo news 2018).

Lufthansa transports animals as part of the passenger transportation, and as part of its cargo business. The airline is highly specialized in the transport of animals. In 2008, it opened a terminal at Frankfurt Airport that exclusively handles the transport of animals. Every year circa 100 million animals pass through the so-called Animal Lounge. In detail, the Animal Lounge welcomes approximately 150 zoo animals, 2 000 horses, 8 000 pigs, 14 000 dogs and cats, 80 million ornamental fish and 300 tons of angleworms (Lufthansa 2017).

This thesis is organized as follows. Chapter 2 gives an introduction to the branches and research in the field of animal studies. Chapter 3 contains a description of theoretical concepts of globalization and Chapter 4 offers a detailed description of the data, the methods, and the data collection process. Chapter 5 includes the empirical analysis and Chapter 6 summarizes the outcomes of the study and discusses them in the light recent approaches to animal studies. Lastly, in Chapter 7 conclusions will be drawn.

Before turning to Chapter 2, a historical overview of the development of the commercial transportation of animals by air will illustrate the key role of international institutions and agreements.

### ***A Historical Overview of the Transportation of Animals by Air***

The transportation of animals with modern aircrafts began in the 1920ies. In 1924, the airline KLM transported the bull Nico from Rotterdam to Paris. Although KLM transported chicks already in 1923, the transport of Nico entered the aviation history as the first commercial

organized live animal transport of a large animal (KLM 2013). Only one year later, a couple of Asian imperial eagles were sent from Bucharest to the Vienna by air mail. The eagles were a present from King Ferdinand of Romania to the Austrian King and arrived at Schönbrunn without complications (Neuste Post 1927). Also the bull Nico reached his destination safe and sound.

A more frequent transport of animals started in the 1930ies and 1940ies. For example, KLM reports that in 1948, the airline has sent two baby bears from Bern in Switzerland to The Hague in the Netherlands.

Although the transportation of animals continued to grow after World War II, it took another 20 years until the first international agreement set rules, requirements and guidelines for their transport. Until the 1960ies, guidelines about the transport of animals remained a national concern. In 1965, the International Air Transportation Association (IATA) published the first Live Animal Regulations (IATA 2017). The guidelines were developed by a working group, which was called the animal board within the IATA. Later, in the 1990ies the working group expanded its responsibilities to the transportation of plants and perishables (Harries 2008).

A few years later, in 1976, the first international non-governmental organization, which is exclusively concerned with the transport of animals by air, was founded. The Animal Air Transportation Association consists of airlines, truckers, shipping companies, government agencies, universities and research organizations, breeders, importers, and exporters, as well as veterinarians. Another international non-governmental organization, the International Pet and Animal Transportation Association (IPATA) was founded in the USA in 1979. Both organizations have the aim to promote and develop welfare standards for the transportation of animals.

Also in 1979, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (in the following CITES agreement) was created. The CITES agreement contains a catalog of endangered plants and animals which are excluded from the international trade. In addition, it also includes rules for the transport of wild animals and plants.

In the European Union, the creation of the single market encouraged the need to regulate the cross-border transport of animals by air, land, and water. As a consequence, the EU adopted directive 91/628 EEC in 1991 and directive 95/21 in 1995 (EUROLEX 2017, ECOLEX 2017).

Less than 10 years later, the EU was forced to debate transport conditions of animals again. Growing civil pressure about terrible transportation conditions of animals in different member states revealed that the two directives have not been effective to protect animals (see Harries 2005, 650).

In 2001, the European Convention for the Protection of Animals during International Transport from 1968 was revised. The convention set rules for the transport of animals in the wider European region. It is a multilateral agreement created by the Council of Europe.

On an EU level, the Regulation (EC) No 1/2005 on the protection of animals during transport and related operations and amending Directives 64/432/EEC and 93/119/EC and Regulation (EC) No 1255/97 was adopted in 2005.

In 2013, new guidelines for the transportation of animal by land were developed as part of the CITES agreement. The rules replaced the guidelines for the transportation of animals by air. To regulate the field of animal transport by air, a reference to the IATA Live Animal Regulations has been included in the agreement (CITES 2013).

In 2017, the 43<sup>rd</sup> edition of the IATA Live Animal Regulations was published and the International Pet and Animal Transportation Association has expanded its field of expertise to the overall transport of animals by water, air and land.

This short historical overview illustrates that international agreements and institutions have taken a key role in the transportation of animals since the beginning of the 1960ies. Before, turning to the theoretical debate about globalization, the following chapter will provide an overview of the branches and research in the field of animal studies. The collected soft law documents do not draw on unique assumptions about animals. Instead, they contribute and are a part of a wider system of knowledge and classifications, which determines the position of animals in the modern world. Therefore, the following chapter provides main arguments in the field of animal studies and clarifies how animals are constructed in a globalizing world. In Chapter 7, further, the outcomes of this study will be discussed in the perspective of recent research in the field of animal studies.

## **2. Animals in the Modern World- (Re) defining the Animal-Human Relation**

*“I love the fact that human genomes can be found in only about 10 percent of all the cells that occupy the mundane space I call my body; the other 90 percent of the cells are filled with the genomes of bacteria, fungi, protists, and such [...]”*  
(Haraway 2008, 3).

At the core of the human-animal relation appears the question about what an animal is and what a human is, and how these two terms are socially and culturally constructed. Their meanings presume a range of conditions and factors, which divide or connect humans and animals. Both animals and humans share simultaneously a set of similarities and differences and often separating and connecting them happens at one and the same moment.

Research on the human-animal relation is concerned with the construction and deconstruction of boundaries between the human and the animal. For a long time, the dominating view in European philosophy, as well as in everyday life, was to consider animals separated from human beings. At the time of the Enlightenment, Descartes famously concluded that animals are similar to machines because animals have not developed a proper language. In Descartes’s view, language is needed for the human consciousness. Consequently, animals are not conscientious or sentient individuals (Sunstein and Nussbaum 2004).

In the 1970ies, animal rights and animal welfare movements started questioning the boundaries between the animal and the human. In *Animal Liberation* (1975), Peter Singer argues against speciesism and the superiority of the human species.

Recent studies have turned away from animal rights approaches. They argue that although animal rights blur the division between humans and animals, they still draw on the asymmetrical power relationship between the category of the animal and the human. For example, Giorgio Agamben (1998) reviews the concept of rights by looking into the relation of rights and sovereignty.

### **2.1. Constructing the Animal- A Sociological Perspective**

Sociological studies about animals clarify that humans make sense of animals with the help of social characteristics. Franklin (1999, 15) describes this phenomenon as a struggle for similarity and difference between the animal and the human. In detail, he pointed out that already during the development of the discipline of anthropology, it became accepted to

expand social relations to the animal world. This expansion made it possible to reversely explain social “conflicts, tensions and contradictions” with the help of the “socially constructed animal world” (Franklin 1999, 15). Franklin’s view illustrates that humans can only make sense of animals by using social and cultural knowledge, norms and values. Therefore, the relation of humans and animals is rooted in cultural contexts and historical and social dynamics. Departing from Franklin, the question arises what kind of social and cultural knowledge shapes the human-animal relation in the modern world.

In Europe, since the enlightenment in the 18<sup>th</sup> century, rational thought and scientific observation dominate the construction of the social world. Within the rational world of science, the animal has been put into biological classification schemes and taxonomies. Michel Foucault was one of the first who clarified how important classification schemes are for the human mind. He started his book “The Order of Things” (1970) with an animal classification model by Jorge Luis Borges. This model illustrates the problem of sense-making and non-sense-making. Borges uses an animal classification model that he claims has been taken from a Chinese Encyclopedia. The model distinguishes between animals: “(a) belonging to the Emperor, (b) embalmed, (c) tame, (d) suckling pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies” (Foucault 1970, xv).

Referring to Borges’s model, Foucault points out that this funny-sounding model might produce a smile on many lips. In detail, he states that “the uneasiness that makes us laugh [...] is certainly related to the profound distress of those whose language has been destroyed [...]” (Foucault 1970, xviii-xix). In Foucault’s view, human thinking and sense-making are guided by language. Language has created a large system to explain the world. Within this system, there are classifications and within these classifications, there are categories. Nevertheless, in order to make sense, categories and classifications must fit together. In addition, their meaning can only be understood when they fit into the larger cluster of meanings that constitute a system of language. Although Borges’s model has categories to organize animal classifications, the categories do not seem to fit together. They seem not to follow any logic in the language of the reader. The fact that his model refers to a certain place – China – makes it even more disturbing because it indicates that there is an actual place on earth where people use this model.

Borges is familiar with Chinese classics. Nevertheless, his “enumeration is partly verifiable and partly fictional” (Youxiang 2007, 310). This makes the whole classification a mixture of fiction and reality. However, it does not matter if the classification model is actually fictive or not, because in both cases, the reader’s judgment is the same- it cannot be true because it does not make sense. Certainly, European colonists had a similar smile on their face when they tried to understand knowledge systems from outside Europe. The example once more shows the close connection between cultural and scientific knowledge (see Foucault 1970).

While Borges’s classification model does not make sense, the taxonomy of living organism, developed by Linnaeus enables a meaningful interpretation. It seems to draw on cultural and social components of rationality and logic to interpret a world meaningfully.

Depending on similarities and differences, animals are classified in six categories - species, genus, family, order, class, phylum which are organized in a hierarchical manner. The system draws on the Carl Linnaeus’s classification system of plants, animals, and minerals, developed in 1735. Linnaeus is commonly known as the father of modern taxonomy, though his thoughts derived from Aristotle (Britannica 2018).

Without exception, human animals are part of the taxonomy and are classified as a member of the species *Homo sapiens*. Nevertheless, also Linnaeus’s thinking puts the human in an exceptional position. Reviewing taxonomy of Linnaeus, Agamben (2004, 25) notes that Linnaeus’s “genius” does not consist of the creation of a modern scientific taxonomy where the *Homo sapiens* appears among the apes. Instead, he summarized Linnaeus’s case of human exceptionalism as follows:

“The irony with which he (Linnaeus) does not record—as he does with the other species—any specific identifying characteristic next to the generic name *Homo*, only the old philosophical adage: *nosce te ipsum* {know yourself}” (Agamben 2004, 25).

Agamben (2004, 26) uses the action of Linnaeus to illustrate one key element in the construction of the human-animal distinction: “the human is an animal which must recognize itself as a human to be a human.” The human needs the animal, as well as, other non-human life to position herself relational to them to recognize herself. Taxonomy and classification models provide a framework which enables relational comparisons.

In the modern world, the model of taxonomy is used and institutionalized in many fields as biology, botany or zoology, philosophy, medicine, social and political science and many more.

## **2.2. Animal Rights and Animal Welfare Movements**

Furthermore, even current efforts to improve the treatment of non-human animal life, as well as its legal recognition and protection have derived from the same paradoxical phenomenon which also guided Linnaeus thinking- human exceptionalism. In the 1970ies, in different European countries, first civil movements started questioning unethical practices of the treatment of animals. Animal rights activists protested against widespread ideas of speciesism and demanded equal rights for all living individuals. The term speciesism describes a privileged treatment of one group. This group is defined according to its belonging to a species. The term has been originally founded by Richard D. Ryder but got famous by Peter Singer's use in the book "Animal Liberation" (1975). Peter Singer (1975, 6) defines speciesism as "a prejudice or attitude of bias in favor of the interests of members of one's own species and against those of members of other species." Singer takes a utilitarian point of view and argues that in a cost-benefit- calculation of interests, humans give their species an unjustified privilege. As an alternative, the author demands the equal treatment of all species. Nevertheless, also Singer has a bottom-line in his balancing of different interests. According to Kagan (2015), this bottom-line distinguishes between plants and animals. While animals do have an interest, plants do not.

In addition to claims of animal rights activists in the last decades, also animal welfare movements have gained in importance. In contrast to animal rights activists, welfare activists demand a higher protection of animals from cruel treatment in national and international legislation. For example, animal rights activists reject the keeping of animals in a circus, because the animals are used only for means of human entertainment. In contrast, animal welfare activists try to improve the living conditions of circus animals. Nevertheless, often animal rights and animal welfare activists combine their positions.

One of the first authors who offered a sociological analysis on the growing movement of animal rights was Keith Tester. Similar to Agamben's point about Linnaeus, Tester (1991, 48) points out that "animal rights are only marginally concerned with animals." They are "part of a social project to classify and define humanity." Tester recalls historic events and



argues that a first shift in the treatment of animals appeared between 16<sup>th</sup> century and 19<sup>th</sup> century. At this time, urban upper-class people, who had disassociated themselves from a rural life with animals, firstly understand the treatment of animals as a moral concern and interpreted the good treatment of animals as a civilized action.

Modern animal rights and welfare activists demand an ethical treatment of animals on the basis of scientific knowledge because only with the help of knowledge humanity can judge which treatment is ethical and which is unethical. Tester describes the connection between knowledge and morality as followed:

“People started to worry about the social treatment of animals to the extent that life was identified as the basis of knowledge and made the main principle for the order of things. Classification demanded behavior which would respect the similitude of all living organic structures regardless of any visible distinctions, whilst also maintaining the privileged status of humanity as the only historical subject able to know life” (Tester 1991, 88).

In Tester’s view, also animal rights activists preserve their privileged position because they as humans are able to know what life is. In addition, Tester highlights that the assumption of knowing life is rooted in the classification system developed by humans. Humans are at the same time the only individuals who are able to make sense of life. In this regard, Hudson (2008, 106) stresses that the “human species [...] produce not only goods but concepts: species do not “exist” in nature but in the human imagination.”

### **2.3. Animal Life and Sovereignty**

Lastly, Giorgio Agamben has developed a perspective that aims to reveal power structures in the relation of humans and animals. Similar to Animal Rights movements, also Agamben focuses on the concept of rights. However, the author does not claim to give rights to animals. Instead, he argues that legal systems have been constructed by the sovereign power and this power constantly excludes certain forms of life from having rights.

In *Homo Sacer* (1998), Agamben argues that the practice of separating animal life from human life, and more precise, from political life was already known in ancient Greece. While the Greek word “zōē” includes “all living beings (animals, men, or gods)”, the word “bios” has been used to name “the form or way of living proper to an individual or a group”

(Agamben 1998, 9). Drawing on this distinction, legal systems have started to protect politically organized life, while the life of *zōē* has been considered as sacred. In the modern world, however, this separation is collapsing and also the life of *zōē* is included in the legal system, by being excluded. Agamben calls this form of life that is excluded from legal protection, but still part of the legal system bare life. The author continues by arguing that sovereignty is in fact occupied with the production of bare lives. This can be called biopolitics. The “production of a biopolitical body is the original activity of sovereign power” (Agamben 1998, 11). To define the term biopolitics the author draws on Foucault and states that “biopolitics, is, the growing inclusion of man’s natural life in the mechanisms and calculations of power” (Agamben 1998, 71). Michel Foucault understood biopower in the History of Sexuality as the practice to “foster or disallow life” to the point of death (Foucault 2008, 138).

The short overview has shown that the interconnections between cultural knowledge, power, legal rules, and modern taxonomies and classification systems construct the categories of what is called a human, and what is called an animal. Likewise, the field of animal transportation is part of the complex interactions between cultural knowledge, taxonomies, power, and law. In detail, the global orientation of the aviation business indicates that basic assumptions about animals, their place in the legal order, as well as practices to know animal life are globalizing in the field of animal transportation. In Chapter 6 the outcomes of this study are located in the area of recent approaches in the animal studies.

### **3. Theorizing Globalization**

The academic debate distinguishes between three schools of globalization theories — economic, political, and cultural globalization. Research on economic globalization gave rise to the world systems theory and dependency theory. These approaches put the global spread of capitalism into the center of the analysis. World systems theory, developed in the 1970ies, understands the world as a “social system” which is “defined as a unit with a single division of labor and multiple cultural systems” (Wallerstein 1970, 390). Dependency theory was developed in close relation to world system theory and looks at inequality that has been produced by this global economic system.

Common approaches within the scholarship of International Relations, such as realist and functionalist approaches focus on the political side of globalization. Especially realism

stresses interactions between states on an international level. In the classical realist view, the international world is anarchic and nation-states exercise power to enforce national interests. Resources of power are military capacity or economic strength. In contrast to classical realism, neorealism depicts security as the main interest of states' actions. Furthermore, neorealists emphasize empirical testing to boost their thesis (Donnelly 2000).

Lastly, the cultural perspective on globalization has been derived from organizational studies. This view includes institutionalist and constructionist perspectives on globalization. Institutionalists stress the importance of institutions in a globalizing world. They analyze the creation and spread of institutions.

New- institutionalists claim that actors in the global world appear embedded in their environment and are constantly shaped by it. Consequently, new-institutionalist research analyzes institutions and their institutional environment to understand, how certain policies, practices or values diffuse globally (Meyer et al. 1997).

Since the position of animals in the modern world is mainly influenced by cultural knowledge that is embedded in power structures and taxonomies, and not by economic systems and international political negotiations, it is the third branch of globalization theories that suits best to answer the research questions of this case study. To narrow down the wide field of cultural globalization, I will first provide an overview on new-institutionalism. Afterwards, I will explain analytical key concepts of the Scandinavian institutionalism. Lastly, I will introduce the approach of epistemic governance.

### **3.1. New-institutionalism- Research and Branches**

In 1983, DiMaggio and Powell published one central work about diffusion. The authors identified three mechanisms which explain why norms, policies, and ideas diffuse globally — coercive, normative and mimic mechanisms. While the coercive mechanism points to external forces, the normative mechanism looks at shared values to understand why ideas diffuse. Mimicking, lastly, occurs when organizations copy from others, because of uncertainty (Greenwood et al. 2008, 6; DiMaggio and Powell 1983).

Diffusion has constituted the core of world culture theory because it created an environment of isomorphic-looking institutions all around the world. Isomorphic in this perspective means that all institutions look similar. This environment shapes the identities of actors, as well as

their moral beliefs and perceptions. Such a perspective is often contrasted with methodological individualism and actor-centered views (Meyer and Strang 1993).

Within the framework of new- institutionalism, different branches have emerged to contribute to the research of globalization. The main distinctions in the literature are Scandinavian institutionalism, sociological institutionalism or world polity theory, rational-choice institutionalism, historical institutionalism and discursive institutionalism (Suárez and Bromley 2015, Hall and Taylor 1996). Domestication research and epistemic governance are commonly described as part of sociological institutionalism by taking elements from world polity and world culture theory (Tervonen- Gonçalves 2013; Rautalin 2013; Syväterä 2016).

## **3.2. Scandinavian Institutionalism**

Scandinavian institutionalism has been growing to challenge the established idea of isomorphism by focusing on local differences and variations of institutional structures and practices. Scandinavian institutionalism does not reject isomorphism, but stresses local variations by analyzing the “re-construction and co-construction of external models and local adaptations” (Suárez and Bromley 2015, 145).

The term Scandinavian institutionalism can be traced back to the 1970ies and 1980ies when a network of researchers (mostly from Scandinavian countries) organized around Professor James G. March’s teaching at Stanford University. Later this loose research network has been institutionalized as the SCANCOR- Scandinavian Consortium for Organizational Research. In the 1990ies, the focus of research shifted from organizational studies to research in the field of new-institutionalism (Boxenbaum and Pedersen 2009, 180-187).

### **3.2.1. Translation and Editing Rules**

In Scandinavian Institutionalism, different ideas “travel” between institutions and actors and often transform when they are transferred into a local context (Czarniawska and Joerges 1996). The concept of translation explains how global ideas get transferred into local environments. In general, translation refers to the process of implementing an idea in a local context (Boxenbaum and Pedersen 2009, 188).

Sahlin and Wedlin (2008, 225) note that translation is not a linguistic term but needs to be understood as “movement and transformation.” Translation describes the process of creating an idea, which is put into a model, book or presentation (Czarniawska and Sevón 2005;

Czarniawska and Joerges 1996; Sahlin and Wedlin 2008). However, translation does not create the sheer copy of an idea. Instead, it is presumed that actors have different perceptions, values, and experiences, as well as knowledge and interests because of their different local environments. These circumstances make it possible to translate one idea into another form and context.

Sahlin and Wedlin (2008, 226) understand translation as an editing process, which aims to recontextualize an idea in a local environment. The authors distinguish three kinds of editing rules: (1) editing rules concerning the context, (2) editing rules concerning the logic, and (3) editing rules concerning the formulation (originally in Sahlin-Anderson 1996).

The first group of editing rules concerns the context of an idea. Editing reconstructs the context of an idea, by excluding time- and space-bounded features. Sahlin-Andersson (1996, 84) clarifies that “when models are applied in a setting different from that of the prototype, time- and space-bounded features are excluded.” Through the editing process, an idea becomes more general or abstract. Secondly, editing rules about the logic modify the way, how an idea is presented. For example, the consequences might be translated as activities and the plans as causes. Lastly, editing the formulation of an idea concerns its narrative. An idea might be reformulated or relabeled according to a certain ideological frame or worldview (Sahlin and Wedlin 2008, 226-227).

The second branch of research in the editing process focuses on what happens inside the local institution when ideas are translated. While Sahlin-Andersson’s editing rules (1996) assume that the outcome of an editing process inside the local institution is uncertain, Røvik (2016, 296) supposes that with the help of his editing rules the outcome of the editing process inside the local institution is, in fact, predictable.

Røvik (2007) has also developed a set of rules, which “guide” the translation of an idea from one into another context (Wæraas and Sataøen 2013, 3). These rules include copying, addition, and omission. While copying means to transfer one idea from context to context as accurate as possible to minimize changes and variations, addition refers to the process of adding new parts to the basic idea. Lastly, the omission is the opposite of adding and means that local actors leave out certain parts of the original idea. The application of different translation rules leads to contextualization and decontextualization. Either an idea becomes

contextualized into a certain local institution, or an idea can be transformed into a more general and abstract version by decontextualization Wæraas and Sataøen (2013).

### **3.2.2. Templates and Standards**

In practice, often not a single idea circulates and gets translated, but instead, whole sets or groups of ideas are translated. Waldorff (2013, 222) calls these sets of ideas “analytical concepts” and clarifies that different authors developed different names for them. While Røvik (1998) calls them “recipes”, Sahlin and Wedlin (2008) name them “circulating templates.” They all have a similar characteristic: they “are abstracted general knowledge about how the world works” (Waldorff 2013, 222).

In the view of Sahlin and Wedlin (2008) templates are:

“Frames or targets that actors used to compare or benchmark their activities and they prescribe how success should be assessed. [...] Templates can be evaluation criteria, rankings, standards or just widespread notions that constitute success [...]” (Sahlin and Wedlin 2008, 231).

In a globalizing world, templates are increasingly used to manage different areas, like the field of animal transportation by air. The quotation of Sahlin and Wedlin (2008) summarizes a variety of different shapes a template can have. In addition, these templates are used voluntarily and are non-binding. A template generates success and enables comparison with others. In addition, a common template can also create identifications with others which use the same template. In this regard, Wedlin (2007, 27) argues that a template is “used to create identities and identification with the group”, because it “forms, perceptions of what is proper, good and true for organizations in a particular category.” Often different templates appear simultaneously in the same field. In the field of aviation, for example, there are international safety rankings between airlines, and criteria to evaluate safety. In contrast, in the field of animal transportation by air, there are no airline rankings or evaluation criteria. Nevertheless, the field seems to have rules about the transport of animals. According to Brunsson and Jacobsson (2000, 4) standards “constitute rules about what those who adopt them should do, even if this only involves saying something or designing something in a particular way.”

### 3.2.3. Soft Law Governance

Using templates as the point of departure, Mörth (2004) argues that the use of templates has already taken the shape of governance. That is what Mörth calls soft law governance. In this view, soft regulations or soft laws are legally not binding and non- hierarchical rules, which are informal and flexible. Especially in the modern world, soft regulations play an initial role and give rise to new forms of authority and governance. In the past, regulations and law belonged almost exclusively into the sphere of the state, whose institutions had the authority to introduce new legislation. In the modern world, also private institutions have become regulating bodies by using soft regulations and soft law. The increasing usage of soft law, by other institutions than the state, blurs the boundary between public and private authority in a globalizing world (Mörth 2014, 121). International organizations are one example of this phenomenon. They often consist of private institutions, non-governmental organizations, and nation-states' members and produce rules and guidelines which are voluntary for their members. The increasing usage of transnational regulations is another example. Tervonen-Gonçalves (2013), for example, has analyzed how transnational regulations work in the field of public health policy in Finland and Portugal.

Such a view of authority and governance through soft regulations blurs not only the boundary between public and private. It also blurs the traditional distinction between hard and soft law, because the hard law is not the only legitimate source of authority. An alternative to a binary distinction between hard and soft law has been developed by Ahrne and Brunsson (2004, 173). The authors have introduced a spectral view of the law and consider rules according to their hard- or softness. To differentiate if a law is softer or harder, the authors have developed six organizational elements, which are used by organizations to conduct rule setting: membership, management's right to information, the right of sanctioning, the monopoly position in rulemaking, the ability to accumulate resources, and the organizational structure to enhance stability. The harder a rule, the more categories are fulfilled, the softer a rule the fewer categories are fulfilled. In the authors' view, nation-states law is one example of a hard rule. To avoid the distinction between hard and soft law, this study understands the different collected documents in the spectral view of Ahrne and Brunsson as soft law documents, which are harder or softer.

To understand the power of soft regulations and soft governance, Sahlin and Wedlin (2008, 232) explain that "authority is not predefined in the relationship between regulated and

regulating. But must be built into each governing relationship” (Sahlin and Wedlin 2008, 232). In this regard, Alasuutari and Qadir (2014) have developed the framework of epistemic governance to analyze how local actors exercise power to gain authority. In detail, epistemic governance provides an analytical tool to understand how actors influence and convince each other. Similar to Scandinavian institutionalism also epistemic governance puts its focus on local actors.

### **3.3. Epistemic Governance**

The concept of epistemic governance (Alasuutari and Qadir 2014 and 2016) has been developed within a research body of domestication (Alasuutari 2009). It is broadly classified as part of sociological institutionalism and draws on world culture and world polity literature.

According to the world culture theory, an expanding rational organizational culture has developed an isomorphic institutional environment. The isomorphic- looking institutional environment enables the diffusion of ideas, models, policies, and trends (Meyer et al. 1997). One outcome of the spread is the synchronization of different nation-state policies. In this regard, Alasuutari (2016, 51) argues that there needs to be a common ground for synchronized ideas, and values. Different nation-states tend to synchronize their actions by introducing a new politics or discussing a new idea. Alasuutari and his research group have studied how global ideas are domesticated in a certain nation-state context.

The core of the domestication research and research on epistemic governance relies on the comparative study of national parliamentary debates. Nevertheless, isomorphism does not mean that nation-states simply copy international policies or the policies of other states. Instead, they domesticate a policy by changing, transforming and adjusting it. One outcome of the domestication process is that the domesticated policy tends to be labeled as a unique national action. Power is handled in the process of domestication mainly through epistemic governance. In detail, actors convince and influence each other by working on each other's perception of reality. The epistemic governance approach supposes that mechanisms and techniques, used to convince other actors, are “rooted in modern selves as an imagery of society” (Alasuutari, Qadir 2016, 635). These imaginaries are the imaginary of hierarchy, the imaginary of progress and the imaginary of competing blocs (Alasuutari and Qadir 2016).



Instead of introducing a new theory about power, Alasuutari and Qadir draw strongly on Foucault's contributions to power and aim to focus on the actor-environment relations, where power is working. In their perspective, epistemic governance works in three dimensions — the actor's perception of reality, her identifications, and her norms and values. The three dimensions cover the questions of "what is the environment, who are the actors and what is virtuous or acceptable" (Alasuutari and Qadir 2014, 72). Each of the three dimensions contains a paradigmatic, and a practical aspect of epistemic work. Furthermore, epistemic work operates simultaneously in all three dimensions, because the social environment, identification, and norms and values are closely intertwined.

Cases which have been analyzed with epistemic governance are, for example, the dynamics of the tobacco policy in Norway and Finland (Hellman et al. 2016) and the spread of the children Ombudsman to different national contexts (Alasuutari et al. 2015).

## **4. Data and Methodology**

In the field of animal transportation by air, animals are subject to rules and guidelines. To explore which soft law documents regulate the transport of animals, this thesis is designed as a case study. On the one hand, international and regional agreements have been analyzed. On the other, the documents of the airline Lufthansa have been used. The data have been analyzed with qualitative content analysis. This chapter is divided into different parts. In the first part, the collected data are described in more detail and the second part the data collection process gives an overview why the different documents have been chosen for this study. In the third part, the method of the analysis is described, and in the fourth part the data coding is explained. Lastly, the fifth part of the chapter gives ethical concerns and limits of this study.

### **4.1. Data**

28 documents have been used in this case study. Firstly, international and regional agreements about the transportation of animals by air have been collected. In detail, these documents are: (1) the *Regulation 1/2005 on the protection of animals during transport and related operations and amending Directives 64/432/EEC and 93/119/EC and Regulation (EC) No 1255/97* by the European Union (in the following EU Regulation 1/2005), (2) the *Convention for the Protection of Animals during International Transport (Revised)* of 2003

by the Council of Europe (in the following COE Convention), (3) *Chapter 7.4 of the Terrestrial Animal Health Code* by the World Organization for Animal Health (in the following OIE Terrestrial Animal Health Code) and (4) the *Live Animal Regulations* published by the International Aviation Transportation Association (in the following IATA Live Animal Regulations). The oldest document is the COE Convention of 2003. The newest agreement is the IATA Live Animal Regulations of 2016.

Secondly, documents published by Lufthansa have been collected. These documents are customer information sheets about the transportation of animals and the Animal Lounge; Lufthansa websites about the transportation of animals; news articles; the general terms of conditions of the Animal Lounge, and the General Conditions of Carriage (Passengers and Baggage); the Lufthansa Shipper's Certificate; and six Lufthansa sustainability reports. All documents have been published between 2006 and 2017.

An overview of the four international agreements and the 24 Lufthansa documents can be also found in Appendix I.

#### **4.1.1. The EU Regulation 1/2005**

In 2005 the European Union passed Regulation 1/2005 to set rules in the field of animal transportation. All 28 member states enacted Regulation 1/2005. In contrast to a European directive, an EU regulation is a binding legal document of the European Union. In other words, the EU member states are forced to implement the regulation without large interpretation and without considerations of national variations. Nevertheless, the regulation ensures that it “shall not be an obstacle to any stricter national measures” to improve “the welfare of animals during transport” (Article 2, point 3). In this case study, the EU Regulation 1/2005 is the hardest of the 28 soft law documents.

The Regulation 1/2005 sets rules for the commercial transport of animals, by land, water, and air into and inside the European Union. The directive only concerns animal transports which are conducted as an economic activity. Noncommercial and non-industrial transports are hence not covered by the regulation. According to Article 2, animals are defined as “live vertebrate animals.” In general, the regulation clarifies that means of transport contains “road or rail vehicles, vessels, and aircrafts.” In addition, the document contains a special point about the air transport.

In the field of animal transportation by air, the regulation has a narrow legal scope, because it focuses only on the commercial and industrial transport of animals. The transport of privately owned animals, for example, is not classified as a commercial transport, and hence not covered by Regulation 1/2005.

Furthermore, Regulation 1/2005 is not designed to set detailed rules for the transportation of animals by air. Instead, it regulates the industrial transport of agricultural animals, which is managed mainly by land. With a similar objection, the European Association for Zoo Animals (short EAZA), for example, clarified in 2010 that the „current animal transport legislation (Regulation 1 /2005) is designed with agriculture in mind and it is disproportionate to apply the same rules to zoos, which transport vastly fewer animals” (EAZA 2010).

#### **4.1.2. The European Convention for the Protection of Animals during International Transport**

The Council of Europe agreed on the European Convention for the Protection of Animals during International Transport (Revised<sup>1</sup>) in 2003. The convention is a multilateral agreement for members of the Council of Europe.

The Council of Europe is an international organization, founded in 1949 and has currently 47 member states in the wider European region. The Convention has been ratified by 12 members, among them also Germany. Another 8 members signed the convention, but have not ratified it yet, among them also the European Union (COE 2017). Similar to the structure of Regulation 1/2005, the document contains general principles on the transportation of animals, which concern the transport by water, land, and air. Additionally, Article 30 makes special provisions about transport by air. Animals protected by the convention are similar to the European Union regulation “all vertebrate animals” (Article 2). Also, the COE Convention is designed to regulate the commercial or industrial transport of animals. However, it also states that a few articles (4 and 9 paragraphs 1 and 2 a, and c) apply to all forms of transports.

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<sup>1</sup> The note *Revised* indicates that the Convention of 2003 has replaced an earlier convention from 1968, which entered force in 1971.

### **4.1.3. Chapter 7.4. of the OIE Terrestrial Animal Health Code**

The Terrestrial Animal Health Code created by the World Organisation for Animal Health (OIE) provides general guidelines on the treatment of animal health and lists in chapter 7 (animal welfare) one point (7.4) on the transportation of animals by air. Point 7.4. is composed of 11 subitems.

In general, the Terrestrial Animal Health Code aims to give “standards for the improvement of animal health and welfare and veterinary public health worldwide” and is designed for veterinary authorities (OIE 2018). The World Organisation for Animal Health has been established 1924. The organization was called Office International des Epizooties which also explained the abbreviation OIE. Only in 2003, the organization changed its name to the World Organisation for Animal Health. Currently, 181 nation-states are members of the OIE. Already in 1968, the first Terrestrial Code was developed by OIE specialists and experts in veterinary science (OIE 2014). In spring 2017, the OIE General Session agreed on the 85<sup>th</sup> edition of the Terrestrial Animal Health Code. This study uses the updated edition of 2011.

According to Chapter 7.4. of the Terrestrial Animal Health Code (preamble), the provisions are designed for the transport of “domesticated animals: cattle, buffaloes, camels, sheep, goats, pigs, poultry and equines.” Additionally, they are “largely applicable to some other animals, e.g. deer, other camelids and ratites.” Also, the chapter contains general provisions, container requirements, and the hygiene provisions.

### **4.1.4. The IATA Live Animal Regulations**

The IATA Live Animal Regulations are an internationally developed manual for the transportation of animals by air. Every year an up-to-date version of the manual is published by the International Aviation Transportation Association. The first Live Animal Regulations were published in 1965 (IATA 2017). The manual has been updated ever since. For this study, the 42<sup>nd</sup> edition of the year 2016 has been used.

IATA is an international organization, consisting of airlines all around the world. Its mission is to guarantee international standards in the field of aviation. The IATA Live Animal Regulations is a manual, which is directly used by the airlines. The manual lists specific rules of member airlines about the transportation of animals. (IATA 2016, 31-64).

It, hence, also includes provisions of Lufthansa about the transport of animals. Additionally, the manual lists member states' provisions (see Chapter 2). The chapter also contains the main points about the transport of animals in Germany and the European Union, which have both recognized the IATA Live Animal Regulations.

In general, the manual includes general provisions, handling procedures, container requirements, commonly asked questions, divergent regulations for the transport of laboratory animals, as well as a copy of the CITES agreement, and the CITES Guidelines for the Non-Air Transport of Live Wild Animals and Plants. The Live Animal Regulations do not distinguish between industrial and non-industrial transportation of animals. However, it contains separated rules for the category of lab animals, which have not been considered in this study.

#### **4.1.5. Lufthansa Documents**

The airline Lufthansa has been founded in 1926 and served during the German separation as the West German national airline. In 2017, Lufthansa owned 10 subsidiaries, among them Lufthansa Cargo. The commercial transportation of animals is mostly handled via Frankfurt Airport. While the passenger airline Lufthansa handles the transportation of privately owned animals, as pets and service animals, Lufthansa Cargo deals with the commercial transport of animals, as well as the transport of unaccompanied privately owned animals.

The data contain 24 pieces of customer information sheets, and websites containing customer information, news articles, general terms of conditions of the Animal Lounge and the General Conditions of Carriage (Passenger and Baggage), the Lufthansa Shipper's Certificate, and six sustainability reports of the years 2006-2010 and 2015.

The majority of the collected customer information sheets and websites provides information for private passengers, who intend to fly with their pets. However, one document focuses also on the organization of the Animal Lounge. For example, requirements for traveling with pets in the cabin and in the hold are listed. Two customer information sheets deal exclusively with the transport of horses.

The collected news articles cover the topics of the transport of zoo animals, the transport of horses, the routines inside the Animal Lounge at Frankfurt Airport, and the transport

prohibitions for laboratory animals. The oldest article has been published 2010; the newest in March 2017.

The General Conditions of Carriage (Passengers and Baggage) cover the issue of transporting service animals and emotional support animals in the cabin. The general terms of conditions of the Animal Lounge provide comprehensive rules for the handling of animals on the ground before they enter the aircraft.

The Lufthansa Shipper's Certificate is a document every animal needs to be accompanied with. It contains information about the animal, the owner, and the journey, and food, and water provisions.

Lastly, in the six collected sustainability reports, the issue of animal transports is a minor topic. The reports serve as a platform of Lufthansa to promote efforts in topics related to sustainability and environmental protection. In this regard, the reports have paragraphs about the transport of animals in the section of environmental support.

## **4.2. Data Collection**

All international agreements are available in English, and with an exception of the 2016 version of the IATA Live Animal Regulations, they are also available for the public and have been collected from the Internet. The IATA Live Animal Regulations have been provided by Finnair Cargo.

During the data collection process, special attention had been paid to the relevance of the international agreements for Lufthansa as a local actor. Lufthansa and the Lufthansa Cargo, with headquarters in Germany, are multinational companies which direct their operations from Europe. Thus, two of the four international agreements are regional agreements of the European Union, and the wider European region. The other two agreements cover the whole globe. Regional agreements about the transportation of animals from America, Africa or Asia have not been considered in the data collection process because they are not relevant for Lufthansa.

Before collecting data from Lufthansa, I gained an overview of the companies' practices of the transportation of animals and asked Lufthansa Cargo for further information. The service team informed me by email that:

„In general, our work is guided by the IATA Live Animals Regulations. The Regulations also list Lufthansa’s rules in the section Carrier Regulations. Lufthansa’s and Lufthansa Cargo’s work processes of the transport of animals have been specified in different operating instructions, which are only relevant in their specific area. Consequently, we cannot provide you a single „manual“, which covers all the aspects of the transport of animals” (Lufthansa Service Team, 17.08.2016).

Using this information as a point of departure, I gained an overview which areas of Lufthansa and Lufthansa Cargo handle the transport of animals. Afterward, I collected a variety data from the internet. All documents have been published either in English or in German. Since I noticed small differences in the translations, I used whenever possible the original German version.

### **4.3. Method of Analysis**

I have used a qualitative content analysis as a method of analysis. According to Krippendorff (2004, 18) content analysis is “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.” The author, further, clarifies that content analysis does not only refer to the analysis of written texts. Instead, the method can be used for “art, images, maps, sounds, signs, symbols and even numeric records may be included in the data” (Krippendorff 2004, 19). This is what he understands as other meaningful matter in the definition. All the collected data of this study are written documents. However, the documents also contain symbols and tables, which have been considered in the coding process.

Nevertheless, a content analysis does not only summarize the content of a text to answer a research question. In qualitative content analysis, the interpretation of a content or meaning is important, because the meaning of a text is not predefined. Therefore, the content always needs to be interpreted by the researcher. In this regard, Krippendorff (2004, 22-24) continues with six main features of texts. Firstly, they have no objective. The reader makes sense of the text. Secondly, they do not have single meanings. A text can be read in many different perspectives. Thirdly, the meanings invoked by texts need not be shared. The interpretations of a text do not need, and should not be rooted in a “common ground” of understanding (Krippendorff 2004, 23). It would reduce the content analysis to a method that recalls

commonly accepted meanings. Fourthly, meanings speak to something other than the given texts. Texts provide “information”, “invoke feelings” and can “cause behavior changes” of the reader (Ibid.). Fifthly, texts have meanings relative to particular contexts, discourses, or purposes. Different scientific disciplines set, for example, a particular context to interpret a text. Sociologists, linguists, and economists would interpret a text in a different way, according to their discipline. Sixthly, the nature of texts demands that content analysts draw specific inferences from a body of texts to their chosen context. Using content analysis, the researcher uses the content of a text to answer a research. She makes interferences between the text and the research question, which sets a context to analyze the content.

Qualitative content analysis can be divided into different branches. According to Hsieh and Shannon (2005), there are conventional content analysis, directed content analysis, and summative content analysis. Conventional content analysis is used when the researcher cannot draw on existing studies and theories to answer the research question. The coding does not follow predefined theoretical categories and “categories and names flow from the text” (Hsieh and Shannon (2005, 1279). In directed content analysis, in contrast, categories do not develop from the text, but theoretical concepts are used to develop categories. Lastly, the summative content analysis starts with counting keywords in the text. Afterwards, the usage of the counted words in the text can be explored. Hsieh and Shannon (2005, 1283-1284) refer to (Holsti, 1969) and clarify that a “summative approach to qualitative content analysis goes beyond mere word counts to include latent content analysis. Latent content analysis refers to the process of interpretation of the content.”

Nevertheless, the three approaches should not be considered as strictly separated from each other. In this regard, Margrit Schreier (2014, 171) points out that qualitative content analysis is “flexible” and concept-driven and data-driven categories should be combined in one coding frame. Concept-driven categories are categories which are deduced from theories. Data-driven categories are categories which are developed from the text.

#### **4.4. Data Coding**

To code the data, the software program called MAXQDA has been used. It provides tools to use qualitative and mix data methods and has been developed to organize a larger amount of data. The coding of the data is a central task in the qualitative content analysis because the organization of data in different categories is the foundation of the later empirical analysis.



According to Schreier (2014, 174), qualitative content analysis follows systematic steps which are summarized in the Box 12.1. The points 3., 4., 5., and 6. concern the process of data coding.

**Box 12.1 Steps in Qualitative Content Analysis**

1. Deciding on a research question.
2. Selecting material.
3. Building a coding frame.
4. Segmentation.
5. Trial coding.
6. Evaluating and modifying the coding frame.
7. Main analysis.
8. Presenting and interpreting the findings.

Four of the eight steps are concerned with the coding of the data. I will explain the points 3-6 in more detail because they focus on data coding in qualitative content analysis.

After the research question has been chosen (1) and the data has been collected (2), a coding frame must be developed (3). The coding frame is the basis of the analysis. The coding frame consists of at least one category and two subcategories (Schreier 2014, 174). The different categories can be concept-driven or data-driven categories. While concept driven categories are built on the basis of a theory, data-driven categories develop from the similarities between the different documents. Afterwards, the data need to be segmented, according to the coding frame. Segmentation (4) means to select data based on the categories in the coding frame. The data are then divided into units, according to each category (Ibid., 178). At the trial coding stage (5), the data are coded, according to the coding frame and its different categories. Afterward, the coding categories are reviewed and modified (6). For example, overlapping categories or categories that are used interchangeably might be renamed, merged or deleted (Ibid., 179). Then the data need to be coded again, according to the modified coding frame.

To build the coding frames as suggested by Schreier, I first arranged the different theoretical concepts according to the three research questions. Since I used two different theoretical concepts to answer the first research question, I decided to organize the analysis in four parts. The first research question will be answered in two parts of the analysis. The second and the third research question are each answered in one part of the analysis. According to the four different parts of the analysis, I developed four different coding frames. While the first two

coding frames contain concept-driven categories, the other two coding frames include data-driven categories. Afterwards, I segmented the data and started the coding. During the coding, I had to modify categories and subcategories, especially in the third and the fourth coding frame. Similar to the problems Schreier described, some of my categories overlapped. Consequently, I had to minimize overlaps by merging and renaming different subcategories.

In the perspective of Hsieh and Shannon (2005), the first two coding frames are part of directed content analysis, while coding frame 3 and 4 are part of conventional content analysis. However, the first and the second coding frame contain also the counting of keywords, which are interpreted with the help of the theoretical concept. Therefore, they can be seen as a combination of summative content analysis and directed content analysis.

The categories of the last two coding frames have been developed from the data. To interpret the categories an inductive approach has been used. After I had developed the coding frames from the text, I looked for theoretical concepts to interpret the categories.

The four different coding frames can be found in Appendix II. Page 29, further, contains a table that links the four coding frames with the research questions, the different part of the empirical analysis, and the theoretical concepts.

#### **4.5. Limits of the Study and Ethical Considerations**

Due to the public availability of all documents, there are no ethical concerns related to this study. Not one of the collected documents contains confidential information. Thus, I did not need to obtain the consent of the institutions, which published the document.

The limits of this study also refer to the open and public character of the data. Some of the Lufthansa documents have a strong marketing orientation. Direct access to the airline to conduct ethnographic research and interviews would provide valuable background information about the internal practices of the transportation of animals.

I contacted Lufthansa to gain additional information and documents about its practices of the transportation of animals. Unfortunately, the airline refused to provide further information or internal documents. Lufthansa, further, refused to provide an older copy of the IATA Live Animals Regulations for my research, although the manual can be bought online. To get the IATA Live Animal Regulations free of charge, I continued to contact other airlines, for

example Finnair, Air Baltic, Turkish Airlines and SAS. With an exception of Turkish Airlines, all other airlines responded to me and were willing to help. In the end, I got the manual from Finnair.

According to Taylor (et al. 2015, 50) researchers in social sciences “usually gain access to organizations by requesting permission from those in charge.” These persons are called gatekeepers. Taylor continues by noting that gatekeepers need to be convinced that the research “will not harm their organization” (Taylor et al. 2015, 50). Although I highlighted the benefits of my study for Lufthansa, the airline was not willing to cooperate with me. All officials I contacted acted as gatekeepers to protect the company’s internal information from my research.

## **5. Empirical Analysis**

The empirical analysis is organized in four parts. Firstly, soft governance (Mörth 2004) in the field of animal transportation by air will be identified by analysing cross-references between the different soft law documents. Secondly, the framework of epistemic governance (Alasuutari and Qadir 2014) is used to explore how Lufthansa exercises power to position itself as a professional expert in the field of animal transport. The coding frame of this part of the analysis consists of keyword counting and categories, which have been taken from the theory. Thirdly, by comparing the different documents, I identify a template (Sahlin and Wedlin 2008; Sahlin-Andersson 1996) that is used to transport animals by air. Lastly, the fourth part of the analysis will explore how Lufthansa modifies the rules of international agreements for its own purpose. These variations follow the editing rules, adding an internal rule to the existing guidelines (Røvik 2007, 2016), as well as editing time- and space-bounded features of a rule (Sahlin-Andersson 1996; Sahlin and Wedlin 2008). The coding frames of the last two parts have been built with the help of textual comparisons of the different documents. The table below summarizes the different parts of the analysis according to the research question, the theoretical concept, the data and the method.

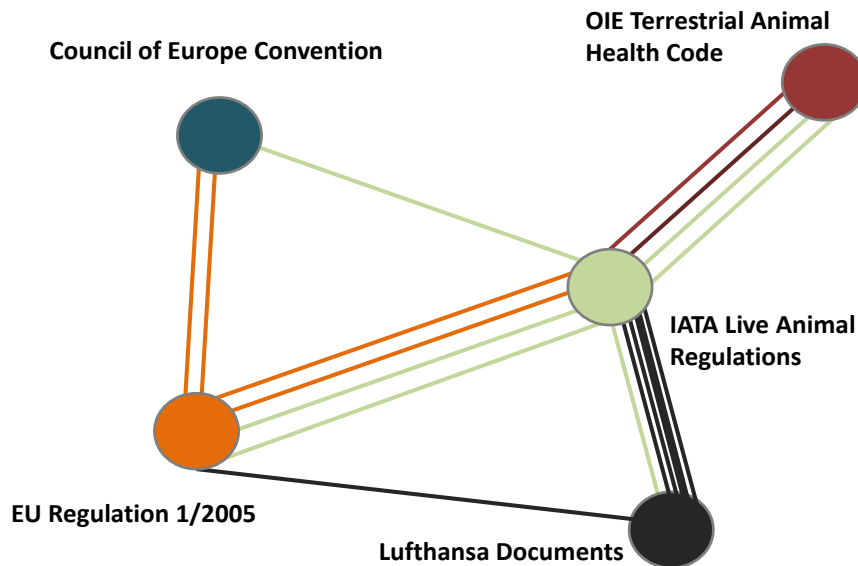
	<b>Research Question</b>	<b>Theory</b>	<b>Data</b>	<b>Codes</b>
<b>Analysis part I</b>	<i>How is governance practiced in the field of animal transportation by air?</i>	Soft law governance	4 international agreements, 24 Lufthansa documents	Coding frame I
<b>Analysis part II</b>		Epistemic governance	24 Lufthansa documents	Coding frame II
<b>Analysis part III</b>	<i>How is the transportation of animals organized in the collected soft law documents?</i>	Standard as a template	4 international agreements, 24 Lufthansa documents	Coding frame III
<b>Analysis part IV</b>	<i>How Lufthansa modifies and uses guidelines of international agreements?</i>	Editing rules, editing the context of a rule and adding parts to a rule	4 international agreements, 24 Lufthansa documents	Coding frame IV

## 5.1. Soft Law Governance in the Transportation of Animals by Air

On a macro level, governance in the field of animal transportation is practiced as a soft law governance. The increasing usage of soft regulations is constantly challenging traditional concepts of authority and sovereignty (Sahlin 2008, 232; Mörth 2014). There are two central features of soft laws that construct governance. They are non- hierarchical and non-binding. Based on these two features, Sahlin-Andersson (2004, 130) identifies the formation of “governing networks” which can contain states, international organizations, business corporations, and non-governmental organizations.

In the field of animal transport, different organizations have produced different soft regulations. There are five different organizations behind the altogether 28 soft law documents, which have been analyzed for this study. None of these organizations are primarily concerned with the transportation of animals by air. To identify networks, I counted the references between the different soft law documents about the transportation of animals, instead of counting references between the different organizations and institutions.

All documents set rules about the transportation of animals and constitute a network of cross-references. The graphic below shows direct cross-references appearing between the 28 documents. The Lufthansa documents have been considered as a whole group of documents:



While the EU Regulation 1/2005 makes 2 direct references to the COE Convention and 2 references to the IATA Live animal regulations, it does not make any reference to the Terrestrial Animal Health Code of the OIE. The COE Convention, interestingly, does not make any direct reference to one of the international agreements or to Lufthansa. The OIE Terrestrial Animal Health Code, thirdly, refers 2 times to the IATA Live Animal Regulations, but not to any other soft law document. Lastly, the IATA Live Animals Regulations make references to all other international agreements. While the Live Animal Regulations mention the COE Convention only once, it makes 2 references each to the EU Regulation 1/2005 and to the OIE Terrestrial Animal Health Code. In addition, it also refers to the local actor Lufthansa one time. Lastly, in the Shipper’s Certificate, Lufthansa refers to the EU Regulation 1/2005. Besides, the airline constantly refers to the IATA Live Animal Regulations. The strong lines between the Lufthansa documents and the IATA Live Animal Regulations illustrate that Lufthansa makes altogether 19 references the IATA Live Animal Regulations.

Through the non-hierarchical and non-binding character of the soft law documents in the field of animal transportation, cross-referencing is an important tool to produce authority of

international soft law documents. The network of cross-references creates a mode of soft governance, where the acceptance of one soft law document increases with a reference to another soft law document. Vice versa, the acceptance of a document that is used as a reference increases at the same time. In this way, cross-references between two documents boost the position of both documents.

The illustration shows that all analyzed soft law documents refer to each other, in a way that a network structure can be identified. Within this network most often the IATA Live Animal Regulations appear as a reference and less often the COE Convention and the EU Regulation 1/2005 are used as a reference. The Lufthansa documents refer 19 times to the Live Animal Regulations. In contrast, the COE Convention does not make any reference to the IATA Regulations. In addition, the Live Animal Regulations make the most references to the other soft law documents. It refers to all documents, and most often to the OIE Terrestrial Animal Health Code and to EU Regulation 1/2005. Consequently, the IATA Live Animal Regulations hold a central position inside the network, because it refers to all other documents and all documents also refer to them. It can be concluded that the IATA Live animal Regulations are the most influential soft law document within the network of soft governance.

## **5.2. Epistemic Governance of Lufthansa**

*“Ever since Lufthansa and Lufthansa Cargo submit to tight restrictions when transporting live animals. The IATA Live Animals Regulations, applying also in Germany, depict minimum conditions for Lufthansa and are exceeded by internal quality measures. Besides, Lufthansa carefully observes national and international provisions” (Lufthansa, LHN1 2010).*

On a micro level, the local actor Lufthansa practices governance in the shape of epistemic governance. With the help of epistemic governance, Lufthansa convinces the public to be a professional expert in the business of animal transportation.

Since qualitative content analysis does not focus on the relationship between audience and speaker to draw conclusions about the meaning of a text as, for example, discourse analysis, the audience of the Lufthansa documents is the broadly defined as the public. All Lufthansa documents are open to the public and, consequently, different actors of the public can be influenced by Lufthansa. The public is composed of all actors, who can access the documents

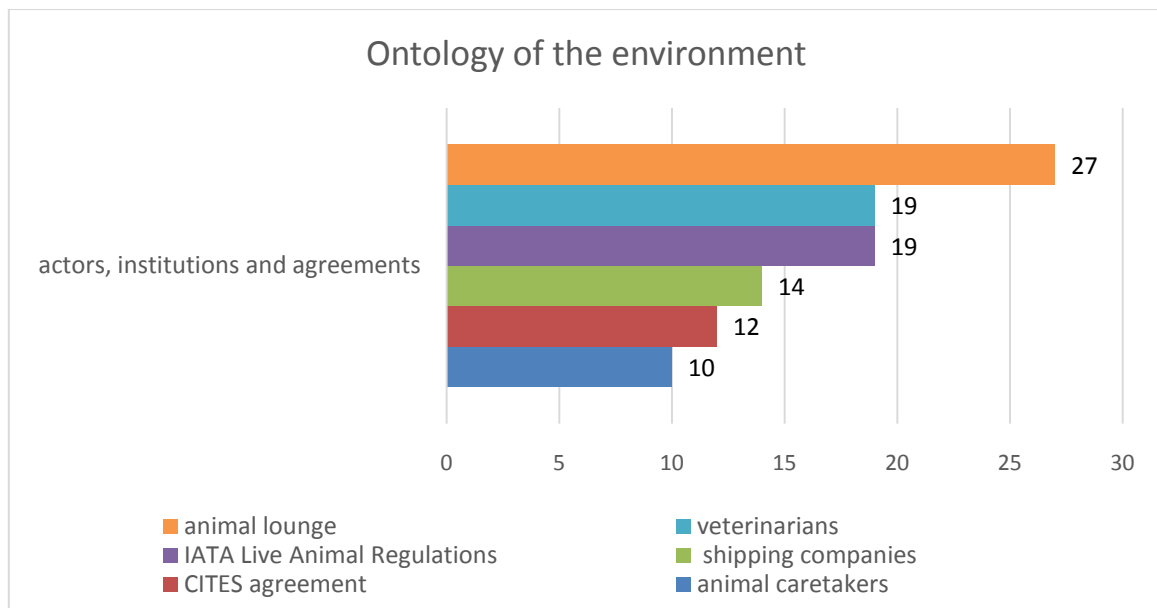
of Lufthansa. These might be customers, animal rights activists, researchers, journalists, competitors and business partners.

According to Alasuutari and Qadir (2014: 79), power works best when its mechanisms remain hidden. The authors refer here to Michel Foucault. As a result, actors try to convince each other by working on their perceptions of the social world without openly exercising power in the shape of force or pressure. To influence other actors, Alasuutari and Qadir (2014) identify three spheres of epistemic work – the ontology of the environment; the identification of actors; and norms and ideals actors believe in. The ontology of the environment influences the environment of the actor, by asking *what is the environment?*. The second sphere, aims to influence the identity of an actor, by asking *who is the actor?*. The last sphere works on the values and norms actors believe in, by asking *what kind of beliefs do you have?*. In order to be successful, epistemic governance works at all three spheres at the same time.

Each of the spheres has a paradigmatic and a practical dimension. While the paradigmatic dimension refers to epistemic premises and basic assumptions, the practical dimension refers to the actual processes of influencing. Often, basic assumptions in the paradigmatic dimension are not questioned, but used to make convincing arguments in the practical dimension. In this sense, knowledge paradigms about the world remain untouched.

### **5.2.1. Ontology of the Environment**

To influence the environment, Lufthansa makes constant references to internal and external actors, institutions and agreements within the field of animal transport by air. On the one hand, Lufthansa refers to its own internal institutions and actors which have been specialized in the transport of animals. These are the Animal lounge and animal caretakers who work at the Animal lounge. On the other hand, the airline makes references to other local and international actors, institutions, and agreements. These external references concern animal caretakers, veterinarians, the CITES agreement, the IATA Live Animal Regulations and shipping companies. The chart below shows a distribution of references to actors, agreements, and institutions:



Firstly, Lufthansa refers 27 times to the Animal Lounge. In detail, the keywords “*Animal Lounge*”, and “*Tierstation*” (English: animal care facility) have been counted as direct references. The animal terminal at Frankfurt Airport is used as a central institution for the commercial transport animals, even though a big number of the animals, Lufthansa transports, are not transported via the Animal Lounge. The Animal Lounge is part of Lufthansa Cargo and can be seen as an institution within Lufthansa, which has been specializing in the transportation of animals. However, also other airlines and air carriers use the terminal to organize animal transports to and from Frankfurt Airport (see GTC-AL 2013, point 13,).

Secondly, Lufthansa makes 19 references to veterinarians. In detail, the keyword “*Tierarzt*” (English: veterinarian), “*Amtstierarzt*” (English: official veterinarian) and the adjective “*tierärztlich*” (English: veterinary) have been counted. Veterinarians appear in different contexts within the Lufthansa documents. Most often, Lufthansa refers to the veterinarians who work in the Animal Lounge at Frankfurt Airport. These veterinarians are not part of Lufthansa but are employed by the veterinary office of the responsible county. In addition, the airline also refers to veterinarians who do not work at Frankfurt Airport. For example, the airline informs customers, who want to travel with pets that the usage of tranquilizer should be discussed with “*your veterinarian*” (LH-CI2 2017). In another example, Lufthansa reports that during the transport of 65 horses from Germany to Iran, “*professional horse keepers of the shipper Agricon-Logistic and a veterinarian have been on board of the aircraft*” (LHN4 2014).



Thirdly, the airline refers 19 times to the IATA Live Animal Regulations. The term “*IATA Live Animal Regulations*” has been counted. The reference is used in different contexts. For example, a reference to the Live Animal Regulations has been made to inform customers about the requirements of the transport container, (LH-CI1 2017; LH-CI2 2017). In addition, references to the IATA Live Animal Regulations appear in official documents, as the Shipper’s Certificate and the General Terms of Conditions of the Animal Lounge.

Fourthly, Lufthansa makes 14 references to shipping companies. The keywords “*Spediteur*” (English: carrier), “*Spedition*” (English: Forwarder company) and “*Transporter*” (English: hauler) has been counted. Shipping companies have been specializing in the transport of animals by air. They organize all kinds of animal transports and appear often in Lufthansa news articles, which give information about more complicated animal transports. For example, one news article highlights that shippers have been involved in the organization of a transport of two Persian fallow deer to a zoo in Israel (LH-N7 2017). In addition, Lufthansa makes references to shipping companies to give customers a specialized contact for further questions. For example, one customer information sheet states:

*Please “contact your local Lufthansa office or a shipper, which has been specializing in the transport of animals to gain detailed information about the price of an animal transport” (LH-CI1 2017).*

Fifthly, Lufthansa makes 12 references to the CITES agreement. The keywords “*Washingtoner Abkommen*” (English: Washington Convention) and “*CITES agreements*” have been counted. Lufthansa constantly uses the CITES agreement to stress its efforts in species conservation and animal protection. For example, Lufthansa guarantees not to transport animals that are classified as endangered, according to Appendix I of the CITES agreement (LHSR 2008; LH-CI1 2017).

The CITES agreement sets rules about the trade of wild animals and plants. It classifies species and animal groups “*according to how threatened they are by international trade*” (CITES 2017). Although the CITES agreement also contains specific rules about the transport of animals in its Guidelines for the (non) Air Transport of Live Wild Animals and Plants, Lufthansa does not mean the Guidelines for the transport.

Sixthly, Lufthansa makes 10 references to animal caretakers. In detail, the counted keywords have been “*Pfleger*” (English: carer), “*Tierpfleger*” (English: (zoo) keeper), and “*Betreuer*”

(English: caretaker). Mostly, the airline refers to animal caretakers, which work at the Animal Lounge and are hired by Lufthansa. In addition, Lufthansa also refers to the external animal caretakers who are hired by, for example, zoos or shipping companies.

The references Lufthansa makes to the environment indicate that the airline uses epistemic work mainly on a practical dimension. Lufthansa boosts the authority of internal and external institutions, agreements, and actors in the business of animal transportation, instead of questioning their authority. In this perspective, Lufthansa confirms existing knowledge about the transportation of animals in the paradigmatic dimension and uses it to convince the public of having an influential position in the practical dimension. For example, Lufthansa does not question the paradigmatic knowledge of animal experts. The airline agrees that veterinarians, animal caretakers or specialized shipping companies know best what is good for an animal. The airline, hence, makes references to these experts to underline that animal well-being can be best guaranteed by professional experts. In the same perspective, Lufthansa does not question the basic assumption that international agreements provide rules that need to be followed to be successful in the transportation of animals. Instead, the airline refers to them to highlight that it follows these agreements.

### **5.2.2. Actors and Identifications**

The second sphere of epistemic work concerns the identification of the actor. Alasuutari and Qadir (2014: 75) stress that actor's identities are constructed by their environment and other actors within this environment. In this view, actors can only understand themselves relational to each other.

When transporting animals, Lufthansa uses a human-like language to talk about animals, their environment, and their activities during the transport. This language aims to convince the (human) public that animals are similar to humans and are transported in a similar way as humans. In this view, the public consists of humans because they can read the Lufthansa documents.

Firstly, Lufthansa uses terms taken from the aviation business, gender labels and human ownership categories to name animals. The airline, for example, names animals as: “*unusual passengers*,” “*animal passengers*,” “*animal guests*” or “*customers*” (LHN2 2013). In addition, gender labels appear in the Lufthansa documents. For example, in a report about the transport of two pandas, the two animals have been labeled as “*Mr. and Ms. Panda*” (LHN6

2017). Furthermore, one news article explains that the separation of male and female horses is necessary, because “*the men get edgy*” in the presence of the female horses (LHN3 2013). Lastly, Lufthansa uses human ownership labels to name the animals. For example, animals are described as “*your dog*” (LH-CW6 2017) and “*your pet*” (e.g. LH-CI1 2017; LH-CI3 2017). Ownership categories appear mainly in customer information sheets, about the transport of pets.

Secondly, Lufthansa has borrowed words from the aviation business to depict activities of the animals related to the transportation. For example, at Frankfurt Airport animals are not registered, instead they “*check-in*” at the Animal Lounge (LH-CI4 2017). Furthermore, horses are not transported, instead they “*travel under best conditions*” (LH-CI4 2017) and “*fly first class*” (LH-CI5 2017). Inside the Animal Lounge, the animals “*can relax for a while and stretch their paws*” (LHN3 2017).

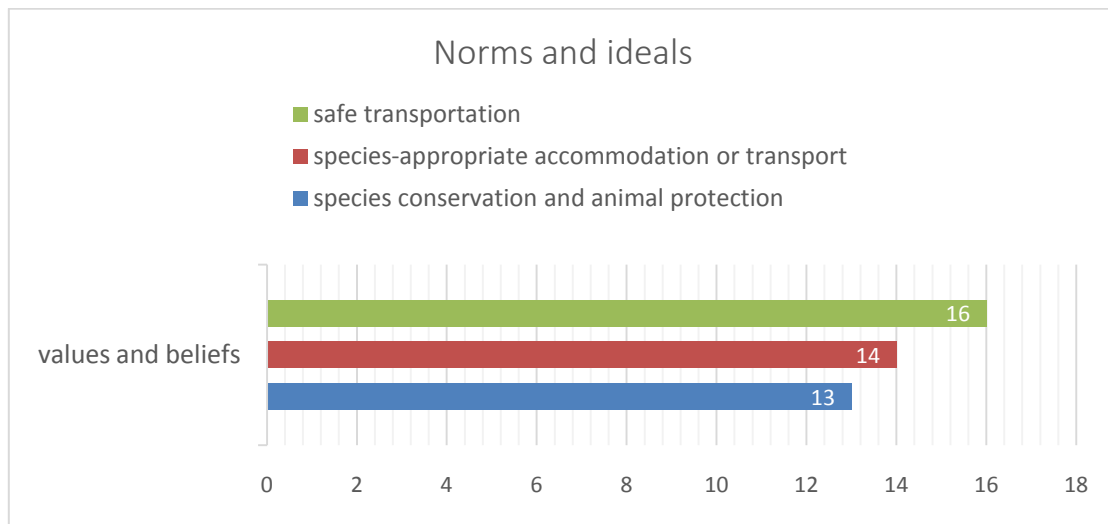
Lastly, also the environment of the transport is described with words taken from the aviation business. The example that animals are transported “*first class*” refers to the environment of the first class that appears in (human) aviation business (LH-CI5 2017). In addition, Lufthansa states that “*the Animal Lounge is designed like a passenger-terminal*” (LHN2 2013). Even the title *Animal Lounge* has been borrowed from passenger lounges, which can be found in almost every airport.

In the paradigmatic dimension, Lufthansa does not question the ability of humans to identify with animals. The airline supports the fundamental assumption that animals are as much like humans that it is possible to use the same words for animals and for humans. In a paradigmatic dimension, Lufthansa uses the language of the (human) aviation business, ownership categories, and gender distinctions to talk about animals, their environment, and their activities. As a consequence, the (human) public gains the impression that Lufthansa transports animals in a way as humans.

### **5.2.3. Norms and Ideals**

Lastly, epistemic governance works on the beliefs and values of actors. According to Alasuutari and Qadir (2014, 76ff.), actors try to justify their views and arguments with good and desirable norms, beliefs and moral principles.

Values and ideals can be found also in the documents of Lufthansa. These values concern the treatment of animals during the transport and are part of Lufthansa’s efforts to protect endangered species. In detail, Lufthansa uses the values of animal protection and species conservation to describe its transport practices, as well as the values of species-appropriateness and safety to convince the public of its expert position. A distribution of references can be found in the table below:



Lufthansa refers to the value of safety (16) to characterize its practices of the transportation of animals. In this regard, the keywords “*Sicherheit*” (English: safety) and the adjective “*sicher*” (English: save) has been counted.

Most often, the term safety is used as a general attribute for the transport and not defined in more detail. For example, a news article about a horse transport from Germany to Iran states that the aircraft landed “*safe and sound*” in Teheran (LHN4 2014). In a few situations, Lufthansa also uses the value of safety with a contextual definition to characterize a safe transport. For example, animal containers are called “*safe*”, when they have an anti-slippery floor (LH-CI3 2017). Safety is a basic principle in aviation and also used for the transport of animals.

Secondly, Lufthansa makes references to animal protection and species conservation efforts when talking about its practices of animal transports. In detail, the keywords “*Artenschutz*” (English: species conservation), “*Tierschutz*” (English: animal protection) and the phrase “*bedrohte Arten*” (English: endangered species) have been counted. Most often, animal protection and species conservation appear as a value to explain, what kind of animals are not transported by Lufthansa. Although also the CITES agreement is used to illustrate that

Lufthansa has restrictions for the transport of endangered animals, direct references to the CITES agreement have not been included in the subcategory which contains keywords for species conservation and animal protection. For example, the sustainability report of 2015 does not make a single reference to the CITES agreement, but highlights that:

*“With Lufthansa Cargo, live cargo flies always species-appropriate and safe. In the interest of the protection of wild animals, the cargo airline, further, does not transport endangered species. [...] So Lufthansa Cargo makes a contribution to animal protection and species conservation” (LHSR 2015, 101).*

Third often, references to a species-appropriate transport or accommodation appear in the Lufthansa documents. Here the keyword “*artgerecht*” (English: species-appropriate) has been counted. The word species-appropriate is used as a general attribute for the transport or the stay inside the Animal Lounge. The quotation above offers already one example, how Lufthansa characterizes its practices of the transportation of animals as “*species-appropriate*” in a general manner. In addition, Lufthansa also labels its transport containers with “*species-appropriate*” and stresses that inside the animal Lounge, “*animals experience species-appropriate husbandry and care*” (LH-CI3 2017).

The paradigmatic dimension of norms and ideals concerns basic assumptions about a good treatment and a good transportation of animals. Lufthansa does not question the assumption that a good human behavior is characterized by an ethical treatment of animals. It is a moral concern to treat animals in a good way. In the practical dimension, Lufthansa introduces three main values that guide the transport of animals by air- safety, species-appropriateness and animal conservation and animal protection.

Lufthansa uses successfully three sphere of epistemic work to convince the public of being a professional expert in the business of animal transportation by air. In all three spheres, the practical dimension of epistemic work is used to influence the public. In the paradigmatic dimension, fundamental assumptions about the animal-human relation remain unquestioned. In detail, Lufthansa refers to a group of external and internal actors, institutions, and agreements to construct a professional environment of animal transports. The airline refers to external actors and agreements of veterinarians, the IATA Live Animal Regulations, the CITES agreement, and shipping companies. References to internal institutions contain the Animal Lounge. The group of animal caretakers belongs to both external institutions of Lufthansa itself.

To construct identification, Lufthansa uses a human-like language to speak about animals in its documents. Reading the documents creates the impression that animals are transported in a similar way as humans.

Lastly, Lufthansa influences the beliefs and values of the public by making references to three values about animal welfare – (1) safety, (2) species-appropriateness and (3) animal protection and species conservation.

### 5.3. A Standard to Manage the Transportation of Animals

In a globalizing world, instead of single ideas, “whole concepts” (Waldorff 2013) or “templates” (Sahlin and Wedlin 2008) circulate between actors and institutions. These templates can be described as a set of different ideas, which explain how the world is working. Templates enable a comparison with others because they act as a benchmark. A standard is one example of a template. In detail, a standard contains rules, about how something should be done (Brunsson and Jacobsson 2000). In the field of animal transportation, the standard is composed of rules which guarantee a successful transportation of animals.

Comparing the analyzed documents with each other, three groups of rules can be identified: transportation requirements, container requirements, and organizational requirements. Together the three groups constitute a standard, which sets a framework for the transportation of animals by air. The following tables summarize the different rules:

#### Transportation Requirements

Air supply	Sufficient temperature	Water and food provision	Clean transport container	Avoidance of tranquilizer	Segregation of animals	Short duration
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#### Container Requirements

Ventilation holes	Isolating material of the transport container	Water container inside the transport box	Leak-proofed and anti-slippery container floor	Space to lie down and stay
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## Organizational Requirements

<p><b>Labeling:</b>          “This way up” and “live animals” label, and feeding and watering instructions, usage of tranquilizer</p>	<p><b>Documentation:</b>          Shipper’s Certificate, and country-specific veterinarian certificates</p>	<p><b>Notification:</b>          Notification to the captain about the position of the animal on board</p>
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### 5.3.1. Transportation Requirements

Firstly, Lufthansa and the international agreements agree to provide the supply of air for the animals during the transportation. For example, the EU Regulation 1/2005 (Additional provisions for transport by air 4.2) states that the transport of animals shall only take place, when “*air quality, temperature, and pressure can be maintained within an appropriate range during the entire journey.*” A similar expression can also be found in the Lufthansa documents. The airline states that animals are transported in the “*ventilated and temperature regulated hold.*” of an aircraft.

Secondly, the all documents make points how to guarantee a sufficient temperature for the animals during the transport. For example, the IATA Live Animal Regulations (Appendix D, 435ff.) contain tables of temperature ranges for most of the species. Cats, for example, have a temperature range between 7-25°C. Goats, in contrast, have a temperature range between 0-25°C. Lufthansa makes temperature relevant references in a general way, as already quoted above- animals are transported in the “*ventilated and temperature regulated hold.*” In addition, Lufthansa recommends avoiding the transport of pug-nosed breeds “*if the temperature at your departure, transfer or destination airport exceeds 27 °C*” (LH-CI2 2017).

Thirdly, with exception of the OIE Terrestrial Animal Health Code, all documents contain the requirement to provide food and water. The COE Convention (Article 20) and the EU Regulation 1/2005 (Chapter III, 2.), for example recommend equally worded that during the transport “*animals shall be provided food and water.*” For Lufthansa, feeding and watering are central practices of the transport of animals. The airline, for example, describes that in Animal Lounge “*animals are examined, feed or walked if necessary*” (LH-CI3 2017).

Fourthly, all analyzed documents refer to cleanliness. They require the use of disinfected and clean containers for the transport of animals. For example, the COE Convention (Article 13, point 4) states that *“animals shall be loaded only into a means of transport which has been thoroughly cleaned and, where appropriate, disinfected.”* Lufthansa ensures that the Animal Lounge *“meets the hygienic and the veterinary medical guideline of the EU.”*

Fifthly, Lufthansa and the international documents agree that the usage of tranquilizer should be avoided and used only in extraordinary cases. The IATA Live Animal Regulations (5.4 Sedation and Euthanasia) and the OIE Terrestrial Animal Health Code (Article 7.4.7) state equally worded that:

*“Experience has shown that there is considerable risk in sedating animals transported by air. Tranquilisers reduce the ability of the animals to respond to stress during transportation [...]”*

Also, Lufthansa states that sedation should not be used during the Lufthansa flights (LH-CI1 2017; LH-CI2 2017).

Sixthly, references about segregation deal with the separation and the grouping animals before the transport. All documents include a variety of conditions to separate or mix animals. Segregation rules aims to avoid injuries and harm. It also has the purpose to reduce additional stress of the animals during the transport. The OIE, for example, lists that animals should be separated in case they are *“different species”*, are *“natural hostile”* to each other, differ significantly in *“size”* or *“age”*, are *“uncastrated males”*, are *“tied and untied”*, *“sexually mature males and females”* and have *“horns and have no horns”*.

The Lufthansa documents also mention a few of the segregation rules. For example, Male and female horses are transported separated from each other (LHN3 2017; LHN4 2014). Furthermore, a customer information sheet states that in animals, which are transported together *“need to be used to live together”* and mature animals need to have a *“comparable size”* in case they are transported together (LH-CI2 2017).

Lastly, with exception of the OIE Terrestrial Animal Health Code, all documents agree that the duration of the transport should be as short as possible. The EU Regulation 1/2005 (Article 22), for example, states more generally that *“a minimum of delay”* should occur during the whole transport, and continues with the expression: *“No undue delay shall occur between the completion of the loading and departure.”* Although Lufthansa does not make



any direct reference to the situation of arrival, the airline ensures that *“animals will be transported to the aircraft shortly before departure”* (LH-CI3 2017).

### **5.3.2. Container Requirements**

One central container requirement is to construct the container with enough ventilation holes. All analyzed documents contain about rule about the ventilation of the container. For example, the EU Regulation 1/2005 clarifies generally that ventilation needs to be ensured during the transportation. Lufthansa and the IATA Live Animal Regulations state that *“transport box must have ventilation holes on at least three sides”* (LH-CI2 2017).

In addition, all documents agree that the container needs to be constructed from a material that protects the animals from extreme heat or coldness. The COE Convention (Article 6, point 6), for example, notes that the container *“shall be constructed and operated so as to protect animals against inclement weather and adverse changes in weather conditions.”* Lufthansa also requires that *“the container material protects the animals from heat and coldness”* (LH-CI4 2017; LH-CI5 2017).

To ensure the provision of food and water during the transport, all documents agree that a food and water container must be affixed inside the container. Lufthansa, for example, clarifies that *“transport boxes for pets must have a water container, which can be refilled for the outside”* (LH-CI1 2017). The OIE Terrestrial Animal Health Code also suggests that the container has *“a facility for the provision of water and possibly food during transportation.”* Nevertheless, the document demands such a construction only for transports which are longer *“longer than six hours.”*

Furthermore, the analyzed documents require that the transport container is anti-slippery and has a leak-proofed floor. To realize leak-proofed and at the same time, anti-slippery floors, the IATA Live Animal Regulations (2016, 206) add to these two requirements that *“absorbent bedding must be provided [...] that is suitable for the species”* and continues that *“straw is unacceptable”* because of possible import prohibitions. Also, Lufthansa states that the pet container must be *“leak-proofed”* and *“furnished with absorbent trays”* (LH-CI2 2017). In the context of horses, the airline, further, highlights that this measure ensures a *“grippy stand for the animals”* (LH-CI3 2017; LH-CI5 2017).

Lastly, all documents agree that an animal must have enough space to stand in a natural position and to lie down. Lufthansa, for example, informs its customers that “*the transport container must be large enough for the animal to stand in its natural position, to turn around and to lie down*” (LH-CI2 2017). This requirement applies also to animals traveling in the cabin without a container. In the cabin, the animal must have enough space to sit and lie down under the seat in front of the passenger.

### **5.3.3. Organizational Requirements**

The international documents and Lufthansa agree that the transport box of an animal must be labelled with the “*Live Animal*” label and a “*This Way Up*” label. Furthermore, the documents suggest that “*food and watering instructions*”, as well as information about the usage of tranquilizers should be attached to the container (IATA Live Animal Regulations 2016, 397; OIE Terrestrial Animal Health Code 2011, Article 7.4.7). Lufthansa makes points about feeding and watering in the Shipper’s Certificate.

The animal needs to be accompanied with two types of documents — a documents about the transport, and documents about health. While the EU Regulation 1/2005 and the OIE Terrestrial Health Code mention only one type, the other documents contain suggestion about both. For example, The COE Convention (Article 7 Planning) makes points about both types of documents and requires a summary of the animal, the owner, and the journey, as well as veterinarian certificates. The Lufthansa Shipper’s Certificate which each animal is accompanied with includes information about the animal, the owner, and the journey. In addition, the airline demands “*health and vaccination certificates and country entry permits*” (GTC-PB 2011).

A specific notification of the captain can be found in three of the five soft law documents. The IATA Live Animal Regulations and the COE Convention require that the captain needs to be informed about the position of live animals inside the aircraft. Reporting about its practices Lufthansa makes a similar expression (LHN3 2017).

To sum up, all analyzed documents agree on transportation, container and organization requirements, whose fulfillment guarantees a successful transport of animals. In the perspective to Sahlin and Wedlin (2008, 231), a template is a frame or target that assesses success. In the field of animal transportation, the application of transport, container and organizational requirements guarantees a successful transport of animal by air. The sum of

the different requirements can be interpreted as a template which is constructed by and has been circulated between the different institutions. Nevertheless, the rules also take the shape of minimum requirements, because their non-fulfillment could kill the animal during the transport. Therefore, success in the field of animal transport could be interpreted as the survival of the animal during the transportation.

#### **5.4. Modifications and Variations of Lufthansa**

While the third part of the analysis (Chapter 5.3) has identified a template that is used to organize the transportation of animals by air, this part of the analysis explores if the local actor Lufthansa further edits guidelines of the international agreements when translating them into its own local environment.

Translation means that “management practices, formal structures, or ideas [...] are changed as they are copied in new contexts” (Bromley and Suarez 2015, 145). Translation can be understood as an editing process that follows certain editing rules. One editing rule concerns context of an idea or rule. When an idea circulates, time- and space-bounded features tend to be excluded. General and abstract ideas circulate easier between institutions than ideas which have been linked to a specific local context (Sahlin and Wedlin 2008, 226).

The second approach to editing rules focuses on the internal organizational structure. Here, the editing is guided by copying, addition, and omission (Røvik 2007 and 2016). In this perspective, “addition means making the idea more explicit and concrete by adding information that is either unclear or not present in the original model” (Wæraas and Sataøen 2013, 3).

Besides agreeing on central requirements about the transport of animals, Lufthansa has also created modifications of the guidelines constructed in the international agreements. In detail, the airline edits rules of the international agreements. The modifications follow the two editing rules. Firstly, Lufthansa edits time- and space-bounded features of a general international guideline. Secondly, Lufthansa adds additional rules when interpreting the international guidelines for its own, internal purposes. The illustrations below summarize four rules, which have been modified by Lufthansa.

### Editing concerning the context of a rule

<p><b>Position of the animal inside the aircraft</b>  <b>International agreements:</b> distance to radioactive material, temperature  <b>Lufthansa:</b> hold, main deck, cabin</p>	<p><b>Prohibition of transportation</b>  <b>International agreements:</b> health and pregnancy  <b>Lufthansa:</b> endangered species, laboratory animals, health</p>
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### Adding a rule

<p><b>Professional care and veterinarian checkup</b>  <b>International agreements:</b> -  <b>Lufthansa:</b> professional care and veterinarian checkup inside the Animal Lounge</p>	<p><b>Animal welfare measures</b>  <b>International agreements:</b> -  <b>Lufthansa:</b> black light areas, climatic chambers, (on the ground), familiar transport environment, white transport container (in the air)</p>
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#### 5.4.1. Editing Concerning the Context of a Rule

Originally, Sahlin-Andersson (1996) highlights that editing concerning the context means that time-space-bounded features are excluded and an idea or rule becomes more generalized. The author takes a bottom-up view when formulating this editing rule. She assumes that a local actor has created an idea, and in order to encourage the circulation of this idea, local features concerning the context are excluded. In the case of Lufthansa, however, this editing rule works vice versa. An international guideline which lacks specific time- and space-bounded features have been edited by Lufthansa according to its local institutional practices. Hence, Lufthansa includes its own time-space specified features and makes the rule more specific and not general.

The requirement that the position of the animal should be defined inside the aircraft appears in the international agreements and in the Lufthansa documents. The international agreements consider the position of the animal inside the aircraft in relation to temperature and a safe distance to radioactive material. The OIE Terrestrial Animal Health Code (7.4.6.) and IATA Live Animal Regulations define the same safe distance between animal containers and radioactive material. For journeys with less than 24 hours duration “*at least 0.5 metre*”

distance should exist. In case of trip longer than 24 hours, the distance should be “*least 1.0 metre.*” In terms of temperature sensibility, the IATA Live Animal Regulations (p. 403) recommend that animals should be located inside the aircraft in a way “*that they will not immediately be affected by local temperatures when the cargo compartment doors are opened.*”

The rule to consider radioactive material and the temperature is general and can be used everywhere. In contrast, Lufthansa does not make any point about the distance of the animal to radioactive material or a position that protects the animal from local outside temperatures. Instead, the airline explains the position of the animal inside the aircraft in relation to its own transportation practices. On passenger flights, animals are located in the “*ventilated and temperature regulated hold.*” On cargo flights “*the position of the animal depends on the size. Large animals are transported on the main deck. [...] Access to the animals is only possible when transported on the main deck*” (LH-C11 2017). In case animals are transported in the cabin, the animal container “*must fit under the seat in front of you*” and must be “*secured with a leash on your seatbelt*” during start, landing, and turbulence (LH-C12 2017). A similar rule applies to service animals which can be transported in the cabin without a container. According to Lufthansa “*the dog fits in the footwell in front of the sea; the dog can sit or lie there lashed; the dog is not allowed to sit on a passenger seat*” (LH-C1W6 2017). Lufthansa has modified the rule by including its own organizational practices. The rule has become more specific because Lufthansa’s practices got included. In general, the variety of conditions Lufthansa uses to locate animals inside the aircraft indicates that the airline has developed specialized practices to transport animals to satisfy a variety of customer demands.

Secondly, the criteria that prohibit the transportation of animals have been modified by Lufthansa. According to the international agreements, the transport of animals is prohibited, when the animals suffer from illness or are pregnant. In this regard, the COE Convention, for example, notes that:

*“Pregnant female mammals shall not be transported during a period at least equal to 10% of the length of gestation before giving birth, nor during at least one week after giving birth.”*

Being in good health is defined in different ways within the international agreements. While the IATA Live Animal Regulations (10.1. Acceptance of live animals) note that “*animals must be in good health*” but do not define what good health means, the COE Convention

clarifies that the animals must be fit for the transport and *“ill or injured animals shall not be considered fit for transport.”* Furthermore, the EU Regulation 1/2005 (p.19) and COE Convention share the point that transport conditions should not *“cause them”* (the animal) *“injury or unnecessary suffering.”* Again the two conditions to exclude animals from the transport do not have any time- or space-bounded characteristic. They concern the body of the animal and can be applied in different environments around the world.

In contrast, Lufthansa includes a variety of prohibition requirements which apply only to Lufthansa’s practices of animal transportation. Also, Lufthansa refers to the criterion of health to prohibit the transport of animals. The airline defines that the Animal Lounge can refuse the acceptance of animals for the transport, *“especially in case they are not fit for the transport”* (GTC- AL 2013, point 5.2 and 12.2). Nevertheless, the prohibition criterion of pregnancy does not appear in any Lufthansa document. Instead, Lufthansa introduces new criteria that forbid the transport. For example, Lufthansa does not transport, *“wild animals [...] whales, dolphins, as well as all endangered species, according to appendix 1 CITES convention on international trade of endangered species”* (LH-CI1 2017). Nevertheless, Lufthansa does not categorically reject the transport of wild animals. Instead, the airline highlights that:

*“Lufthansa Cargo actually supports projects for the reintegration of endangered species into the wild. For example, the transport of the two black rhinoceroses Tsororo and Kalusho from Zoo Frankfurt to Swaziland has been in preparation for months. In May, the animals will be reintegrated into the wild in the Mkhaya Game Reserve in Africa. They will hopefully breed there”* (LHN2 2013).

Furthermore, the airline does not transport lab cats and dogs (LHN1 2010). Lastly, Lufthansa has restrictions on the transport of pug-nosed cats and dogs. Since the animals are sensitive to high temperature and stress, Lufthansa suggests avoiding their transport *“in case the temperature at departure, transit or destination airport exceeds 27° C”* (LH-CI2 2017).

#### **5.4.2. Adding a Rule**

Apart from following international rules, the Lufthansa documents also introduce internal rules to organize the transportation of animals. Firstly, Lufthansa offers professional care and a health checkup, in case the animals are transported via the Animal Lounge at the Frankfurt Airport. At the Animal Lounge, animal caretakers look after the animals, and veterinarians

provide a health checkup for imported animals or animals in transit. The health checkup is described as: “*Veterinarians check the documents of the animal, the health condition of the animals [...] and compare the features mentioned in the documents- size, breed, color, coat-with the actual animal*” (LHN2 2013).

To organize the import of animals and to ensure a health checkup, Lufthansa works together with the municipal and the Federal State of Hesse. The veterinarians are not employed by Lufthansa, but by the veterinary office of the responsible county in order to monitor and check animals, to prevent animal epizooties and ensure animal protection. The Federal State of Hesse is responsible for the import of animals at the Frankfurt Airport.

Lufthansa writes about the veterinarians in the Animal Lounge that: “*Official veterinarians (Amtstierärzte) check the compliance of animal legislation to prevent the import of epizootic diseases. That includes a visual inspection to ensure that the animal is healthy and has enough space in its transport box*” (LH-AL 2013).

The care of animals during their stay inside the Animal Lounge is characterized as follows: “*Specially trained staff and animal caretakers ensure the individual care of the animals all around the clock*” (LH-CI5 2017). For example, “*during transit animals are examined, feed and walked if necessary*” (LH-CI3 2017). Overall, “*14 animal caretakers*” work at the Animal Lounge (LHN2 2013). The animal caretakers at the Animal Lounge “*enjoy*” when an owner labels the transport box with a name tag, since “*calling the animals by the name*” calms them down (LHN3 2017).

The care and the inspection are internal practices and do not appear in the international documents. Consequently, Lufthansa has added internal rules to provide a health-checkup and professional care as part of its service.

Secondly, the Lufthansa documents include references to provisions of welfare to increase the well-being of animals. These welfare provisions target the handling of the animals on the ground and the animal container. They apply to certain species and animal categories, like pets, fish, day-old chicks, and horses, in case they are transported in a Lufthansa horse container.

For private customers who fly with pets, Lufthansa suggests to “*accustom the animal to the transport box: close the door of the transport box for one or two hours and award the pet*

*afterward*” (LHCI2 2017). For the actual transport, the same document also advises to “*put the favorite toy or a blanket into the box.*”

For the transport of horses, Lufthansa provides “*50 horse containers*” which have a “*white interior.*” Horses fear black rooms and the white color has the purpose to reduce the fear of the animals (LH-CI4 2017, LH-CI5 2017).

Concerning the improvement of animal welfare, before the animals are loaded inside the aircraft, Lufthansa highlights that the Animal Lounge has “*18 climatic chambers*” and “*black light areas.*” For temperature-sensitive animals as, day- old chicks, a constant temperature must be provided during the whole transport. Before loading the animals inside the aircraft, the day-old chicks can stay in climatic chambers of the Animal Lounge. The black light areas are for the health checkup of tropical fish. Since normal light increases the stress of animals, at the Animal Lounge they are examined under black light.

To sum up, Lufthansa edits guidelines of international agreements to make them more suitable for its own practices. This process follows the editing rules concerning the context of a rule, and adding elements to a rule. The modifications produce a more complex picture of Lufthansa’s practices of the transportation of animals. On the one hand, the airline edits local time-space-bounded features to the guidelines of the international agreements. For example, the airline modifies the rule about the position of animals inside the aircraft and the rule about transport prohibitions. On the other hand, Lufthansa adds rules that organize the internal practices of animal transportation. The airline cooperates with veterinarians and animal caretakers to offer a health check-up for arriving animals and care for departing animals and animals in transit. Furthermore, Lufthansa also offers additional animal welfare measures. The Animal Lounge has black light areas and climatic chambers, Lufthansa horse containers have a white interior and for the transport of pets, the airline suggests to accustom the animals with the transport container and put a familiar toy or blanket inside.

## **6. Summary and Discussion**

The chapter will shortly summarize and discuss the results of the analysis. Firstly, the three research questions will be recalled and answered. Afterwards, the main results of the analysis will be discussed in the light of recent approaches in the animal studies. To do so, parallels to studies that examine the biopolitical management of animals will be drawn.



The first research question of this study is: *How is governance practiced in the field of animal transportation by air?* On a macro scale, governance in the field of animal transportation is practiced as soft law governance. On a micro scale, local actors can be perceived to practice epistemic governance.

Cross-references between the soft law documents construct a network of soft governance. The authority of a soft law document is constructed by referring to other soft law documents, as well as by appearing as a reference in other soft law documents. The IATA Live Animal Regulations take a central position within the network of cross-references because it refers to all other documents and appears as references in most of the other documents.

Lufthansa convinces the public of being a professional expert in the field of animal transportation. The airline exercises epistemic work on the three spheres of the environment, the identification of actors, and norms and ideals. In the first sphere, Lufthansa positions itself as part of an international expert environment. The airline makes references to the international agreements of the IATA Live Animal Regulations and the CITES agreement to highlight that it follows both agreements. Besides, Lufthansa refers to specialized experts and institutions in the field of animal transportation, like veterinarians, animal caretakers, animal shipping companies, and the Animal Lounge at Frankfurt Airport. To work on the identification of actors, Lufthansa uses a human language to speak about the transportation of animals. Animals, their activities, and their transport environment have been named with terms taken from (human) aviation. Lastly, Lufthansa uses the values and norms of safety, species conservation and animal protection, and species-appropriate transportation and accommodation in its documents. With the help of epistemic work, Lufthansa convinces the public to be a professional expert when transporting animals.

The second research question is: *How the transportation of animals organized in the analyzed soft law documents?* All documents share rules which need to be followed to transport animals. These rules can be divided into transportation, container, and organizational requirements. The sum of the rules is a standard which organizes the transportation of animals by air. The standard acts like a template, because it suggests success when transporting animals.

In detail, the transportation requirements guarantee appropriate temperature and air supply, food and water provision, a clean transport container, the avoidance of tranquilizer, the segregation of animal and short transport duration. Concerning the requirements about the

animal container, the soft law documents suggest that the transport container should be leak-proofed and anti-slippery, should have ventilation holes, a water container inside the container and it should be big enough for the animal to stay and lie down. Lastly, the organizational requirements suggest to label the transport container with the *Live Animal* and the *This way up* label. In addition, the animal should be accompanied with documents about the journey and health certificates if necessary, and the captain needs to be notified about the position of animal on board.

The third research question asks: *How Lufthansa uses and modifies guidelines of international agreements?* Lufthansa edits guidelines of international agreements when transporting animals to make them more suitable for its own practices. These modifications follow two different editing rules. On the one hand, Lufthansa makes the rules more specific by editing time-and space-bounded features. On the other hand, the airline adds internal rules to the guidelines of the international agreements. In detail, Lufthansa makes the rule about the position of animals inside the aircraft, and the transport prohibitions more specific. Furthermore, the airline has added to the requirements to provide a health checkup and professional care, as well as welfare measures.

### **6.1. A Standard for the Transport of Animals – A Matter of Biopolitics?**

Studies on animals pay attention to power, which has been built into the human-animal relation. More recently, Michel Foucault's contributions on biopolitics have been used to analyze the position of non-human animals in societies. According to Foucault, the modern shape of power is biopower, which is described as an attempt to foster or disallow life. In detail, Foucault pointed out that:

“One might say that the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death” (Foucault 1990, 138).

One characteristic of Foucault's understanding of biopower is that it does not target individuals but whole populations. This is what he calls biopolitics. Biopolitics draws on cultural and scientific knowledge about life. In this regard, Srinivasan (2013) summarizes Foucault's thoughts: “Foucault suggests that biopower intervenes in individuals in order to regulate populations, and works through biological and social-scientific knowledge systems that describe and prescribe normal traits in a population” (Srinivasan 2013: 9)

Giorgio Agamben has used Foucault and considered the production of biopolitical bodies of animals and humans as a basic function of sovereignty. In his view, every legal system has rules to exclude certain forms of life from being protected by the law. The animal can be seen as such a form of life which appears inside the legal system, but do not enjoy protection from it.

In the field of animal studies, The case of factory farming illustrates the biopolitical management of animal bodies (Wadiwe 2002; Stanescu 2013; Chrulew 2012). However, also in other fields, animals are subject to biopolitical regulations. Srinivasan (2013), for example, analyzed the legal protection of dogs in the United Kingdom and India and identified the measures of population control for straying dogs and for owned dogs. Lastly, Hodgetts (2017) identified biopolitics in the management of ecosystems. He argues that introducing a new species into the ecosystem can have a direct consequence for the regulation of the population of another species. Here, biopolitics does not entirely work through measures of reproduction as, for example, breeding, castration, and neutralization.

This case study about the transportation of animals by air can be seen as another example to manage animals in a biopolitical manner. Biopolitics is concerned with the regulation of entire populations or groups, and not with individual life. Rules about the transportation of animals target the entire category of the animal. Animals are a subject to a system of rules that “fosters life” inside the aircraft (Foucault 1990, 138). When animals are transported inside aircrafts their life depends on the direct application of a standard that guarantees the success of the transportation. In this perspective, the sum of the transportation, container and organization requirements can be interpreted as biopolitical measures. They aim to guarantee animal life during the transport, by altering or creating an environment where life is possible. This environment consists of sufficient temperature and air, water and food provision, cleanliness, enough space and the absence of potentially harmful animals. A rule about a short duration stresses that the animal does not need to stay longer than needed in a hostile environment. The only transport requirement that directly refers to the body of the animal is the suggestion to avoid tranquilizers. Furthermore, the organizational requirements monitor the transport of animals. The labeling of the container reduces the risk the animal container is confused with other cargo and handled like normal cargo. The notification to captain ensures that the captain activates the ECS system in the part of the aircraft where the animal is

located. Lastly, the documentation of the journey prevents that animal containers get lost on their way, or end up at a wrong destination.

## **6.2. Lufthansa's Variations- A Matter of Improving Animal Well-being?**

Lufthansa calls the IATA Live Animal Regulations "*minimum conditions*" for the transport of animals (LHN1 2017). This analysis has identified that not the IATA Live Animal Regulations, but the template that is used to transport animals can be seen as minimum conditions for the transport of animals. Without transport, container, and organizational requirements animals might simply die during the transportation. Therefore, the question arises, if Lufthansa's modifications, in fact, improve the well-being of animals. Well-being refers to a "state of being comfortable, healthy, or happy" (Oxford dictionary 2018). Nevertheless, animal well-being has many meanings, which draw on scientific and cultural knowledge. For example, Srinivasan (2013) points out that animal well-being can be improved by biopolitics.

Firstly, while international agreements consider the prohibition of the transport of animals, exclusively through biological criteria of health and pregnancy, Lufthansa has shifted the dimension and included criteria which are rooted in moral concerns about the protection and the ethical treatment of animals. In such a way the airline allies with animal rights and animal welfare activists. For example, the prohibition of transporting cats and dogs for animal experiments has been introduced on the pressure of PETA, the biggest animal rights organization in Germany, as well as smaller animal rights organizations. In 2010, animal rights activists openly campaigned against the involvement of Lufthansa in animal experiments (PETA dog blog 2010). As a consequence, Lufthansa changed its rules and forbade the transport of lab cats and dogs. Attempts to ban the commercial transport of endangered animals and the transport of dolphins and whales can be interpreted in a similar way because their transport is related to ethical and moral concerns. Most recently, Lufthansa propagated the stop of the transport of trophies of endangered animals to contribute a share to animal conservation (LH-SR 2010). Lufthansa's measures can be interpreted as an effort to improve animal protection, which also improves the well-being of animals. Nevertheless, as the example has shown, Lufthansa mostly reacts to the external pressure of animal rights and welfare activists. The airline wants to improve its image.

Secondly, in contrast to the international agreements, the Lufthansa documents contain a variety of criteria about the position of animals inside the aircraft. The different positions of animals inside the aircraft depend on the size of the animal, if it is accompanied or unaccompanied, if it is an industrial transport or a transport of a privately owned animal, and if the animal is transported in a passenger flight or cargo flight. The list of criteria shows that Lufthansa has developed complex practices to organize animal transports. Nevertheless, despite different positions in the aircraft, the airline uses the same transportation, container, and organizational requirements, regardless of the position of the animal inside the aircraft.

Thirdly, Lufthansa highlights that professional care is available before the transport, and a health checkup after arrival or during transit. These attempts can be interpreted as tools to improve the well-being of animals. Nevertheless, professional care and a health-checkup appear mainly in the context of animal transports, which are organized from the Animal Lounge at Frankfurt Airport, because animal caretakers and veterinarians work in the Animal Lounge. Lufthansa does not provide professional care and a health checkup for animals which are not transported via the Animal Lounge at Frankfurt Airport.

Lastly, Lufthansa has introduced additional rules to improve the welfare of animals and to reduce stress during the transport. The dark-light treatment of fish, the white interior of horse containers and the climatic chambers are available at Frankfurt Airport. The suggestions to adopt the animal to the container and to provide it with a familiar blanket apply to the transport of pets. Also, these requirements are conditional and cannot guarantee an improvement of well-being for all animals which are transported. Instead, they target certain species or categories of animals (for example pets).

## **7. Conclusion**

This case study analyzed how the transportation of animals by air is organized and performed by looking into four central international agreements and 24 documents of the airline Lufthansa. The documents have been published between 2003 and 2017. With a combination of approaches which draw on new- institutionalism, the study explored how governance is practiced in the field of animal transportation; how the transportation of animals is organized; and how the airline Lufthansa modifies international guidelines for its own usage.

As a method, qualitative content analysis has been used. The case study analyzed the data from the perspective of different concepts of new- institutionalism. Using the concept of soft law governance (Mörth 2004), the collected documents have been considered as non-binding non-hierarchical soft law documents, which create a network of cross-references. The authority of one document is constructed with references of and references to other documents. Epistemic governance (Alasuutari and Qadir 2014) has been used to explore how the local actor Lufthansa positions itself as a professional expert when transporting animals. The approach that templates (Sahlin and Wedlin 2008) circulate between different institutions has been used to identify a standard to transport animals by air. Lastly, the local actor Lufthansa modifies guidelines of international agreements. These modifications follow two different editing rules. Firstly, the editing rule concerning the context of an idea has been used (Sahlin-Andersson 1996, Sahlin and Wedlin 2008). Secondly, the editing rule of adding an additional idea has been used (Røvik 2007 and 2016).

The first outcome of this case study is that authority in the field of animal transportation is produced through cross-references between the different soft law documents. Within the network of cross-references, the IATA Live Animal Regulations take a central position since it makes references to most of the other documents and they also appear as a reference in most the other soft law documents.

Secondly, by using the concept of epistemic governance to analyze the empirical case, it has been possible to explore how Lufthansa uses epistemic work in the spheres of the ontology of the environment, actor's identification, and norms and values to establish an expert position.

Thirdly it has been possible to identify how different soft law documents agree on transportation, container, and organizational requirements. These requirements constitute a template that guarantees the successful transportation of animals.

Fourthly, the local actor Lufthansa also modifies guidelines of international agreements when translating them into its internal organizational environment. On the one hand, Lufthansa makes international guidelines more specific by including time- and space-bounded features. On the other hand, Lufthansa adds internal rules to the guidelines.

The discussion has drawn connections between the recent animal studies and the outcomes of the analysis. Firstly, the standard in the field of animal transportation has been discussed in

the perspective of biopolitics. Secondly, the modifications of the local actor Lufthansa have been evaluated, according to their impact on the animal well-being.

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## Appendix I

### Collected Data

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## Appendix II

### Coding frame I

#### Direct cross-references between all documents

Category: Direct cross-references					
Subcategory	Lufthansa documents	EU Regulation 1/2005	COE Convention	OIE Terrestrial Animal Health Code (7.4)	Live Animal Regulations
Lufthansa documents		1	0	0	19
EU Regulation 1/2005	0		2	0	2
COE Convention	0	0		0	0
OIE Terrestrial Animal Health Code (7.4.)	0	0	0		2
Live Animal Regulations	1	2	1	2	

### Coding frame II

#### Lufthansa's power as a local actor – Lufthansa documents

Category	Subcategories	Counted keywords or appearing terms in the data
Environment of Lufthansa	<ul style="list-style-type: none"> <li>International agreements</li> </ul>	<ul style="list-style-type: none"> <li>CITES Abkommen, Washington agreement</li> <li>IATA Live Animal Regulations</li> </ul>
	<ul style="list-style-type: none"> <li>Professionals (<i>who employs them?: Lufthansa, shipper companies, public (German state), zoo, animal organization</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Tierpfleger, Pfleger, Betreuer</li> <li>Tierarzt, Amtstierarzt</li> </ul>
	<ul style="list-style-type: none"> <li>Shipper companies</li> </ul>	<ul style="list-style-type: none"> <li>Spediteur, Spedition, Transporteur</li> </ul>
	<ul style="list-style-type: none"> <li>Animal lounge</li> </ul>	<ul style="list-style-type: none"> <li>Animal Lounge, Tierstation</li> </ul>
Language of Identification	<ul style="list-style-type: none"> <li>Names, terms, labels of animals</li> </ul>	<ul style="list-style-type: none"> <li>Passagiere, Kunden, Herr und Frau, Ihr Tier, Ihr Haustier</li> </ul>
	<ul style="list-style-type: none"> <li>Names, terms, labels of activities of animals</li> </ul>	<ul style="list-style-type: none"> <li>fliegen, warten, ein-checken, sich die Beine vertreten, platz nehmen</li> </ul>
	<ul style="list-style-type: none"> <li>Names, terms, labels of the environment of animals</li> </ul>	<ul style="list-style-type: none"> <li>Animal Lounge, Erste Klasse, Passagierterminal</li> </ul>
Values and norms	<ul style="list-style-type: none"> <li>Safety (<i>what is safe?</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Sicher, Sicherheit</li> </ul>
	<ul style="list-style-type: none"> <li>Species Conservation and animal protection</li> </ul>	<ul style="list-style-type: none"> <li>Artenschutz, Tierschutz, bedrohte Tierarten</li> </ul>
	<ul style="list-style-type: none"> <li>Species- appropriate (<i>what is...?</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Artgerecht</li> </ul>

### Coding frame III

#### Shared rules in the field of animal transportation – all documents

Categories	Subcategories
<b>Transport requirements</b>	<ul style="list-style-type: none"> <li>• Air</li> <li>• Temperature</li> <li>• Water and food</li> <li>• Cleanliness</li> <li>• Tranquilizer</li> <li>• Segregation of animals</li> <li>• Duration</li> </ul>
<b>Container requirements</b>	<ul style="list-style-type: none"> <li>• Ventilation</li> <li>• Isolating material</li> <li>• Water and food container</li> <li>• Leak-proofed and anti-slippery floor</li> <li>• Space</li> </ul>
<b>Organizational requirements</b>	<ul style="list-style-type: none"> <li>• Labelling</li> <li>• Documentation</li> <li>• Inform the captain</li> </ul>

### Coding frame IV

#### Variations of Lufthansa – all documents

Category	Subcategory ( <i>Lufthansa</i> )	Subcategory ( <i>International agreements</i> )
<b>Prohibition of transportation</b>	• Health condition	• Health condition
	• Animal protection (no dolphins, whales, endangered species, cats and dog for laboratory experiments)	• Pregnancy
	• Pug-nosed cat and dog breeds	
<b>Position of the animal inside the aircraft</b>	• Inside the hold	• Distance to radioactive material
	• Inside the cabin accompanied by owner	• Temperature (protection from extreme outside temperatures)
	• Inside the hold unaccompanied by the owner	
<b>Professional care</b>	• Health checkup	
	• Professional care on the ground	
<b>Additional welfare measures</b>	• For horses: white paint inside the container	
	• For pets: familiar blanket/ toy, accustom pet to transport box	
	• For fish: Black light areas (in the animal lounge)	
	• For day-old chicks and temperature sensitive animals: climatic chamber in the animal lounge	



Sequence example taken from the Lufthansa data- trial coding

comment	document	title	code	sequence	page*	author	date
also security reference	Customer Information	LH-CI3	practice of transportation\before the transport\cleanliness	Die Bereiche Export, Import und Transit sind von einander getrennt, wodurch der Kontakt von Tieren mit unterschiedlichem Gesundheitsstatus vermieden werden kann. Selbstverständlich entspricht die Animal Lounge den neuesten sicherheitsrelevanten Anforderungen. Das gesamte Gebäude ist rund um die Uhr videoüberwacht, Zutritt erhält ausschließlich autorisiertes Fachpersonal.	/	LuKe	12/09/2017 16:56
also in LHSR page 107	Sustainability reports	LHSR10	practice of transportation\before the transport\cleanliness	Zudem entspricht die neue Tierstation „Frankfurt Animal Lounge“, die Lufthansa Cargo im Februar 2008 in Betrieb genommen hat, den strengen hygienischen und veterinärmedizinischen Richtlinien der EU, womit die Frachtfluggesellschaft einmal mehr ihren Qualitätsanspruch und ihre Innovationskraft unter Beweis stellt. Auf knapp 4.000 Quadratmeter Fläche finden sich dort seither alle für einen artgerechten Tiertransport erforderlichen Abteilungen unmittelbar beieinander.	84	LuKe	26/09/2017 12:14
	Sustainability reports	LHSR8	practice of transportation\before the transport\cleanliness	Um zufällige Kontakte zwischen Tieren unterschiedlicher Herkunft auszuschließen, sind die Bereiche Import, Export und Transit baulich voneinander getrennt.	96	LuKe	30/08/2017 16:21
documentation	News	LHN3	practice of transportation\before transport\labelling	Denk prüft die Buchung und erstellt mit den Informationen des Kunden den Tierbegleitschein. Hier finden sich alle Angaben, sowie Flugnummer, Zielort oder Nahrungsvorlieben des Tieres wie Trocken- oder Nassfutter.	/	LuKe	25/09/2017 13:18
	News	LHN3	practice of transportation\before transport\labelling	Das Schild am Halfter verrät den Namen des Pferdes sowie Rasse, Geburtsjahr, Farbe und Geschlecht.	/	LuKe	30/08/2017 15:34
documents service dog	Customer Information Website	LH-CIW6	practice of transportation\before transport\labelling	Voraussetzung ist eine ärztliche Bescheinigung darüber, dass Sie einen Begleithund benötigen. Außerdem akzeptiert Lufthansa therapeutische und psychiatrische Begleithunde nur auf von Lufthansa durchgeführten Flügen von und in die USA kostenfrei. Auf Anschlussflügen außerhalb der USA bestehen Einschränkungen. Auf von Lufthansa durchgeführten Anschlussflügen außerhalb der USA werden therapeutische und psychiatrische Begleithunde nur gegen Bezahlung und, je nach Größe/Gewicht, in einem Behältnis in der Kabine (Pet in Cabin) oder im Frachtraum befördert.	/	LuKe	12/09/2017 18:12

\* / indicates that the documents had a length of maximal 3 pages. The length of the document makes numbering unnecessary