New approaches in empirical animal ethics – using experimental philosophy to challenge intuitions regarding the moral status of nonhuman animals

Inauguraldissertation

zur

Erlangung der Würde eines Doktors der Philosophie

vorgelegt der

Philosophisch-Naturwissenschaftlichen Fakultät

der Universität Basel

von

Kirsten Persson

aus Hagen, Deutschland

Basel, 2019

Genehmigt von der Philosophisch-Naturwissenschaftlichen Fakultät

Auf Antrag von

Fakultätsverantwortliche: Prof. Dr. Bernice Elger

Dissertationsleiter/Referat: Dr. David Shaw

Ko-Referat: Prof. Dr. Walter Salzburger

Basel, den 27.02.2018

Prof. Dr. Martin Spiess

Dekan

Table of Contents

Acknowledgements

This research was partially funded by the Haldimann foundation, Aarau. I was an associate participant of the Doctoral Programme “Law and Animals: Ethics at crossroads” at the Law School of the University of Basel. I am extremely grateful for the scholarship that covered, for instance, the travel expenses for the qualitative interviews, the payment for the crowdworkers who participated in the thought experiments and the software license I bought for the online surveys. My salary came from the University of Basel and I am grateful for that, as well. Many thanks also go to Playmobil® who were so kind to provide the toy figurines for my scenario building study.

David Shaw as my first supervisor continuously supported my work. He was enthusiastic about an experimental philosophy project from the very beginning and further encouraged me to use innovative approaches, which I appreciated very much. It would have been impossible for me to write and publish so many articles in the given time without him. Though being in Scotland most of the time David was always available when I needed advice, help in bureaucratic matters or an exchange of ideas.

Furthermore, I thank Eve-Marie Engels and Walter Salzburger for being part of my PhD committee; for their critical feedback on my annual progress reports and for the valuable hints to literature. They both encouraged me to continue with my project and patiently accepted my progress delay for family reasons.

I am also thankful to Bernice Elger, who, as the faculty representative, not only hired me but also contributed a practical perspective to this project which led, for instance, to the inclusion of the Swiss concept of Dignity of Creatures. Many thanks also to other staff members of the Institute for Biomedical Ethics Basel: to Tenzin Wangmo who supported me in the coordination of the educational part of my PhD and the work as a research assistant, and to Daniela Vavrecka-Sidler and Anne-Christine Loschnigg who patiently helped with all administrative work – not least when they sent my laptop via mail when I was not able to travel to Basel – and who always knew where to find solutions for diverse problems.

My time at the IBMB would not have been the same without my dear colleagues who kept up my motivation, passionately discussed with me in the Last Tuesday Club, participated in the pilot test phase of my studies and offered helpful advice regarding my qualitative and quantitative methods. I am especially grateful to Corinna Jung and Ina Otte who gave extensive feedback on my interview guide.

Additionally, I was very lucky to find two students who collaborated with me on two articles: Sanja Babic on one about individual relationships and names and Rahel Appel on one of the thought experiments with the fairy in the woods. I appreciated their complementary perspective and dedication very much.

Being the only person working on animal ethics in the IBMB I was very happy to find like-minded people in the doctoral programme “Law and Animals: Ethics at crossroads”. I had the opportunity to attend the seminars and colloquia of the programme and it was a great pleasure to be a part of this interdisciplinary group dedicated to various issues around nonhuman animals and law. Their critical feedback on my own research was especially valuable.

Obviously, my empirical studies would not have been possible without the participants. Many thanks to the crowdworkers of the online thought experiments and in particular to my interviewees who not only took the time to meet me but also delivered insight into their very personal experiences and views. During the interview phase I learned a lot about concrete human-animal relationships but also about overcoming my own prejudices.

The past years were not only coined by working on my thesis but also by my family life. Thus, quite a few people enabled me to enjoy both aspects. I am deeply grateful to those people who looked after my children during the long hours I spent at my desk – most of all to my new neighbours in "WIR auf Phönix": Irene Manske, Ursula Emmerich and Bernhard Schawe-Bergjohann, who took care of my little son for several mornings.

Of all of my friends, who deserve a thank you for being part of the pilot test phase of my thought experiments, for distracting me from work and family and for staying in touch with me despite the lack of time, I would especially like to mention Sebastian Pfeil and Till Holtappel, who additionally proofread my manuscript and gave helpful feedback.

Profound thanks also go to my closest friend Hannah Schade - no one knows me better than her. She carried me through times of doubt and struggle, ensured me repeatedly that I could keep going and always gave me a detailed and critical feedback on my work and life decisions.

Furthermore, I am sincerely grateful to my mother and father, Heike Persson and Gunnar Persson, who raised me to be the person I am today. I deeply appreciate all support and backing they have given me throughout different steps of my life, combined with the ability to let me go and become an independent person. I also thank my brother, Torsten Persson – sometimes nothing can be more helpful than his tongue-in-cheek remarks.

Finally, a deep thank you is owed to my closest family members: to Uwe Holtappel, who has been at my side for more than a decade and has lived through all kinds of ups and downs with me – this doctoral project would not have been possible without his courage, patience and love; and to my wonderful sons, Arttu Malin and Jonne Kari. They taught me a new perspective on priorities in life, on working efficiently and living the moment.

Summary

"It appears that reason serves a limited role in everyday animal ethics". (Aaltola 2015, 205)

There are few people who would claim they do not like animals or at least care about them in one way or another. Yet, human-animal relations are ambivalent, coined by partiality and ignorance, fascination and fear, scientific curiosity and abuse, closeness and carelessness. For this doctoral project moral intuitions regarding animals have been investigated with an innovative mixed methods approach. With the help of narratives from qualitative interviews, light is shed on complex personal attitudes and judgements, revealing individual intuitions regarding the animals' moral status. Furthermore, three quantitative studies with the novel tools of experimental philosophy contribute pivotal insights into crucial factors for moral decisions and actions related to nonhuman animals. As a complementary approach, an empirical pilot study with toy figurines is introduced. The built scenarios present an entirely new angle on human-animal relations based on three-dimensional, non-verbal data. Empirical results are discussed against the background of different ethics concepts in animal philosophy with a special focus on different accounts of the animals' moral status. Finally, application contexts for the results on the topical question how to deal with (different kinds of) nonhuman animals are shown.

In the first chapter, the field of tension in everyday animal morality are introduced. Briefly, important approaches in animal ethics are mentioned (chapter 1.1), covering not only the two influential and most well-known accounts, Singer's utilitarian ethics and Regan's deontological ethics, but also more recent approaches that are discussed in depth in the chapters on the empirical data, 3 and 4. Following Delon's (2015) argumentation, the moral status of nonhuman animals is defined as depending on both intrinsic properties such as sentience and extrinsic properties such as relationship (chapter 1.2). The definition presents a differentiated demarcation to other accounts of moral status and thereby a useful basis for the analysis of the empirical data. The main goal is outlined in chapter 1.3 and five sub-steps are explained as a red thread of this doctoral project. In chapter 1.4 the project is characterised as part of (Critical) Human-Animal Studies and clearly distinct from Animal Welfare Studies, using the methods of critical applied and experimental ethics. The methodology is further introduced in chapter 1.5.

As this thesis makes used of both established and novel methods in an innovative way, chapter 2 presents a differentiated argumentation to what extent empirical methods can be used for questions in animal ethics. Chapter 2.1 refers to methods in empirical bioethics and specifies their application for purposes in empirical animal ethics. This chapter was published in a peer-reviewed journal as:

Persson, K., Shaw, D.M. (2015). Empirical Methods in Animal Ethics. *Journal of Agricultural and Environmental Ethics,* 28(5), 853-866.

In chapter 2.2 a pilot study is presented to suggest going beyond traditional methods and using complementary tools from the visual studies. Building scenarios with (or without) human-animal interaction with toy figurines, participants were challenged in a non-verbal, creative way to intuitively express their attitudes towards nonhuman animals and revealed insights that add valuably to the findings from the other empirical study parts (chapter 3 and 4).

The results of the qualitative interview study are discussed in chapter 3, starting broadly with the most prominent findings in respect of the discussion of different approaches in animal ethics and different accounts of the animals' moral status. The importance of individual relationships – and the aspect of naming nonhuman animal individuals – emerged in all interviews, independent of the interviewee's professional background or the group of animals she or he dealt with. Chapter 3.1 was written in collaboration with Sanja Babic who contributed an interdisciplinary perspective. Chapter 3.2 provides insights into a more specific issue, the participants' account of animal dignity, which is discussed on the basis of the dignity of creature as it is implemented in the Swiss animal welfare legislation. This chapter was published in a peer-reviewed journal as:

> Persson, K., Elger, B.S., Shaw, D.M. (2017). The indignity of relative concepts of animal dignity: A qualitative study of people working with nonhuman animals. *Anthrozoös*, 30(2), 237-247.

Chapter 4 covers the findings of three experimental studies, starting with the summary of a thought experiment aiming at investigating the relevance of three factors for moral decisions regarding nonhuman animals: rationality, similarity and pain (4.1). In chapter 4.2 the relevance of species, exemplified by comparing the attitudes to rats and dogs, and the relevance of relationships, here "stray animal", "laboratory animal" and "pet", are analysed on the basis of two thought experiments. The final chapter (4.3) presents a study based on a thought experiment that touches one of the most delicate issues in human-animal relations, eating animals, while at the same time presenting a scenario inspired by the Rawlsian veil of ignorance. This chapter was written in collaboration with Rahel Appel, who provided the perspective of a moral psychologist.

A general discussion (chapter 5) following the five stage aims presented in the introduction and giving an outlook for potential follow-up studies and a conclusion chapter (6) complete this thesis.

1 Introduction

Questions about the moral status of nonhuman animals are attracting increasing attention from scientists, the media and the general public. What became known as the "horsemeat scandal" in 2013 (http://www.telegraph.co.uk/foodanddrink/9857136/Horse-meat-scandal-timeline.html) gives an impression of the current, ambivalent relationship between humans and nonhuman animals in western Europe[1]. The popular outrage was based on the fact that people ate convenience food containing horse meat while they thought they were eating beef or pork. Although neither the taste nor any health risk was an issue the realisation that it was indeed horse meet was not trivial for many consumers. Apparently, it was not part of their self-perception to be a horse-eater. The physiological differences between the three species – cows, pigs and horses – do not point to morally relevant properties. They are all intelligent, sensitive and social mammals. However, their roles in our society differ significantly. So, what is the reason for people's profoundly different moral intuitions towards cows, pigs and horses? What are the factors that influence the way we treat and think about various groups of nonhuman animals?

National and international guidelines and laws for the use and protection of nonhuman animals are drafted, revised and fought over; research methods involving laboratory animals have led to guidelines to reduce the number and extent of animal-harming procedures (Sparrow, Robinson et al. 2011), while some researchers still emphasise the irreplaceable insight from animal experiments (Gawronski and Cesario 2013); non-governmental organisations celebrate their success in increasing public awareness of the circumstances in animal farming and the resulting pressure on governmental decisions (http://albert-schweitzer-stiftung.de/tierschutz-erfolge); politicians are torn between the interests of different lobbies and their voters (http://www.greenpeace-magazin.de/magazin/archiv/5-11/ilse-aigner/); human-animal studies have become a well-established academic field and animal ethics claims its place among others in bioethics. What is summarised as "the animal turn" (Ritvo 2007) has actually intruded numerous academic disciplines – arts, humanities, and sciences.

This research project aims at bridging the gap between public attitudes and philosophical ethics concepts regarding the moral status of nonhuman animals. Like in other areas of bio(medical) ethics we suggest establishing empirical methods to

[1] This project will be limited to the German speaking part of Europe due to a possibly homogenous cultural background of the participants and limited financial and logistic resources.

- learn about people's – implicit and explicit – concepts that are crucial for their animal morality[2] and the moral status they grant to nonhuman animals, such as "freedom", "respect", "sentience", "dignity", "friendship", "responsibility", "duty", etc.
- learn about the application and implementation of laws and guidelines that are relevant for the treatment of nonhuman animals and represent the legal implementation of the society's view on the animals' moral status, such as animal welfare laws
- investigate discrepancies between theoretical concepts of the moral status of nonhuman animals and personal animal morality or ad hoc moral judgements
- confront people, and society as a whole, with inconsistencies in their personal animal morality or challenge their perspectives on the moral status of nonhuman animals.

Therefore, we present methodological ideas and thoughts as well as the analysis of empirical data and the discussion of their implications for theoretical approaches.

In this introductory chapter the background of animal ethics will be summarised very briefly (1.1) before philosophical perspectives and challenges regarding the moral status of nonhuman animals (1.2) will be elaborated on. The aim of this doctoral project will be specified (1.3). Then, this dissertation project will be placed in a broader context of human animal studies, animal welfare studies and experimental ethics (1.4) and finally, an overview on the methodological approach will be given (1.5). Chapter 2 comprises our method-related research, combining a theoretical chapter on empirical animal ethics (2.1) with a pilot-study on the application of visual methods in animal ethics (2.2). In chapter 3 I exemplify results of our qualitative research, first a "bottom-up topic" that prominently emerged from interview data: the importance of individual relationships and names for our interviewees' perspective on the moral status of nonhuman animals (3.1); second, as a "top-down issue", our interviewees' perception of the dignity of creatures, a concept that is uniquely implemented in the Swiss animal welfare law (3.2). The fourth chapter presents the results of our experimental research. In three different thought experiments we want to shed light on the role of intrinsic (rationality, similarity to humans, sentience) and relational (being a pet, being a lab animal, being a stray animal) properties for the moral status of nonhuman animals (4.1 and 4.2) and add a complementary contractarian perspective on human-animal relationships (4.3). Finally, we will return to our research aims and discuss our findings (5).

1.1 Philosophical background: animal ethics

We learn from early cave paintings that even for our very distant ancestors nonhuman animals played an essential role. Animals have always been a part of human life, be it as prey or threat, as companion

[2] "Animal morality" will be understood as the norms and rules that guide someone's morally relevant attitudes and actions regarding animals.

or integral part of the environment that surrounds us. At least since Aristotle's *scala naturae,* a question has been at stake: In how far is there a morally relevant difference between humans and nonhuman animals? Traditional ethical approaches offer several moral concepts.

Utilitarianism since Bentham has been inclined to include the well-being of sentient nonhuman animals, culminating in the claims of one of the most famous animal ethicists, Peter Singer (Singer 1977). According to their view, the interests of all sentient beings must be included and weighed in moral calculus – thus, there is a direct consideration of nonhuman animals, as long as they are capable of having interests.

In contrast to this consequentialist approach, deontological concepts appear to be less appropriate for the inclusion of animals. Kantian ethics, for example, grant them only indirect consideration. However, the classical animal rights approach by Tom Regan (2004) is based on Kantian ethics. His condition for moral consideration is the quality of being a "subject-of-a-life" (Regan 2004, 243) rather than being rational, so many groups of nonhuman animals are included.

Besides these traditional concepts, approaches based on capabilities, contract, compassion, integrity, dignity or relation and mixed concepts present examples of further arguments for the moral relevance of nonhuman animals (see e.g. Midgley (1983); Nussbaum (2009); Wolf (2008); Palmer (2010)). Not all approaches set the moral status of human beings as a reference point for the animals' moral status; not least because they try to avoid the accusation of being anthropocentric; of being unable to take off the humanoid glasses that force us to see everything as relative to our own capabilities, cognition, perception and consequent claims about (ethical) rights. The animal ethics approaches by Wolf and Palmer will be discussed in connection with our data in chapters 3 and 4.

Furthermore, environmental ethics provide reasons to adjust our attitude towards our fellow creatures: key species are considered important factors in ecological systems, invasive species are not appreciated if they are too competitive for the native flora and fauna, and protection measures are directed towards communities and systems rather than towards individuals (see e.g. Leopold (1986)). However, modern concepts of environmental ethics no longer contrast the consideration of sentient individuals and of communities or systems but see a common ground in our care for living beings and consequentially an environmentally friendly attitude and behaviour (Aitken 2004). This thought will be picked up in the discussion of the findings as well.

Our way of treating or judging nonhuman animals in everyday life does not necessarily correspond to one of these philosophical concepts. Moral judgements and actions can be based on inconsistent assumptions, unquestioned habits or ad-hoc intuition; they can be context-dependent, dynamic or

irrational. Thus, despite the public attention to the treatment of animals, the conceptual background of lay people's animal morality is not obvious.

1.2 The animals' moral status

In the professional and the public discourse on animal ethics the claim that nonhuman animals have moral status – or moral standing – is broadly supported. Traditionally, moral status is considered as a gradual attribute which depends on an entity's properties. The moral status determines the extent to which the entity should be morally considered, so it is necessarily connected to moral obligations:

> "To have moral status is to be morally considerable, or to have moral standing. It is to be an entity towards which moral agents have, or can have, moral obligations. If an entity has moral status, then we may not treat it in just any way we please; we are morally obliged to give weight in our deliberations to its needs, interests, or well-being. Furthermore, we are morally obliged to do this not merely because protecting it may benefit ourselves or other persons, but because its needs have moral importance in their own right." (Warren 1997, p. 439)

Suggested decisive properties of animals with moral status are primary context-independent, intrinsic properties ("consciousness", "cognition", "sentience", "having nociceptors") that are usually attributed to biologically distinct groups of animals (e.g. "great apes", "mammals", "crustaceans", "rats", "invertebrates"). Claims are therefore fed by scientific findings. To generalise it:

If intrinsic property P is a condition for a moral status M corresponding to a certain moral consideration then M is granted to any group of animals G for which P is supported on the basis of current scientific knowledge.

An influential collaboration of philosophy and science can therefore have an impact on normative ethics and beyond (Wild, Willemsen 2012). Even animal welfare laws can be adapted when animal groups are e.g. added to the circle of the sentient (Fiorito et al. 2014). Progressing that way, the moral status of nonhuman animals – and thereby the obligations we have towards them – become more and more differentiated and the welfare and rights of some animal groups are consolidated.

The idea of comparing the properties of (certain groups of) humans and their rights to the properties and rights of nonhuman animals (with certain cognitive capacities, such as primates or dolphins) has led to a debate on the consequences for those groups of nonhuman animals, prominently stimulated by Peter Singer: "Although there is among some who write on cognitive disability a strong aversion to comparing humans with nonhuman animals, these comparisons are unavoidable if we are to clarify the basis of moral status." (Singer 2009, 567 f.) Following Singer's thoughts the formalised argument presented above continues:

If any group of beings G1 has the property P M has to be attributed to G1. If a group G2 does not have P M is not attributed to G2.

That way, having P is a necessary and sufficient condition for moral status M, while P is a cognitive capacity. Thus, attributing different moral status to two groups with the same morally relevant properties would be discriminatory. This very argument is the basis for the definition of "speciesism" as it is used by Ryder and Singer (Singer 1977). If the only argument for treating two groups differently is the difference in species, not in morally relevant properties, the treatment is based on a bias. An example of the legal acknowledgement of this argument is the case of an orang-utan who was recently granted basic human rights in Argentina (Romànn 2015) due to her human-like morally relevant properties. Thus, the debate already resulted in actual consequences for nonhuman animals.

Besides the question of the consequences for humans with handicaps – which is not subject of this thesis but a crucially polarising issue when it comes to the perception of Peter Singer's ethical claims – there are at least two aspects regarding the traditional approach to moral status that deserve a critical analysis: a) the questions if and why the moral status of a healthy adult human being should be the ultimate benchmark for a "full moral status" M and if there are alternative definitions b) the question if the morally relevant properties P can only be intrinsic properties.

a) It would be an incorrect restriction to limit what I called the traditional definition of moral status to Singer or utilitarian ethics. The other of the most prominent theories in animal ethics, Tom Regan's animal rights concept, suggests different properties: being "subject-of-a-life", i.e. being conscious and autonomous in a very basic sense (Regan 1987). Nevertheless, question a) remains the same for all approaches that refer to a genuinely human property (consciousness, intelligence, language, morality etc.) and grant graduated moral consideration according to the manifestation of that property. To avoid ethical relativism or nihilism we need a framework to attribute moral status, though. Certainly, the suggested intrinsic properties present sufficient reasons for a being to have a moral status. However, for many moral decisions there is a need for further, refined criteria, in order to avoid the mere stating of moral dilemmas and to question different treatment in prima facie equal cases. In contemporary animal ethics we ask for instance: What do we owe to "wild" animals? What is the status of animals that are neither "wild" nor "domesticated" (Palmer 2010)? Can we imagine nonhuman animals to be "citizens" of our society (Kymlicka, Donaldson 2011)? Is the animals' moral status rather a question of our empathic abilities than of the animals' capacities (Aaltola 2015, 2013)? Therefore, it makes sense to look beyond the comparison of animal and human properties and, indeed, beyond intrinsic properties.

b) At first glance it is plausible to disqualify many context-dependent properties as morally relevant. The qualities of being very cute or extremely useful, occurring in Disney movies or political manifestos do not provide arguments for the moral status of an animal – although these properties can be the basis for biases in people's moral judgements as they shape the attitudes towards animals (Driscoll 1995a; Lund et al. 2012). Nevertheless, aesthetic aspects, for example, can be morally relevant, depending on the ethical theory: Verhoog (2007) shows that in a biocentric ethics approach[3] the holistic view of an animal, including aesthetic aspects, can be pivotal as it is in everyday perceptions of animals. Another way of criticising moral "intrinsicalism" is elaborated by those defending relational ethics (Wolf 2012; Palmer 2010). Delon (2015, p. 34) argues that "vulnerability is one such relational property, and that reasonable partiality provides another source of extrinsic value relevant to [moral] status.". He states that there is a broad acceptance of reasons for partiality when it comes to obligations towards our "nearest and dearest" (ibid, p.39), including pets and other domesticated animals. Consequently, he defines an extrinsic final value (of human and nonhuman animals) which supervenes on relational properties[4]. What he calls reasonable partiality is the core of individual relationships with nonhuman animals in human societies:

> "[…] the final value of the pet to her related caretaker is justified precisely in virtue of the fact that the relationship instantiates a finally valuable aspect of human and nonhuman lives. My cat and I – or cats and people in general – can benefit from the multispecies community they give rise to, with all the particular features of each relationship (uniqueness, shared history, past commitments) resonating in a distinctive way with the general features of the typical pet-human relationship." (ibid, p.40).

Furthermore, Delon considers vulnerability an "extrinsic disposition" as it "is not shared by perfect duplicates since the circumstances of its manifestation can vary if the environment changes (e.g., disability or vulnerability are a function of how context allows individuals to achieve some of their goals or avoid being harmed)." (ibid). As we intentionally create animals that are highly dependent on us (pets, farm animals, laboratory animals) we also cause their vulnerability and thereby an obligation to protect them. Delon concludes that moral status is not merely based on intrinsic properties but "best understood as a (variable) set of obligations depending on capacities and context, yet binding agent-neutrally, thus meeting both requirements of relational accounts and those of impartiality […]" (Delon 2015, p. 41).

[3] Biocentric ethics: an ethics approach in which intrinsic value is granted to every living individual (Brennan, Lo 2016)

[4] Delon's entire argument cannot be repeated here. For a closer look at his definition of (extrinsic) final value, reasonable partiality being agent-relative and agent-neutral and vulnerability see Delon 2015.

Compared to the formalised argument mentioned above, this position can be generalised:

If intrinsic property P is a sufficient condition for a moral status M and relational property R is a sufficient condition for a moral status M, then M is granted to any animal A with the intrinsic property P or with the relational property R. M comes with a set of moral obligations towards A, depending on P and R.

For this project we want to follow Delon and others who do not restrict moral status to an attribute based on intrinsic properties but see it as action-guiding tool that consist of our obligations towards an entity and that results from an entity's capacities as well as from the entity's morally relevant relational properties.

1.3 Aim

The main goal of this interdisciplinary doctoral project is to collect, investigate and challenge intuitions towards theoretical concepts of animal ethics, especially the moral status of nonhuman animals, with the innovative application of different empirical methods; and to discuss the philosophical meaning of the results for theoretical animal ethics, especially for the concept of moral status, against the background of the findings. The aim can be subdivided into five different aspects:

1) to suggest methods to approach animal ethics empirically, in line with the methodology of other fields in bio(medical)ethics, and especially experimentally.

2) to empower the participants of the qualitative studies to express their view on the human-nonhuman animal relationship and the moral status of nonhuman animals freely; and to challenge the view of the participants of the quantitative experiments

3) to explore the participants' intuitions regarding the moral status of nonhuman animals.

4) to discuss the empirical results in the light of terms, concepts and approaches in theoretical animal ethics; furthermore, to critically look into approaches in animal ethics regarding their applicability and regarding their strength in connecting with lay animal morality as it is presented in the results.

5) to investigate the implications of the findings for laws and guidelines and potentially for other practical purposes aiming at behavioural changes.

Using the methods of experimental philosophy and social sciences, a number of assumptions made by theoretical ethicists were investigated:

According to the literature in this field, there are certain common intuitions towards nonhuman animals, e.g. that it might be morally wrong to kill them (Wolf 1990); that we draw a distinction between so-called companion and production animals (Palmer 2010); that animals that are closer to us, either regarding biological relation (Gagneux, Moore et al. 2005) or regarding their social relationship (Palmer 2010) have a more complete moral status than more distant animals; or that we should not conduct experiments on nonhuman animals in order to test cosmetics or weapons, but have moral permission if they promise progress for medicine or basic scientific research (Kolar 2006). Some of those intuitions were exemplified in chapters 3 and 4.

As we expected different (groups of) people to have divergent opinions about the moral status of nonhuman animals, (semi-)narrative interviews could give insight to basic concepts that were afterwards further specified and tested in thought experiments.

When looking at individual reasoning, inconsistencies in argumentation and intuitive judgement can be discovered and pointed out. Especially by using fictional scenarios/thought experiments, it is possible to make some participants realise their own errors and double moral standards.

Additionally, this project has generated important insights regarding common practices when dealing with nonhuman animals. Laws, guidelines and regulations are generally based on expert statements, economic constraints and the interests of stakeholders, for example scientific research, the agricultural industry or the entertainment sector. With this additional insight into lay people's judgements and reasoning an additional set of arguments can be provided.

Furthermore, and this is one of the basic interests of experimental philosophy, the results could challenge theoretical assumptions in moral philosophy about "common intuitions" regarding the moral status of nonhuman animals and provide arguments to inform philosophical reasoning bottom-up. Additionally, a comparison of our results with the above listed theoretical assumptions of animal ethics can lead to a more grounded foundation for future animal ethics concepts. Therefore, the benefit of this project can be threefold: for the individual participant, for the process of evaluating and developing new guidelines and for theoretical, academic purposes.

Overall, an innovative toolbox for empirical and experimental work in an upcoming scientific field is presented and exemplified and core intuitions regarding the moral status of nonhuman animals are carved out, analysed and discussed from different angles.

1.4 Related fields of research – demarcations and connecting points

Before introducing the research methods of our empirical studies we will present three related scientific fields and explain the extent to which our research is embedded in human-animal studies, is explicitly different from animal welfare science and can be called empirical/experimental ethics:

Human-animal studies

Human-animal studies are an emerging, broad and interdisciplinary field. Sometimes called "animal studies" and sometimes differentiated in (descriptive) human-animal studies, HAS, and "critical animal studies", CAS, the term comprises research about human-animal relations in very different scientific fields, such as philosophy, history, sociology, arts, law, politics, literature, media science, educational science, geography and psychology (Chimaira Arbeitskreis 2011). HAS being so diverse there is no coherent methodology or common catalogue of research questions. However, most research focusses on analyses of cultural, social and societal components of the perspectives on nonhuman animals, human-animal relationships and relations (Chimaira Arbeitskreis 2011). Critical Animal Studies additionally share what Best (2009) calls an "explicit normative and political focus; in its critique of capitalism, imperialism and hierarchical oppression in all forms; and its commitment to theory for the sake of total liberation, not for theory's sake alone." Especially the latter aspect disqualifies many descriptive research approaches that aim at gaining knowledge without the ultimate goal of animal liberation.

Without going into further detail about the quarrels within human-animal studies here, it is pointed to the two strands of intentionally normative CAS and HAS without homogenous normativity – as there is no value-free science. This presents the tension when locating this doctoral project in the broader field of research. Going with the flow of the "Animal Turn" which affects several academic branches (Cederholm et al. 2014b; Ritvo 2007), on the one hand, research perspectives and methods from the social sciences and philosophy and, on the other hand, a – primarily – descriptive and a – partially – normative approach will be combined. It is pivotal to make this explicit here as normative and nonnormative ethics are distinguished in the literature. This aspect will be further elaborated in the chapter "**Ethics – Empirical Ethics – Experimental Ethics**". The exploratory interviews followed the methodology of descriptive social sciences, avoiding provocative questions, judgmental reactions to our interviewees' answers or the characteristic style of fundamental critique of animal exploitation. During the interview phase, for example, the – politically correct! – expression "nonhuman animal" were avoided, the pronoun "it" was used instead of "she" or "he" when talking about individual (but anonymous) animals and it was abstained from correcting the interviewees' ideas of circumstances in factory farming, breeding of animals, "respectful" slaughtering, the necessity of animal experiments etc. These aspects are part of the aim to empower our participants to express their opinion freely and

openly. Being analytic but not political or fundamentally critical, this part of the research project does not count as part of CAS but as HAS. The experimental part, however, is based on theses that there are biases in our perception, judgements and treatment of nonhuman animals, that the mainstream perspective on human-animal relations is based on misconceptions and that human attitudes and consequent behaviour towards nonhumans must change fundamentally and urgently (at least) for ethical reasons. We therefore consider our research as critical human animal studies even if we do not meet the criteria of those defining "CAS".

Animal Welfare Science

Another field that empirically deals with nonhuman animals and human society is Animal Welfare Science. When looking for definitions and summaries about "Animal Welfare Science" (AWS), it indeed seems to be about the welfare of nonhuman animals:

> "Good animal welfare […] starts with physical health, which is why animal welfare science has its roots in veterinary medicine, although it does not stop there. Good welfare implies that animals also have positive emotions, such as pleasure and contentment, rather than negative ones, such as fear or frustration, which we humans label 'suffering'. Animal welfare science has met this challenge by asking three big questions: (i) Are animals conscious? (ii) How can we assess good and bad welfare in animals? (iii) How can science be used to improve animal welfare in practice?" (Dawkins 2006, p. 77)

So, apparently, the endeavour must be quite interdisciplinary. The first question (i) requires at least a thorough philosophical analysis of "consciousness" and a definition of "animal". The former is already a research object in animal philosophy, the latter one of the most basic questions in biology; so AWS could be well informed by those sciences. For the second question (ii), again, a conceptual elaboration of "welfare" is pivotal, whereas the "how" can be assessed by experts from empirical sciences like behavioural studies. As to the third question (iii), it is necessary to know which "practice" is meant. In a broad sense of the term, all interactions between human beings and nonhuman animals would have to be included and the question is why only science is or should be consulted to improve the welfare of nonhuman animals in "practice". If the definition was understood in the suggested broad, general sense, Animal Welfare Science would be a branch of Human Animal Studies that deals with the three above mentioned questions, i.e. asking for the means to improve welfare of nonhuman animals and at the same time for a possibly exact notion of the animal's mind and body.

However, in exemplary articles published as AWS you can read sentences like: "With intensified livestock production, societal concern for animal welfare has also increased" (Bracke et al. 2005, p. 27), "Housing and management systems may influence pain, discomfort, fear, hunger and abnormal behaviour of farm animals." (Geers et al. 2003, p. 643); or "A reliable assessment of animal welfare,

based mainly on animal characteristics that can be measured on the farm and/or in the slaughter line, provides the best guarantee for quality improvement, public accountability and substantiation for claims in the area of animal welfare." (Eijsackers, Scholten 2011, p. 20). Thus, when looking at research activities, it becomes obvious what AWS really is about – and that is not always linked to the three main questions identified by Stamp Dawkins or to the academic work that would be needed to tackle them. As she already mentions, the discipline is grounded in veterinary sciences, and two elements are clearly determined by that: "welfare" is what can be fixed by a veterinarian (individual physical and mental health) and an "animal" is what is treated by a veterinarian (pets, farm animals, zoo animals, laboratory animals, a few outliers which are not dealt with in AWS). Thus, AWS comprises research about cows, pigs, horses and dogs, about livestock production, management systems, macaque cages and slaughter lines.

This is not the place to question an upcoming field of research. In fact, the inability to appreciate the endeavors of AWS – especially in contrast to theoretical animal ethics – could disqualify the author as a blinkered inhabitant of the ivory tower, unable to work with empirical data and pragmatic challenges. The need to bridge the "two cultures" of animal ethics and AWS has already been identified and discussed in the literature (Fraser 1999).

Although empirical methods are used in this project, we do not consider our research as a part of AWS. We are concerned with the benefit of empirical data for descriptive and normative animal ethics. The value of results from AWS for empirical animal ethics will be further discussed in chapter 2.1.

Ethics – Empirical Ethics – Experimental Ethics

Ethics, the science of morality, is a generic term comprising different sub-branches. First, it is subdivided into normative and non-normative Ethics, where normative ethics include a) theoretical and b) practical ethics and non-normative ethics include c) descriptive ethics and d) metaethics. (Beauchamp, Childress 2001). Empirical ethics (of which experimental ethics is a special case) cannot simply be classified into one of the four sub-branches. Rather, it should be connected to all four endeavours:

An abstract, nevertheless important clarification before starting a project in empirical ethics concerns metaethical questions (d). Although it is uncommon to read about the metaethical position of an author in a scientific article in empirical ethics she or he often implicitly refers to her or his metaethical assumptions. The problem of metaethical internalism and externalism, for example, contains the question of whether moral judgements present causes of action and motivation for action for (rational) moral agents. Being a metaethical internalist, i.e. being convinced that moral judgements are causes of actions and motivate a moral agent, it makes sense for an empirical ethicist to interview people

about their actions and connected moral judgements (or vice versa). Being a metaethical externalist, however, the empirical ethicist could interview people about their causes of action and motivation to find contingent, occasional or regular occurring factors besides their moral judgements that motivate them for their actions. (Stahl 2013, 34ff.). To give an example related to our project – a metaethical externalist could interview people about their consumption behaviour regarding animal products. He could address the interviewee's attitudes toward animal welfare, factory farming, environmental problems, but also her habits, personality, childhood experiences and other potential factors that might influence her moral consumption decisions. For a metaethical internalist it would not make sense to include other factors than the interviewee's moral judgements as he should be convinced that they are the interviewee's reasons and motivation for her moral consumption decisions. In fact, the internalist might be happy with a questionnaire in this case, if he was working on reasons for a vegetarian or omnivorous life style. Concerning the empirical studies of this project the position of a metaethical externalist will be adopted because looking for factors that influence the study participants' moral decisions/actions is part of the analyses. Metaethics, however, will not be the focus of this doctoral project and is just mentioned for the sake of completeness. It can also directly be subject to empirical research (e.g. Goodwin, Darley 2008).

Theoretical ethicists, i.e. philosophers, are considered as being in charge of identification and justification of norms (a). Most ethical theories can be classified as consequentialism, deontology or virtue ethics – or, for bioethics not less important, care ethics. Different approaches in theoretical animal ethics are presented in chapter 1.1. This doctoral project discusses several animal ethics theories on the basis of our collected data (chapters 3 and 4), but does not aim at proposing a new theoretical animal ethics approach.

Animal ethics is often considered a part of practical, or – preferably – applied ethics. "Practical"/applied (b) according to Beauchamp and Childress (2001, p. 2) "refers to the use of theory, argument, and analysis to examine moral problems, practices and policies in professions, institutions, and public policies". When writing about "theoretical animal ethics" in this doctoral project we want to contrast our empirical work to non-empirical and in that way theoretical work, which is not the same as contrasting applied to theoretical ethics. While its subjects of investigation are practical cases, applied ethics is still often theoretical in a methodological sense. It makes use of arguments, principles and concepts of theoretical ethics and applies them to practical problems of a certain field. Therefore, applied ethics are often rather specified for the context and the circumstances of their field of application (e.g. business ethics, medical ethics, environmental ethics etc.). The specifics of animal ethics are elaborated in the chapter "Philosophical background: animal ethics".

Although ethics is prima facie assigned to philosophy, it is social scientists, psychologist or even historians (Beauchamp, Childress 2001, p. 2) who practise descriptive ethics (c). Being interested in people's moral attitudes, moral reasoning or their critique of (moral) norms descriptive ethicists make use of empirical data with the help of qualitative and quantitative methods of the social sciences. Much current research under the label "bioethics" belongs to descriptive ethics. However, bioethics is not genuinely non-normative. Results from empirical studies can be used to evaluate e.g. newly established guidelines, practices, laws etc. and result in applied ethics (Steinfeld et al. 2006; Ritter et al. 2011). An example for this type of research is presented in chapter 0, in which we investigate our interviewees' understandings of the term "animal dignity" (descriptive ethics) and discuss the implications for the legal concept of "animal dignity" in the Swiss Animal Welfare Law (applied ethics).

Experimental ethics uses a different type of method and, consequently, generates a different type of data. Appiah (2014) summarises from different studies how data from – actual, not fictitious – experiments can have an effect on ethical theory. In his examples, results showed that moral decisions/actions do not so much depend on the moral agent's character (as they should in virtue ethics) but on context, and often on factors that were not considered morally relevant before (as it is claimed by those defending a situationist ethic). This is an example of how empirical ethics can be connected to different sub-branches of ethics: Two theories, virtue ethics and situationism, are linked to findings from moral psychology about the nature of human morality (descriptive ethics), which also has metaethical implications: the findings suggest an empirical answer to the question about moral reasons for actions. Apparently, they do not lie (exclusively) in a moral agent's character but in external, contextual sources. However, the value of empirical data for normative ethics cannot consist in drawing simple conclusions regarding moral norms from carving out the opinion/attitude or intuition of a majority, or, to quote Appiah again: "What we're not going to end up with is some sort of metaphysics by plebiscite; we wouldn't want to. For most of us don't believe the truth is simply what most of us believe." (2014, p. 21).

What then is the benefit of empirical, especially experimental, data in ethics, then? There is an ongoing debate about the relationship between theoretical ethics and empirical data (e.g. Krones 2009, Reiter-Theil 2012; Vries, Gordijn 2009; Frith 2012; Herrera 2008); and the differentiation of ethics a), b), c) and d) is not always clear. Molewijk et al. (2004b) give an overview of ethical approaches that differ, among others, regarding the relationship of normative and descriptive and the use of empirical data and their methods. The authors suggest an integrated empirical ethics approach based on an "interdependence between facts and values and between the empirical and the normative" (Molewijk et al. 2004b, p. 55). The normative result of that kind of research is always connected to a certain social practise and based on a collaboration of normatively and descriptively working scientists from the

beginning of a study. According to the approach of Molewijk et al., this doctoral project could best be classified as "critical applied ethics" as we a) still differentiate between prescriptive and descriptive parts of our work but claim that moral authority depends on both moral theory and social practice, b) use our empirical data to evaluate social practice and moral theory, and c) mutually confront empirical data and moral theory (Molewijk et al. 2004b, p. 60).

This general issue will not be discussed in depth in this doctoral project, but the idea is to follow the footsteps of those recent philosophers, psychologists and other scientists who engage in an interdisciplinary field of experimental ethics. The endeavour is based on the conviction that not only the consideration of empirical data produced by other sciences can lead to pivotal insights but also generating one's own empirical data when conducting thought experiments. Before introducing our own methodology and methods (chapter 1.3), we will briefly cover an important subject regarding results in experimental ethicists: moral intuition.

Moral intuition, in contrast to moral reasoning, refers to the concept that there are moral truths and the way people access these truths resembles a process "akin to perception" (Bruder, Tanyi 2014, p. 157; Haidt 1995, p. 1024). When someone has a moral intuition he immediately produces a moral judgement without an intermediate (conscious) reasoning process. As a side note on intuitions: When ruminating about empirical philosophy, Prinz (2007, p. 191) classifies philosophical inquiry about intuitions as accessing empirical data: "[…] armchair elicitation of intuitions qualifies as a form of observation in a broad sense of the term. How do we discover what our intuitions are? Presumably, we introspect. Intuitions are presented to us as mental states that become accessible to consciousness and available for reporting." See chapter1.5 regarding the problem who is represented by "we" here.

Moral reasoning is mainly considered a retrospective process that compensates for a lack of explanation when having passed an intuitive moral judgement. Although it would, according to Haidt, be plausible to say "I don't know, I can't explain it, I just know it's wrong" (Haidt 1995, 1024) people are inclined to find reasons for their judgements afterwards and have the impression that these reasons caused their judgements. Haidt, who suggested "Social Intuitionism" as a model for moral judgements (2001), claims that the reasoning process is mainly activated before a moral judgement takes place when either different moral intuitions are in conflict or when in a situation of decision several aspects need to be weighed carefully, especially when arguments are exchanged between moral agents and the moral decision is not reached privately (Haidt 1995). While Haidt's social intuitionism is descriptive (about how people get to moral judgements, not about how moral judgements ought to be made) there are at least two arguments for normative ethics not to neglect moral intuitions. The first is often called the "feasibility argument" or referred to as "ought implies can": in short, a moral agent cannot be obliged to do something if she does not have the ability and

opportunity to do it (Vranas 2007). We take up this argument in 3.1. If a norm is counterintuitive its feasibility is harder to defend, and the norm is perceived as highly demanding. The second argument is quite fundamental: intuitions present a candidate for a "final reason" for moral norms and concepts. It is neither our aim to simply agree with this excessively discussed claim nor to trace the story of moral intuitionism from Moore and Sidgwick to the current although not always explicit assumptions in experimental philosophy. However, we want to clarify the role of empirical data on moral intuitions for philosophical research in our next chapter.

1.5 The methodological approach: qualitative social science and experimental philosophy

Joshua Knobe and Shaun Nichols, who are considered as two of the founders of modern experimental philosophy write in their "Experimental Philosophy Manifesto":

> "Like philosophers of centuries past, we are concerned with questions about how human beings actually happen to be. We recognize that such an inquiry will involve us in the study of phenomena that are messy, contingent, and highly variable across times and places, but we do not see how that fact is supposed to make the inquiry any less genuinely philosophical. On the contrary, we think that many of the deepest questions of philosophy can only be properly addressed by immersing oneself in the messy, contingent, highly variable truth about how human beings really are. […] we think that a critical method for figuring out how human beings think is to go out and actually run systematic empirical studies." (Knobe, Nichols 2007a, p. 3)

In a short introduction to experimental philosophy Kwame Anthony Appiah aptly describes what analytic philosophers did in the middle of the twentieth century when philosophy was understood as mere concept analysis: "You considered, then, not how things are but how we think about them, more or less however they are; and the only access you really had to how we think was to notice some of the patterns in what we do and don't say." (Appiah 2014, p. 13). He continues to explain that "we" in this case refers to the very homogenous class of academic philosophers. Even though philosophy took into account what "people" thought and said, it was not based on any empirical data on people's opinions, attitudes or judgements. Looking further into philosophy's past, however, the insights of prominent thinkers – from Socrates to Descartes - were influenced by their empirical work, not least because philosophy was not as clearly separated from other scientific disciplines as it is today. Contemporary experimental philosophers often refer to these early interests in empirical data just before they clarify that current experimental philosophy, in contrast, follows a much more stringent methodology. Appiah points to an empirical study on the folk conception of truth published in 1938 by Arne Naess, who, on that occasion, came up with the term "experimental philosophy". It took several more decades, though, until experimental philosophy became an established field.

Thought experiments like the Gettier cases in epistemology (Gettier 1963) or the Trolley problem in ethics (Thomson 1985) have a long tradition. However, the way they have been used most of the time is mainly for illustration purposes. The audience is asked to follow an argument with the help of a fictional example, which facilitates and supports the explanation.

In contrast, experimental philosophers use the thought experiments to actually collect empirical data. Fictional scenarios are presented, and people are asked to judge them either morally ("Was this behaviour morally wrong?") or relating to a certain concept ("Did the person act intentionally?"). Presenting several of these situations which only differ in one particular factor to the same person makes it possible to spotlight this person's (moral) definitions, intuitions or reasoning – depending on the specifics of the scenario. Furthermore, inconsistencies in the participant's concepts can indirectly be pointed out to her and increase her ethical awareness.

In that sense, it was the intention for this doctoral project to address questions regarding the ethical dimension of the human-animal relationship with systematic empirical studies: first qualitatively, then quantitatively. Using a "mixed-methods" approach different angles were chosen for the inquiry.

In part it was intended to gain a broad range of ideas and intuitions regarding the moral status of nonhuman animals from the interviews, a few of which we could afterwards refine with the help of thought experiments. However, qualitative data do not merely provide a few items that can be confirmed, specified or investigated in detail with quantitative methods. Such an attitude would clearly underestimate the nature of qualitative research (Greene 2007, p. 20). In fact, the qualitative interviews turned out to be an ideal instrument to look into the core of individual human-animal relationships. The interviewees' narratives were extremely rich and diverse, full of contrasts, self-reflection and doubts and beyond their scientific value they were surprising and entertaining. More in-depth reasons for using qualitative methods in empirical animal ethics are given in chapter 2.1. For more details about our interviews see chapter 3.

In contrast to other many mixed-methods projects it was not planned to use questionnaires for the quantitative part but thought experiments. Experimental philosophy aims at bridging the gap between what is frequently called "common sense", "intuitive" or "common beliefs" of "ordinary people" in philosophical papers and actual folk intuitions concerning statements or phenomena (Knobe, Nichols 2007b). Especially when dealing with action-relevant concepts – like in ethics – it is highly relevant what people feel or think is right or wrong and how their moral judgements are motivated (see chapter "**Ethics – Empirical Ethics – Experimental Ethics**"). Instead of merely questioning people about their opinions, attitudes and concepts, experimental philosophy challenges people's intuitions. Potential

intuitions are triggered by scenarios that are often deprived of the context of everyday moral decisions to exclude many influential factors (e.g. knowledge about laws, personal relationships, prejudices etc.).

In our final discussion we intertwine the methodologically very different approaches to shed light on the moral status of nonhuman animals from a data-based perspective.

Methods

In the first part of the project, interviews were prepared for a content analysis.

Nineteen persons with a special relationship to nonhuman animals were interviewed between September 2013 and April 2015. They were residents in Switzerland (German-speaking part) or Germany without further exclusion criteria. Participants were targeted via internet search, addressed via email or telephone and were taken as interview candidates if they agreed. For some sectors (circus, animal rights activist) only one representative could be recruited. The interviewees' relationships to nonhuman animals were: pet keeper, agricultural scientist, veterinarian, circus manager, animal welfare officer, zoo/wildlife park keeper, biologist, falconer, farmer, animal shelter worker, bee keeper, stablehand, vegan/animal rights activist. Most interviews took place at the interviewee's working place/home. If that was not possible, the interview took place at the IBMB (Institute for Biomedical Ethics Basel) library. A basic interview guide was prepared and adapted to each interviewee. It consisted of three blocks – a first biographical section with questions about the interviewee's (early and current) experiences with nonhuman animals, to generate some narrative parts and to get the person talking; a second part about the interviewee's opinions and judgements concerning properties of nonhuman animals and general questions about human-animal interaction; and a third part about the interviewee's associations with abstract concepts. While the first and second part are established parts of semi-structured interviews in qualitative social science, the third part is rather unusual and does not follow the approach of a content analysis. The themes do not emerge but key words are already presented in the question ("What do you associate with the term 'dignity of an animal'?"). However, we intended to a) get a first impression of our interviewees' spontaneous associations with theoretical concepts with moral relevance and b) contrast people's direct answers to the subtle or indirect answers gained from thought experiments. We limited our questions to the concepts (German original in brackets): "dignity (Würde)", "freedom (Freiheit)", "worth (Wert)", "right (Recht)" and "purpose (Zweck)". The dignity of creatures/animals has been included in the Swiss constitution and we intended to elaborate on the awareness and applicability of the concept with regard to the opinions of those people – if any – who apply it on a daily basis. The other four concepts are integrated in our thought experiments.

The interviews were conducted, audio-recorded, transcribed and anonymised by the author, Kirsten Persson (KP). Transcription was random checked by a member of the team. The transcripts were coded with MAXQDA by KP and Sanja Babic (SB). Codes were compared, discussed and revised throughout the analysis. We followed the content analysis approach by Braun and Clarke (Braun, Clarke 2006). Linking and clustering emerging themes we decided on the topics presented in chapter 3: relationships to specific animal individuals, "someones", those who have names and are close to us, in contrast to those who are anonymous, kept at distance; and the ambiguous term "dignity" of animals. However, the topics are by no means exhaustive. Further topics that were mentioned frequently but not analysed so far due to a lack of resources were e.g. "animal freedom", "human-nonhuman communication", "tensions and coping strategies in the human-nonhuman animal relationship", "animals and economic constraints" or "the relationship to invertebrates".

In the second part of the project we designed fictional scenarios to focus on crucial factors for both theoretical animal ethics and personal/applied animal morality (for a detailed description see chapter 4). In line with the cluster of themes concerning the relationship to specific individuals or anonymous groups we investigated the relevance of: the attribution of certain functional groups ("pet", "lab animal", "wild animal", "farmed animal"); culturally manifested prejudices against certain species ("rats" vs. "dogs"); similarity to humans; the animal's capacities/capabilities (here: feeling pain, using language); personal habits (here: food choices); moral differences due to a difference in relationship ("free-living animal", "pet").

The scenarios were drafted by KP, revised by David Shaw (DS) and pilot tested with 20 persons from KP's personal circle. SurveyMonkey was chosen as an online survey platform. The link created by SurveyMonkey was implemented in a task description for online workers on clickworker.com. Although Amazon Mechanical Turk is the more established platform for online workers we decided to recruit German speaking people to be consistent with the interviewees' language or nationality. Amazon Turk is mainly used by English-speaking online workers whereas clickworker offers a German speaking crowd of ~200000 (https://www.clickworker.de/ueber-uns/unsere-crowd-die-clickworker/). For further details regarding recruitment and payment see chapter 4. Data were evaluated with Excel and SPSS by KP.

In a second (pilot) project an entirely novel and genuinely different approach towards the human-animal relationship was chosen, asking the participants to build scenarios with toy figurines. Despite their differences the established qualitative and quantitative research methods in social science share an important common ground: they are based on verbal communication. Questions and answers are read and written, the analysis is based on texts or to a smaller extent on audio data. Using three-dimensional objects offers a very different, complementary angle to text-based analyses. Our pilot

project aimed at testing the potential of using toy figurines for an innovative approach to human-animal relations. We offered a choice of toy items, mainly figurines of humans and nonhuman animals plus a range of items that allow implicit or explicit interaction between them (fences, brushes, plants, saddles, rifles etc.). With the very broad task to build a scenario with the given figurines we intended to create a spectrum of situations with (or without) human-animal interaction. We took pictures of the built scenarios from different angles. Additionally, we collected demographic data (besides age and gender mainly about having pets or having grown up with nonhuman animals) to suggest the investigation of patterns or correlations. The data produced in this way allow a multitude of analytical approaches. For a detailed description of the project see chapter 2.2.

References

Aaltola, E. (2015). The Rise of Sentimentalism and Animal Philosophy. In E. Aaltola, J.Hadley (Eds.), *Animal Ethics and Philosophy: Questioning the Orthodoxy*. Rowman and Littlefield International: pp. 201–218.

Aitken, G. (2004). *A new approach to conservation: the importance of the individual through wildlife rehabilitation*. Ashgate.

Appiah, K. A. (2014). Experimental Philosophy. In C. Lütge, H. Rusch, M. Uhl (Eds.), *Experimental ethics. Toward an empirical moral philosophy*: Springer, pp. 7–25.

Beauchamp, T. L.; Childress, J. F. (2001). *Principles of biomedical ethics*. Oxford University Press.

Best, S. (2009). The rise of critical animal studies. Putting theory into action and animal liberation into higher education. *Journal for Critical Animal Studies* 7 (1): 9–52.

Bracke, M. B.M.; Greef, K. H. de; Hopster, H. (2005). Qualitative stakeholder analysis for the development of sustainable monitoring systems for farm animal welfare. *J Agric Environ Ethics* 18 (1): 27–56.

Braun, V.; Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3 (2): 77–101.

Bruder, M.; Tanyi, A. (2014). How to Gauge Moral Intuitions? Prospects for a New Methodology. In C. Lütge, H. Rusch, M. Uhl (Eds.), *Experimental ethics. Toward an empirical moral philosophy*. Springer, pp. 157–174.

Cederholm, E. A.; Björck, A.; Jennbert, K.; Lönngren, A.(2014). *EXPLORING THE ANIMAL TURN. Human-Animal Relations in Science, Society and Culture*. Pufendorfinstitutet.

Chimaira Arbeitskreis (2011). *Human-Animal Studies. Über die gesellschaftliche Natur von Mensch-Tier-Verhältnissen*. transcript.

Dawkins, M. S.(2006). A user's guide to animal welfare science. *Trends in Ecology & Evolution* 21 (2): 77–82.

Delon, N.(2015): Against moral intrinsicalism. In E. Aaltola, J.Hadley (Eds.), *Animal Ethics and Philosophy: Questioning the Orthodoxy*. Rowman and Littlefield International: pp. 31–46.

Driscoll, J. W. (1995). Attitudes toward animals: Species ratings. *Society and Animals* 3 (2): 139–150.

Eijsackers, H. J.P.; Scholten, M. C.T. (2011). *Livestock farming with care. Summaries of essays*. Wageningen UR.

Fiorito, G.; Affuso, A.; Anderson, D. B.; Basil, J.; Bonnaud, L.; Botta, G. et al. (2014). Cephalopods in neuroscience. Regulations, research and the 3Rs. *Invertebrate Neuroscience* 14 (1): 13–36.

Fraser, D. (1999). Animal ethics and animal welfare science: bridging the two cultures. *Applied Animal Behaviour Science* **65** (3):171-89.

Frith, L. (2012).Symbiotic empirical ethics. A practical methodology. *Bioethics* 26 (4): 198–206.

Gagneux, P., J. J. Moore, et al. (2005). The ethics of research on great apes. *Nature* 437(7055): 27-29.

Gawronski, B. and J. Cesario (2013). Of Mice and Men: What Animal Research Can Tell Us About Context Effects on Automatic Responses in Humans. *Personality and Social Psychology Review* 20(10): 1-29.

Geers, R.; Petersen, B.; Huysmans, K.; Knura-Deszczka, S.; Becker, M. de; Gymnich, S. et al. (2003): On-farm monitoring of pig welfare by assessment of housing, management, health records and plasma haptoglobin. *Animal Welfare* 12 (4): 643–647.

Gettier, E. L. (1963). Is justified true belief knowledge?. *analysis* 23 (6): 121–123.

Goodwin, G. P.; Darley, J. M. (2008): The psychology of meta-ethics. Exploring objectivism. *Cognition* 106 (3): 1339–1366.

Greene, J. C. (2007). Mixed methods in social inquiry: John Wiley & Sons.

Haidt, J. (1995). The emotional dog and its rational tail: A social intuitionist approach to moral judgment.*Psychological Review*, 108: 814–834

Herrera, C. (2008). Is it time for bioethics to go empirical? *Bioethics* **22** (3):137-46.

Knobe, J., and Nichols, S. (2007). An experimental philosophy manifesto. In Knobe, J., and Nichols, S. (eds), *Experimental Philosophy*. Oxford University Press.
Knobe, J., and Nichols, S. (Eds.)(3007b). *Experimental Philosophy*. Oxford University Press.
Kolar, Roman (2006): Animal experimentation. *Science and Engineering Ethics* 12 (1): 111–122.
Krones, T. (2009). Empirische Methodologien und Methoden der angewandten und der empirischen Ethik. *Ethik in der Medizin* 21 (3):247.
Kymlicka, Will; Donaldson, Sue (2011): Zoopolis. A political theory of animal rights. Oxford: Oxford University Press.
Leopold, A. (1986). *Sand county almanac*. Ballantine Books.
Lund, T. B.; Lassen, J.; Sandøe, P. (2012). Public Attitude Formation Regarding Animal Research. *Anthroz Jour Inter Peo Ani* 25 (4): 475–490.
Midgley, M. (1983). *Animals and Why They Matter*. University of Georgia Press.
Molewijk, B., Stiggelbout, A. M., Otten, W., Dupuis, H. M., & Kievit, J. (2004). Scientific contribution. Empirical data and moral theory. A plea for integrated empirical ethics. *Medicine, Health Care and Philosophy* 7(1): 55–69.
Palmer, C. (2010). *Animal ethics in context*. Columbia University Press.
Prinz, J. J. (2007). Empirical Philosophy and Experimental Philosophy. In Knobe, J., and Nichols, S. (eds), *Experimental Philosophy*. Oxford University Press, pp. 189–208.
Regan, T. (1987). *The case for animal rights*. Springer.
Reiter-Theil, S. (2012). What Does Empirical Research Contribute to Medical Ethics? *Cambridge Quarterly of Healthcare Ethics* 21 (4), 425.
Ritter, C.; Huynh, C. K.; Etter, J.; Elger, B. S. (2011).Exposure to tobacco smoke before and after a partial smoking ban in prison. Indoors air quality measures. *Tobacco Control* Published Online First: 11 August 2011.
Ritvo, H. (2007). On the animal turn. *Daedalus* 136 (4): 118–122.
Romànn, V. (2015). Argentina Grants an Orangutan Human-Like Rights. An appeals court sets a precedent by giving an ape legal rights to life, liberty and freedom from harm. *Scientific American*, 1/9/2015.
Singer, P. (1977). *Animal liberation. Towards an end to man's inhumanity to animals*. Granada Publishing Ltd.
Singer, P. (2009). Speciesism and moral status. *Metaphilosophy* 40 (3-4): 567–581.
Sparrow, S. S., S. Robinson, et al. (2011). Opportunities to minimise animal use in pharmaceutical regulatory general toxicology: A cross-company review. *Regulatory Toxicology and Pharmacology* 61(2): 222-229.
Stahl, T. (2013). *Einführung in die Metaethik*. Reclam.
Steinfeld, H.; Gerber, P.; Wassenaar, T. D.; Castel, V.; Haan, C. de (2006).*Livestock's long shadow. Environmental issues and options*. Food & Agriculture Org.
Thomson, J. J.(1985). The trolley problem. *The Yale Law Journal* 94 (6): 1395–1415.
Verhoog, H. (2007): The tension between common sense and scientific perception of animals: recent developments in research on animal integrity. *NJAS - Wageningen Journal of Life Sciences* 54 (4): 361–373.
Vranas, P. (2007).I OUGHT, THEREFORE I CAN. *Philos Stud* 136 (2): 167–216.
Vries, R. de; Gordijn, B. (2009). EMPIRICAL ETHICS AND ITS ALLEGED META-ETHICAL FALLACIES. *Bioethics* 23 (4): 193–201.
Warren, M. A. (1997). *Moral status: Obligations to persons and other living things*. Clarendon Press.
Wild, M.; Willemsen, A. (2012): *Fische. Kognition, Bewusstsein und Schmerz: eine philosophische Perspektive*. Bundesamt für Bauten und Logistik BBL.
Wolf, U.(1990). *Das Tier in der Moral*. Klostermann.
Wolf, U. (2012). *Ethik der Mensch-Tier-Beziehung*. KlostermannRoteReihe.

http://albert-schweitzer-stiftung.de/tierschutz-erfolge. Access : 18.03.2013
http://www.greenpeace-magazin.de/magazin/archiv/5-11/ilse-aigner/. Access: 18.03.2013
http://www.ekah.admin.ch/en/topics/dignity-of-living-beings/index.html. Access: 26.03.2013
https://www.clickworker.de/ueber-uns/unsere-crowd-die-clickworker/ Access: 25.3.2015
http://www.telegraph.co.uk/foodanddrink/9857136/Horse-meat-scandal-timeline.html Access: 22.12.2017

2 Methods in Empirical Animal Ethics

Our methods were briefly introduced in chapter 1.5. However, as the use of empirical data in animal ethics is rather new and innovative than traditional and established we will give some thoughts on the benefits of our approach here. In chapter 2.1 we elaborate on the use of qualitative interviews, i.e. collecting data on moral agents, and the use of quantitative scientific data, i.e. collecting data on nonhuman animals as moral patients. In chapter 2.2 we introduce an experimental approach with visual data, namely scene building with toy figurines, to offer a new perspective on people's perception of human-animal relationships.

2.1 Empirical methods in animal ethics

Abstract

In empirical medical ethics data are collected from different groups (patients, physicians, relatives, other stakeholders) to obtain an overview of and insight into ethically relevant medical processes. This can be done with the qualitative and quantitative methods of the social sciences (Sulmasy and Sugarman 2001). One necessary assumption: different perspectives – of those who treat and those who are treated – are important for analysis of ethical problems and finding solutions.

In animal ethics empirical data are hardly collected at all – it is mainly "armchair philosophy" (Schmidt 2011). Animal ethicists make use of empirical facts for their arguments, though. Facts and figures on slaughtering and animal experiments (for example) frequently illustrate the urgency of various arguments when it comes to practical animal ethics (Gruen 2011; Lafollette 2011; Singer 2008; Gruzalski 2008; Rachels 2011). However, the collection of empirical data in a systematic way is more typical for psychologists dealing with the relationship between humans and nonhuman animals (Kavanagh, Signal, and Taylor 2013; Signal and Taylor 2006; Loughnan, Haslam, and Bastian 2010) or animal welfare scientists (Mason and Latham 2004; Mintline et al. 2013; Temple et al. 2011) than for philosophers.

There is literature on the relevance of empirical knowledge that might be crucial for animal ethics, though: On the one hand, it is claimed that findings about the abilities and properties of nonhuman animals are relevant (Schmidt 2011; Bortolotti 2007; Elwood, Barr, and Patterson 2009; Broom 2007; Dawkins 2008). Properties of certain (groups of) nonhuman animals like the ability to experience pain or suffering, being self-conscious, or acting intentionally can be parts of ethical arguments. Therefore, they need to be investigated as it can be questioned if (some) nonhuman animals meet the criteria for those ethical arguments. On the other hand, from a biologistic evolutionist perspective (Würbel 2009; Wilson and Kellert 1993), or from a sociological/psychological point of view (Levine, Mills, and Houpt 2005; Joy 2003), human behaviour/nature/attitudes are an important aspect of animal ethics: If a

certain concept in ethics is in any way made for application, it is, for example, pivotal to know about people's moral reasoning. And these people cannot exclusively be philosophers who might have a special education for moral reasoning. In analogy to medical ethics, different groups should be considered - those who are treated (nonhuman animals) and those who treat (humans) - and empirical findings should be analysed together to obtain an overview and broad insight into both, nonhuman animals' minds and properties and folk morality. This cannot be done with the same set of methods for both groups, though, as social science methods are not applicable to nonhuman animals. Therefore, empirical animal ethics require an especially interdisciplinary approach, provided that the assumption that different perspectives are important to analyse ethical problems is accepted: The combination of qualitative/quantitative methods of the social sciences and behavioural research can a) reveal a deeper insight in human-animal-interaction on a descriptive level and b) question dominant circumstances and habits on a normative level.

Why empirical data are relevant for animal ethics

Empirical ethics and the use of data

Empirical data are related to ethics in several ways, depending on the approach and the meta-ethical level (e.g. applied ethics, empirical ethics, normative ethics, descriptive ethics, history of ethics) but also depending on the group of ethical subjects (medical ethics, environmental ethics, animal ethics etc.).

Advocates for "biologising" ethics tend to commit the is-ought-fallacy: in descriptive ethics it is not uncommon to try and find evolution-based explanations for moral behaviour (Wilson 2012; Kitcher 2011; Dawkins 1989), but it can be debated how much they have an impact on normative ethics. Krones (15) suggests that we should stop drawing a clear line between "normative/prescriptive" and "empirical/descriptive" bioethics and between philosophers' and sociologists' work on bioethics. Thus, she argues that empirical and theoretical methods in ethics will lead to fruitful results if they interact: Moral theories should be considered falsifiable (through empirical findings), and also be context-sensitive and intertwined with practice in a way that ensures that the analysis of empirical data should always refer to a theoretical background. Bioethicists (here she is mainly referring to medical ethicists) should be competent in both, empirical methods and ethical theory so that they can not only examine data from natural and social sciences but are also able to collect and evaluate their data independently (Krones 2009).

For animal ethics, it is crucial to consider at least two key areas in addition to theoretical philosophical animal ethics: empirical research about nonhuman animals (their abilities, preferences, properties etc.) and about humans who deal with animals. As in a doctor-patient relationship, there are the ones

who treat (pet keepers, farmers, veterinarians, zoo keepers, horse riders, fishers, laboratory experimenters etc. and many people in everyday interactions with nonhuman animals) and those who are treated (nonhuman animals). For empirical ethics research it is pivotal to exhaustively investigate the perspectives and attitudes of both groups. The first part of this paper deals with the large group of moral agents and possible insights from empirical social sciences; the second part will be about empirical research results from natural sciences and their potential influence on animal ethics.

Empirical data from the social sciences

In biomedical ethics the value of empirical research and data is substantially supported and argued for (Krones 2009; Herrera 2008; Hedgecoe 2004).

In principle, similar arguments that are put forward for the necessity of empirical research/data obtained with the methods of social sciences in biomedical ethics apply for animal ethics. The following points illustrating the purposes of empirical research with the methods of social sciences in medical ethics are taken from Rob de Vries and Bert Gordijn "Empirical ethics and its alleged meta-ethical fallacies" (de Vries and Gordijn 2009). It can be argued that all of them apply to animal ethics to some extent. According to the authors, empirical research is useful for the following purposes:

1.) "Description and analysis of the actual conduct of a group with respect to a morally relevant issue

a) describing compliance with existing moral norms

b) determining whether policies or procedures designed to operationalize certain moral norms have been successful"(de Vries and Gordijn 2009)

2.) Identification of moral issues that have escaped the attention of ethicists, but are relevant in a specific context" (de Vries and Gordijn 2009)

3.) "Description and analysis of the actual moral opinions and reasoning patterns of those involved in a certain practice" (de Vries and Gordijn 2009)

4.) "Making ethics more context-sensitive or realistic" (de Vries and Gordijn 2009)

5.) "Description of facts relevant to normative arguments" (de Vries and Gordijn 2009)

6.) "Showing the normative aspects of science, technologies or organizations" (de Vries and Gordijn 2009)

In the context of empirical animal ethics, those aspects are – or should be – crucial in several ways:

1. a) Compliance with existing moral norms is potentially interesting for people who are professionally involved in handling animals. As they have to obey certain laws and guidelines it could be worth investigating if they draw a distinction between what they should do according to the law and what they feel would be the morally right thing to do. On the other hand, this aspect can be investigated for all people who come in contact with nonhuman animals in their everyday life – which is basically everybody. When do people define an action involving nonhuman animals as "wrong" and which norms are important in those situations? Or do some people not see any difference at all between treating nonhuman animals according to a law/guideline and treating them in a morally correct way?

1. b) In contrast to the former aspect one can focus on the laws and guidelines that are (hopefully and probably) based on some ethics principle or approach; there are animal welfare laws on the European level and also in the individual countries and additional agreements like the Basel Declaration, the "3R" or more specific rules at the institution level, which are constantly developed and modified. Interesting questions here include: Do people act differently when they are aware of a guideline? Do people, especially those who are not handling animals in a professional capacity, know about the different laws and do they see practical or moral obstacles in following them? Did the guidelines lead to any changes in the way nonhuman animals are handled?

2.) In the field of farm animal welfare there is a broad current debate about the treatment and living conditions of farmed animals, the balancing of cost effectiveness vs. improvement of the animals' well-being, the lack of control in the upbringing, transporting and slaughtering process etc. However, there are many animal ethics concepts which already suggest solutions to these problems, such as abandoning factory farming and engaging in so called "traditional farming" (DeGrazia 2011) or abolishing all kinds of animal use for nutrition purposes (Gruzalski 2008). Other fields which are less well covered by animal ethics are e.g. the treatment of wild animals or invertebrates. Empirical data – ecological data about wild animals and human-related problems as well as qualitative data about people's opinions – could enlighten these areas and point to potential ethical issues there. Both sides are important to define a problem, though: without knowledge of the facts (e.g. do wild boars suffer from our forest management?) the establishment of moral rules cannot be directed to any goal (e.g. wild boars should not be fed during wintertime); without the knowledge of people's awareness of the problem, there is no starting point for rules or guidelines.

3.) Firstly, guidelines must be accepted by people to make sure they are put into practice. See point 1). And secondly, practices can be considered sources of morality: When something is a common practice in a cultural setting/society, it is less likely to be questioned and often enough considered "the

moral norm". "Don't eat dogs" would be an example for a norm that is not established worldwide but just in certain cultural contexts and became a norm by practice. There is no consistent ethical theory explaining why we should eat pigs but not dogs, but there are cultural, practical and psychological explanations (Joy 2003).

4.) Context-sensitivity concerns finding out about potential success of a norm, which is especially important in the case of animal ethics: It leads away from questions like "can they suffer" or "does it matter whether their suffering can be compared to ours?" and more towards questions like "is it morally acceptable what we do in line with our norms/laws to those creatures which certainly do suffer". Also, morally irrelevant separations and distinctions, categories and arbitrary choices become obvious. Laws and guidelines take into account various aspects which are not related to moral considerations which is why some of them result in inconsistent moral claims: A "lab dog" and a "pet dog", for example, are protected by completely different laws, although they might have the same morally relevant properties. If someone wants to shoot a boar, she needs a hunting licence; in contrast to that, slaughterhouse workers just need a working contract with a slaughterhouse. They are often temporary workers who are not specifically educated for this kind of work (Sebastian 2014). In both cases the groups of animals treated do not differ in a morally relevant way. However, the laws are based on further aspects (freedom of science, protection of natural resources, public safety etc.) and lead to a different treatment.

Furthermore, if norms are too abstract, reduced to a few basic principles or based on calculus, it is unlikely that people are willing and able to stick to them in their context-dependent everyday life decisions. On the other hand, however, there is the danger of moral relativism if context-sensitivity is overrated. If, for example, the moral rule for dealing with nonhuman animals is only based on the individual relationship, it is different for every particular human-animal-constellation and a norm could hardly be identified. However, there are approaches to ethics which stress the importance of care and empathy (Donovan 1990; Donovan 2008). Aitken (Aitken 2004) even emphasises the role of relationships and individual care for nonhuman animals as a crucial factor for conservation ethics. Thus, the weight that is given to such non-rationalistic factors very much depends on the particular ethical position.

5.) For animal ethics, the description of morally relevant facts refers to at least two questions: What are the empirical assumptions about humans dealing with animals and what are the assumptions about the properties of nonhuman animals?

The first would be answered e.g. by evolutionary biologists: How did the human-animal-relationship start and what motivated humans in the first place to care about animals? Or it could be discussed by

psychologists: How do people cope with the ambivalences in their perspective on different kinds of nonhuman animals? Is it a matter of having a certain kind of personality if we agree to kill animals for certain purposes?

The second question would go to the expertise of biologists and animal welfare scientists and beyond. For example: What really matters to farm animals? Are the test tools we use to make predictions about their comfort, suffering, preferences etc. valid and reliable? Do our concepts of autonomy, well-being, pain, company etc. apply to nonhuman animals? Why did nonhuman animals choose to build relationships with humans? And additionally: the strong moral intuitions that build the basis of our ethical systems also need empirical support. What makes a creature important to us? Similarity, intelligence, the ability to feel pain, if we know it personally, if it is "cute"?

This second question will be discussed in the second part of this article in terms of the importance of the sciences for animal ethics.

6.) The normative aspects of science and technologies are a very important factor e.g. in the current discussion about chimaera, GMO, inter-species organ transplantation or in-vitro meat; but it also concerns the ethical aspects of all kinds of animal-related research in genetics, ecology, behavioural studies, neuroscience or medical experiments. It is common to find scientific publications dealing with one of these issues without raising ethical doubts at all (see e.g. Cooper (2002)). This lacking reflection points to one of many fields where animal ethics are neglected in empirical research, although nonhuman animals are undeniably affected.

Empirical data from the natural sciences

As mentioned above, besides empirical data obtained with the methods of social sciences animal ethics can clearly benefit from findings in the natural sciences. In contrast to cases with human moral patients, we do not have access to preferences, opinions and satisfaction of nonhuman moral patients via verbally asking them. However, behavioural studies can give information about their cognitive and technical abilities, preferences, their social competences, emotions and their way of reasoning/problem solving (Koknaroglu and Akunal 2013). This type of interdisciplinary research has been argued for by philosophers as well as by natural scientists. For example, Kirsten Schmidt points out three major arguments why findings in the sciences matter for normative animal ethics:

1.) For moral subjects following pathocentric or sentientist ethics, it is indispensable to know more about nonhuman animals' ability to feel pain (Schmidt 2012), i.e. to suffer, or to be what Regan calls "subjects-of-a-life" (Regan 1987). Recent findings about crustaceans, fish and cephalopods

(Segner 2012; Conte 2004; Wild and Willemsen 2012; Elwood, Barr, and Patterson 2009; Broom 2007) not only suggest that we as individuals should re-evaluate the way we treat those animals (e.g. when fishing or when boiling lobsters alive). In fact, even national or international laws, directives and guidelines explicitly add certain taxa like crustaceans and cephalopods to the group of vertebrates which is standard protected by animal welfare laws (Directive 2010/63/EU of the European parliament and of the council on the protection of animals used for scientific purposes, official journal of the European union 2010; TSchV Schweiz, 2008; TierSchG Deutschland, 2006). A change in scientific knowledge about certain properties of nonhuman animals thereby lead to a change in legally binding documents.

2.) To be able to react to a creature's needs, we need research on this factor by using animal welfare science or animal psychology (Schmidt 2012). Tools have e.g. been developed to find out about (farm) animals preferences for certain kinds of housing (Dawkins and Beardsley 1986). Furthermore, there have been attempts to assess the overall well-being of nonhuman animals on the basis of certain observable parameters (Temple et al. 2011; Weber and Zárate 2005; Mintline et al. 2013; Sutton et al. 2013).

3.) Schmidt also stresses the need for further scientific investigations of our moral reasoning about nonhuman animals as discussed in part 1, but she emphasises the value of

a. psychological and

b. neurological findings (Schmidt 2012):

Gaining knowledge about the nature of our moral judgements and the way our brain categorises incidents and other beings could e.g. help convincing people to consider nonhuman animals as relevant moral patients in the first place Research is especially needed and already ongoing – on both, the conceptual (Joy 2003) and practical (Loughnan, Haslam, and Bastian 2010) level – for certain cognitive biases. The aforementioned ambivalent relationship between humans and nonhuman animals of different kinds needs a thorough investigation if topics such as industrialised animal farming and vivisection should be addressed from a normative perspective.

Additionally, these findings could be useful for educational purposes: For someone adopting a care ethics approach (Midgley 1983; Aaltola 2013; Donovan 2008), education on how to deal with nonhuman animals would be more effective e.g. if we knew more precisely how empathy evolved and can be encouraged in humans.

Further aspects about the relationship between natural sciences and animal ethics can be considered:

4.) The problematic lack of communication between animal ethicists and animal welfare scientists has been exposed and the potential benefit of scientific exchange in this field has been discussed: Fraser (Fraser 1999) is optimistic regarding the convergence of philosophy and sciences studying nonhuman animals and trying to answer the corresponding interdisciplinary questions. However, he criticises one largely neglected aspect: Several famous animal ethics theories do not sufficiently differentiate between

a. Different animal taxa: Talking about ethics for "nonhuman animals" emphasises the gap between humans and the rest of the animal kingdom although humans might have a lot more in common with e.g. great apes than these have with e.g. flatworms. "Treating animals" can therefore only be a very general issue that has to be differentiated when it comes to norms and guidelines.

b. Different ways of dealing with nonhuman animals: classifying e.g. all kinds of practices under the term "commercial animal agriculture" makes it impossible to address individual processes as commonly done in animal welfare sciences (Fraser 1999).

These two aspects are only examples for theoretical animal ethics missing a differentiation which is important for applied ethics.

5.) It must additionally be considered that, depending on their properties, there might be the necessity to grant certain animals basic rights. This has been argued at least in the case of great apes and certain marine mammals (Grimm 2011; DeGrazia 1997) Two well-known and recent approaches are the great ape project and the Zoopolis concept: The former, founded by Peter Singer and Paola Cavalieri, claims three basic rights explicitly for the group of great apes in its "World declaration on great primates" , which it ultimately wants to be accepted by the United Nations: the right to life, the protection of individual freedom and the prohibition of torture. The argumentation is based to a large extent on the physical and mental similarity between humans and great primates. ¨

The latter approach suggests different legal rights to certain groups of animals according to their relationship with human society: Donaldson and Kymlicka (Donaldson and Kymlicka 2011) suggest that domestic animals should be given citizenship as they are members of our society. Wild animals are considered to have their own societies and their sovereignty as such should be protected. A third group – animals living among humans like racoons, insects or rats – should be considered "denizens", i.e. getting some but not all rights of full citizens. Thus, in this case, crucial criteria are not species-specific or individual properties but the relation to human society which initially has to be investigated for every group of nonhuman animals.

Discussion

The question about the relationship between "folk moral" findings and normative claims is, of course, not restricted to animal ethics. The intersection between philosophical and psychological objects of research is e.g. also investigated by experimental philosophers: They are interested in psychological processes underlying philosophical phenomena (like moral decisions), so they conduct and analyse thought experiments systematically (Knobe and Nichols 2007). Their findings about people's (and not barely philosophers') intuitions regarding philosophical concepts are remarkable; the Knobe Effect (Knobe 2003) is just one example. Consequently, they argue that "empirical evidence can (and should) play a positive role in ethical theorising" (Kahane 2013). A thorough discussion of experimental philosophers' methods and their meaning for ethical theory would, however, go beyond the scope of this paper.

Whereas they ground their research on quantitative data – by analysing their thought experiments statistically – the importance of qualitative data should not be neglected. On the one hand ideas for quantitative analysis can inductively be found in qualitative data. Interviews can present a source of individual opinions whose intersubjectivity might be worth testing, especially if they contradict the theoretical ethicist's rational argumentation – e.g. about individual experiences with nonhuman animals, about the ambivalences in the human-animal-relationship, about nonhuman animals' dignity, value or status. On the other hand, qualitative data provide a range of perspectives, arguments and more complex reasoning that cannot be detected by standardised questioning.

However, for both, quantitative and qualitative data, normative claims can only be proposed carefully to avoid the is-ought-fallacy. If a majority of the participants in an empirical study intuitively judges an action as morally correct there might still be good reasons to call it ethically wrong. Moral intuitions can be common and still incoherent, contradictive or unjustified. At the same time, findings from the natural sciences can lead to reductionist conclusions: If we find out that a group of nonhuman animals is e.g. more intelligent than we thought, it does not immediately tell us more about how we should treat them. Ethicists must especially beware of anthropomorphisation: A prima facie human-like feature like e.g. the ability to use a sign language could easily be seen as a morally relevant property of Species X. However, Species Y might not be able to use sign language for anatomic reasons but still have the same morally relevant properties as Species X and should therefore be morally considered in the same way. Let's say you find yourself in a dilemma situation: You stand in front of three cages which are about to be burned by a huge fire. You can only rescue one of the three creatures sitting in the cages. The first is a non-sentient robot-like creature which eloquently tries to convince you to save it. The second is a human-like creature not showing any signs of sentience or communication skills. The third is a snail-like creature screaming in pain. Which would you rescue? Explaining why opinions,

properties and preferences are morally relevant cannot be skipped and the mere reference to our own species cannot be considered sufficient.

However, it must be taken into consideration, that ethics only make sense if they are applicable. If the conclusions of a moral theory are counter-intuitive, and are not at all in line with "folk moral" judgements, they are only valuable for the armchair philosopher's theory collection. This is especially true for animal ethics as people's personal moral judgements are frequently demanded in this field: There are only very few clear legal regulations for every-day interactions with nonhuman animals, but so many choices affecting nonhuman animals morally – more obvious ones like dealing with pets or enjoying activities like horseback riding and visiting zoos/circuses or more subtle ones like the consumption of animal products, the use of resources in competition with free living animals etc. Institutionalised use of nonhuman animals such as factory farming, captivity in zoo cages and torture breeding are directly supported through consumer behaviour. Thus, people have to make numerous (consumption) decisions in their everyday life which affect nonhuman animals without having obvious guiding principles to hand. The lack of awareness of the crucial connection between choices in everyday life and consequences for nonhuman animals, as e.g. claimed in the concept of carnism (Joy 2003), might even be enforced by the fact that there are no restricting laws. While there are laws concerning factory farming, breeding, hunting or keeping nonhuman animals in zoos, they affect mostly professionals and even these people might have a moral perspective on their actions that differs from their legal duty. Lay people, however, if they think about the consequences of their actions at all, must rely on their own set of moral rules when it comes to questions like: Is it acceptable to use cosmetics that were tested on nonhuman animals? Are we allowed to eat foie gras? Is it sustainable to consume this steak? Do I want my child to watch a great ape behind plexiglass windows? If an animal ethics theory is meant to provide more than an animal welfare law, people's intuitions, situation-specific circumstances and properties/preferences of the nonhuman animals must therefore be taken into account. Raising awareness about the effects of every-day choices can be an additional goal of empirical animal ethics.

An important aspect of empirical data from the natural sciences is the following paradox: some potentially morally relevant properties of nonhuman animals (e.g. being able to feel pain or stress) could be investigated in a way that would not have been legally allowed if the outcome (e.g.: that a creature is able to feel pain or stress) had been known beforehand. Animal experiments that are painful or stressful, but also tests aiming at showing that certain species behave altruistic or compassionately are occasionally cruel for creatures with these precise properties. It should therefore be discussed (elsewhere) if the scientific method is always appropriate to scrutinise the possession of certain properties which are part of an anthropomorphic ethical framework. It is rather to be

questioned to what extend knowledge about these properties is necessary and what means are adequate to gain that knowledge.

Another difficulty is the challenge that interdisciplinary methods present to an animal ethics researcher: If she understands herself as an empirical ethicist and wants to collect all data herself she must be competent in the methods of natural and social sciences and in ethical theory – or have access to an interdisciplinary team that is familiar with the research questions. This is especially the case with regard to the aforementioned argument: if research is aiming at meaningful results for ethical theory and at the same time does not want to harm nonhuman animals it will in most cases be necessary to design and conduct the studies by oneself. Simply using the results of animal welfare studies would e.g. implicitly acknowledge their methods and hypotheses, although they might be ethically questionable, as mentioned earlier: Finding out about animals' properties and preferences might already include doing harm. A thorough education in all related disciplines is therefore required for those working in the field of empirical animal ethics. However, the dialogue between researchers in different scientific fields (social sciences, psychology, animal welfare studies, behavioural biology etc.) could already provide a first insight into questions that can be investigated with interdisciplinary empirical animal ethics.

Key findings

The combination of a range of empirical methods can lead to an empirical animal ethics approach that is far more adapted to the needs of humans and nonhuman animals and more appropriate in different circumstances and situations than a purely theoretical concept solely premised on rational arguments.

However, the potential tension between lay people's moral judgements and ethical theory must be handled with care. The thorough analysis of qualitative data can lead to a deep insight into e.g. ethical problems with the application of laws and guidelines, practicality issues with animal ethics theories, personal ambivalence, and cognitive biases. All these phenomena call for interpretation or possible explanations. The interaction between animal ethics theory and empirical findings with the methods of social sciences can lead to both a more context-sensitive and applicable ethical theory and a less arbitrary folk moral system.

Findings from the natural sciences can also contribute valuable information to animal ethics theory – the more we know about the properties and preferences of nonhuman animals the better we can consider and respect them. Here, however, it is vital not to justify invasive procedures for the sake of "ethical progress". It might be ethically required to forego some scientific findings about nonhuman animals if it is not clear how much a procedure would harm them. Behavioural studies with free living animals should be considered as an alternative if possible.

References

Aaltola, E. (2013). Skepticism, Empathy, and Animal Suffering. *Journal of Bioethical Inquiry* 10 (4):457-67.

Aitken, G. (2004). *A new approach to conservation: the importance of the individual through wildlife rehabilitation*. Ashgate.

Bortolotti, L. (2007). Disputes over moral status: philosophy and science in the future of bioethics. *Health Care Anal* 15 (2):153-8.

Broom, D. (2007). Cognitive ability and sentience: which aquatic animals should be protected? *Diseases of aquatic organisms* 75 (2):99-108.

Conte, F. S. (2004). Stress and the welfare of cultured fish. *Applied Animal Behaviour Science* 86 (3-4):205-23.

Cooper, D. K. C., B. Gollackner, D. H. Sachs. (2002). Will the pig solve the transplantation backlog? . *Annual review of medicine* 53 (1):133-47.

Dawkins, M. S. (2008). The Science of Animal Suffering. *Ethology* 114 (10):937-45.

Dawkins, M. S., and Beardsley, T. (1986). Reinforcing properties of access to litter in hens. *Applied Animal Behaviour Science* 15 (4):351-64.

Dawkins, R. (1989). The selfish gene. 1976. *revised edn. Oxford*.

de Vries, R., and Gordijn, B. (2009). Empirical ethics and its alleged meta-ethical fallacies. *Bioethics* 23 (4):193-201.

DeGrazia, D. (1997). Great Apes, Dolphins, and the Concept of Personhood. *The Southern Journal of Philosophy* 35:301-20.

DeGrazia, D. (2011). The ethics of confining animals: From farms to zoos to human homes. In Frey, R., and Beauchamp, T. (eds), *The Oxford Handbook of Animal Ethics*. New York, USA, Oxford University Press: . pp. 738-68.

Donaldson, S., and Kymlicka, W. (2011). *Zoopolis: A political theory of animal rights*. Oxford University Press.

Donovan, J. (1990). Animal rights and feminist theory. *Signs*:350-75.

Donovan, J. (2008). Aufmerksamkeit für das Leiden. Migefühl als Grundlage der moralischen Behandlung von Tieren. In Wolf, U. (ed), *Texte zur Tierethik*. Stuttgart, Philipp Reclam jun. GmbH & Co.

Elwood, R. W., Barr, S., and Patterson, L. (2009). Pain and stress in crustaceans? *Applied Animal Behaviour Science* 118 (3-4):128-36.

Engels, E.-M. (2008). Was und wo ist ein "naturalistischer Fehlschluss"? In Brand, C. E., E.-M.; Ferrari, A.; Kovacs, L. (ed), *Wie funktioniert Bioethik*. Paderborn, Mentis.

Fraser, D. (1999). Animal ethics and animal welfare science: bridging the two cultures. *Applied Animal Behaviour Science* 65 (3):171-89.

Grimm. (2011). Are Dolphins Too Smart for Captivity? *Sciencemag* 332:526-29.

Gruen, L. (2011). *Ethics and animals: an introduction*. Cambridge University Press.

Gruzalski, B. (2008). Warum es falsch ist, Tiere zu essen, die zur Nahrungsgewinnung gezüchtet und geschlachtet wurden In Wolf, U. (ed), *Texte zur Tierethik*. Stuttgart, Philipp Reclam jun. GmbH & Co.

Hedgecoe, A. M. (2004). Critical bioethics: beyond the social science critique of applied ethics. *Bioethics* 18 (2):120-43.

Herrera, C. (2008). Is it time for bioethics to go empirical? *Bioethics* 22 (3):137-46.

Joy, M. (2003). Psychic numbing and meat consumption: The psychology of carnism.

Kahane, G. (2013). The armchair and the trolley: an argument for experimental ethics. *Philosophical Studies* 162 (2):421-45.

Kahane, G., and Shackel, N. (2008). Do abnormal responses show utilitarian bias? *Nature* 452 (7185):E5-E5.

Kavanagh, P. S., Signal, T. D., and Taylor, N. (2013). The Dark Triad and animal cruelty: Dark personalities, dark attitudes, and dark behaviors. *Personality and Individual Differences* 55 (6):666-70.
Kitcher, P. (2011). *The ethical project*. Harvard University Press.
Knobe, J. (2003). Intentional action and side effects in ordinary language. *Analysis* 63 (279):190-94.
Knobe, J., and Nichols, S. (2007). An experimental philosophy manifesto. In Knobe, J., and Nichols, S. (eds), *Experimental Philosophy*. Oxford University Press.
Koknaroglu, H., and Akunal, T. (2013). Animal welfare: an animal science approach. *Meat Sci* 95 (4):821-7.
Krones, T. (2009). Empirische Methodologien und Methoden der angewandten und der empirischen Ethik. *Ethik in der Medizin* 21 (3):247.
Lafollette, H. (2011). Animal Experimentation in Biomedical Research. In Frey, T. L. B. R. G. (ed), *The Oxford Handbook of Animal Ethics*. New York, Oxford University Press. pp. 796 - 825.
Levine, E. D., Mills, D. S., and Houpt, K. A. (2005). Attitudes of veterinary students at one US college toward factors relating to farm animal welfare. *Journal of veterinary medical education* 32 (4):481.
Loughnan, S., Haslam, N., and Bastian, B. (2010). The role of meat consumption in the denial of moral status and mind to meat animals. *Appetite* 55 (1):156-9.
Mason, G., and Latham, N. (2004). Can't stop, won't stop: is stereotypy a reliable animal welfare indicator? *ANIMAL WELFARE* 13:S57-S70.
Midgley, M. (1983). *Animals and Why They Matter*. University of Georgia Press.
Mintline, E. M., Stewart, M., Rogers, A. R., Cox, N. R., Verkerk, G. A., Stookey, J. M., Webster, J. R., and Tucker, C. B. (2013). Play behavior as an indicator of animal welfare: Disbudding in dairy calves. *Applied Animal Behaviour Science* 144 (1):22-30.
Mintline, E. M., Stewart, M., Rogers, A. R., Cox, N. R., Verkerk, G. A., Stookey, J. M., Webster, J. R., and Tucker, C. B. (2013). Play behavior as an indicator of animal welfare: Disbudding in dairy calves. *Applied Animal Behaviour Science* 144 (1-2):22-30.
Nichols, S., and Knobe, J. (2007). Moral responsibility and determinism: The cognitive science of folk intuitions. *Nous* 41 (4):663-85.
Rachels, S. (2011). Vegetarianism. In Beauchamp, T., and Frey, R. (eds), *The Oxford Handbook of Animal Ethics*. New York, USA, Oxford University Press.
Regan, T. (1987). *The case for animal rights*. Springer.
Schmidt, K. (2011). Concepts of animal welfare in relation to positions in animal ethics. *Acta Biotheor* 59 (2):153-71.
Schmidt, K. (2012). Naturalizing Ethics. *EurSafe* 14 (2):2-6.
Sebastian, M. (2014). In den Schlachthöfen der Welt. In Diplomatique, H.-B. S. B. L. M. (ed), *Fleischatlas 2014. Daten und Fakten über Lebensmittel*. Eigenverlag. pp. 18-19.
Segner, H. (2012). *Fish: Nociception and Pain: a Biological Perspective*. Federal Office for Buildings and Logistics (FOBL).
Signal, T. D., and Taylor, N. (2006). Attitudes to animals: Demographics within a community sample. *Society & Animals* 14 (2):147-57.
Singer, P. (2008). Tierversuche. In Wolf, U. (ed), *Texte zur Tierethik*. Reclam.
Sulmasy, D. P., and Sugarman, J. (2001). The Many Methods of Medical Ethics (Or, Thirteen Ways of Looking at a Blackbird.). *Methods in medical ethics*:3-18.
Sutton, G. A., Dahan, R., Turner, D., and Paltiel, O. (2013). A behaviour-based pain scale for horses with acute colic: scale construction. *Vet J* 196 (3):394-401.
Sytsma, J., and Machery, E. (2012). The two sources of moral standing. *Review of Philosophy and Psychology* 3 (3):303-24.
Temple, D., Manteca, X., Velarde, A., and Dalmau, A. (2011). Assessment of animal welfare through behavioural parameters in Iberian pigs in intensive and extensive conditions. *Applied Animal Behaviour Science* 131 (1):29-39.

Weber, R. E., and Zárate, A. V. (2005). Der Begriff Wohlbefinden in der Nutztierhaltung–Diskussion aktueller Definitionsansätze als Grundlage für praxisorientierte Forschung am Beispiel Mastschweinehaltung. *Archiv Tierzucht,* 48 (5):475-89.

Wild, M., and Willemsen, A. (2012). *Fische: Kognition, Bewusstsein und Schmerz; eine philosophische Perspektive*. Bundesamt für Bauten und Logistik BBL.

Wilson, E. O. (2012). *On human nature*. Harvard University Press.

Wilson, E. O., and Kellert, S. R. (1993). *The biophilia hypothesis*. Washington DC: Island.

Wolf, U. (ed), *Texte zur Tierethik*. Stuttgart, Philipp Reclam jun. GmbH & Co.

Würbel, H. (2009). Ethology applied to animal ethics. *Applied Animal Behaviour Science* 118 (3-4):118-27.

2.2 Beyond words – using toy figurines to analyse human-animal relationships. A summary of a pilot study.

Introduction

Despite their differences the established qualitative and quantitative research methods in social science share an important common ground: being based on verbal communication. Questions and answers are read and written, the analysis is based on texts or to a smaller extent on audio data. Therefore, the analysis is naturally limited by two pivotal constraints:

a) The potential difference between the participant's thoughts and emotions and the text she produces to represent those thoughts

   That constraint can depend on different factors. It might be due to the form, for example the participant's answer could differ – even if only slightly – from all options in a questionnaire with a list of answers. Or the participant's original answer could be modified by reading the list of potential answers. The participant might not be able to precisely express in words what she thinks or feels; she might feel under pressure in an interview situation to produce a quick or politically correct answer. Furthermore, the wording of a question, the interviewer's (unintended) reactions during the answer, a suggestive question style or just the space that is given in a textbox can guide a participant's answer in certain directions.

b) The potential difference between the participant's thoughts and emotions and the interpreter's understanding

   Analysing the meaning of a text is an important aspect of language (semantic aspect of language), and especially challenging in context-dependent, concrete situations such as our study (pragmatic aspect of language) (Morris 1971). The use of certain expressions, for example, might differ between speakers, especially when different dialects of a language are involved as was the case in our study. Nuances in spoken language are easily missed or misinterpreted, while they are often entirely absent in written language. Nervousness due to the interview/"test" situation, transcription or translation mistakes are further examples of this (by no means exhaustive) list of factors that potentially lead to a discrepancy between the interviewee's intended answer and the interpreter's way of reading the answer.

In suggesting a non-verbal approach, we cannot eliminate all these obstacles. However, using three-dimensional objects instead of words offers a very different, complementary angle to text-based analyses. The more common objects of visual research are images or photos (Emmison, Smith 2006). Indeed, our method involves photos of the three-dimensional objects, too. They are captured moments of a creative process. Our pilot project aimed at testing the potential of using toy figurines

for an innovative approach to human-animal relations. With the very broad task to build a scenario with the given figurines we intended to create a spectrum of:

- Stereotypical situations in human-animal interactions (farm, zoo, pets, horse riding etc.)
- Fictional scenarios (dragon fight, paradise, meeting a unicorn etc.)
- Scenes in nature (wood, jungle, meadow, desert, ocean etc.)
- Short narratives (hunt, meeting, accident, approach, escape, hiding etc.)
- Reproduction of tales and stories (Jonah and the whale, the lion king, Jurassic park etc.)
- Static scenes based on aesthetic criteria (circles of animals, patches of plants, lines of humans etc.)

The data produced in this way allow a multitude of analytical approaches. In this summary, we just explain the methods and give some exemplary results. The analysis will be subject of a different article which is not part of the thesis.

It is possible to put on "qualitative glasses" and ask: Which figurines are used and which are ignored? What are the scenarios about? Are humans and animals interacting? And in which ways? What is fictional, what is realistic? How broad actually is the spectrum compared to our expectations? Do we find visions, fantasies, critique, irony or merely reproductions of what is known and common? And in a potential further step: What does the choice of figurines, scenarios and interactions tell us about the human-animal relationship?

Alternatively or additionally, one could look through "quantitative glasses" and ask: How many figurines of which type were used? Which groups of animals are represented more/less often? How far are the distances between the figurines (Emmison, Smith 2006)? How many scenarios represent certain types of situations? How often are certain items used (fences, rifles, buckets, plants etc.)?

In addition, we collected exemplary demographic data as possible candidates for correlations: age, gender, having pets, living together with other animals, having grown up with pets.

Material and Methods

Recruitment

Our participants were invited directly by KP or other institute members, as they were colleagues and students of the IBMB. A chocolate bar was offered as a small thank-you.

Setting

The study took place in an empty room of the IBMB without posters or any other hints regarding the aim of the project. A participant received written instructions when entering the study room (German original in the attachment):

> <<Task:
>
> Many thanks for agreeing to participate in our study. We investigate scenic presentations with toy figurines.
>
> Please build a scene with the given material within the tape-marked borders in 5 minutes. You may use as many or few objects as you like.
>
> When the time is up, we kindly ask you to take a picture of the scene with the camera.
>
> Afterwards there will be a short questionnaire with some demographic details and the opportunity to give feedback.
>
> As a thank-you you receive a chocolate bar.
>
> Have fun and thank you for your participation!>>

Figure 1: setting with tape-marked borders, instruction sheet, cardboard sheets, blocks, figurines (only in part visible here)

When the participant had taken the picture, she was handed the questionnaire with demographics and feedback questions (see attachment) and the study leader (KP) took a standardised picture from above to be able to compare e.g. distances between figurines later.

Material

Figure 2: materials: figurines, wooden blocks, cardboard sheets

A full list of items can be found in the attachment. We used three types of building material for the scenes:

- One DinA3 sheet and two DinA4 sheets of cardboard of each of the colours: grey, dark blue, light green and sand yellow for (optional) ground covering. We chose to make the building field a bit larger than two DinA3 sheets to avoid the impression that we wanted the participants to use (a certain number of) sheets but at the same time give the opportunity to use different colours of sheets.
- Wooden toy blocks in the colours yellow, red and green. The idea was adopted from Gehring (1998) who used figurines and blocks in psychological tests regarding relationships and hierarchies in families. With his tools Gehring evaluates cohesion of family members by measuring distances between the figurines and hierarchies between family members by comparing the heights of figurines (on blocks) (Gehring 1998, p. 19). However, Gehring discloses the intended meaning of the blocks and distances in the test instructions (ibid, pp.

25f.). In our exploratory study we decided not to guide the use of the blocks in any way. We rather wanted to strengthen the 3-dimensionality of our setting and later to evaluate the use of the blocks.

- Playmobil® figurines of humans, animals, plants and items. We included: animals living in different landscapes (giraffe, lizard, whale, wolf, dragonfly…); animals that are usually put into different categories such as "pet"(cat, dog, guinea pig…), "wild animal" (boar, butterfly, dove, hedgehog…), "zoo/exotic animal" (camel, monkey, scorpion…), "farm animal" (cow, horse, goose, pig…), "extinct animals" (dinosaurs), "fantasy animals" (dragon, unicorn); animals of different sizes and biological groups (insects, other invertebrates, mammals, fish, reptiles, amphibians); humans of different sizes, different (apparent/possible) gender, with different clothing, and colour of hair and skin; items that allow human-animal contact or interaction such as: bucket, rifle, brush, fence, snaffle, boat, high seat, magnifying glass, hay, carrot, rack for food etc. Playmobil figurines can hold items in their hands, their arms and legs are mobile so that it is possible to show interaction with other figurines. Their shape allows a human figurine to ride on the back of a horse, unicorn or pony; to sit down on the ground/a block/a boat. This flexibility and the broad range of animals and items available were our reasons for choosing this toy brand.

Photos

The first photograph of each scene was taken by the participant himself. We wanted to keep the builder's perspective on the scene, so we did not define the angle, distance etc. The second picture was standardised and taken by the study leader from above to allow comparative measurements. Further detailed pictures were taken optionally by the study leader for illustration purposes or if some parts of the scene could neither be recognised on the participants' nor on the standardised picture.

Figure 3: Example for a standardised picture

Figure 4: Example for a participant's picture

Summary of Results

We recruited 23 participants for our pilot study. Despite the small number the spectrum of built scenes met our list of expectations. We found

- Stereotypical situations in human-animal interactions

  Several participants built scenes with fenced animals (e.g. cows, horses, pigs) on a farm or (giraffe, camel, gnu) in a zoo, ducks in/near a pond, children with pets, free-living animals in a wood with a hunter/forest ranger etc.

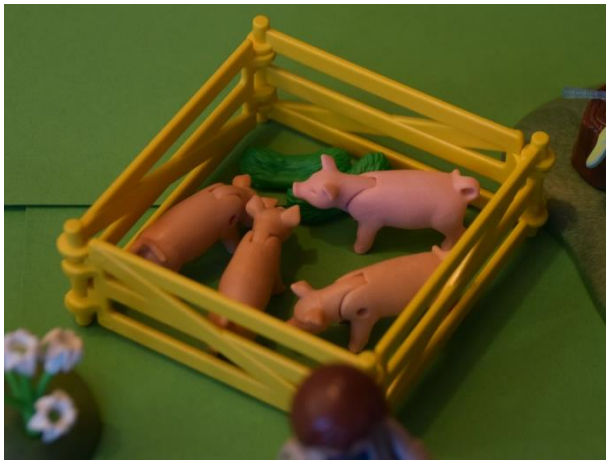


Figure 5: (detail picture) fenced piglets with hay

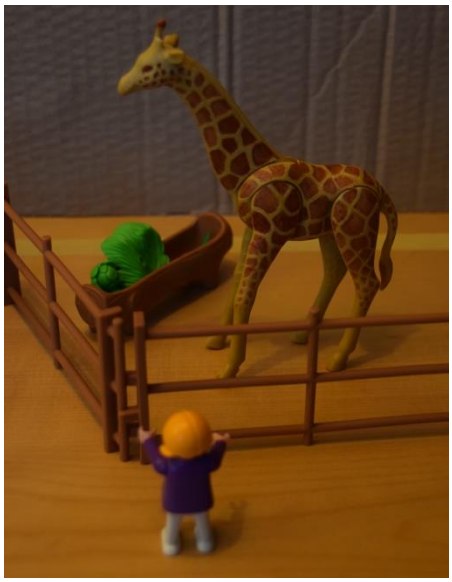


Figure 6: (detail picture) giraffe in a zoo

- Fictional scenarios (dragon fight, paradise, meeting a unicorn etc.)

We offered only two fictional animals, namely the unicorn and the dragon. Being large and colourful the eye-catching dragon was likely to be noticed by all participants and was placed in the scenes three times – almost as often as the less conspicuous unicorn (4 times). It is striking that some of those scenes contained the above-mentioned stereotype situations of interactions as well as the fictional elements.

Figure 8: Fictional scenario: Fish hatching from an eggshell, other animals and a human on a dragon are watching

Figure 7:(section of a scene) girl meets unicorn

- Scenes in nature (wood, jungle, meadow, desert, ocean etc.)

  Some participants chose to build scenes without humans, just using animals, plants and occasionally cardboard or a few items. They described their works as photographs or paintings: “wood with animals”, “an African savanna with a water hole, “A scene in the jungle with a pond”, “my idea of a primordial nature” etc. The animals usually occurred in their natural habitat (gnu – savanna; boar – wood;) and in typical groups if the figurines allowed it (families, packs, swarms, herds etc.). Some participants build this type of scene as a sub-part of their whole scenario. Rather than telling stories the nature scenes give a static impression, again reminiscent of romantic nature paintings.

Figure 9: Example for scene in nature (participant's perspective): a pack of wolves in the wood, a hedgehog family under a tree trunk, two boars, a pair of ducks next to a pond

Figure 10: Example for scene in nature (participant's perspective): primordial nature, different types of landscape (meadow, wood, desert, beach, ocean); animals arranged in groups (cow, wolf, fish etc.)/pairs (starfish, crab, sea horse, lizard, boar etc.)

- Short narratives (hunt, meeting, accident, approach, escape, hiding etc.)

Five minutes is not very much time to get an overview of the material, develop an idea and build a scene. Still, our participants came up with quite a few stories including the use of many small items and details. Many of them are based on human-animal interaction. The “topics” ranged from small incidents (a small person orders a dog to chase a cat on a roof, someone brushes a horse), to fantastic moments (a girl meets a unicorn, a dragon is breaking through a wall of a city without being noticed) to societal critique (a rainbow family, a reversed hunting scene in which a wolf sits on a high seat).

Figure 12: (detail picture) Human lifts hand as if ordering the dog to chase the cat on the roof; striking: although other types of domestic dogs were available participant chose wolf figurine to represent the dog here

Figure 11:(section of a scene) wolf as hunter; notice the rifle between his legs

- Reproduction of tales and stories (Jonah and the whale, the lion king, Jurassic park etc.)

  We did not detect – nor did the written answers contain hints of – references to well-known tales or stories.

- Static scenes based on aesthetic criteria (circles of animals, patches of plants, lines of humans etc.)

Two participants wrote they only used the tiny animals for aesthetic reasons. Other scenes show symmetrical axes, lines or geometrical arrangements.

Figure 13: (section of a scene) Human fetches water from a pond in a bucket; human has caught fish; group of humans watches birds on a building; human points to a dog

Figure 14: (section of a scene) human meets whale

Figure 15: (standardised perspective) humans are arranged in three lines of spectators (front, middle, back); fences of camel and giraffe are arranged in mirror symmetry;

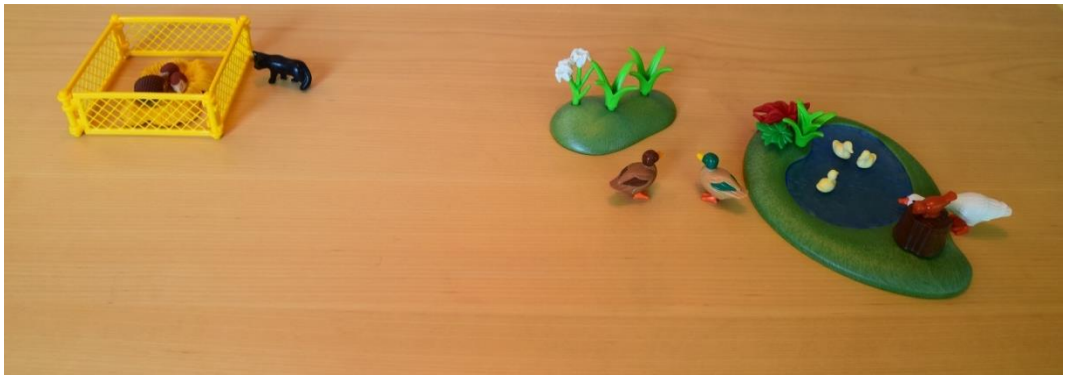


Figure 16: (participant's perspective) participant expressed her preference for the tiny animals

Figure 17: (participant's perspective) participant wrote "I obviously used only tiny animals" - exceptions are gnu, giraffe and large black dog

Limitations

As a pilot study, our research does not provide sufficient data for a thorough analysis. As a feedback a small number of participants said that 5 minutes were not enough time. For a further study with a different research question more time for the building process should be considered. Although some participants asked for additional items in the feedback sheet (e.g. a house or furniture) we judge our material to be adequate for the study's purpose. However, the toy figurines come with certain constraints: Being made for child play playmobil® is usually arranged in packages with themes that are common in toys (pirates, native Americans, pony ranch, farm, holiday on the beach, doll house, fire brigade, fairies etc.). Although it is possible to build an animal testing lab with playmobil® figurines it is not likely that people who are used to the toys from their own childhood, from playing with their children or from advertisements and showcases, would come up with that topic. Like other media for children (Buchner-Fuhs 2015) playmobil® mirrors the mainstream discourse of our society when it comes to the "use" of nonhuman animals. Despite that, many of our participants created contexts beyond that mainstream discourse and told stories that cannot be found in any playmobil® package. Therefore, we consider the toy brand and our choice of items to be sufficiently neutral for a free expression of ideas about human-animal relationships.

Outlook

Based on our expectations and findings the use of toy figurines for the exploration of human-animal relationships is a promising research method. Our participants were empowered to express their views without the constraining frame of a question, a key word, or a topic. The empowerment of participants is not a usual aim of research but has been emphasised for other creative qualitative studies before (Gauntlett, Holzwarth 2006). Without being asked directly, our participants gave us an insight into their view on human-animal relationships – as they were, are or could be. As a compromise between our very open and a very narrow, guiding instruction an appeal to generate a narrative with the scene would facilitate the analysis (e.g. "tell us something about animals with your scene"). However, when used as a complementary method, a key word or precise question can be useful. In chapter 3.2, for example, we investigate different concepts of animal dignity based on interview material. In an additional step we could have asked (the same or further) participants to build a scene under the heading of "animal dignity". With that method we would have learned not so much about the participants' critique of the term "dignity" (as we did in the interview study). However, we would have learned about the contexts of application of the term, about examples that would have been triggered by the creative task and that do not easily come to the participant's mind in an interview situation.

We can only give first ideas and approaches of the analysis of our participants' scenes: With only 23 participants and without a validated evaluation tool we can certainly not come to a grounded discussion of the results. Questions that could be approached with the quantitative and qualitative strategies mentioned in the introduction are for example:

- Which power structures (domestic animals, farmed animals, animals used for entertainment, hunted animals, dangerous wild animals etc.) are reproduced, and which are questioned or criticised? What is the relationship between actual power structures of humans and nonhuman animals and the ones presented by our participants? Do we find visions to overcome power structures?
- Which animals are close to humans? Measurable proximity might be an indicator for attachment, but also certain gestures or situations (cuddling, embracing, touching, brushing, feeding etc.).
- What differences do we find in scenes with and without humans? Are animals presented in a different way when they are not affected by humans?
- Do the participants present any ideas regarding a human-animal relationship that differs fundamentally from the currently dominant ones?

Visual methods are becoming increasingly popular in social sciences. The advantage of figurines in scenes lies not only in a third dimension – compared to pictures or photos – but also the option to document the building process as an interaction between the study participant and the objects (Emmison, Smith 2006). We did not make use of that option so far. Filming the building process and evaluating the interaction of the participant with the figurines, changes of the scene, the order of appearance etc. present excellent complementary elements for a study with figurines.

Furthermore, three-dimensional objects provide an option for group tasks. Study participants might be asked to build in groups or to modify scenes built by other participants. Following the qualitative research tradition, focus groups of different stakeholders in the human-animal context could be built (e.g. farmers, hippotherapists, forest rangers, children with pets, vegans etc.) and present their views.

The spectrum for scientific investigations of the human-animal field with toy figurines is certainly not elaborated comprehensively here, but we hope to give a motivating incentive for further research with the presentation of our pilot study.

References

Buchner-Fuhs, J. (2015). Tiere im Bilderbuch: Mediale Sozialisierung und das Mensch-Tier-Verhältnis. In Brucker, R., Bujok, M., Mütherich, B., Seeliger, M., & Thieme, F. (Eds.), *Das Mensch-Tier-Verhältnis*. Springer pp. 299–326.

Emmison, M.; Smith, P.(2006). Three-Dimensional Visual Data: Settings, Objects and Traces. In Peter Hamilton (Ed.), *Visual research methods*. Sage, pp. 141–169.

Gauntlett, D.; Holzwarth, P. (2006): Creative and visual methods for exploring identities. *Visual Studies* 21 (01): 82–91.

Gehring, T. M. (1998). *Familiensystemtest/FAST*. *Manual.* Beltz.

Morris, C. W. (1971). *Writings on the general theory of signs*. Walter de Gruyter.

3 A qualitative interview study on human-animal relationships

3.1 Why we love cows, eat dogs and name pigs – relationship matters in how we treat nonhuman animals

Abstract

In this paper folk conceptions regarding the moral consideration of nonhuman animals are investigated, with a focus on two important intertwined factors: relationships and names. The qualitative study is based on interviews with 19 stakeholders in the field of human-animal relations; the results reveal support as well as opposition to the patterns that are predominant in the literature. People's moral intuitions regarding nonhuman animals are not only based on concepts like species and the societal role of the animal, but also to a large extent on contextual factors such as personal relationships to actual nonhuman individuals. This is particularly the case for animals that are named. The interviewees frequently reported cognitive dissonance due to relationships. It was at its highest in one of the most delicate issues in human-animal discourse: using animals as food for humans. An integrated animal ethics approach should therefore strive for a stronger consideration of these factors, resulting in a more applicable and feasible model of animal ethics.

Introduction

There are many ways to approach questions about the relationship between humans and nonhuman animals (NHAs); these approaches and questions concern a broad range of academic disciplines and have attracted increasing attention over the last few decades. This phenomenon, known as "animal turn" (Cederholm et al. 2014a), correlates with a growing public awareness of the needs and interests of other creatures. Nevertheless, views on how we should deal with NHAs in certain contexts are far from concordant. In animal ethics we ask for morally relevant criteria to meet these challenges and suggest some orientation for treating NHAs in morally justifiable ways. Among the candidates there are, on the one hand, intrinsic properties of (some or all) NHAs such as being alive (Schweitzer 2008), being "subjects of a life" (Regan 1987), being sentient (Donovan 2007) or having certain capabilities (Nussbaum 2009). Additionally, we find abstract concepts that are attributed to NHAs – which are partially due to their intrinsic properties - and thereby define their moral status, such as values and rights (Regan 1987), dignity (Teutsch 1995) or personhood (Cavalieri, Singer 1993). On the other hand, more contextual criteria have been suggested, such as that individuals belong to a certain group of animals or have a relationship of some kind to humans (Palmer 2010; Wolf 2008).

In this study we investigate the folk moral conception of how we should treat (certain groups of) NHAs and which criteria are used as justifications for distinctions. In our 20 semi-structured, qualitative interviews we talked to a variety of stakeholders in the field of human-animal interaction. The purpose of our research is two-fold as the interaction between moral theory and empirical data can work in two directions. One the one hand, folk moral concepts can be compared to existing moral approaches; biases and ambivalences can be discovered and discussed. At the same time, the empirical findings can impact on moral theory regarding its applicability and lead to its improved adaptation to social practice (Molewijk et al. 2004a). A detailed investigation of the use of qualitative methods for animal ethics can be found elsewhere (Persson, Shaw 2015).

First, people's moral intuitions NHAs' moral status will be investigated: Which criteria are mentioned? Which reasons and explanations are given? In how far is the context morally relevant? And in how far do people explicitly or implicitly disclose contradictions, biases and dilemmas?
Our main hypothesis is that the modalities of moral consideration of nonhuman animals are highly context-dependent.
Second, we point to the feasibility argument, the frequently discussed idea that "ought" implies "can" (see e.g. Vranas 2007, Williams 2011). How we morally "ought" to treat animals must be based on how we "can" treat animals. If humans, for example, were not able to live without eating meat, a moral obligation to live as vegetarians would be pointless (as long as in-vitro meat is not yet on the table). However, there is a more subtle version of "can": If an ethics concept is too demanding for those it concerns, its practical value is questionable to say the least. That does not make the concept incorrect but it undermines its function as an applicable theory; as Weaver and Trevino elaborate: "If empirical impracticality is to count as a refutation of a moral theory, it minimally requires an extra argument to the effect that people should not be held to a standard which it is unlikely they could satisfy in normal circumstances." (Weaver, Trevino 1994, p. 135) A first research question is therefore: Which of the candidates for morally relevant properties *can*, according to their own disclosure, practically be considered by people in everyday life, and therefore qualify as factors that *ought to* be considered? And what constitutes the "normal circumstances" Weaver and Trevino refer to?
A *prima facie* answer to the first question is based on the challenge of impartiality. Although it might be a moral ideal to treat all 'equals' 'equally', we are inclined to consider those individuals that are (physically or emotionally) closer to us as more relevant. What is true for within-human cases[5] (if we have to decide between friends and strangers) and for inter-species cases (if we have to decide

[5] The phenomenon known as "Rule of Rescue" is only one example from medical ethics: Rational criteria like cost-effectiveness are less influential in decision-making when it comes to close relatives or friends compared to unknown strangers. McKie, Richardson 2003

between a friend and an unknown NHA) can also be assumed for cases within the NHA kingdom (if we have to decide between a NHA we know and a NHA we do not know). Therefore, how far moral distance has an influence on moral human-animal interaction must also be investigated.
Another crucial issue is individual attitudes towards certain groups of animals. While there is strong support for generalized attitudes towards species or functional groups (Joy 2011; Herzog 2010) some ethics theories emphasize individual or societal relationships (Wolf 2008; Palmer 2010) as relevant. As these attitudes are revealed most clearly in the context of meat/eating animals, a special focus will be put on the interviewees' reports regarding eating certain – individual or groups of – NHAs.

Methodology

Recruitment

The participants in this study were stakeholders in the diverse field of human-animal relations. As a broad spectrum of opinions, experiences and perspectives should be covered, people, associations or institutions of the following fields were contacted purposively via email or telephone:

Agricultural scientists, animal liberation activists, animal shelters, animal transportation enterprises, animal welfare officers, bee keepers, biologists, butchers/slaughtering facilities, circuses, hunters, horse riding/training centers, falconers, farmers, forest rangers, "pet" shops, caretakers of companion animals, rescue dog trainers/centers, veterinarians, wildlife parks~~,~~ and zoos.

The only inclusion criterion was the ability to speak German. For logistic reasons recruitment was limited to northern Switzerland and Southern Germany around Basel as well as the Ruhr area (Germany).

The recruitment and interview period lasted from September 2013 until February 2015

Participants

A total of 19 participants were interviewed, 8 of whom were Swiss (animal welfare officer, biologist, circus manager, farmer, forest ranger, veterinarian, wildlife park manager and zoo keeper) and 11 German (agricultural scientist, animal liberation activist, bee keeper, stablehand, falconer, farmer, caretaker of companion animals, animal shelter workers, animal park keeper, and veterinarian). Nine were female, and 10 male. Other demographic data were not collected.

Interviews

The semi-structured interviews lasted between 35 minutes and 1:05 hours. They took place at the working or living place of the interviewee or at the author's research institute library. They were conducted by one of the authors, transcribed verbatim by the same person, anonymised[6] and coded with MAXQDA by two of the authors (KP, SB). The quotations used in this paper were translated from German into English by one of the authors (KP) and checked by a member of the team.

The interview guide had three blocks of interview questions. The first was about personal experiences with nonhuman animals during childhood and adult life. Questions were adapted to the participant's current occupation or contact with nonhuman animals.

The second block was about personal opinions, concepts and perspectives on human-animal relationships. Topics included animal welfare (laws), communication with NHAs, NHA individuals/characteristics/personalities, attitudes towards treatment of NHAs and follow-up questions derived from the first, more narrative block.

In the third block, participants were asked to comment on abstract terms: the purpose of an animal, rights of an animal, dignity of an animal, freedom of an animal, and value of an animal. Although this type of direct questions is uncommon in qualitative interviews, they were useful tools for this study as some of the terms were meant to provoke resistance against or critique of a concept, others to cause confusion and some to reveal underlying assumptions, prejudices or believes.

In total the interview guide contained ten to twelve main questions with some sub- or follow-up questions.

Analysis

After thorough reading through the transcripts, the coding was done as a qualitative thematic analysis after Braun and Clark (2006) by KP and SB. MAXQDA was used to find theme clusters, linkages and overlaps. The themes presented in this article were closely linked to one of the non-targeted major themes in all interviews: individual relationships between the interviewees and particular nonhuman animals and how they mattered concerning their personal morality regarding animals.

[6] The interviewees are characterised by their occupation or otherwise by their relation to ("Bee keeper"; "Animal Shelter"). If there were several individuals with the same status they were numbered ("Farmer I", "Farmer II"). Nonhuman animals, if mentioned with their names, were anonymised by changing their names but keeping the type of name (Bergen 2015) (e.g. "Miezi" -> "Maunzi"; "Gandalf" -> "Merlin"; "Coffee"-> "Cocoa"). If the individual names were objects of the analysis they were translated but not anonymised ("Schneeweißchen" -> "Snow-White")

Results

A topic that was mentioned by all interviewees was the personal relationships they had or have with individual NHAs. From early childhood experiences till long-lasting companionship during their adult lives, a broad spectrum with a correspondingly diverse range of meanings or relative perceived relevance of relationships were reported.

An aspect that was mentioned frequently was the naming of animals. This was an unexpected finding rather than one the interviewer particularly asked about as the names themselves were not subject of the investigation. However, the fact that so many groups of animals were named is striking. It has been reported that certain factors such as how much an animal's death is unwanted and how much money would be spent on veterinary costs indicate the likelihood that the animal is named(Aerts 2015).According to that, only a very limited number of animal groups (mainly service animals, companion animals, a few zoo animals and experimental animals) are named. However, our findings contrasted with some of these hypotheses.

Names make a difference

Having a name apparently makes a morally relevant difference to some interviewees:

> Vet 1: Yes, in South America I ate a wild, so a captured guinea pig [yes], right.
>
> I: Ok, and would you also eat your own guinea pigs?
>
> Vet 1: No, of course not. Because they have names [ok] and I would not slaughter our hens, either, although everybody says: Guy, after two years of laying eggs, it is over. They die of old age here, someday.
>
> I: You've just said they have names. What exactly is the decisive difference between the chicken in your garden and the chicken on a farm?
>
> Vet 1: I know the chicken in my garden personally.

Here, knowing the animal personally is facilitated when animals have names. Both having a name and being known personally, can be reasons to treat them differently from other individuals of the same species.

According to Nübling (2015, 2015) certain patterns in animal naming can be observed: Farm animals tend to be given numbers than names, or remain unnamed. This is especially true if they are not similar

to humans and/or live in large groups (e.g. fish, bees, birds), if they have a short live span (e.g. male offspring of dairy cows, sheep etc.) if the emotional bond with humans is weak, contact frequency is rather low and if their death is intended (e.g. pigs).This farmer illustrates the connection of being close and having a name:

> Farmer I: Well, you build a personal relationship with the animals automatically. Whether to calves, cows, with pigs perhaps a little less, but also to rabbits so, to the watchdog and so on, yes.
>
> I: Ok. Did you give them names, for example?
>
> Farmer I: The rabbits always had names, the cows anyway. [Ok] The pigs didn't, no.

What is interesting here is that Farmer I does not give names to the pigs and also describes that his relationship to the pigs was not as close as to the cows (relationships with rabbits are further elaborated in Table 1).

Table 1: Mentioning of rabbits and explanations for the human-rabbit relationship

quotation	explanations
Falconer: my grandpa had a room that was two, three times bigger than this one, with rabbit hutches around. We liked these rabbits, we took them, we stroked them but we did as well, when he had slaughtered them, eat them. And I think: What is worse? If I breed such rabbits to survive or to survive in an economical way or if I breed these rabbits and they run around in a children's room, in steel cages? […] Just because someone started to breed rabbits in a way that they suddenly have an extreme cuteness factor.	- Death intended - Cuteness -> cuddling - Affection - Economic lifestyle
I: […]But the rabbit that you just mentioned[…], well, you have a rabbit sometimes as a pet and sometimes as livestock - Farmer I: As a farm animals, yes. I: So there is some overlap. Do your children have rabbits as pets? Farmer I: When they were little they had rabbits, yes. I: And was there a clear difference from the *[other]* farm animals? Farmer I: No, they were farm animals. [They were farm animals, ok.] They earned their pocket money that way. They slaughtered the animals and sold them, yes.	- Death intended - Economic lifestyle - Overlap of categories
Agricultural Scientist: Because my hares [sic!] I keep them, too, and I stroke them, too, and I still slaughter them, exactly. In principle, there is no difference [between cat and rabbit]. Both are animals I appreciate, I like to watch […] and… still I decide for the rabbit, oh,	- Death intended - Cuteness -> cuddling

I want to eat him… and for the cat – no… So, the difference is that the cat is not considered a farm animal in a sense of eating. [Yes]. And that is imprinted very early, already during childhood, so I believe, if I had been told, when the cat has eaten 20 mice that we would eat her, too, well, possibly that would have been ok. […]	- Affection - Overlap of categories - Upbringing/education
Stablehand: Yes, that is how humans live; grow up, how they are educated. Generally if – no matter what kind of animal it is – if it is kept correctly, death is not the worst in my eyes. But live the way it is led. […] If it is in a foreign country – for me unthinkable – a dog or a guinea pig. Here *[in a sense of: "at our place"]* it is the hare [sic!][…] Is also eaten and that is normal but people should care much more about how the animals live during their lifetime.	- Overlap of categories - Upbringing/education - Normality
Bee keeper: That is actually always like that, that you build a certain relationship with an animal. Mostly it was a rabbit when it was little. [hmhm] Yes, one could stroke it and so on. Only afterwards the parents made sure that one did just not build up a too intense relationship there, yes. Namely, otherwise there would have been tears when, well, the purpose of use had occurred. *["purpose of use" – the rabbits being slaughtered and eaten]* I: Yes, sure. What does it mean "they made sure" – how did they do that? Bee keeper: Yes, well, I put it that way: generally, there were young animals over and over again. [Sure.] Yes, so one replaced them then, so to speak.	- Death intended - Cuteness -> Cuddling - Affection - Replaceability

Circus manager: […] we are an animal-loving family and […] I said to my mum I want a rabbit, then she bought me a rabbit [hmhm], although the caravan was already full of other animals, so, yes, that is the way it is with children, isn't it?	- Affection - Death not intended - Normality
Animal Shelter I: With the boy who lent his rabbits, for which there was the court decision recently? […] A little boy, 14 years, lend his rabbits to a snake breeder who claimed she would – I don't remember – use them for something, display them. And […] Yes, really horrible – she fed them *[to a snake]* and now she must pay compensations, but I mean – the child is traumatized, isn't he? And knows the rabbits, which – he loved them.	- Affection - Death not intended - Irreplaceability
I: Could you imagine, let's say, eating guinea pig? AWO: I think meat-wise there is not much difference to (laughing) rabbit, or… I: Probably not, yes. AWO: No, would not be a problem, probably.	- Death intended - Normality
Zoo keeper: And we had also rabbits at home and bred them. Also for slaughtering and selling or eating them ourselves. And I also cared for them and had my favorite rabbit, too, that is indeed so. I admit that, so I am not completely cold. (laughing) But we knew from the beginning that it is there for slaughtering. So, I grew up with that. Perhaps it is different for me because of that. [yes] I don't know, have no idea.	- Death intended - Affection - Economic lifestyle - Upbringing/education

It is striking that the farmer goes on to talk about how both emotional closeness and physical proximity ("Nähe") constitute the difference between pigs and cows, which is also partially explained by the longer time dairy cows spend on his farm:

> Farmer I: I think that is the closeness to the animal. So – with the pigs, you put feed in the trough. You brushed away the manure and that was it. And with the cows, you have milked them twice a day, so you were really in direct contact to the animals. [… The cow is also longer on the farm/plant that the rearing pig. That was here for maybe two, three months and then it went to the slaughterhouse. […] I think that is great [….] closeness, […] you had more contact to the animal [cows]. Actually touching, twice a day, at least.
>
> ***
>
> Farmer 2: If you enter the stable now, you would say: Well, they all look almost identical. One can hardly distinguish them. But every animal has its own character. And when you are dealing with the animals on a daily basis, you notice that.
>
> I: How many sheep do you have?
>
> Farmer 2: Now we have 70 milk sheep, that is mothers
>
> I: And you are saying - you recognize them individually? Do they have something like names? […]
>
> Farmer 2: They all have names.

Both examples of farmers show something that cannot be expected according to the literature: Not only do their animals have names - which is not uncommon in small-scale farming (Nübling 2015) - but they also describe a close relationship and knowing the animals as individuals with characteristics and properties. Names are not exclusively a tool to identify a cow as part of a certain system (Wahlberg 2006), which is the case for different breeding animals such as dogs or cattle, but rather reflect individual properties, appearance or circumstances (Reichmayr 2015) as illustrated by this interviewee:

> I: The animals still have individual names.
>
> Agricultural Scientist: Yes still. […] And some, yes, actually you just think about it when you have seen the animal/beast. […] So, for example now, one that was born this spring, she had a small white dot and it snowed and the name had to start with "S" because the mom is called with "S", and so she was called "Snow-White", because it fits snow flake. [She continues to tell

a story about a calf called “dumpling” because of the way it looked when it got out during birth.]

Talking about the same species, *Bos taurus*, the stablehand explains that, in contrast to the dairy cow farmer and the agricultural scientist, she avoids a close relationship to her cattle. In line with Nübling’s (2015) findings the crucial difference is here that the animals are meant for slaughtering not for milking (“death intended”): ”That is also very difficult. We have, additionally, five cattle, that we keep as livestock. And I make it very clear: I don't want too much contact. Because otherwise they are suddenly companion animals and no longer livestock.” She distinguishes her companion animals (horses, dogs) and her livestock (cattle) – also in the way they are connected to and treated by her: They do NOT have names, which is important to her.

I: Ok. What kind of contact do you have with them?

Stablehand: Well, they are taken care of by our staff. Once in a while I ride past their grazing land and have a look if everything is alright. But I never go and stroke them or give them names. Just because I, well they should have a nice life, but someday they will be slaughtered, and therefore - I don't want to witness that, either. [...] Yes.

This attitude is also described in psychological research (Joy 2011): Coined by common attitudes in our society we classify animals as “edible” and “non-edible” and try to keep a strict separation as overlaps would make us feel uncomfortable.

A name makes a NHA “someone”

As expected, names have a special importance when it comes to pets. Here, the effect of talking about “someone” rather than “some animal” becomes especially clear: “Or like with the […] [dog] who had his leg amputated […]do you think the name would occur to me now? I don't recall the name, how embarrassing.” (Animal Shelter 1)

This is the way you would talk about a person you met and you remember her face but not her name. The interviewee is embarrassed although the dog would – most likely – not care that she forgot his name. Thus, she rather seems to defend the importance of the dog for her and that seems to be challenged by her forgetting the name.

A similar aspect is revealed when a companion animal keeper talks about the character of her dogs (Labradors):

Caretaker of companion animals: […] Tracy is in principle very insecure, but she wants to show that under no circumstances. That means […] so another dog approaches, if he is very

> dominant, already outward/on the outside, she immediately bows to him . If the other dog is not dominant, she subjects him. And if she meets a dog who is as insecure as she is, then there can be real trouble. And Frodo just bows to everyone. He is self-contained, whatever happens. And he is so self-confident, he can just lay on his back in front of a dachshund. […] In the long run, it does not matter to him. And that would never occur to Tracy.

Just imagine how different this paragraph would have sounded if she had said "the first dog" and "the other dog" or "the black dog" and "the brown dog" instead. The name, especially if being an anthroponym, facilitates our perspective on the animal as a personality and family member. (Bergen 2015). Referring to a named individual is referring to someone with individual properties and an individual biography, like in this case described by the agricultural scientist:

> Agricultural Scientist: And apart from that I think I can remember every cow (laughing), because that was indeed intensive. So, my cow Elsa for example (laughing), she died in 2005 eventually, well, she was 19 then. And she just walked to the dung heap to die. Lay down there and was dead half an hour later. You don't forget something like that.

When within-species differences are mentioned without names it gives an entirely different impression of individual properties:

> Farmer I: That depends very much, I think. […] I don't know, how it depends on the hens' origin, […] we just have 90 laying hens and we exchange them every year. And just this year we have hens that are extremely affectionate. […] You can enter the enclosure, they will come to you. […] Did they have more contact to humans during their upbringing? I cannot tell. They are about 25 weeks old when they come to us. But, for example, we never experienced like this year, when tourists march past the enclosure […] they [the hens] are looking for contact, so that is […] very different. And sometimes you have a whole flock that is relatively wild. […]. It is always the same breed we have. Probably it depends on the upbringing.
>
> I: Would you say that for example hens have an individual character?[…]
>
> Farmer I: Yes, that is still difficult.[…] so, if you think logically. Man also has an [individual character], so, for the cow you notice it clearly. With the hens – there are, of course, 90 animals together. […] And I don't know either: Are there always the same who don't go inside in the evening [laughing].[…] You would have to label that somehow. […] But I think […] they also have a pecking order within the flock. That is why every individual just must be different, tick a little different, doesn't it?

First, differences are attributed to a whole group of hens; then, supporting Nübling's (2015) hypothesis that these kinds of animals are usually not named, the farmer admits that here, in contrast to his cows, he is lacks the ability to distinguish between individuals – which, he assumes, must be detectable: That would be labelling ("kennzeichnen") them. In line with related research on "utility animals" (Aerts 2015), the farmer's first idea is not to give individual names but to mark the individuals in a way that makes them distinguishable. Although names do not necessarily reflect individual properties, character or outer appearance as in the example of the calf named "Snow-White", actual naming can still be considered an act of a different quality compared to giving labels or numbers. However, whereas his suggestion is just about labels, the farmer admits that hens certainly have an individual character, which would qualify them for actually carrying individual names. This is particularly supported by cases of hens that do not clearly belong to the group of "utility animals", like for the veterinarian who knows them personally and gives them names (see page 5).

Additional functions of names

Even if there is no immediate contact between humans and NHAs, names do occasionally play a role, though.

> KP: What motivates people to visit a zoo?
>
> Zoo keeper: Well, there are several reasons, […] there are, of course, people who do it to observe animals for a longer time. So, we have many subscribers [regular zoo visitors] who just like a certain animal group in particular. And then they sit there a long time [ah, ok] and observe, and they know their animals precisely, with their names and everything. […]

As illustrated here, it is worth noticing that even a mere observer uses names he is provided with by the zoo to distinguish individuals – most likely by their appearance, habits, interactions etc. It is a different, one-sided way of "knowing" an animal. Nevertheless, this phenomenon is promoted by zoos: Large mammals (usually. There are exceptions like "Paul" the "oracle octopus" who lived in a German zoo and became famous for correctly predicting outcomes of soccer matches) are presented with their names on information boards in front of the cages to inform zoo visitors about their biography, family relationships and sometimes special properties. Thereby, an illusion of a relationship, of "knowing" the animals, is created. The name is a crucial factor in this scenario as the animal is "introduced" as someone would introduce herself: with her name.

Zoo animals have been categorized in very opposing ways regarding their relationships to humans: Whereas Aerts (2015)suggests categorizing them as "wild animals" that "[…]do not have an individual relation with a person"(Aerts 2015, pp. 311–312), Hosey (2008) elaborates on a whole range of human-

animal relationships occurring with zoo animals. However, just differentiating between zoo keepers as familiar humans and zoo visitors as unfamiliar humans, he ignores the group of regular zoo visitors. The role of the frequently visiting human and the corresponding relationship are therefore important additional aspects for HAS. Attempts were made to define a new self-conception of zoos based on a friendship between zoo visitors and zoo animals – which classifies them indeed no longer as "wild animals" but rather as "pets" in Aerts (2015)model of categories (Levin 2015), including a close emotional relationship and individual names.

In contrast to this one-sided way of using names, there are cases where having a name can also open new options for the animal himself : When there is an interactive (working) relationship with a human being, the animal benefits from being recognized as "someone". He can directly and individually be addressed. That way, he can appreciate the individual connection much more and communication can be established:

> Circus manager: When I have 12 horses around and one is not working, I must ask myself: Why is he not working? What did I do wrong? […]You cannot yell like crazy, you must be even calmer, then. Every horse has his name. Every horse, when you say his name, he knows, he is addressed and he listens. That is the communication.

The way the circus manager describes the relationship resembles a very respectful employer talking about his employees. This is even more emphasized when he claims: "A horse has a job". Although it must be doubted that his horses understand their relationship that way, naming them is an essential part of their relationship.

Relationships & groups of animals

Thus, the interviewees were not only describing relationships with nonhuman animals. They also gave explanations or tried to find reasons why they differentiated between certain groups of animals – like the veterinarian talking about the acquaintance with and the names of her hens and guinea pigs that made a moral difference to her. A variety of responses was offered to explain the difference between "edible" and "non-edible" animals, from honest admissions of explanatory limitations to psychological and socio-cultural factors. A majority agreed that companion animals as such are not eaten, for example:

> Animal welfare officer: But I do not want to eat dogs. (laughing) But that always depends on your own experience, values, your own pets.
>
> KP: So you would not eat your own dog?

Farmer I: No. Wouldn't do that now. (laughing)

***

BI: I cannot bring myself to eat a cat, either.

***

I: Could you, for example, imagine eating your own dog?

Circus manager: No, buah! [laughing] But, you know: Because we Europeans have a relationship to the dog, don't we? The Chinese don't have a relationship to the dog. That is so. Do you understand? […] But if the Chinese had a relationship to pigs, they would maybe say: Uah, they [the Europeans] eat pigs!

The Circus manager, besides broadly generalizing regarding certain groups of people, again refers to the explanation used by the veterinarian: Our relationships are the crucial factors, not species. This is interesting as it implies that the moral worth of NHAs is at the discretion of humans; only if we choose to have a relationship with them are they accorded moral status. It also suggests, again, that our animal categories - of course, the question refers to dogs as they are considered "pets" in our society – are based on our relationships rather than on species-specific properties.

There were only two interviewees who explicitly mentioned different perspectives:

"I have indeed eaten dog as a boy […] So, I fail to see why we should not eat those animals, too. […] If you do it professionally, it is like any other [meat]."(Wildlife Park manager). The interviewee describes a childhood experience of a habit not uncommon in rural Switzerland, at least in the past: Surplus dogs and cats were eaten on a regular basis. Although he mentions that he "would not want to do it any longer" he does not make a clear distinction between animals bred for eating and others intended for different purposes. The same can be said about the animal liberation activist, although her conclusion is different:

Animal Liberation Activist: Well, as a vegan I can say that to me eating any kind of animal is shit, isn't it? And I am also critical towards keeping pets in general. Actually, the question is: Why don't people have pigs instead of dogs? […] So, I find people strange who say: Oh my God, they eat dogs there, and they themselves munch a steak. […]I find that completely dumb.

According to this participant, grouping animals according to certain purposes must generally be questioned. In contrast to the Wildlife park manager, her attitude can be interpreted as a critical

perspective on humans exploiting animals (for food, as companion animals etc.) regardless of their species.

Cognitive dissonance and coping strategies

This field of tension is touched by several interviewees, although none of the others can resolve it to their own satisfaction. When, for example, the stablehand elaborates on the morally relevant differences between her companion horses and livestock cattle, she points out there is none, which is why she had to create a difference in relationship, to preserve moral distance in order to be able to treat them differently:

> I: How would you see so to speak - if you just look at the animal - a difference between a bovine animal and a horse?
>
> Stablehand: Actually there is none. […] A bovine animal is certainly a very interesting animal […]. And also emotionally - I think cattle are very trusting if you deal with them for a long time. Exactly for this reason I don't want too much contact.

The explanatory challenge culminates in the frequently mentioned case of rabbits (see table1).

The relationships are ambivalent:

On the one hand, there is a lot of affection for the cute and fluffy little animals who are companions especially during childhood. Even a special bond to individuals (“favorites”) is reported. However, in those cases in which the animals’ death is intended, other mechanisms override the affection for them as companions, so that there is an overlap of groups: One is the financial aspect. As soon as the meat is used to make profit, the rabbit becomes a farm animal and a companion animal at the same time, but the farming factor seems to play the major role. For children growing up with such a system, it becomes something usual, “normal”, and a part of their education. Interestingly, the Agricultural Scientist does not exclude the possibility that it would have been exactly the same for her with cats if she had been educated to eat them. So, the difference between “edible” and “non-edible” is not based on species (Joy 2011) or on the close relationship but on imprinting. Thereby, the responsibility for a person’s own choices can be shifted to parents, teachers and other stakeholders in the education process. At the same time, however, the person admits that the difference is virtual and not actual, lying in herself and not reality.

On the other hand, if there is no intended death, the affection and individual bond remain decisive aspects like for all other companion animals, too.

An additional perspective on “who is eaten” is presented by these interviewees:

> Wildlife park manager: my animals, for example, that I have at home, I eat many of my animals. I have sheep, goats and chicken and ducks […]. I looked for a butcher who […] knows when I am coming, even if it is just one sheep or so,[…] I take the animal, lead it inside and it does not get loaded anywhere. […] that would be animal welfare, to me.
>
> ***
>
> Biologist: I did not grow up on a farm, but I fished and I [verb missing] the fish myself […] – I have a relationship to this process to a certain degree. And this disconnect that is insanely difficult, I think. It is unhealthy – and just for fun I thought[…] to get the "meat buyer's license" you have to have slaughtered an animal yourself.[…] So for me – to guide people to this experience of a living animal and the transition to a dead animal, […] you have to understand that and have an emotional connection to that. […] I would not want that I am no longer allowed to [eat meat][…], but this disconnect is really terrible.[…] If everything comes only from the supermarket then the emotional connection to what it was before is missing. And that [the connection] can also promote pleasure […] people say that, too. They go to a farm […], buy the animal – maybe even go and watch it when it is still alive and then […]they know the meat comes from the animal they watched there. […] So I think when you somehow[…] have a little bit a relationship to the animal – in the best case really also witness when the animal is killed.

Rather than finding explanations or excuses why we eat those we know, these quotes support the claim that there even needs to be a connection, a relationship between the "meat animal" and the "meat eater". The contrast between the two ways of reasoning – I know the animal personally, therefore I name it; vs. I know the animal personally, therefore I can eat it – is striking. The Wildlife Park Manager stresses the exact knowledge and control of every part of the process when slaughtering and eating his own animals – which is an aspect of animal welfare to him. The biologist explains his claim with being "healthy" and "more natural". The latter would be a naturalistic fallacy: Attending the process of slaughtering and watching the animal die does not make it less ultimate, less painful or in any way better for the nonhuman animal. Advocating for a "meat license" on the other hand could indeed result in a drastic reduction of meat consumption.

Conclusion

Two general patterns could be detected: Some context-independent attitudes and moral rules were reported. These apply to certain, usually large, groups of animals: species (cat, cow, rabbit…) or

functional groups (companion animals, zoo animals…). At the same time, these concepts are rather broad like the averseness to eating them or keeping them in captivity and their appreciation in general.

More specific attitudes and rules were mainly context-dependent: Whenever personal acquaintance or relationships were involved they were referred to as something important or even as reasons for certain treatment. Apparently, there is a crucial difference between talking about "animals in general" and referring to actual, known individuals. As human-animal interaction happens to a large extent on that individual level we consider our first hypothesis supported by our data: context plays an important role in moral human-animal interaction.

This very aspect is closely linked to the feasibility question: Besides rather speciecist concepts that were mostly adopted during childhood - and work as a "black box"[7] explanation or even justification - personal relationships were reported as a suitable and practical factor in everyday moral decisions concerning the treatment of NHAs. This consideration was even intensified when NHAs had names. Relationships were reported as very close and the animals were described as 'someones', subjects with characteristics and individual properties, which led to a more careful moral consideration. The most obvious connection was reported for the case of eating animals: Those who were close to the interviewees and those who had names were not meant to be used as meat.

In line with recent literature (Nübling 2015; Aerts 2015), most named animals belonged to certain groups of NHAS: large mammals, "pets" and animals whose death is not intended. However, responses (and particularly participants' perspectives on cows) revealed more affection and closeness than the literature suggests. The reactions of those involved in farming made clear that it could be helpful for an intensified human-animal relation to start discussions about the individual characteristics and interests of NHA and go beyond species-specific needs and "animal welfare"; not only within academia but also with actual stakeholders.

One rarely mentioned contrasting perspective on the connection between individual relationship and treatment of NHAs is the claim that only NHAs with whom people are acquainted should be killed and eaten. A possible explanation was discussed by Gutjahr (2013) who investigated examples of people participating in "do-it-yourself slaughtering": As a reaction to the currently increasing attention to farm animal welfare and an increasing number of vegetarians and vegans the idea of personally taking part in the meat production process is an answer (though one that falls short) to a dilemma: The consideration of NHAs' suffering and the wish to consume animal products. By raising NHAs in an

[7] "Black box", a term originally used in science for something with a known input and output but with unknown interior, is here used to characterise a construct that is referred to as an explanation or even justification without giving reasons or arguments, e.g. "that is something cultural" or "I grew up this way".

“animal friendly” way and witnessing their death they are at first glance respected as subjects. As they are still arbitrarily killed for food purposes in the end they are, however, still treated as objects. Accordingly, a third point of view was held by the interviewee who chose to morally consider all (nonhuman) animals equally, independently of their species or their relationships. However, it should be discussed (elsewhere) how far and with the help of which means this perspective could be made feasible for a larger group of people.

This aspect leads to the question about “normal circumstances” for animal ethics. The moral distance problem seems to be predominant in many contexts of human-animal moral interaction. People report their awareness of cognitive dissonances frequently. However, only few are able to explain, justify or even solve the challenges they face. There are at least two ways to react for us as ethicists: Based on the assumption that cognitive dissonances or biases lead to a “wrong” choice of moral norms, a rationalistic animal ethics approach could be presented. Thereby, arbitrariness, moral distance and black box explanations, such as habits being cultural or having grown up with them, could be overcome and replaced by e.g. utilitarian arguments. The second option would be a suggestion of an integrated ethics approach (Molewijk et al. 2004a) which does not overcome but rather includes folk moral intuitions and reasoning. As suggested elsewhere (Persson, Shaw 2015) the result could be a more applicable and accepted version of animal ethics that would suit both nonhuman animals and those who deal with them. Some models that already emphasize human-animal relationships and contexts (Wolf 2008; Palmer 2010; Donovan 2007) are good candidates.

However, the limited sample size and the qualitative nature of our research do not allow generalizations regarding the importance of the investigated factors for applied animal ethics. Further quantitative research needs to be done to test for the robustness of people’s attitudes and the potential influence of contextual aspects.

References

Aerts, S. (2015). Named, numbered or anonymous: how the Human-Animal Relation affects the naming of individual animals. In A. Damme, D. Nübling, & M. Schmuck (Eds.), *Beiträge zur Namensforschung. Tiernamen - Zoonyme.* Heidelberg, pp. 309–318.

Bergen, A. (2015). "…und gibt ihr eine Art Persönlichkeit". Zur Motivation und Wahrnehmung von Haustiernamen. In A. Damme, D. Nübling, & M. Schmuck (Eds.), *Beiträge zur Namensforschung. Tiernamen – Zoonyme.* Heidelberg, pp. 177–189.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2): 77–101.

Cavalieri, P., & Singer, P. (1993). *The great ape project: Equality beyond humanity*. St. Martin's Press.

Cederholm, E. A., Björck, A., Jennbert, K., & Lönngren, A. (2014). *EXPLORING THE ANIMAL TURN: Human-Animal Relations in Science, Society and Culture*. Pufendorfinstitutet.

Donovan, J. (2007). *The feminist care tradition in animal ethics: A reader*. Columbia University Press.

Gutjahr, J. (2013). The reintegration of animals and slaughter into discourses of meat eating. In H. Röcklinsberg & P. Sandin (Eds.), *The ethics of consumption: The citizen, the market and the law*. Wageningen Academic Publishers, pp. 379–385.

Herzog, H. (2010). *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals*. HarperCollins Publishers.

Hosey, G. (2008). A preliminary model of human–animal relationships in the zoo. *Applied Animal Behaviour Science*, *109*(2–4): 105–127.

Joy, M. (2011). *Why we love dogs, eat pigs, and wear cows: an introduction to carnism*. Conari Press.

Levin, A. (2015). Zoo Animals as Specimens, Zoo Animals as Friends. The Life and Death of Marius the Giraffe. *Environmental Philosophy*, *12*(1). Online First: 2015.

McKie, J., & Richardson, J. (2003). The rule of rescue. *Social science & medicine*, *56*(12): 2407–2419.

Molewijk, B., Stiggelbout, A. M., Otten, W., Dupuis, H. M., & Kievit, J. (2004). Scientific contribution. Empirical data and moral theory. A plea for integrated empirical ethics. *Medicine, Health Care and Philosophy*, *7*(1): 55–69.

Nübling, D. (2015). TIERNAMEN ALS SPIEGEL DER MENSCH-TIER-BEZIEHUNG: Ein erster Einblick in die Zoonomastik. *IDS Sprachreport*. (2): 1–7.

Nussbaum, M. C. (2009). *Frontiers of justice: Disability, nationality, species membership*. Harvard University Press.

Palmer, C. (2010). *Animal ethics in context*: Columbia University Press.

Persson, K., & Shaw, D. (2015). Empirical Methods in Animal Ethics. *Journal of Agricultural and Environmental Ethics*, *28*(5): 853–866.

Regan, T. (1987). *The case for animal rights*. Springer.

Reichmayr, M. (2015). Was sagen uns Kuhnamen? In A. Damme, D. Nübling, & M. Schmuck (Eds.), *Beiträge zur Namensforschung. Tiernamen - Zoonyme.* Heidelberg, pp. 365-383.

Schweitzer, A. (2008). *Die Ehrfurcht vor dem Leben: Grundtexte aus fünf Jahrzehnten*. CH Beck.

Teutsch, G. M. (1995). Die “Würde der Kreatur”. *Erläuterungen zu einem neuen Verfassungsbegriff am Beispiel des Tieres.* Paul Haupt.

Vranas, Peter B. M. (2007). I OUGHT, THEREFORE I CAN. *Philosophical Studies*, *136*(2): 167–216.

Wahlberg, M. (2006). Systematized name-giving in the area of “other names”–with special reference to Sweden. *Acta onomastica*. (XLVII): 467–474.

Weaver, G. R., & Trevino, L. K. (1994). Normative and empirical business ethics: separation, marriage of convenience, or marriage of necessity? *Business Ethics Quarterly*, *4*(02): 129–143.

Williams, B. (2011). *Ethics and the Limits of Philosophy*. Taylor & Francis.

Wolf, U. (2008). Die Mensch-Tier-Beziehung und ihre Ethik. In Wolf, U. (ed), *Texte zur Tierethik*. Reclam, pp. 170–192.

3.2 The indignity of relative concepts of animal dignity: A qualitative study of people working with nonhuman animals

Abstract

The Swiss animal welfare legislation is considered to be one of the strictest such laws worldwide. One unique feature is the inclusion of the concept of "dignity of the creature" and, more precisely, animal dignity. By asking 19 people from Switzerland and Germany with a close relationship to nonhuman animals about their concepts of animal dignity, we investigated whether the very specific concept of the Swiss law, which is clearly defined for application, is reflected in the minds of those who are dealing with nonhuman animals on a daily basis. The results of our qualitative interviews reveal an awareness of the legal term among Swiss interviewees, but their personal concepts of animal dignity are not based on or similar to the legal definitions. The interviewed participants present a broad range of concepts, including: similarities to human dignity, replacing concepts such as respect or integrity, and context-dependent, contingent forms of dignity. The applicability or usefulness of animal dignity was questioned by several participants; many judged it to be confusing or difficult. Therefore, we conclude by discussing animal integrity as an alternative concept that reflects the interviewees' ideas of treating nonhuman animals in a respectful and appropriate way and at the same time does not have the strongly metaphysical connotations of a concept such as human dignity.

Introduction

In 1992 the Swiss public voted in a referendum to include an article on the "dignity of the creature" in the Federal Constitution (today: paragraph 120, "Gentechnologie im Ausserhumanbereich"). In 2008 animal dignity[8] was defined in paragraph 3 of the Swiss Animal Welfare Act. Reactions in academia to both these legislative actions were ambivalent. On the one hand, it was considered progress and regarded as setting a good example for the contemporary treatment of nonhuman animals[9] (NHAs) – and also for how we interact with plants (Rippe 2011). Extending animal welfare beyond pathocentric[10] aspects was seen as something unique and an advantage for NHAs (Schindler 2013). On the other hand, the term "dignity" was discussed actively because the analogy to human dignity was questioned (Balzer

[8] Note that "dignity of the creature" includes plants, whereas the Animal Welfare Act only refers to "animal dignity." The detailed definition given below is therefore only applicable for animals, not for other creatures.
[9] The correct but lengthy term "nonhuman animal" will be replaced by "NHA" in this paper for practical purposes.
[10] Animal Welfare Legislation is usually limited to restrictions about harming, damaging, or causing suffering to NHAs (see, e.g., German Animal Welfare Act). The aspects of humiliation and excessive instrumentalization clearly add to that because they do not refer to the animal being sentient.

et al. 2008; Teutsch Gotthard M. 2008; Baranzke 2002), the practical implications were considered unclear (Friedli 2009; Schmidt 2008), and the legal benefit was doubtful (Binder 2011).

Paragraph 3 of the Animal Welfare Act reads[11]:

> *a. dignity:* Inherent worth of the animal that has to respected when dealing with it. If any strain imposed on the animal cannot be justified by overriding interests, this constitutes a disregard for the animal's dignity. Strain is deemed to be present in particular if pain, suffering or harm is inflicted on the animal, if it is exposed to anxiety or humiliation, if there is major interference with its appearance or its abilities or if it is excessively instrumentalised;

The ECAE[12] (2010) criticized the lack of precision in and partial contradictions within and between the Federal Constitution and the Animal Welfare Act regarding both terminology and the practical implications of animal dignity. In the view of the ECAE animal dignity, in contrast to human dignity, is a quantitative and therefore relative concept that is synonymous with the inherent worth of an animal. It can be respected through the weighing of goods, i.e. human interests are weighed against the interests of NHAs that might be harmed. That implies that there is no action that disregards an NHA's dignity *per se*. The stress that is imposed upon an NHA always has to be compared to the potentially overriding interests of humans. This profound distinction from the concept of human dignity presents a potential challenge to folk intuition[13]: it might be difficult to understand a familiar concept in a second, fundamentally different way.

In an advisory opinion, Praetorius and Saladin (1996) emphasize that changing the law was only the first step in a process of societal and cultural change:

> The constitutional provision that takes into account the dignity of the creature requires more than individual, narrowly defined exceptions to the property status of animals, plants and other organisms. If the meaning of the term 'dignity' is taken seriously in the European tradition it requires a 'Copernican Turn' in [public] consciousness, which cannot be ordered by law, but which can be promoted by a new trendsetting constitutional provision. If we sketch the term dignity of the creature - which is directed to practicality in the near future - in the following we do not thereby retract the claim that it is aiming at far-reaching processes of cultural change.

[11] There is no official English translation of the Animal Welfare Act. Therefore, we used the version initialized and co-financed by Interpharma that is provided for information purposes only. https://www.globalanimallaw.org/downloads/database/national/switzerland/Tierschutzgesetz-2005-EN-2011.pdf.

[12] ECAE: Ethics Committee for Animal Experimentation of the Swiss Academy of Medical Sciences and the Swiss Academy of Sciences. In German: Ethikkommission für Tierversuche der Akademien der Wissenschaften Schweiz

[13] By "folk intuition" we refer to a general public who is not immediately involved in the legal/philosophical discussion. The term is neither meant in a judgmental way nor do we claim to provide a sample of interviewees that is representative of the population as a whole.

In this study we took public perceptions of animal dignity as a starting point[14]. By interviewing 19 persons from Germany and Switzerland who deal and/or live with NHAs on a daily basis we wanted to explore the following questions:

Do they mention animal dignity without being asked about it?

How do they define animal dignity, especially compared to human dignity?

Do they make references to the law?

Are the Swiss interviewees aware of the specificities of the law regarding application of the dignity concept?

Do they judge the concept to be clear, useful, or important, particularly for their daily work with animals? Which examples do they give in that context?

Is the cultural and societal change that begins in the individual's conscience (that Praetorius and Saladin (1996) hoped for) already on its way ?

As this sample of "animal experts" was selected deliberately we do not cover the opinions of the broader public of Switzerland and Germany. Rather, we aimed at revealing the concepts used by those who are likely to have a strong opinion about the treatment of NHAs due to their close relationship with animal individuals. We expected to find a broad range of statements regarding animal dignity and potentially some specific opinions regarding the law in the small Swiss sub-sample. Based on our exploratory findings, a strong candidate for an alternative concept will be discussed: animal integrity, as promoted e.g. by Schmidt (2008) or Rutgers and Heeger (1999). According to their (frequently quoted (Verhoog 2007; Gavrell Ortiz 2004; Heeger 2000; Vries 2006; Marie 2006; Musschenga 2002; Bovenkerk et al. 2002)) definition, animal integrity is "the wholeness and completeness of the animal and the species-specific balance of the creature, as well as the animal's capacity to maintain itself independently in an environment suitable to the species." (Rutgers, Heeger, p. 45) Like dignity, integrity comprises more than sentientist aspects. It is not only about a creature's subjective experience but adds the objective criteria of what it means to be alive, to be a member of a certain species and to have certain natural properties.

Methods

Recruitment

The participants in this study were persons with different kinds of relationships to nonhuman animals. As a broad spectrum of opinions, experiences and perspectives should be covered, people, associations or institutions of the following fields were contacted purposively via email or telephone: agricultural

[14] The reported results are part of a larger study that looked into different aspects of human–animal relations, such as moral status, the importance of individual encounters with animals, or abstract concepts like value of an animal or freedom of an animal. In this article, we only report the aspects that are linked to animal dignity.

scientists, animal liberation activists, animal shelters, animal transportation enterprises, animal welfare officers, bee keepers, biologists, butchers/slaughtering facilities, circuses, hunters, horse riding/training centres, falconers, farmers, forest rangers, "pet" shops, caretakers of companion animals, rescue dog trainers/centres, veterinarians, wildlife parks, and zoos.

The only inclusion criterion was the ability to speak German. For logistic reasons recruitment was limited to northern Switzerland and southern Germany around Basel as well as the Ruhr area (Germany).

The recruitment and interview period lasted from September 2013 until February 2015.

Participants

A total of 19 persons were interviewed, 8 of whom were Swiss (animal welfare officer[15], biologist, circus manager, farmer, forest ranger, veterinarian, wildlife park manager and zoo keeper) and 11 German (agricultural scientist, animal liberation activist, bee keeper[16], stablehand[17], falconer, farmer, caretaker of companion animals, animal shelter workers[18], animal park keeper, and veterinarian). Nine were female and 10 male. The age ranged from around 30 till the age of retirement. Other demographic data were not collected as the study was not aiming at the detection of psychological predictors or group comparisons but at a broad spectrum of perspectives. All participants gave their consent to the use of their anonymized quotations in this study.

Interviews

The interview guide for the semi-structured interviews had three blocks of interview questions that were in part adapted to the interviewee's activities with animals. The first part enquired about personal experiences with nonhuman animals during childhood and adult life.

The second block addressed personal opinions, concepts and perspectives on human-animal relationships. Topics included animal welfare (laws), communication with NHAs, NHA individuals/characteristics/personalities, attitudes towards treatment of NHAs and follow-up questions derived from the first, more narrative block.

In the third block, participants were asked to comment on abstract terms: the purpose of an animal, rights of an animal, dignity of an animal, freedom of an animal, and value of an animal. Many of the

[15] There are animal welfare officers employed by the cantons and by different institutions and enterprises in Switzerland.
[16] As a hobby, not a profession.
[17] Owning a horse farm.
[18] As a hobby, not a profession.

quotations used for this paper are the participants' answers to: the request "Please describe what you associate with the following term: dignity of an animal."

In total the interview guide contained ten to twelve main questions with some sub- or follow-up questions.

The interviews were conducted by one of the authors (KP), transcribed verbatim by the same person and anonymized[19]. The quotations used in this paper were translated from German into English by one of the authors (KP) and checked by a member of the team.

Analysis

After thorough reading through the transcripts, the coding was done as a qualitative thematic analysis according to Braun and Clarke (2006) by KP and another member of the team with MAXQDA. Both analysts worked independently in a first phase of the analysis and compared their codes in a second phase in which themes were defined.

In a first step, personal experiences, opinions and understandings of the interview participants were identified. We do not describe the richness of our data set here but focus on an in-depth account of an aspect we specifically asked about: animal dignity. For the rather narrow topic of this paper the coding was therefore mainly deductive. Different explicit and some latent aspects that were linked to dignity formed themes (see results part). Those were analysed with regard to legal (Swiss animal welfare law) and philosophical concepts of dignity.

Results

Dignity as a legal concept

As the dignity of the creature is a concept that is unique to Swiss Law it was expected that only Swiss interviewees would link the term to the constitution. Indeed, Swiss participants made frequent references to Swiss law when they were asked about the dignity of animals. Most of them seemed to be aware that dignity is a legal concept:

"Interviewer (I): What about 'dignity' of an animal?

[19] The interviewees are characterized by their occupation or otherwise by their relation to ("Bee keeper"; "Animal Shelter"). If there were several individuals with the same status, they were numbered ("Farmer I"; "Farmer II").

Animal Welfare Officer (AWO): Yes, is always very controversial. […] It has been included in the law now,[…]"

"Forest ranger: […] Dignity is indeed defined by the law, it comprises quite a lot."

> Farmer 2: What is dignity (laughing)? Yes. That is of course a term, we have it in, in the context of the animal welfare act, so: The dignity of the creature is, not to let it overwork. Not to torture, so that is for me dignity of the animal.

The only interviewee who brought up dignity spontaneously was Swiss; he even stressed that „for me the issue 'dignity' is really crucial".

At the same time, challenges and difficulties with the term were mentioned and its applicability was fundamentally questioned – especially by those who are familiar with the law:

> AWO: […] but is, of course, very, very difficult to judge. So, almost not at all. […] For me it is difficult to judge when dignity is violated, actually.[…] excessive instrumentalization is also such a term that was included in the law. I find that difficult to judge. So, for the experiments I find it almost impossible to judge when an animal's dignity is violated.

"Forest ranger: And I just think – the dignity of animals, that is very difficult."

"Vet1: Is a very difficult topic. […] Very, very difficult. So, I cannot give you any good definition within 5 minutes."

Different concepts of dignity

There were several approaches to defining and describing dignity as a concept. Three patterns could be found: comparing animal dignity with human dignity, defining animal dignity independently of human dignity (mostly replacing it with other concepts), or describing it by giving examples (mostly of anthropomorphizations).

Similarity or equivocation of animal and human dignity

Similarity or even equivocation of animal and human dignity was stressed by some interviewees:

"Animal Shelter 1 (AS1): Animal dignity is inviolable, like human dignity. Yes."

" I: Could you somehow define a difference between animal dignity and human dignity?

"Agricultural Scientist (AgS): No, because the word 'dignity' has, from my point of view, such a focus of something universal, that there is no difference."

“Caretaker of Companion Animals (CCA): Every living being does have a dignity, which means, yes, similar as with humans, ‘is inviolable’, or at least it should be. Which is, unfortunately, not always the case for humans, either.”

It is also remarkable that the consequences of transferring the concept of human dignity to animals were already problematized by the AgS: *“*And therefore I have indeed the problem that if I grant complete dignity to the animal, that I cannot say any longer I use it for my purposes. I’d have to grant total freedom to it. […] one is, from my point of view, no longer allowed to use an animal for human consumption.”

A related issue was addressed in an expressive way by the Animal Liberation Activist:”[…]I once [saw on TV] such a restaurant guy,[…] and they prepared a roast goose, I think. And the dead goose lay there and [he] said he does not want people to play with it. He wants them, quasi, to accept the dignity of this dead goose. And I thought: You damn asshole!” She, too, seems to judge respecting an animal’s dignity as incompatible with his/her killing for consumption purposes.

Animal dignity – inherent value & different from human dignity

Similar considerations may underlie reasons for defining animal dignity in different ways, without comparing it to the concept of human dignity. One frequently used expression was “respect”:

“Zoo keeper: So, I find, if one pays respect to an animal, then you leave him also a certain dignity. Automatically, because one does not force him to [do] anything.”

“Farmer I: […] just, in principle, continuously pay respect to an animal. That is part of it [my work/my relationship with animals] for me.”

“Forest Ranger: From my point of view, an animal is given dignity if I respect the animal as an animal […]. I think: Good knowledge about species, good knowledge about behavior and respect for the creature, then I am very close to animal dignity. “

“AgS: So, dignity would mean, then, if I respect them until death […].”

Although the nature of actions expressing “respect” for animals in these passages remains rather vague, it seems to be a term that interviewees attribute to a positive attitude towards animals; something that is expected when treating animals. Respect is also mentioned in other contexts, for example:

“Circus manager: An animal’s right is: It must be respected, it must be treated decently.”

“Zoo keeper: Indeed, pay respect and then it has to do with an animal’s value, for me.”

"I:[What do you associate with the following term:] Value of an animal?
Bee keeper: Not putting it on the level of a human but still, yes, respecting."
"Biologist: And I also tell people. The students I work with, they should actually have awareness of that: That is an animal and treat it like that, treat it with a certain respect."
"Farmer I: And I would also say that animals, yes, also have a certain kind of soul. Therefore I […] said it is important to pay respect to the animals."

Bee keeper and biologist and farmer here define respecting animals as something that is part of treating animals as animals (not humans, not anything else). Thereby respecting them becomes part of acknowledging their moral status – may it be based on dignity, value, soul or any other concept.

Some interviewees brought up ideas that resemble concepts of integrity rather than of dignity:

"I:What do you associate with the term:] dignity of an animal?

Bee keeper: Species-appropriate keeping."

"Forest ranger: […] and try to give it a life approximate to how it takes place in nature."

> Vet I: To me it seems […] maybe more dignified if a farmer […] tries to give that instinctive mother cow-calf-relationship to his animals […] but stands by his opinion and says: In the end you will be slaughtered. Than if someone puts a garter snake from a South American Swamp in a Swiss bath tub and later brings it to me, half dead […]. And then he even feels good about it, so he has the impression he did something good to the animal.

"Circus manager: Dignity of an animal [means that] you should ask of an animal what it would actually do in the wild."

"Farmer II: […] That does not mean that a cow if she gives 40 liters or 50 liters of milk a day, that it is against dignity. I don't think so; if keeping is appropriate, if especially feeding is appropriate; the animal stays healthy; then I would not consider dignity scratched."

Dignity is connected to something in the animal's nature in these cases. Considering individual and species-specific needs implies not detaching the animal from its natural environment and behavior and forcing human ideas on it, and appears to be the guiding rule for this understanding of dignity.

One interviewee even pointed out that the important difference between human and animal dignity was that "humans, who don't respect others' dignity, they don't have a right to any kind of dignity. […]

Because they just lose it. I don't see it that way with animals." This uncommon view presents animal dignity as something absolute whereas human dignity can be temporarily lost.

Anthropomorphisation as a violation of animal dignity

Finally, some examples revealed a contingent concept of dignity: Interviewees associated dignity with context-dependent aspects, humiliation and anthropomorphizing. They did not give a definition but provided examples:

"AWO: So if I see a purple dog, dignity is maybe violated."

"Animal Shelter I: Others totally humanize their animals. And that is just – that is a no-go. And many only mean well when they put shoes on them and a scarf and a cap and what-not.[…]that is degrading."

"Circus manager: So: in the 50s they presented dogs with hats on their head and great – dressed monkeys and such, that is not done any longer, is it?"

"Animal Shelter II: Brushing [the animals'] teeth every evening, prophylactically."

Discussion

Our results show that the EKAH's interpretation of "dignity" in the Swiss law appears to be only partially reflected in our interviewees' concepts of animal morality:

Dignity as a legal concept

On the one hand, Swiss interviewees were well aware of the concept as something with legal force. The majority of them described the legal term as difficult and challenging; even – and especially – when they had to deal with that part of the law professionally (the AWO, the forest ranger, the vet). This perspective can be explained by the very different definitions of and concepts related to dignity mentioned by participants:

Different concepts of dignity

Similarity or equivocation of animal and human dignity

Although the main discourse clearly distinguishes between human and animal (creature) dignity, folk concepts do not reflect this strict separation. Those who attributed "inviolable dignity"[20] to animals did not refer to a contingent, but rather to an inherent version of dignity, one that is unquestionable

[20] In the German but not in the Swiss constitution, human dignity is characterized as "inviolable." In the Swiss constitution, paragraph 7, it merely reads: "Die Würde des Menschen ist zu achten und zu schützen."

and absolute. This concept would not include weighing of goods as part of the definition of dignity. Explicitly stating that there was no difference between human and animal dignity, several interviewees suggested that Rippe (2011) was wrong to claim that neither lawyers nor lay people had difficulties separating the two dignity concepts.

The law explicitly defines that stress is imposed on NHAs if they are exposed to "humiliation". However, "humiliation" as a human-related concept requires self-awareness and the ability to subjectively experience degradation. Usually, these requirements are not attributed to NHAs (Balzer et al. 2008; Schmidt 2008)

As the agricultural scientist and the animal welfare activist pointed out, the overall treatment of NHAs would have to be modified fundamentally if human and animal dignity referred to the same concept, especially regarding farming and killing them for human consumption, but also regarding animal experimentation. As it was originally written with a focus on animal experimentation, article 120 of the Swiss constitution cannot imply this understanding. Though massively criticised for scientific and ethical reasons animal experiments are still considered essential by scientists in e.g. clinical research: pre-clinical testing of drugs and devices on NHAs are a (legal) necessity before they are tested on humans. If the animals' dignity was considered inviolable like human dignity that order could not be justified.

The law is vague concerning the relationship of human and animal dignity, especially when including the concept of humiliation, which is broadly perceived as anthropomorphic, combined with the method of weighing of interests. The legally assumed fundamental difference between human and animal dignity has been discussed as similar to other ambivalent legal concepts (Rippe 2011) on the one hand or at the other hand as significant change of the core meaning of dignity (Binder 2011).

In contrast to that, a close link between human and animal dignity is intuitively not excluded by our participants.

Animal dignity – inherent value & different from human dignity

The pluralistic understanding of dignity became most obvious in the interviewees' attempts to replace it with alternative concepts:

The frequently used "respect" is primarily a place-holder. It must also be defined, at least when applied to such a practical thing as treatment. A suggestion to classify the term among ethical concepts leads to Albert Schweitzer's "Ehrfurcht vor dem Leben" (reverence/awe for life). Like dignity, this concept is rooted in Christianity and applies to all living creatures. The core of Schweitzer's concept, the idea of being alive, striving for life and sharing that experience with all other creatures, fits the context in

which interviewees brought up “respect”: not forcing others, respecting them “as animals”, respecting them until death or because they have a soul. These aspects give some impression of what it means to be alive – for us as well as for NHAS: Being defined by our natural limitations, having individual interests and needs, being finite (Schweitzer 2008). When the biologist says “they should actually have awareness of that: That it is an animal and treat it like that, treat it with certain respect.”, he reveals an attitude that resembles Schweitzer’s approach. Furthermore, in their ethical guidelines for animal experiments the Swiss Academies of Arts and Sciences explicitly refer to “Ehrfurcht vor dem Leben” as a core concept for their work[21].

Remarkably, one interviewee described dignity and value of NHAs in the same way (as paying respect to them) indicating that the connection with inherent value claimed by the Swiss constitution is reflected in folk moral understanding.

Another approach is presented by Rutgers and Heeger (1999), who differentiate between the “inherent value”, the “intrinsic value” and the “inherent worth”[22] of an animal: ”Inherent worth is related to a basic attitude of moral respect. We propose to describe this attitude as respect for animal integrity.” (Rutgers, Heeger, p. 50) In line with Schmidt’s (2008) suggestion, animal integrity is promoted as a concept that corresponds to both moral intuition and the need for objective criteria. When our interviewee defines:” Good knowledge about species, good knowledge about behavior and respect for the creature, then I am very close to animal dignity.” he directly refers to the species-specific properties that are considered in the “classical definition” of animal integrity (Vries 2006). Verhoog (2007) suggests that NHAs are perceived in a holistic way in our everyday life. Therefore, our concern is not limited to their sentience but to other genuine properties – which is confirmed by our interviewees when talking about respecting them “as animals”. Their intuitive associations with the term “animal dignity” seem to be included more fundamentally in the classic definition of animal integrity (Verhoog 2007).

Only one interviewee presented one exceptional view: disrespectful human behaviour might cause the loss of dignity whereas NHAs cannot lose theirs. Apparently, the concepts of human dignity can differ

[21] http://www.akademien-schweiz.ch/dms/D/Publikationen/Richtlinien_Empfehlungen/Tierversuche/Richtlinien_2010.pdf

[22] According to Rutgers and Heeger, the “inherent value” is based on human appreciation of certain NHAs. If the appreciation stops, the value is lost. “Intrinsic value” stems from a creature’s interests and ability to suffer. Events can have a positive or negative intrinsic value for those animals that are sentient and conscious; and these events are to be morally considered. “Inherent worth” attributes NHAs a “good of their own” that goes beyond subjective experience and includes species-specific appearance, behavior, and other biological functions. Respecting the inherent worth seems comparable to respecting the Swiss constitution, preventing humiliation, major interference with the animal’s appearance or abilities, and excessive instrumentalization.

strongly, just like concepts of animal dignity. Against that background it seems even more challenging to define animal dignity in terms of the concept of human dignity.

Contingent concept of animal dignity

The list of anthropomorphizations indicates that dignity is not limited to the universal and inherent property mentioned above but that it can also be seen as context-dependent or temporary. In the interviewees' opinion this seems especially the case for cases when dignity is "violated". According to this negative definition, dignity is most visible when it is disregarded or lost. The interviewees' examples describe situations that seem exposing or unmasking from a subjective point of view – rather what would be called humiliating from a human perspective. *Prima facie* it seems paradox that according to that definition NHAs are humiliated when they are treated as humans. However, these treatments – again – seem to affect the animals' integrity. If we want to do justice to them, we must treat them appropriately, which also means not to impose human habits, matters of appearance or hygiene on them.

Limitations

Having interviewed 19 persons dealing with NHAs on a daily basis we cannot claim representativeness for any professional group or general population. Additionally, the interviewees did not prepare for questions about abstract concepts such as dignity. Comparing their spontaneous answers to philosophical or legal approaches might not do them justice. However, no one was unable to explain their view or associations. All of them had at least an intuitive idea or gave examples related to animal dignity. Therefore, we consider our analysis justified.

Conclusion

Overall, the spectrum of aspects of animal dignity presented by the comparatively small number of persons shows that it remains a diffuse term with various connotations. As such it must be treated with caution and the applicability of the Swiss Animal Welfare Law can be questioned. The practicality and change in the individual's conscience that Praetorius and Saladin (1996) hoped for are not supported by our data.

Literature strongly supports this finding (Binder 2011; Hoerster 2004; Schmidt 2008). Many interviewees showed an implicit preference for the integrity concept as described by Schmidt (2008) and suggested by the French translation of the Swiss constitution[23]. On the one hand, frequently used

[23] When translating the German version of paragraph 120 of the constitution into French, the term "dignité de la créature" was changed to "Intégrité des organismes vivants." In a position statement, the Federal Ethics Committee on Non-Human Biotechnology strongly advised against this change as they considered dignity and

definitions of animal integrity, such as Rutgers' and Heeger's , refer to a concept that is very close to the ECAE's definition of animal dignity. On the other hand, "integrity" is not challenged by a problematic metaphysical connotation which human dignity presents for animal dignity. According to our results, the relativity and weighing of goods is a strongly counter intuitive aspect of the Swiss/EKAH concept of dignity. None of the study participants associated this with dignity in any way. Those who need to deal with it professionally admitted facing difficulties in weighing dignity against benefits. Respecting dignity was not understood – as dictated by the law – as the weighing process itself. That might be supported by the fact that the law does not give any details on how to weigh human interests and (potential) benefits against the stress imposed on NHAs (Friedli 2009).

Therefore, the question remains: Why stick to a confusing concept when a better alternative is at hand? Literature (Schindler 2013) cannot give any reason to prefer it from a legal point of view. Based on our interview data from the broad field of human-animal interaction and on supporting claims from literature, we suggest the (consistent) use of the term "integrity" instead.: Although animal integrity has already been implemented in animal welfare policy in the Netherlands its application for certain domains like genetic engineering is still discussed (Vries 2006; Gavrell Ortiz 2004; Heeger 2000). In a declaration regarding the translation of "animal dignity" in the German version of the Swiss constitution into French "intégrité des organismes vivants" the Swiss Ethics Committee on Nonhuman Gene Technology explicitly disagrees with the use of "integrity" in their constitution (Eidgenössische Ethikkommission für die Gentechnik im ausserhumanen Bereich 2000). However, in their declaration they address that not every violation against animal integrity would disregard animal dignity. Apparently, it is not in this committee's interest to protect full animal integrity. However, our data show that this would be an interest of people who apply the animal welfare laws in their everyday life: In the sense of Rutgers and Heeger's definition, integrity is more application-oriented, distinct, in line with moral intuitions and specifications of the law and avoids any metaphysical background assumptions that come with (human) dignity. If the findings of this qualitative study represent the opinion of a majority of the relevant population would have to be tested in a follow-up study quantitatively.

integrity to be different. http://www.ekah.admin.ch/fileadmin/_migrated/content_uploads/d-Stellungnahme-FrVers-Art129BV-2000_03.pdf; accessed: 09.03.2016.

References

Balzer, P., Rippe, K. P., & Schaber, P. (2008). Menschenwürde versus Würde der Kreatur. In U. Wolf (Ed.), Texte zur Tierethik (pp. 61–72). Leipzig: Reclam.

Baranzke, H. (2002). Würde der Kreatur?: die Idee der Würde im Horizont der Bioethik. Würzburg: Königshausen & Neumann.

Binder, R. (2011). Würde erster und zweiter Klasse. Überlegungen zur Forderung nach Anerkennung der Würde des Tieres aus tierschutzrechtlicher Sicht. TIERethik, 3, 32–55.

Bovenkerk, B., Brom, F. W., & Van Den Bergh, B. J. (2002). Brave new birds: The use of "Animal Integrity" in animal ethics. Hastings Center Report, 32(1), 16–22.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. doi:10.1191/1478088706qp063oa.

De Vries, R. (2006). Genetic engineering and the integrity of animals. Journal of Agricultural and Environmental Ethics, 19(5), 469–493.

Eidgenössische Ethikkommission für die Gentechnik im ausserhumanen Bereich. (2000). Stellungnahme zur französischen Version des Art. 120 BV. Retrieved from http://www.ekah.admin.ch/fileadmin/_migrated/content_uploads/d-Stellungnahme-FrVers-Art129BV-2000_03.pdf.

Ethikkommission für Tierversuche der Akademien der Wissenschaften Schweiz. (2010). Würde des Tieres und Güterabwägung im Schweizerischen Tierschutzgesetz. Ein Positionspapier der Ethikkommission für Tierversuche der Akademien der Wissenschaften Schweiz. Retrieved from http://www.akademien-schweiz.ch/dms/D/Publikationen/Stellungnahmen/2010/SN_Wuerde_des_Tieres_d.pdf.

Friedli, K. (2009). Die Würde des Tieres in der neuen Schweizer Tierschutzgesetzgebung. Journal für Verbraucherschutz und Lebensmittelsicherheit, 4(3-4), 387–391. doi:10.1007/s00003-009-0307-6.

Gavrell Ortiz, S. E. (2004). Beyond welfare: Animal integrity, animal dignity, and genetic engineering. Ethics & the Environment, 9(1), 94–120.

Heeger, R. (2000). Genetic engineering and the dignity of creatures. Journal of Agricultural and Environmental Ethics, 13(1–2), 43–51.

Hoerster, N. (2004). Haben Tiere eine Würde?: Grundfragen der Tierethik. München: CH Beck.

Marie, M. (2006). Ethics: The new challenge for animal agriculture. Livestock Science, 103(3), 203–207.

Musschenga, A. W. (2002). Naturalness: Beyond animal welfare. Journal of Agricultural and Environmental Ethics, 15(2), 171–186.

Praetorius, I., & Saladin, P. V. (1996). Die Würde der Kreatur:(Art. 24novies Abs. 3 BV) (No. 260). Bundesamt für Umwelt, Wald und Landschaft (BUWAL).

Rippe, K. P. (2011). "Würde des Tieres" aus rechtsphilosophischer Sicht. TIERethik, 3, 8–31.

Rutgers, B., & Heeger, R. (1999). Inherent worth and respect for animal integrity. In M. Dol, M. F. van Vlissingen, S. Kasanmoentalib, T. Visser, & H. Zwart. (Eds.), Recognizing the intrinsic value of animals (pp. 41–51). Assen: Van Gorcum.

Schindler, S. (2013). The animal's dignity in Swiss Animal Welfare Legislation—Challenges and opportunities. European Journal of Pharmaceutics and Biopharmaceutics, 84(2), 251–254. doi:10.1016/j.ejpb.2013.02.013.

Schmidt, K. (2008). Würde oder Integrität-verlangt die gentechnische Veränderung von Tieren neue tierethische Konzepte. Altex, 25(4), 313–320.

Schweitzer, A. (2008). Die Ehrfurcht vor dem Leben: Grundtexte aus fünf Jahrzehnten (Vol. 255). München: CH Beck.

Teutsch, G. M. (2008). Die "Würde der Kreatur." In U. Wolf (Ed.), Texte zur Tierethik (pp. 56–60). Leipzig: Reclam.

Verhoog, H. (2007). The tension between common sense and scientific perception of animals: Recent developments in research on animal integrity. NJAS-Wageningen Journal of Life Sciences, 54(4), 361–373. doi:10.1016/S1573-5214(07)80009-1.

4 Thought experiments on the moral status of nonhuman animals

4.1 Rationality, similarity, pain: Factors influencing moral judgements regarding nonhuman animals

Introduction

Several aspects are thought to influence (lay) judgements about the moral status of nonhuman animals. Ethical theory and experimental philosophy have investigated concepts such as "experience" and "agency" as potential factors for moral cues (Sytsma, J. and E. Machery 2012). In a thought experiment, we tested three aspects frequently mentioned in the literature: (physical) similarity to human beings, the ability to feel pain, and rationality.

Methods

106 German-speaking participants recruited with clickworker.com were asked via online survey (SurveyMonkey) to imagine themselves as space police officers sent to a doomed planet to rescue one of three living alien beings:

- a human-like being (apparent similarity to a human) that does not show signs of pain or rationality,
- a snail-like being (no apparent similarity to a human, no signs of rationality) that is screaming in pain and
- a robot-like being (no apparent similarity to a human, no signs of pain) that uses arguments (rationality) to convince the space officer to save it.

Participants were asked for reasons for their choice and could also select factors influencing their decision from a list:

- "the being was similar to me"
- "the being was in pain"
- "the being was rational"
- "the being could talk"
- "I felt compassion for the being".

Results and Discussion

Our results show that the vast majority would rescue the human or snail-like creatures (see figure 18). The findings suggest a differentiated answer to the question of whether internal or external circumstances are crucial for morally relevant factors. They also suggest that nonhuman rationality does not play a dominant role with regard to the moral status of beings in spontaneous/urgent decisions, although compassion does (see figure 19).

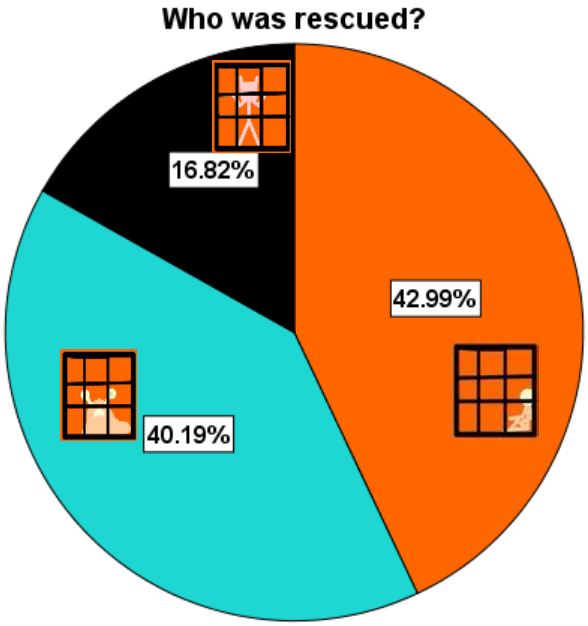


Figure 18: Participants choice for the rescue of each creature in percent

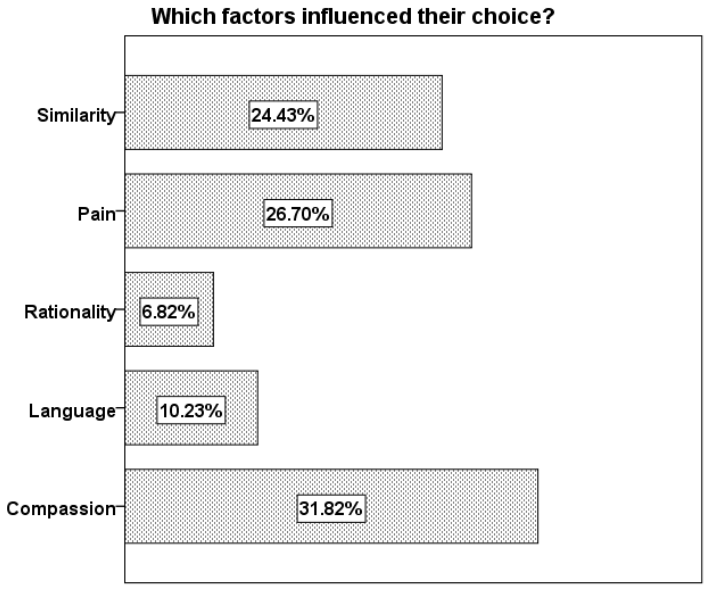


Figure 19: Factors influencing the participants' choices

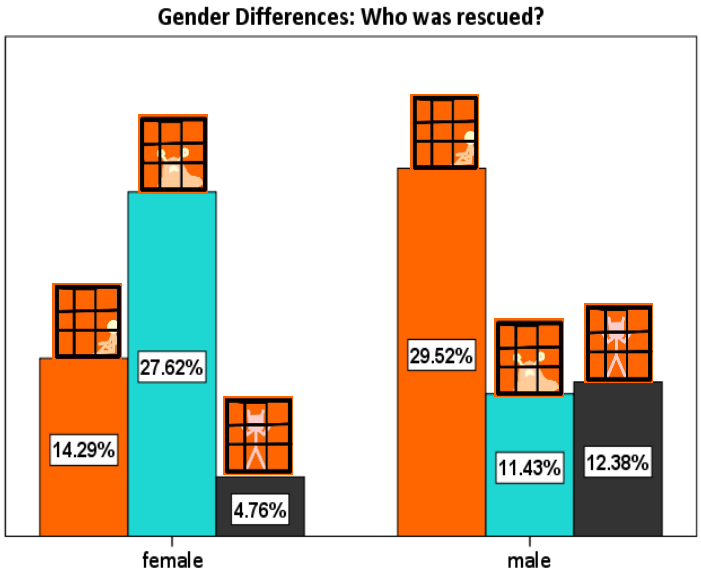


Figure 20: gender differences in the participants' choice for each creature in percent

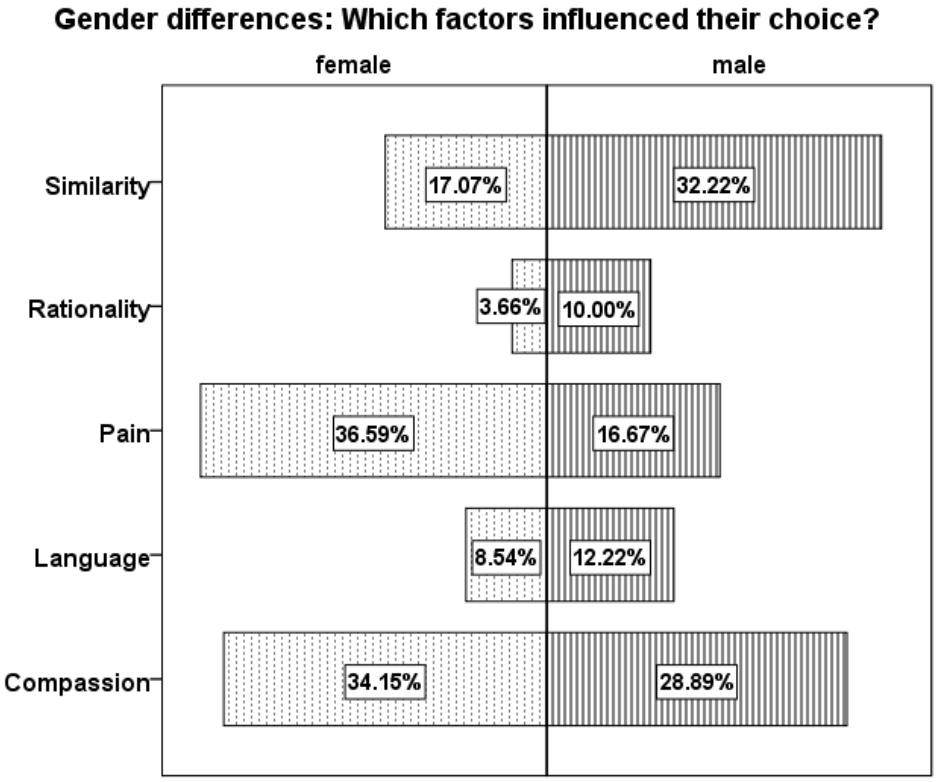


Figure 21: gender differences in the factors that influenced the participants' choice in percent

All 3 defining properties of the beings (outer appearance, feeling pain, communication skills) represent similarities to humans. However, similarity was indicated as an influential factor only in case of a rescue of the “human-like” being. Although a certain degree of similarity should be required for compassion, the pattern is different in the results: A mixture of both aspects, having something in common (human) and being sentient (snail), apparently led to a consideration of this factor.

Our results show a significant difference between male and female choices (see figure 20). The causal direction remains unclear: Is “similarity” e.g. actually the most influential factor for the choices of male participants, and consequentially the reason why they decided to rescue the human-like being? Or did they choose the human-like being for some other reason and picked “similarity” as an important factor in order to rationalise their decision in hindsight? Despite the differences in their choices both genders chose “compassion” as a guiding principle in their decision process (see figure 21). Different concepts of compassion can be one explanation; emphasizing different components of a common concept of compassion present a different explanation.

References

Sytsma, J., and Machery, E. (2012). The two sources of moral standing. Review of Philosophy and Psychology 3 (3):303-24.

4.2 The relevance of species and relationships for the folk conception of animal morality – an experiment with rats and dogs

Abstract

Different animal ethics approaches are based on various assumptions regarding the morally relevant properties of nonhuman animals. At the same time, psychological research reveals that our attitudes towards nonhuman animals are strongly connected to emotions, personality traits, relationships, context, and experiences. An applicable model of animal ethics must consider the gap between rational claims and folk morality regarding animals. In our study we explored two factors that are potentially important for folk morality: the species (rats and dogs) and the relationships (stray, laboratory and companion animal) between humans and nonhuman animals. Our findings show that moral decisions regarding nonhuman animals are based on (at least) two different scales in hierarchical order: First, there is the relationship scale indicating how close an animal is to a "pet". The more an animal is regarded as a "pet", the less likely it is that harming her/him would be morally acceptable. The second, subordinate scale is the species scale: the more positive people's attitude towards a certain species, the stronger their reluctance to accept harm being done to the animal. However, only a minority reported that the factors "human-animal relationship" or "species" mattered for their decision.

Introduction

The setting: Animal Experiments

Among the numerous issues addressed by the animal liberation movement, animal experimentation plays a very special role.

On the one hand, new technologies such as genetic modification of organisms contributed additional aspects to the old vivisection debate. On the other hand, there are some peculiar factors that make animal experimentation stand out from the long list of animal welfare issues connected with e.g. (factory) farming or the entertainment sector. One factor is the extent to which people are involved: Criticising the practice of factory farming (zoos, circuses, puppy mills etc.) cannot consistently be pursued without certain consequences for one's own consumption behaviour, but not only do animal experiments happen behind locked doors and windows. They are also not immediately linked to most people's everyday life and consumption. The latest surveys, though not representative of whole populations, suggest that a large proportion of European society does not agree with the use of animals for vivisection purposes and that the tendency to accept animal experimentation is decreasing (Schweizer Tierschutz STS; Nolte, Coenenberg 2016; Roten 2009). However, the second factor that is

more characteristic of animal experiments than of other animal welfare issues is ambivalence regarding the question of alternatives. Whereas for instance an individual life without the consumption of products that obviously involve animal exploitation is perfectly possible, the extent to which there are alternatives to animal experiments is questioned across a wide variety of research domains - including basic research, ecological investigations and the testing of drugs and procedures before they are used on humans on a grand scale.

The theory: Two approaches concerning moral judgements about nonhuman animals

Our understanding of the "speciesist approach" is based on the empirical findings of psychologist Melanie Joy and her consequent carnism concept. With social science methods, she discovered patterns in people's arguments when defending the arbitrary distinction between those animals that are considered food and those that are considered companions by the mainstream society. What she calls "carnism" is precisely this ideology that allows people to claim a distinction exists without providing any good arguments. Coping mechanisms as well as institutionalised societal strategies facilitate the avoidance of this cognitive bias. Joy (2011) clarifies already in the title of her book "Why we love dogs, eat pigs and wear cows: An introduction to carnism" that species is the key criterion that people use to categorise animals. Although she focusses on eating animals and animal products the pattern of arguments can be generalised to other fields of animal exploitation, particularly to animal experiments. The latter take place under exclusion of the public and all memory of them can be repressed in everyday life. At the same time, they are considered necessary parts of human progress and safety (as argued above). Additionally, psychological studies support the notion that people's attitudes towards certain animal species influence the extent to which people judge animal experiments being conducted with these species as acceptable (Furnham, Heyes 1993; Driscoll 1995b).

Our understanding of the "relational approach" is based on relationship-based animal ethics concepts such as Clare Palmer's (2010) "animal ethics in context" or Ursula Wolf's (2012) "Ethik der Mensch-Tier-Beziehung". What they have in common is the idea that not only animals' capacities are morally relevant – including consciousness, sentience or certain cognitive abilities – but also that context-dependent factors are relevant, namely their relationships to human individuals or human society. Although the authors differ in their assumptions and argumentation, they both claim that we have negative prohibitions and different positive duties when it comes to groups of animals whose life is to a certain point intertwined with human life. While we don't have certain positive duties towards wild animals, it is clear that we have certain moral obligations towards those that we made dependent on us. That is e.g. animals on farms, in zoos, in laboratories or in our homes. Palmer stresses that animals that live in the "contact zone" like stray animals or wild animals living in urban areas may also depend

on us for food or shelter and often suffer from side effects when we change our immediate surroundings.

It is by no means our intention to directly compare Joy's descriptive findings to these prescriptive ethics models or treat them alike. However, we hypothesise that both approaches describe potential moral intuitions towards nonhuman animals to some degree.

The approach: Animal ethics goes experimental

Investigating the relationship between theoretical animal ethics and intuitions concerning the moral status of nonhuman animals could yield beneficial results in two ways:

Biases in moral judgements can be detected and analysed. Many everyday decisions concern nonhuman animals in certain ways: There are direct interactions between people and their companion animals, animals living in parks and other urban areas, in private gardens or in zoos and wildlife parks. People use animals for leisure activities like horseback riding and agility. Equally important are many consumers' everyday choices: Buying animal products for food purposes, clothing or entertainment. Additionally, media might raise awareness for further animal welfare issues and support certain public opinions and moral judgements. The ambivalences of human-animal relationships have been studied substantially (Herzog Jr 2010; Joy 2011). However, the consequences for animal ethics still need to be discussed. Systematic empirical testing of potential patterns and factors that underlie those ambivalences represents a necessary first step. In this study we focussed on two aspects that are likely to influence people's judgements and lead to cognitive biases: the animals' species and the relationship between a moral subject and the animal as moral object.

Once factors that influence moral judgements are detected and their interactions are clarified the applicability of theoretical animal ethics concepts can be highlighted or criticised (Molewijk et al. 2004). This does not imply an is-ought fallacy: From the potential finding that the majority of people has – e.g. – speciesist intuitions it does not follow that animal ethics should be speciesist. However, if an animal ethics approach does not take into consideration that people have speciesist intuitions and does not provide any guidance regarding this aspect, it might not be helpful in everyday moral decisions concerning nonhuman animals. Furthermore, animal ethics do not exclusively play a role on the level of private actions. They also inform animal welfare legislations worldwide. Without discussing it in further depth in this article, it can be mentioned that many animal welfare laws are indeed based

on speciesist assumptions and also differentiate between groups of animals according to their relationship or "purpose"[24].

With the help of experimental philosophy, it is possible to isolate factors and test them as independently as possible from contexts that might influence people's judgements in everyday life situations. We therefore designed a scenario in which the participants were not directly involved (they were not asked to imagine themselves in a given situation) but merely asked to judge another person's moral action.

In our vignette we present an animal experiment to our participants and ask how far they would judge it to be morally acceptable if a research assistant took certain animals for the experiment. The experiment has the final goal of helping to find a cure for Alzheimer's disease because this is the kind of research that is seen as representing an important good that could be weighed against the potential harm to animals that would be done as part of such research. Previous research shows that, among people who do not generally disapprove of animal experiments, the potential human benefit and the costs for the animals are important criteria for their judgement (Lund et al. 2012): If someone is willing to accept animal experiments at all it is most likely that she will accept them for what is perceived as a "good reason" such as research for a wide-spread and severe disease. Testing two variables – species and relationship – we used the same vignette with different species (rats and dogs) and for each species with different relationships (stray animals, laboratory animals, companion animals/pets).

Our hypotheses and research questions are:

- H1) people are more likely to accept "lab animals" for experiments than "stray animals" (relational approach)
- H2) people are more likely to accept "stray animals" than "pets" (relational approach)
- H3) people are more likely to accept rats than dogs (speciesist approach)
- H4) there might be a difference between the reasons people mention and those that underlying patterns reveal:
    - H4.1) people say that relationship does not matter although it does

[24] The Swiss Animal Welfare Ordinance (2008), for example, defines 2 animal categories according to their "status of domestication": pets and wild animals, and three animal categories according to their "purpose of use": production animals, home-living animals and animals used for experimentation (chapter 1, §2). The German Animal Welfare Act (2006), for example, defines a set of rules that is only applicable for animals used for experimentation, independently of their species (§6a, §7).

- H 4.2) people say that the species does not matter although it does

A question that remains open to exploration:

- Q1) What is the relationship between factors "species" and "relationship"? Is there a hierarchy or some context-dependency?

Methods

We designed two scenarios ("Dog" and "Rat") which were identical except for the animals, which were dogs in the first and rats in the second scenario. Each scenario was presented to 70 participants via an online survey and consisted of three versions. Participants were asked to judge the situation in each version regarding its moral acceptability. They were then asked for factors that influenced their decision.

Recruitment

70 participants each were recruited in December 2015 (rats) and February 2016 (dogs) via the online platform "clickworker.com". Inclusion criteria were age (between 18 and 99) and country (Swiss, German, and Austrian). Clickworker's service team excluded participants in the first experiment (December) as participants in the second (February) to avoid overlap and produce two independent samples.

Based on the recommended wage per hour[25] (8,50€) and the average time participants needed in pilot testing (about 3 minutes), the participants should have been paid at least 0.42 € for their participation. We decided to pay 0.70€ to cover also those participants who might take longer to read or write.

Demographics

Dog version: 2 Participants were excluded for having a degree in philosophy[26]. Of the 68 remaining, 42 were male, and 26 female. The mean age was 36.37 with a range from 18 to 70.

Rat version: 3 Participants were excluded for having a degree in philosophy. Of the 67 remaining 28 were male, and 39 female. The mean age was 37.82 with a range from 22 to 67.

[25] The payment was recommended by the clickworker guidelines: http://www.clickworker.com/pdf/de_survey.pdf, access: 11.03.2016

[26] As we claimed to ask the opinion of philosophical lay people to investigate "folk moral intuition" we excluded those with a degree in philosophy.

Survey

The survey was implemented in the task presented at the clickworker.com platform with a link to a SurveyMonkey survey. The vignette described a scientific experiment in which the animals received injections and were killed in the end to dissect their brains (see attachment). Mr Miller provides 3 animals for the experiment in three different ways:

A) *Mr. Miller knows a place where a lot of stray dogs/rats live. They are half-wild and no one takes care of them. He goes there, catches three of them and brings them back to Mr. Smith. [stray]*

B) *Mr. Miller knows a company that breeds dogs/rats for laboratories. He goes there, buys three dogs/rats and brings them back to Mr. Smith. [lab]*

C) *Mr. Miller has three pet dogs/rats at home. He goes there, takes the dogs/rats and brings them back to Mr. Smith. [pet]*

After each version (A), B), C)) the participants were asked to judge on a 4-point scale:

Do you agree or disagree that Mr Miller's action was morally acceptable?

The available options were "disagree", "tend to disagree", "tend to agree" and "agree". We did not offer them a neutral or middle option for two reasons. First, we wanted to force them to decide, to take some moral courage and have an opinion on this. Second, it is meaningless to answer the question with "neither disagree nor agree". This answer could only be explained by the inability or unwillingness to make a moral judgement or by not caring about the matter.

On the next screen, the participants were asked in an open-ended question to give a reason for their answer.

Finally, participants could indicate whether none, some, or all of the following factors influenced their decision: 1) The relationship between the animals and Mr Miller. 2) That the animals were dogs/rats and no other kind of animals. 3) The purpose of the animal experiment. Factors 1) and 2) relate to our hypothesis regarding the importance of personal relationship and species. Factor 3) was mainly included for a potential follow-up study.

Results & Discussion

Descriptive Statistics

Dog scenario

The participants answered similarly for stray and lab dogs: Of 68 participants 31 (stray) and 32 (lab) disagreed and 20 (stray) and 15 (lab) tended to disagree that Mr Miller's behaviour was morally acceptable[27], 13(stray) and 17(lab) persons tended to agree and 4 each agreed that it was morally acceptable. The median was at "tend to disagree".

For pet dogs, the disagreement was stronger: 44 disagreed, 16 tended to disagree, 7 tended to agree and only 1 agreed that Mr Miller's behaviour was morally acceptable. The median was at "disagree".

For an overview of the answers in percent see figure 22.

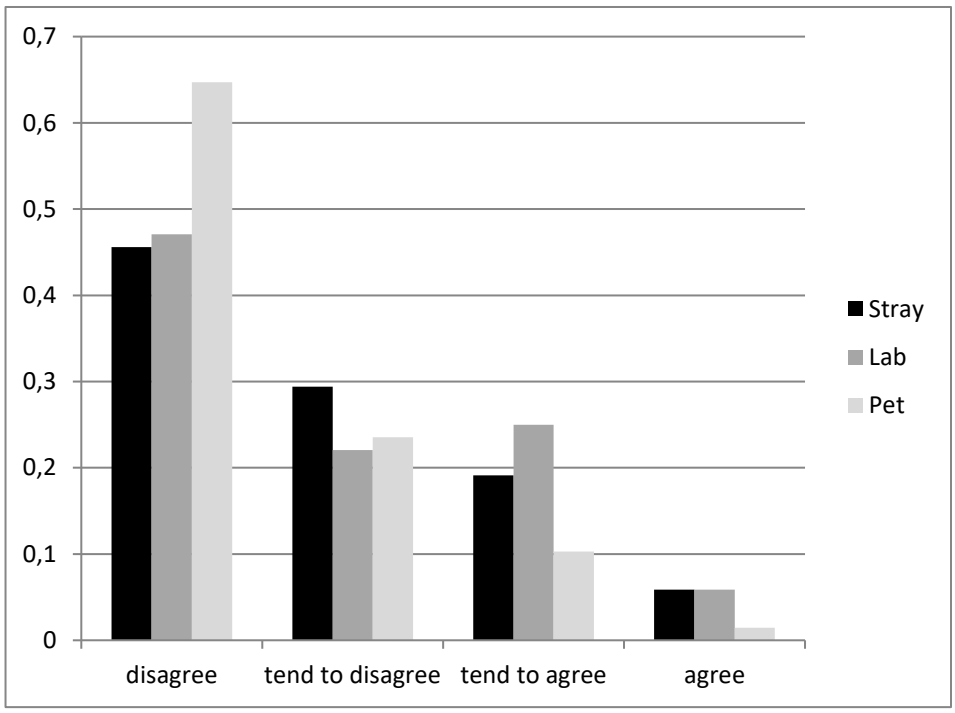


Figure 22: Overview Dog Scenario: answers to all three questions in percent (0.1 =10%)

[27] The expression "agreeing ("tending to agree" etc.) that Mr Miller's behaviour was morally acceptable" will be abbreviated by expressions like "agreeing with the use of lab dogs (stray dogs, pet rats etc.)" or simply "agreeing" although the meaning is not exactly the same.

29 participants (46.2%) said that the relationship between Mr Miller and the dogs was an influential factor for their decision, 17 (26.2%) checked the fact that the animals were dogs and no other animals as important, and 51 (78.5%) said that the purpose of the animal experiment influenced their decision.

For an overview of the open-ended answers see table 2.

Rat scenario

The participants also answered similarly for stray and lab rats: Of 67 participants 6 (stray) and 7 (lab) disagreed and 20 each tended to disagree that Mr Miller's behaviour was morally acceptable, 23 (stray) and 20 (lab) persons tended to agree and 18 (stray) and 20 (lab) agreed that it was morally acceptable. The median was at "tend to agree".

For pet rats, the disagreement was stronger: 22 disagreed, 20 tended to disagree, 18 tended to agree and 7 agreed that Mr Miller's behaviour was morally acceptable. The median was at "tend to disagree".

For an overview of the answers in percent see figure 23.

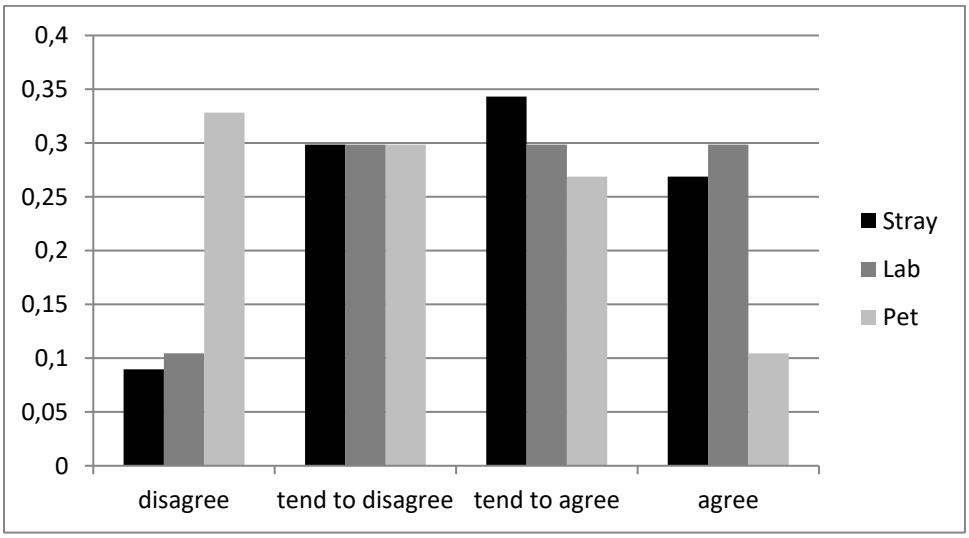


Figure 23: Overview Rat Scenario: answers to all three questions in percent (0.1 =10%)

25 participants (39.1%) said that the relationship between Mr Miller and the rats was an influential factor for their decision, 22 (34.4%) checked the fact that the animals were rats and no other animals as important, and 47 (73.4%) said that the purpose of the animal experiment influenced their decision.

For an overview of the open-ended answers see table 2.

Table 2: Open-ended answers for both scenarios, coded; number of participants for each code. Coding scheme (below):

N=68	Stray dogs								Lab dogs								Pet dogs							
disagree	11	5	2	8		4		1	11	8	1	4		6		1	6	7	2	5		3	20	
Tend do disagree	2	3	3	6	1	2		3		4	3	5		3				1	2	4		1	8	
Tend to agree				1	9			3				5	2			10				1	2		1	3
agree					4								2			2								1

N=67	Stray rats								Lab rats								Pet rats							
disagree	3		1					2	3		1	2				1	2		1	3			15	1
Tend do disagree	6	1	4	4	1	2		2	4	1	3	6		2		3	4		1	3		2	10	
Tend to agree					15	6		3					10	1		10				3	7			9
agree					7	7		3				3	7	1		8					3	1		2

Against animal experiments
Against killing animals
Against animal suffering
General moral concern
Weighing of goods
Because of the species
Because they are pets
Non-moral reasons

Analysis

To test our hypotheses, two aspects had to be investigated: 1) Did participants answer differently depending on the relationship between Mr Miller and the animals? 2) Did they answer differently depending on the species of the animal? At first glance, both aspects seem to be confirmed. However, before discussing the differences in further detail, subgroups that do answer independently of relationship can be identified:

In both scenarios, a certain group of participants believed that the action was immoral for all three versions (stray, lab, and pet). For the dog scenario, that large group consists of 27 participants (40%). When asked about the reasons for their decision in the open-ended question (see table 2), 15 persons said they were against animal experiments in principle. For the rat scenario, only 4 participants consistently disagreed, 3 of whom expressed that they were against animal experiments in principle. Identifying these groups is not surprising considering the public discussions of animal experimentation in the media. In Germany and Switzerland (non-representative) surveys point to a certain proportion of the society that is convinced of the moral and/or scientific wrongness of animal experiments (Nolte, Coenenberg 2016; Schweizer Tierschutz STS). Furthermore, qualitative and quantitative research from Denmark identified a group of such "disapprovers" (Lund et al. 2012; Lund et al. 2014). Although the written answers did not suggest that participants were just referring to animal experiments with the given species (dog/rat), the obvious difference in the number of antivivisectionists (15 vs. 3) in both scenarios is striking. Reasons for this effect will be discussed when comparing the different answering patterns for the rat and dog version of the vignette. Other, less frequently mentioned reasons for consistent disagreement included being against suffering or killing of animals - or dogs in particular – or general moral concern ("morally inacceptable", "they are living beings" etc.). A possible explanation for disapproval could be the procedures or the purpose of the animal experiment. Although a thorough analysis of this aspect is not possible with the obtained data, two points might be worth noting: First, for both scenarios, more than 70% of the participants said that the purpose of the experiment influenced their decision. However, the purpose was described as finding a cure for Alzheimer's disease, a severe, non-rare and well-known illness. It is therefore not likely that another disease would have led to a stronger approval. Second, the procedure described in the vignette would e.g. according to the Swiss animal welfare legislation not count as really harmful. Injections and behavioural experiments fall into category 0 or 1 (0: No harm; 1: mild harm; 2: intermediate harm; 3: severe harm; §24 Tierversuchsverordnung Switzerland); killing an animal and everything that is done afterwards is not considered harmful at all . If the participants thought that the specifics of this particular animal experiment were not morally acceptable but they imagine animal experiments in general to be morally

acceptable there might be a huge discrepancy between their idea of animal experimentation and the reality.

A second, small group that answered consistently judged the action to be morally acceptable for all three versions. This group can only be found in the rat scenario (6 participants) and their explanations were a weighing of goods ("human health before animal health", "it's worth sacrificing them for research", "for a greater good" etc.) or that they disliked rats ("they are pests", "I don't like rats").

Most participants, however, took into account that situations differed:

H1)+ H2): In both scenarios we found a very similar pattern in the answers for stray and lab animals and an obvious difference to pet animals. Thus, H1) can be rejected and is H2) supported.

However, the open-ended answers gave some different reasons for stray and lab animals in both scenarios: Among those who morally approved or tended to approve for stray animals the most common reason was a weighing of goods ("purpose justifies the means", "experiments can help humans", "human health is more valuable" etc.)(dogs: 13/17 ; rats: 22/41) whereas for lab animals the factor that the animals were bred for this purpose and/or that the act was legal played an important role (dogs: 10/21; rats:19/40). It is striking that, thereby, participants did not provide prima facie morally relevant arguments for lab animals: That an animal is "bred for a purpose", on the one hand, is completely arbitrary and merely defined by those who decide on the "purpose". However, an anthropocentric ethical approach that does not consider animals as ends in themselves but means to an end would support these arguments. A religious perspective, for example, could lead to the view that it is a human duty to define purposes for nonhuman animals and treat them accordingly. Without further knowledge on the value system of our participants these are only suggestions for plausible viewpoints.

Mentioning legal aspects on the other hand raises the question of the relationship between legal and moral norms[28]. Although the participants were instructed to consider only the given information – and there was no background information on what would be legal or illegal in the country where the experiment took place – they thought about legal issues. As residents of Switzerland, Austria and Germany, which have strict animal welfare laws, a certain proportion of the participants seems to be confident that actions which are in line with the law are also morally acceptable. This attitude is strongly supported by the media and the animal experimentation lobby. In numerous cases

[28] Although this issue cannot be discussed here in depth, it can be pointed out that there can be a clear distinction between following legal and moral rules in terms of a moral subject's motivation. Depending on the subject's ethical perspective, the motivation to follow a moral rule could be e.g. their idea of what it means to be a virtuous person, to maximise happiness or to act compassionately but not that a law says so and particularly not that there would be punishment for breaking rules.

researchers and spokespersons ensure that they are working according to a very strict law, that there are many controls before, during and after the experimentation process and that they would not be able to do unnecessary harm to animals because of the given legal framework (Klöckner 2012; Forschung Für Leben 12/22/2015; Pro Forschung 2016; Müller-Jung 2015; Heldmaier, Treue 2014) Both, the "purpose" and the legal aspects (and also other non-moral reasons that occurred in the answers less frequently) suggest that not all participants understood the task of judging the *moral* acceptability of the action. Indeed, an even stronger perspective would be that participants did not categorically differentiate between ethical and legal reasons but feel that an action is ethical because it is legal. Tyler (2006) calls this "normative commitment" due to personal morality or legitimacy, i.e. "because one feels the law is just" or "that the authority enforcing the law has the right to dictate behaviour" (Tyler 2006, 4).

A large majority of answers for disagreeing with the use of pets were referring to the animals being pets (dogs: 28/60; rats: 25/42). Overall, a relational approach is thereby in line with our findings: If the participants were not against (or pro) animal experiments in general a majority implicitly judged the factor of the relationship between the humans and nonhuman animals involved to be important.

In line with Clare Palmer's and Ursula Wolf's approaches, a majority of our participants decided that we need to consider in a special way those who are highly dependent on us and who are companions to us. Pets who are used to our care and who expect to get attention, food and shelter from us should be considered in a different way from animals who live independently of us and do not expect any care based on their experience (Wolf 2012). The huge difference in the results between pets and stray animals is therefore not surprising. Laboratory animals, however, present a particular case: they are also completely dependent on us. Many breeds would not be able to survive outside a laboratory due to physiological limitations. But the notion of an animal's "purpose" as a laboratory animal seems to overrule the aspect of dependency. Regarding this phenomenon, Joy's carnism concept provides an explanation: Growing up in a society that attributes purposes to certain groups of animals, the participants who accept this categorisation merely present a part of their worldview - how things are and ought to be. Other than for stray animals, who do not have any purpose according to this worldview and might therefore be used opportunistically, the fate of laboratory animals in a carnistic world is determined.

H3) We found an overall tendency to find Mr Miller's action morally acceptable with rats rather than with dogs (median for dogs: rather disagree; median for rats: rather agree). An interesting detail is the reference to species in the open-ended answers: Whereas dog-related answers were always positive ("I love dogs" etc.) rat-related answers were almost always negative ("there are too many rats", "rats are meaningless animals", "I hate rats" etc.). There is strong support in the literature for a clear

difference in attitudes towards rats and dogs. While rats are generally rated negatively (Batt 2009; Bjerke, Østdahl 2004), even associated with fear and accepted more easily for animal experiments (Driscoll 1992; Furnham, Heyes 1993; Driscoll 1995; Hagelin et al. 2003) the opposite is the case for dogs. At the same time there is no clear evidence of a morally relevant difference between the two species from a biological point of view: Both dogs and rats are capable of learning, memorising and problem-solving, both are sentient, social and empathic and can develop affection for human individuals (Fiset et al. 2003; Mumby et al. 2002; Huxter et al. 2001; Marshall-Pescini et al. 2008; Bartal et al. 2011 ; Quervel-Chaumette et al. 2016; Beumer 2014). Still, it has been shown that people attribute a much lower sentience to rats than to dogs and accordingly approve of using them for research more easily (Phillips, McCulloch 2005). This cognitive bias is confirmed for our participants. However, as two independent groups were asked for the dog and rat scenario, we cannot compare the answers or explanations of one individual for both scenarios.

H4.1) At first glance, the results seem perplexing: Only a minority of participants judged the relationship between Mr. Miller and the animals to be important, although we found a clear difference in responses between pets and the other two groups of animals. However, not all participants judged the behaviour differently for the three groups. Even the largest between-group difference for the choice “disagree” is only 17% in dogs and 22% in rats. This between-group difference is even lower than the percentage of participants who said that the relationship was an important factor (46% dogs, 39% rats). Apparently, there was awareness among those participants who did not give the same answer for the three situations that the relationship did make a difference to their response. This finding is supported by the open-ended answers, especially for the pet case. Being a pet was the most important reason to disapprove of Mr Miller’s behaviour (see H1+2).

Nevertheless, as discussed above, relationship might have been neither the only nor the most prominent reason overall for judging Mr Miller’s behaviour differently.

H4.2) Although our findings point to the clear relevance of species, only a quarter (dogs) to a third (rats) of participants claimed the fact that the animals were dogs/rats influenced their decision. Different explanations are possible: perhaps they were not aware of or were in denial of their speciesist attitude. This would be supported by the above-mentioned literature on attitudes towards different species. It is also possible that they did not think of all kinds of other species when they answered, but more specifically about other species that they feel more or less the same affection for. Media coverage of animal research in Germany and Switzerland is dominated by images and campaigns about primate research, particularly in the case of animal experiments related to neuroscience (dpa 2016; Reye 2014; Amrein 2016; Wolschner 2012; Becker 2015; Locker 2014) . If our participants had these images and reports in mind, the low importance of “factor species” for the dog scenario can be

explained, given the fact that most participants disapproved of Mr Millers behaviour: their response was along the lines of “No – I would not have answered differently for macaques!”. However, the almost equally low percentage in the rat scenario supports the unawareness/denial explanation.

An interesting pattern is revealed when comparing the two groups of participants for each scenario who said that species mattered for their decision (speciesY) and who did not say that (speciesN): Although the total numbers were too low for statistical analysis the mere comparison of percentages suggests a distinct difference between the dog and rat scenarios. In the dog scenario, 71% and 66% of speciesN disapproved or tended to disapprove of Mr Miller’s behaviour for stray dogs and lab dogs whereas 88% and 76% of speciesY chose that way. For pet dogs the overall numbers of those who rather approved or approved of Mr Miller’s behaviour were so small (speciesN: 7, speciesY: 1) that it is difficult to compare the percentages.

Similarly, there were clear differences between the two groups in the rat scenario. However, whereas in the dog scenario the disapproval of speciesY was stronger, the opposite effect could be found in the rat scenario: 57% and 54% of speciesN disapproved or tended to disapprove of Mr Miller’s behaviour whereas only 4% and 13% of speciesY chose that way. Again, for the pet version there was no such pattern: 65% of speciesN and 57% of speciesY disapproved or tended to disapprove of the behaviour.

These observations lead to the hypothesis that there is a positive speciecist attitude towards dogs and a negative speciecist attitude for rats. Those participants who admitted that their choice was biased due to the species of the animals showed both a positively discriminating choice pattern for dogs and a negatively discriminating choice pattern for rats. Interestingly, the pattern becomes almost invisible – in both scenarios – when it comes to pets. Which leads to our research question:

Q1) What is the relationship between the factors “species” and “relationship”? Is there a hierarchy or some context-dependency?

Although both factors clearly effect our participants’ moral judgements, the “pet effect” dominates over the species effect. Even for a species ranking as low on the attitude scale as a rat, being a pet can change people’s views significantly. This does not allow any conclusions about the importance of relationships in general. Pets, as our participants expressed, evoke feelings of responsibility and commitment. These factors could be unique for that type of human-animal relationship. However, our findings do suggest that both species and relationship are relevant to attitudes towards animals, and that the former factor is more relevant than the latter.

Therefore, we suggest the following model: In hierarchical order, people first estimate how close an individual is to the status of a pet in a full sense, and then they consider the animal’s species. Being a

pet is assumed to be a gradual property: First, we observed a major difference between the percentages of disapproval and tendency to disapproval in pet rats compared to those in pet dogs (65% and 24% for pet dogs; 33% and 30% in pet rats), even though both were significantly higher than for lab and stray animals. This could be explained by suggesting that not all participants were willing to consider rats as pets, or at least as pet-like as dogs. The effect would certainly have been even stronger for species that are generally not treated as pets in western societies like most insects, spiders or crustaceans. However, for practical and theoretical reasons we did not choose these groups as these animals differ from dogs also in other ways that might be morally relevant: their cognitive capacities and social properties are fundamentally different from mammals' and there is probably no sentience in most of those groups. Additionally, it would have been challenging to design a hypothetical animal experiment in applied research that could plausibly be conducted with dogs and e.g. spiders.

Further research about what makes individual animals or a group of animals pets or more pet-like is needed to investigate whether there are underlying properties (e.g. affection for humans, being considered property, being known personally etc.) that explain the observed pattern.

Once people have decided that a moral object is a pet – or close enough – they tend to disapprove of harmful procedures being conducted on the animal. If they decide that it is not a pet – or not close enough to having the status of a pet - they continue to ask: What is the animal's species? People approve or disapprove of harmful procedures depending on the species' ranking on the attitude scale. Future studies could investigate if this model holds for all groups of nonhuman animals or if there are groups of non-pet animals (e.g. popular large wild mammals or valuable utility animals) with an exceptional moral status.

Limitations

Our study has a few conceptual and statistical limitations.

First, the purpose of the experiment or experimental procedure might generally not have been accepted as good reason for an animal experiment, as discussed above. Changing details of the procedure description (e.g. so that the animals are not killed in the end) could have changed our participants' judgements. On the one hand, we had to include certain factors (applied research, severe disease, harmful procedures) in the scenario: If people are not willing to accept that animals are used for that type of research, they would most likely not accept it for the purposes of basic research. On the other hand, we wanted to keep the experiment realistic to a certain extent. It is not uncommon that animals used for neuro-scientific research are killed after experiments to dissect their brains.

Second, the choice of different species might have revealed very different judgements. Again, it was our intention to look for a obvious result: If people do not judge differently for two species which are appreciated in such different ways and at the same time possess the same morally relevant properties it is not likely that choosing e.g. guinea pigs and rats or dogs and rabbits would have led to more meaningful results.

Both these aspects mean that it would be necessary to test more scenarios which differ slightly from ours to establish a scale of e.g. “petness” and positive attitude towards certain species combined with the specifics of harmful procedures that are tolerated for those groups.

Third, we did not ask further personal specifics of our participants such as: their attitude towards the species (we did not consider this aspect necessary due to exhaustive literature on attitudes towards certain species), if they had pets, if they like nonhuman animals in general, if they support animal research etc. However, it turned out that people frequently mentioned these aspects in the open-ended answers if they judged these aspects to be relevant. It was not our intention to compare groups of participants according to psychological factors.

Another problem was the independence of the samples: Whereas we compared the opinions on relationships within each participant we compared the attitude towards species between two independent groups. Supported by similar percentages in answering patterns during our pilot phase, we are confident that our random sample of “clickworkers” was not biased in a way that would lead to significantly different results if the experiment was repeated.

Conclusion

We found that most of our hypotheses are supported by our data:

- H1) is not supported: Though for different reasons, people are not more likely to accept “lab animals” for experiments than “stray animals”
- H2) is supported: people are more likely to accept “stray animals” than “pets”
- H3) is supported: people are more likely to accept rats than dogs
- H4.1) is supported to some extent: Only a minority judges the relationship between Mr. Miller and the animals as important whereas a clear difference can be found between participants’ actual choices for the three different versions.

- H 4.2) is supported to some extent: only a minority says that the species mattered for their choice and at the same time the answering patterns for the two scenarios are obviously different

- Q1) Our findings suggest a hierarchical order of the importance of the factors “relationship” and “species” for moral decisions regarding nonhuman animals. First, people judge if the animal is a pet or at least pet-like. If that is the case, harmful procedures done to the animal are disapproved of. If it is not a pet or pet-like people fall back on their attitude towards the species of the nonhuman animal: The more positive the attitude the less likely that the moral subject would approve of harmful procedures done to the animal.

The extent to which these findings are transferable to different species, different areas of interactions between humans and nonhuman animals and relationships other than companion animals should be the subject of follow-up studies.

For the application of theoretical animal ethics concepts and potential subsequent implementation in the law our findings are highly relevant: Speciesist and relation-based biases must be challenged or morally justified. Ethics approaches that are not sensitive to these intuitive differentiations lack an important aspect in lay people’s moral reasoning and are not sufficiently specific for the manifold contexts in which moral rules are applied to interactions with nonhuman animals.

References

Amrein, M.(2016). Testobjekt Primat. Bals sollen in Zürich wieder invasive Versuche an Primaten stattfinden. Wer ist der Forscher hinter dem Projekt? Tierversuche in Zürich. *NZZ am Sonntag,* 3/6/2016. Available online at http://www.nzz.ch/nzzas/nzz-am-sonntag/tierversuche-in-zuerich-testobjekt-primat-ld.6306, checked on 5/31/2016.

Bartal, I. B.; Decety, J.; Mason, P. (2011). Empathy and pro-social behavior in rats. *Science* 334 (6061): 1427–1430.

Batt, S. (2009). Human attitudes towards animals in relation to species similarity to humans. A multivariate approach. *Bioscience Horizons* 2 (2): 180–190.

Becker, M. (2015). Affenversuche in Tübingen: Ermittler durchsuchen Max-Planck-Institut. *Spiegel Online*, 1/29/2015. Available online at http://www.spiegel.de/wissenschaft/medizin/affenversuche-ermittler-durchsuchen-max-planck-institut-in-tuebingen-a-1015699.html, checked on 5/31/2016.

Beumer, K. (2014). Catching the Rat: Understanding Multiple and Contradictory Human-Rat Relations as Situated Practices. *Society & Animals* 22 (1): pp. 8–25.

Bjerke, T.; Østdahl, T.(2004). Animal-related attitudes and activities in an urban population. *Anthroz Jour Inter Peo Ani* 17 (2): 109–129.

dpa (2016). Demo gegen Affenversuche. Max-Planck-Institut Tübingen. *Stuttgarter Zeitung*, 5/28/2016. Available online at http://www.stuttgarter-zeitung.de/inhalt.print.6cdde23e-3215-4bfd-a9ce-d2be7f31f449.presentation.print.v2.html, checked on 5/31/2016.

Driscoll, J. W. (1992). Attitudes toward animal use. *Anthrozoös* 5 (1): 32–39.

Driscoll, J. W. (1995). Attitudes toward animals: Species ratings. *Society and Animals* 3 (2): 139–150.

Fiset, S.; Beaulieu, C.; Landry, F. (2003). Duration of dogs' (Canis familiaris) working memory in search for disappearing objects. *Animal cognition* 6 (1): 1–10.

Forschung Für Leben (2015). *Fakten statt Polemik - Weshalb Affenversuche dem medizinischen Fortschritt dienen*. Zürich. Available online at http://www.forschung-leben.ch/forschung-leben-de/assets/File/151222_Fakten_statt_Polemil%281%29.pdf, checked on 6/

Furnham, A.; Heyes, C. (1993). Psychology students' beliefs about animals and animal experimentation. *Personality and Individual Differences* 15 (1): 1–10.

Hagelin, J.; Carlsson, H.-E.; Hau, J. (2003). An overview of surveys on how people view animal experimentation: some factors that may influence the outcome. *Public Understanding of Science* 12 (1): 67–81.

Heldmaier, G.; Treue, S. (2014). *Das muss uns die Gesundheit des Menschen wert sein. Tierversuche.* In FAZ, 10/22/2014. Available online at http://www.faz.net/aktuell/feuilleton/forschung-und-lehre/warum-tierversuche-unverzichtbar-sind-13220336-p2.html, checked on 6/14/2016.

Herzog, H. (2010). *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals.* HarperCollins Publishers.

Huxter, J. R.; Thorpe, C. M.; Martin, G. M.; Harley, C. W. (2001). Spatial problem solving and hippocampal place cell firing in rats: Control by an internal sense of direction carried across environments. *Behavioural brain research* 123 (1): 37–48.

Joy, M. (2011). *Why we love dogs, eat pigs, and wear cows: an introduction to carnism*. Conari Press

Klöckner, L. (2012). "Diese Hirnforschung ist nur mit Affen möglich". Debatte um Tierversuche. *DIE ZEIT*, 12/13/2012. Available online at http://pdf.zeit.de/wissen/gesundheit/2012-12/Bremer-Affenversuche-Kreiter-Interview.pdf.

Locker, T.(2014). *SOKO Tierschutz zeigt das grausame Schicksal von Tübinger Laboraffen*. motherboard Deutschland. Available online at http://motherboard.vice.com/de/read/soko-tierschutz-zeigt-grausamen-lebensalltag-von-tuebinger-laboraffen, updated on 4/23/2015, checked on 5/31/2016.

Lund, T. B.; Lassen, J.; Sandøe, P. (2012). Public Attitude Formation Regarding Animal Research. *Anthroz Jour Inter Peo Ani* 25 (4): 475–490.

Lund, T. B.r; Mørkbak, M. R.; Lassen, J.; Sandøe, P. (2014). Painful dilemmas: A study of the way the public's assessment of animal research balances costs to animals against human benefits. *Public understanding of science* 23 (4): 428–444.

Marshall-Pescini, S.; Valsecchi, P.; Petak, I.; Accorsi, P. A.; Previde, E. P.(2008). Does training make you smarter? The effects of training on dogs' performance (Canis familiaris) in a problem solving task. *Behavioural processes* 78 (3): 449–454.

Molewijk, B., Stiggelbout, A. M., Otten, W., Dupuis, H. M., & Kievit, J. (2004). Scientific contribution. Empirical data and moral theory. A plea for integrated empirical ethics. *Medicine, Health Care and Philosophy* 7(1): 55–69.

Müller-Jung, J. (2015). "Wir müssen diese Polarisierung überwinden". Tierversuche*. FAZ*, 5/8/2015. Available online at http://www.faz.net/aktuell/wissen/leben-gene/hirnforscher-wolf-singer-ueber-experimente-mit-affen-13574605.html.

Mumby, D. G.; Gaskin, S.; Glenn, M. J.; Schramek, T. E.; Lehmann, H. (2002). Hippocampal damage and exploratory preferences in rats: memory for objects, places, and contexts. *Learning & memory* 9 (2): 49–57.

Nolte, J.; Coenenberg, N. (2016). Forscht an Würmern, esst Insekten! Darf man Tiere essen? Und was halten Sie von Tierversuchen? Wir haben unsere Leser gefragt. Rund 11.500 haben mitgemacht. Hier die Umfrageergebnisse in Grafiken*. DIE ZEIT* 1/2016, 1/5/2016. Available online at http://www.zeit.de/wissen/2016-01/tierschutz-tierversuche-massentierhaltung-umfrage-ergebnisse, checked on 3/30/2016.

Palmer, C. (2010). *Animal ethics in context*. Columbia University Press.

Phillips, C. J.C.; McCulloch, S. (2005). Student attitudes on animal sentience and use of animals in society. *Journal of Biological Education* 40 (1): 17–24.

Pro Forschung (2016): *Tierschutz. Pro Forschung*. Available online at http://pro-forschung.de/tierversuche/tierschutz.

Quervel-Chaumette, M.; Faerber, V.; Faragó, T.; Marshall-Pescini, S.; Range, F. (2016). Investigating Empathy-Like Responding to Conspecifics' Distress in Pet Dogs. *PloS one* 11 : e0152920.

Reye, B. (2014).Besuch bei Jo und Lue. In Zürich finden seit 2009 keine Primatenversuche mehr statt. Nun gibt es wieder ein Gesuch. *Tagesanzeiger*, 9/18/2014. Available online at http://www.tagesanzeiger.ch/wissen/medizin-und-psychologie/Besuch-bei-Jo-und-Lue/story/12181235, checked on 5/31/2016.

Roten, F. C. von (2009). European Attitudes Towards Animal Research. Overview and Consequences for Science. *Science Technology & Society* 14 (2): 349–364.

Schweizer Tierschutz STS: *Die Qual der Stellvertreter*. Mediengespräch, 07/11/2013. Available online at: http://www.tierschutz.com/media/071113/pdf/02_tierversuche_umfrage.pdf checked on 3/30/2016.

Wolf, U. (2012). *Ethik der Mensch-Tier-Beziehung*. KlostermannRoteReihe.

Wolschner, K. (2012). Affen leiden anders. Tierversuche in Bremen. *taz*, 12/11/2012. Available online at http://www.taz.de/!5077448/, checked on 5/31/2016.

4.3 An evil fairy in the woods - How would people alter their animal product consumption if they were affected by the consequences of their choices?

Abstract

The ambivalence of human-animal-relationships culminates in our eating habits; most people disapprove of factory farming, but most animal products that are consumed come from factory farming. While psychology and sociology offer several theoretical explanations for this phenomenon our study presents an experimental approach: an attempt to challenge people's attitude by confronting them with the animals' perspective of the consumption process. We confronted our participants with a fictional scenario that could result in them being turned into an animal. In the scenario, an evil fairy forces them to choose a ticket. Depending on their choice of ticket they have equal chances of becoming a human being with a certain consumption behaviour (meat eater, organic eater, vegetarian, vegan) or, correspondingly, becoming a certain kind of animal (factory farmed meat animal, organically farmed meat animal, animal for dairy/egg production, free living animal). Our results indicate a strong discrepancy between people's actual consumption habits (mostly regular meat eaters) and their choices in the experiment (strong preferences for the organic or vegan life style). The data reveal a broad spectrum of explanations for people's decisions in the experiment. We investigated the influence of four different factors on the participant's choices in addition to reasons they as open-ended answers. Correspondingly, different coping strategies to overcome the tension (cognitive dissonance) between real-life consumption choices and attitudes towards nonhuman animals could be detected. Furthermore, many participants indicated a lack of knowledge concerning living conditions in farming but also concerning capacities and properties of nonhuman animals.

Introduction

The ambivalence of human-animal-relationships culminates in our eating habits; most people disapprove of factory farming, but most meat (, eggs, and milk as well as processed foods made from these) comes from factory farming. In what Joy calls a "carnistic" society (Joy 2003) it is perfectly possible to live life without constantly regretting actions and choices regarding consumption behaviour while also actively contributing to a system one judges to be morally not acceptable. Much has been written about the "psychology and sociology of meat" (Bratanova et al. 2011; Piazza et al. 2015; Veilleux 2014; Loughnan et al. 2010; Macdiarmid et al. 2016; Gutjahr 2013; Hayley et al. 2015) and most aspects are similar for other animal products. Due to the way meat, egg and dairy production are institutionalised in western societies, consumers are "numb" (Joy 2003) to many well-known aspects of the production process, nutritional and environmental consequences and most of all the living (and

dying) conditions of farmed animals. Vegetarianism and veganism – despite huge media attention – are rare exceptions to the common omnivorous life style (Leahy et al. 2010).

The objective of this study was to challenge people in our comfortable "carnistic" society by posing questions that yield answers and decisions which are usually not part of the consumption process: would their consumption behaviour change if they had to face the consequences of their choice of life style?

We challenged 126 participants with a fictional scenario that could result in them being turned into an animal via an online survey. In the scenario, an evil fairy forces them to choose a ticket. Depending on their choice of ticket they have equal chances of becoming a human being with a certain consumption behaviour or becoming a certain kind of animal:

- ticket A: meat eating human or nonhuman animal in industrial farming;
- ticket B: vegetarian human or nonhuman animal used for egg and dairy production;
- ticket C: organic animal products eater or nonhuman animal in organic farming;
- ticket D: vegan human or free-living nonhuman animal.

Our hypotheses were:

- Most participants would not choose their current lifestyle if they had to potentially face the consequences for animals of that lifestyle.
- Vegetarianism, veganism and organic farming would be much more popular if people had to experience the consequences of their consumption behaviour for the animals
- Our participants' ideas about organic farming, dairy and egg production and free-living animals might be based on prejudices/idealisations.

Further research questions were:

- What kind of compromise (if any) concerning life style could the participants live with?
- Are there differences between participants who already live vegetarian, vegan, on organic food and regular meat eaters?
- What are the main factors influencing the participants' decisions?

We intended to investigate open-ended and multiple-choice answers combined as a spectrum of reasons for the participants' decision.

Methods

The ethics committee for Basel (formerly "Ethikkommission Beider Basel," now "Ethikkommission Nordwest- und Zentralschweiz") was informed about the research project and gave their approval.
We designed a fictional scenario that was pilot-tested among colleagues and friends and adapted to their feedback. After the first version, we supported the text with illustrations that were reported as helpful for understanding the scenario. The thought experiment was presented to 126 participants via an online survey. Participants were asked to make a decision at the end of the scenario and then asked to name factors that influenced their decision.

Recruitment

126 participants were recruited in February 2016 via the online platform "clickworker.com". Inclusion criteria were age (between 18 and 99) and country (Switzerland, Germany, and Austria).

Based on the recommended wage per hour[29] (8,50 €) and the average time participants needed in pilot testing (about 2 minutes), the participants should have been paid at least 0.28 € for their participation. We decided to pay 0.40€ to also cover those participants who might take longer to read or write. Survey Monkey was used as an online tool to provide the survey. The vignette text (translated from the German original, see appendix) is as follows:

Thought experiment

>>During your walk through a wood you encounter a fairy who offers you a deal. In her fairy lottery hat she has tickets with four different letters on them (A, B, C, D). You must decide on one ticket, open it and read what it says. Afterwards you will immediately be transformed into the creature that is written on the ticket and must live as this creature for the rest of your life. The fairy explains the different tickets (A, B, C, D):

On half of the A-Tickets it says, "omnivorous human being" and on the other half it says "nonhuman animal in factory farming".

On half of the B-Tickets it says, "vegetarian human being" and on the other half it says "nonhuman animal used for the production of dairy products or eggs".

On half of the C-Tickets it says, "human who eats only organic animal products" and on the other half "organically raised farm animal".

[29] The payment was recommended by the clickworker guidelines:
http://www.clickworker.com/pdf/de_survey.pdf, access: 11.03.2016

On half of the D-Tickets it says, “vegan human being” and on the other half “free-living nonhuman animal”.

If you decide not to take a ticket, the fairy will immediately transform you into a nonhuman animal:

1.) Into an animal in factory farming if you are a omnivorous

2.) Into an animal used for the production of dairy products or eggs if you are a vegetarian

3.) Into an animal raised in organic farming if you only consume organic animal products

4.) Into a free-living animal if you are a vegan.

Would you take a ticket? And which?

Have you lived as a [depending on the ticket chosen: meat eater, vegetarian, organic eater, vegan] before?

Why did you decide that way? <<

In addition to the open-ended question asking for reasons for people’s choices, we offered a list of factors that could have influenced their decision, four of which will be further investigated in this article.

>>Which of the following factors were influential for your choice (no or multiple answers possible)?

1.) The perspective of living as a nonhuman animal

2.) I considered the best possible outcome for me

3.) I thought that I must be willing to live as a nonhuman animal of a certain type if I consume the corresponding animal products

4.) My current eating habits

5.) The way I want to live in the future as a human being

6.) I considered the worst possible outcome for me

7.) I thought about fairness <<

The list is not exhaustive, which is why the participants first had the opportunity to express their reasons in their own words. The factors we offered are targeted at particular aspects we wanted to explore:

1.) “The perspective of living as a nonhuman animal”

If people focused on their potential future life as an animal, their choice should tend towards a life they consider (for example) free from constant physical or mental suffering; one that is comparatively long or even pleasant. One important aspect here is the participant’s attitude towards animal experience in general. If, for example, she holds the view that nonhuman animals are not capable of experiencing pleasure and pain, she might not consider these aspects relevant to her decision. Another influential aspect is the participant’s knowledge about the living conditions of farmed and free animals. If he is convinced that animals in organic farming live a pleasant life, he is more likely to choose that ticket than someone who believes that life as an animal in organic farming is full of pain and stress. We did not directly ask about those background assumptions but looked at the open-ended answers to find out about them.

2.) “I thought that I must be willing to live as a nonhuman animal of a certain type if I consume the corresponding animal products”

This second factor represents the merely rational dimension to the first factor, which included an empathetic aspect. It can be used in addition to the first factor: A participant thinks that he should be willing to live as an animal in factory farming if he wanted to consume e.g. meat from factory farming. He thought about his life as an animal in factory farming, judged it to be too unpleasant and therefore picked a different ticket; or as an alternative to the first factor: A participant did not further think about her potential life as a nonhuman animal because she knew that she wanted to eat e.g. factory farmed meat (fourth factor) and that she must therefore be willing to live as an animal in factory farming.

3.) ”My current eating habits”

Most participants probably thought about their current eating habits when choosing a ticket (see factor 2.). However, our question is: Who indicates that their choice was driven by this factor (those who do not want to give up their consumption behaviour but also those who consider their current behaviour adequate and the consequences bearable)?

4.) “The way I want to live in the future as a human being”

This factor can be an incentive for several choices: Those who want to stick to their current life (and are even willing to ignore the 50% chance that it might change completely if they end up as a very different being) are different from those who are planning to change their life – be it after reading the scenario or for multiple other reasons people can have to change their diet or life style, as veganism and vegetarianism are becoming more and more popularised – and therefore pick a ticket that does not reflect their current life style.

The experiment was supported by illustrations (see figure 1). Demographic data were collected regarding: age, gender, and lifestyle (meat eater, vegetarian, organic eater, vegan, other).

The categories “meat eater”, “vegetarian”, “organic eater”, “vegan” and “other” were not further specified. On the one hand, they are common labels for eating habits, but on the other hand, their definition is vague. People might call themselves vegetarians if they eat meat only once a month, if they do not eat other meat than fish, if they avoid meat for health reasons but do not exclude it completely etc. We only reacted to that ambiguity if we found contradictions in a participant’s declarations (if someone e.g. said she was a meat eater and a vegetarian, see results section). Otherwise, we consider identification with one of the categories as sufficient for being included in that category.

For the category “organic” we took account of the fact that there is a range of definitions and labels in our participant’s home countries and that the consumers’ understanding of “organic” is highly dependent on their knowledge and preferences. If necessary, participants had the opportunity to specify their definitions in the open-ended answers and in the column “other”.

Analysis

Data were analysed with Excel (Microsoft Office Professional Plus 2010) and SPSS (Version 23).

Results & Analysis

Demographics

53.6% of the participants were male, and 46.4% female. The mean age was 36.5 (Std. Dev.=12.6), the range between 18 and 79.

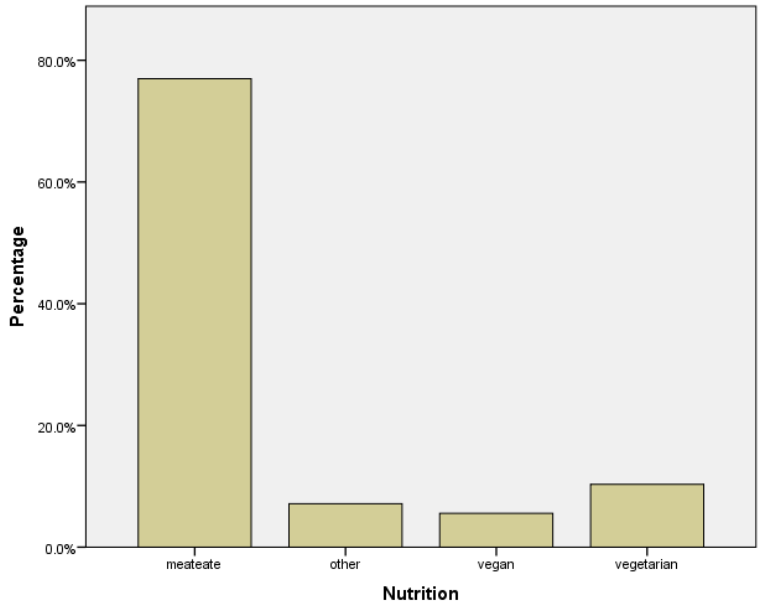


Figure 24: Eating habits of participants in percent

Most participants (100/126) were meat eaters, 11 were vegetarians, 7 vegans and 8 chose “organic” without further explication whether they were meat eaters, vegetarians or vegans (see figure 24). Of the meat eaters, 14 additionally indicated they ate “organic”. When we refer to “organic eaters” we include all participants who indicated that they ate organic.

These numbers are corrected for inconsistencies: If someone chose “meat eater” and “vegetarian” she was classified as a meat eater. If someone chose “vegetarian” and “vegan” he was classified as vegan (A vegan diet is also vegetarian but for further analysis two separate categories were needed.). One person indicated he was “flexitarian”. Although this term can be understood in different ways we assumed that it included occasional meat consumption and the person was classified as a meat eater. Most likely the person would otherwise have indicated that he restricted his nutrition to vegetarian, vegan or organic products.

Choice of tickets

Table 3: Choices for each ticket in percent

	Percent
industrial animal farming	11.9
vegetarian	7.1
organic farming	37.3
vegan	39.7
none	4.0
Total	100.0

The tickets that were chosen most frequently were the “organic” and “vegan” tickets (37% and 40%, see table 3). About 12% chose the industrial farming ticket, 7% chose the vegetarian ticket and 4% chose not to take a ticket at all.

Although the numbers of groups of non-meat eaters are too low for a chi-square test, there are some clear indications that the choice of ticket is dependent on the person’s eating habits:

1. Only meat eaters chose the industrial animal farming ticket.
2. Organic eaters chose mostly the organic ticket.
3. Vegetarians chose mainly the vegan ticket.
4. Vegans chose almost exclusively the vegan ticket.

Looking at the dependency from a different angle, the former eating habits are not consistent with the ticket choice in 3 of 4 cases:

1. All industrial animal farming choosers have lived as meat eaters before.
2. 11% of the vegetarian ticket choosers have lived as vegetarians before.
3. 16% of the vegan ticket choosers have lived as vegans before.
4. 28% of the organic ticket choosers have lived as organic eaters before.
5. The small group of those who did not choose a ticket consists of: 1 vegan, 1 vegetarian and 3 meat eaters.

Influential factors

For questions regarding the factors that influenced the participants' ticket choice, we excluded those who chose not to take a ticket (see below).

For the statistical analysis, Fisher's Exact Test was used to investigate the relationship between the choice of a ticket and the judgment that a certain factor was influential for the ticket choice because the expected frequency per cell for the small group of vegetarian ticket choosers was too small for a Chi-Square Test. P-values below 0.05 were considered significant. If the p-value shows significance we consider a factor as actually influential: If we find that one group in particular judged the factor to be influential for their decision it suggests that the aspect actually led to their ticket choice.

1.) The perspective of living as a nonhuman animal

Table 4: The participants indication of the importance of the factor "The perspective of living as a nonhuman animal" (count), differentiated by ticket choice.

		The perspective of living as a nonhuman animal	
		no	yes
Ticket choice	industrial animal farming	14	1
	vegetarian	8	1
	organic farming	35	12
	vegan	30	20
Total		87	34

Overall, this factor was selected by 34 of 121 participants (29%) (see table 4). Most participants did not seem to be concerned about their future life as a nonhuman animal, but rather hoped they would be lucky and remain as human beings. Most participants who said this factor had influenced their choice picked the organic (25%) or vegan ticket (40%). This suggests that consideration of this factor did indeed influence the outcome of the participants' decision process. Fisher's Exact test supported the dependency between ticket choice and the choice of this factor (p=0.04).

2.) Willingness to live as a certain kind of animal if I want to consume certain animal products

Table 5: The participants indication of the importance of the factor "The willingness to live as a certain kind of animal if I consume certain animal products" (count), differentiated by ticket choice.

		The willingness to live as a certain kind of animal if I consume certain animal products	
		no	yes
Ticket choice	industrial animal farming	9	6
	vegetarian	7	2
	organic farming	32	15
	vegan	44	6
Total		92	29

In contrast to the former factor, this was comparatively important for those who chose the industrial farming ticket and also for those who chose the organic farming ticket (see table 5). The reasoning might still be different: The former seem to say: I know and admit that I must be willing to live that kind of life if I want to choose this ticket; whereas the latter say: I would want to live that kind of life as nonhuman animal which is why I chose my ticket/life style as a human being. The low number of vegan ticket choosers who considered this factor is rather surprising, given that animal suffering in (factory) farming is a common argument used by vegan animal liberation activists. While the first factor covers an empathetic aspect (how would I feel as nh animal) the second represents a more rational dimension (it is a logical consequence of eating meat that there are animals raised and slaughtered for meat and I should be OK with that).

Again, Fisher's suggested a dependency between the ticket choice and the choice of this factor as influential (p=0.039).

3.) The future life as human being

Table 6:The participants indication of the importance of the factor "My future life as human being" (count), differentiated by ticket choice.

		My future life as human being	
		no	yes
Ticket choice	industrial animal farming	14	1
	vegetarian	5	4
	organic farming	29	18
	vegan	39	11
Total		87	34

Overall, future life as a human being was about as influential as the two aforementioned factors (see table 6). Although the open-ended answers suggest otherwise (see below), those who chose the industrial animal farming ticket did not indicate that this factor was important to them. It is striking that about 20% of participants who chose a vegan ticket thought about this factor given that a vegan diet seems to be the most restrictive. Those 20% include both groups: individuals who had lived as vegans before but also omnivores. The comparatively large percentage of those who chose the organic ticket and found this factor to be influential corresponds the idea that this lifestyle represents a compromise they could live with as humans and as nonhuman animals.

Fisher's Test showed that there was a dependency between the choice of ticket and the choice of this factor as influential (p=0.038).

4.) Current eating habits

Table 7: The participants indication of the importance of the factor "My current eating habits" (count), differentiated by ticket choice.

		My current eating habits	
		no	yes
Ticket choice	industrial animal farming	2	13
	vegetarian	3	6
	organic farming	28	19
	vegan	40	10
Total		73	48

Current eating habits were a crucial factor for about one third of the participants (see table 7). Those who chose the industrial animal farming ticket particularly considered this aspect (87%) which is in line with their arguments in the open-ended answers ("I cannot imagine living without meat", "I like eating meat" etc.). Fisher's Exact test also suggests a dependency between ticket choice and the choice of this factor as influential (p<0.001).

For the other groups the percentages are much lower, which corresponds with the inconsistency between former eating habits and ticket choice. A chi square test shows that there is indeed a significant dependency between the consistency of ticket choice and eating habits (e.g. being a vegetarian and choosing the vegetarian ticket) and the choice of the factor "current eating habits" (p<0.001). Those who indicated that their current eating habits were influential were much more likely to be consistent regarding their eating habits and ticket choice (see table 8). The test does not include those participants who did not choose a ticket at all (n=5) as the variable "consistency of ticket choice and eating habits" cannot be determined for them:

Table 8: Consistency of participants' former eating habits and their ticket choice (consistent e.g. eating habit "reg. meat eater" and ticket choice"industrial farming") (count), differentiated by choice of the influential factor "My current eating habits".

		Consistency of former eating habits and ticket choice	
		inconsistent	consistent
Choice: My current eating habits	no	64	9
	yes	17	31
Total		81	40

Reasons for ticket choice

In addition to the quantitative results described above, we here provide an exemplary overview of the open-ended answers regarding the reasons for the participants' ticket choice and their ideas about their potential lives as animals. In contrast to the multiple-choice answers, the participants had the chance to express their personal view directly, individually and in their own words. Therefore, we identified a number of interesting tensions between these reasons and our quantitative results, as well as some apparent contradictions.

Ticket A

Almost all participants who chose ticket A gave their current live style (meat eater) as a reason and/or emphasized how much they like to eat meat ("I don't want to imagine living without meat", "because I love meat" etc.). Only 3/15 mentioned their potential future as animals. On the one hand, this group could therefore be summarized as meat eaters who consider mainly their lives and preferences as humans in the fairy's lottery and risk the chance but mostly ignore the circumstances of their potential lives as animals. This is also reflected in the fact that only one participant in this group indicated from the list of factors that "the perspective of living as an animal" was influential for her ticket choice, but at the same time almost all picked the factor "my current eating habits" as influential. Also, most descriptions of their potential life as an animal were negative ("short", "uncomfortable", "being killed/eaten"). On the other hand, there is some truth or consequence in this attitude: If I love eating meat regularly I know I must take the risk of becoming an animal in horrible living conditions – I just don't want to reason/talk about it. Accordingly, six participants picked the factor "I thought I should be willing to live as a certain kind of animal if I want to consume corresponding animal products" as influential.

Ticket B

Most of these (few) participants indicated that they chose this ticket because it is consistent with their current or a possible future life style. In contrast to these open-ended answers, 8 of 9 participants claimed that they have not lived as vegetarians before when asked about their current eating habits.

They seem to accept the risk of being turned into an animal used for dairy or egg production in order to be able to consume vegetarian animal products as a human, but no one mentioned the choice being a compromise. It was rather judged as "the best alternative" or a decision that had already been made before ("I tend to become vegetarian", "I'd like to change my nutrition to vegetarian in the future" etc.).

The ideas about their lives as animals varied: Participants said things like „short, painful and without a mother" (in regard to the egg/milk production), "unhappy" or even imagined their life as an animal as cruel, but they also said things like "calm" and „species-appropriate". One gave a rather comical response: He said "I will lay an egg every day and sometimes, on Sundays, two". This could be an indication that the participant was not quite aware how much egg-laying hens suffer in a conventional laying hen factory.

The overall impression regarding a decision for ticket B is that f vegetarianism is an acceptable option for some people who are willing to reconsider their habits, while their associations with the life of egg and dairy production animals are ambivalent. Despite the equal chances of becoming a human or nonhuman animal, the main focus of these participants is therefore also on their potential future situation as a human and not as a nonhuman animal.

Ticket C

Compared to the first two groups, the pattern of reasons is very different here. A total of 25 participants mentioned their future life as an animal or at least referred to keeping animals in a species-appropriate way ("balanced for human and animal", "I am of the opinion that human beings are not created for a strict vegetarian or vegan nutrition […]. Animals should in my opinion be raised organically and with more respect for their natural needs", "I want to become an animal who is allowed to live organically"). Also, the solution was considered a compromise by several participants ("because it is a compromise between a broad range of groceries and sustainable, animal-friendly upbringing", "because both variants (human […], animal […]) seem acceptable to me").

Some persons offered explanations regarding why they did not choose a different ticket. Besides mentioning the same reason as ticket A choosers (not wanting to live without meat) or B (not wanting to live without other animal products) they mentioned reasons that count against becoming a free living animal: "of all mentioned animals the animal farmed organically seems to live the most pleasant life", "a free animal (e.g. mouse) would constantly be exposed to dangers. An animal living in captivity

which is kept according to species-specific needs would not have these dangers.", etc.). Some participants additionally mentioned worries that a vegetarian or vegan life style would not be natural or healthy. Another, again more human-centred perspective could be found in answers like "that corresponds my way of life/personality", "feels best for me", "I feel comfortable with it", "I support organic production" etc.

The answers regarding how participants would imagine their life as an animal were more optimistic here. Several persons mentioned "species-appropriate animal housing/nutrition" or described their life as "pleasant", "uncomplicated", "nice" or "without torture". However, an answer that came up multiple times was that they would not be (completely) free as animals and that their life would be dominated by humans. Again, some participants also said that they would prefer a life as an animal in organic farming to a life in the wilderness, because the former would provide more safety, better food resources and less stress.
We discuss later in this paper the extent to which their idea about living conditions of organically farmed animals is realistic.

Ticket D

Those who had already adopted a vegan life style before called it "reasonable" and kept referring to their current habits. Further arguments were justice and freedom for animals. Accordingly, many imagined their potential lives as animals as free, close to nature and happy/peaceful; "the perspective to live as an animal" was indicated as an influential factor by 40% in this group.
However, the downside of a free life was mentioned frequently, too: "in danger/fear of being eaten by other animals", "would have to take care of myself", "boring", "cruel", "simple".
Those answers – especially in combination with the overall high number of participants who described their potential life as nh animals as meaningless, unconscious, purely led by instincts etc. (see next chapter) – reveal two interesting aspects (although an exhaustive discussion of the second certainly goes beyond the scope of this article): First, it seems evident to several people that animals don't have consciousness. Second, living that kind of unconscious life does not seem to be attractive to many people. These aspects will be further discussed in a separate section because they were mentioned by participants who also chose different tickets.
Once taken into consideration, however, living without (human) consciousness might not be too bad. Given that the subject does not know about alternatives the subjective benchmark for a good life should be the best possible life for that kind of being. This could explain why so many participants who had not lived as vegans before opted for ticket D: they assume that as nonhuman animals they would prefer a life in freedom over the other options.

The choice of ticket D could equally be grounded in reasoning about the least bad rather than the best possible outcome. If participants judged being turned into a nonhuman animal as generally negative and being human as overall positive, the challenging modification of becoming a vegan human or an animal (perceived as negative) in freedom (positive) could still add up to a positive outcome compared to an existence as an animal (negative) that additionally has to live in captivity (also negative)[30]. Finally, the frequent depiction of a free life as something unpleasant, harsh and dangerous is remarkable.
The participants' answers can be read as a value judgment favouring comfort and safety over freedom: While the uncertainties of a life in freedom are perceived as unattractive, the (rather human) perspective of living in a predictable environment with shelter, regular feeding and protection from predation is perceived as a better option, even if it means being exploited and killed in the end.

No ticket

The five participants who decided not to take a ticket present a heterogeneous group: 3 open-ended answers suggest that the participants did not understand the question/task because they answered that they did not want to become an animal (which is exactly what happens if they do not take a ticket) or already lived a vegan lifestyle. One person said she decided it "according to instinct" and one person said she could not decide. As the latter is the only meaningful argument for not taking a ticket this group was excluded from statistical analysis regarding ticket choice.

Denial of animal consciousness/sentience

An unexpected topic in the open-ended answers was the participant's assumptions regarding properties of nonhuman animals. Independently of their ticket choice participants expressed statements like: "animals don't have consciousness", "many animals don't have a concept of past and future. They live in the moment.", "Because I don't have a cerebrum, just instincts, my thoughts as an animal won't mean anything to me.", "animals cannot think", "[I imagine my life as an animal as] driven by instincts and without a will" etc. The idea that an unconscious life seems unattractive at first glance leads to several follow-up questions that would be worth investigating:

1) If they assume that they do not remember their former human life, why would it matter that they live "unconsciously"? Do objective criteria for a preferable life include conscious experience?

[30] Whether the calculation is that simple or could be modified by additional factors could be tested in a separate thought experiment. What if e.g. the animals' species was known? The image used in this thought experiment suggests a mouse which is an animal of prey. Many participants thought about a dangerous life in fear. If the image had been e.g. a fox, a snail or a sprout the participants' associations might have been different.

2) Could our participants' reluctance be linked to the general problem of subjective experience? (One participant directly referred to Nagel's (1974) famous "What is it like to be a bat?")We cannot tell what it would be like to experience the world in a way that is profoundly different from the human spectrum of possible experiences. Being so strange to us and so hard to imagine, it might be intuitively less attractive.
3) Does the belief that animals live without meaningful subjective experience explain why some participants did not express preference for a pleasant life as nh animal over an unpleasant one?

A marginal number of participants criticized the experiment: in contrast to the first three tickets, we did not give any information on the kind of animal that they would be turned into if they became a free-living animal (see footnote 2on the effect of different species here). However, the statements regarding animal consciousness were made for the first three tickets, too. It is obvious that animals that are used for meat, egg and dairy production – in our society – are vertebrates[31] and mostly mammals (except for some fish and bird species). There is no doubt that all these animals

1.) Are at least capable of feeling pleasure and pain (Gentle 1992; Segner 2012)

2.) Are therefore able to suffer from e.g. pain, social distress or fear

3.) Are adapted to certain environments that are not reflected by the circumstances of modern factory farming

Even if we cannot know exactly what it would feel like to be a caged hen or a cow whose calf was taken away we have strong evidence that it would mean suffering of some sort. It is possible that our participants were unaware of the evidence. More likely, however, they were in denial of the evidence that might make them adapt their behavior to their beliefs. This phenomenon of cognitive bias will be discussed below (see discussion).

[31] It is highly unlikely that those participants quoted above all thought of lobsters, oysters and snails when thinking about their "meat consumption". Our focus on the groups of animals that are most commonly "used" in farming was supported by the images of pigs and chicken that illustrated the thought experiment, see attachment.

Discussion

We will conclude by discussing our results with regard to our hypotheses and research questions:

I) Most people would not choose their current live style if they had to face the consequences. What compromise concerning their life style people could live with?

Answers revealed that most people would not choose their current life style if they had to live with the consequences. Vegetarianism, veganism and organic farming would be much more popular. A small number of participants indicated that they were already in the process of changing their eating habits, while another minority admitted that they are not willing to change their habits and therefore take the risks and consequences. However, the majority implied that they would (only) be willing to change if they were – potentially – forced to bear the consequences as nonhuman animals. Together with the second hypothesis, this illustrates the predominant ambivalent relationship to nonhuman animals in our society: Their unbearable living conditions are known about, but ignored by the majority although most people have a generally positive and caring attitude towards nonhuman animals (Bratanova 2011, Gutjahr 2013, Piazza 2015, Veilleux 2014).

II) People's ideas about organic farming, dairy and egg production and free-living animals might be based on prejudices/idealisations. Will there be certain patterns of justifications and reason(ing)s?

The open-ended answers present a diverse field regarding knowledge and judgement of living conditions for farmed animals. While one group (G1) described the prospect of a miserable life including dependency, suffering and an early/cruel death, a second group (G2) thought of a safe, satisfied and "species-appropriate" life, and a third group (G3) created the image of a non-sentient, unconscious existence without caring much about circumstances.

These groups can be assigned to two different coping strategies: G1 is perfectly aware of and does not deny the circumstances of (conventional and organic) farming. In everyday life their attitude could be described as "not caring about the fate of farmed animals". In the thought experiment, their attitude is characterised by optimism about being lucky (the gambler's fallacy) and remaining as a human being. Depending on the degree to which they are risk takers or willing to make a compromise they choose ticket A, B or C.

G2 and G3 are both in denial of well-known facts. While G2 can either be described as naïve – if they are actually convinced by their descriptions – or modifying their true beliefs (i.e. that farm animals do not have a pleasant life) in order to be able to continue with their favoured life style/habits, G3 attributes properties to nonhuman animals that make moral concerns for their well-being irrelevant.

These phenomena can be explained in terms of Festinger's (1962) concept of cognitive dissonance: If there is a tension between several of a person's opinions, beliefs or actions she will feel psychic discomfort and try to lower the tension. She has the options of

- changing her beliefs to make her actions justifiable,

- changing her actions so they are consistent with her beliefs,

- denying those beliefs that create the inconsistency.

Literature suggests that all three alternatives (change of behaviour, change of attitude and denial of facts) can result from and are used to cope with cognitive dissonance due to the ambivalent relationship many people have with nonhuman animals (Veilleux 2014; Piazza et al. 2015; Rothgerber 2014; Loughnan et al. 2010; Hank Rothgerber 2014; Joy 2003; Berndsen, van der Pligt 2004; Berndsen, van der Pligt 2005; Bratanova et al. 2011).

We observed all three patterns in our participants, too, although in some cases it is unclear whether they really changed their beliefs or are in denial. For example, are they incorrectly informed about the living conditions of many farmed animals (due to a confirmation bias in their choice of information) and therefore convinced that the animals live a comfortable and satisfying life, or have they been confronted with the facts and deny that they apply to the products they consume ("I know where the meat/eggs/milk I buy come from and I am convinced that living conditions are fine there")? Psychic numbing might contribute to this process of denial (Joy 2003): The way animal products are produced, advertised, distributed and consumed in our society makes it easy to avoid looking into the uncomfortable details. If this explanation applies to our participants, too, it is remarkable that "numbness" still holds for the 60% who actually risked living a life as a farmed animal. They are so used to not-thinking or not-caring about the fates of farmed animals that they still refuse to consider the consequences for animals when their life might actually and directly be affected by the circumstances. Additionally, the justification "I cannot imagine what life as a nonhuman animal would be like" seems to work as an absolution for some participants.

On the other hand, given the overall low consistency between the participants' current eating habits and their ticket choice, we found clear indications of willingness to engage in behavioural changes. The fact that many opted for the risk of becoming an animal raised on an organic farm – although we did not specify the living (or slaughtering) conditions - and the open-ended answers that describe a pleasant life as an organically farmed animal suggest that here, indeed, these participants have a very positively connoted idea of organic farming.

The ideas of free-living animals varied. It cannot be stated that most participants are completely naïve about life as a "free" animal.

III) Will there be differences between people who already live vegetarian, vegan, on organic food and regular meat eaters?

We found that the (overall very small) number of vegans and organic eaters were quite consistent in their choices in real life and in the experiment. A potential explanation is the behavioural change they have most likely undergone (only very few people are born and raised as vegans or exclusively with organic animal products) to cope with the psychic discomfort they felt about their former beliefs and behaviour regarding nonhuman animals.

A second – again very small – group whose ticket choice was consistent with their actual life style were those who chose the "industrial animal farming" ticket. They emphasised the meaning of (regular) meat for their lives and risked the consequences for their potential lives as nonhuman animals. However, the by far larger proportion of regular meat eaters and also most of the vegetarians chose differently and preferred the "organic" or "vegan" ticket.

A line could therefore be drawn between those who already made up their mind in everyday life and have found a justification that withstands the challenges of our thought experiment and those who feel a strong psychic discomfort when their cognitive dissonance is pointed out to them. That line, however, cannot clearly be drawn between the groups listed in III).

IV) What are the main factors (from our list of potential factors) influencing people's decision?

Four factors were presented in the experiment:

1.) The perspective of living as a nonhuman animal

2.) The willingness to live as a certain kind of animal if I want to consume certain animal products

3.) The future life as human being

4.) The current eating habits

Three of these were each judged as important by ca. one quarter of the participants. Their current eating habits were picked as influential factor by 40%. However, the factors had different meanings for the different ticket groups. While for those who chose the "industrial farming" ticket thinking about their willingness to live as a certain kind of animal if they wanted to consume certain animal products was very influential, as was their current eating habits; the other two larger groups ("organic" and "vegan" ticket) picked the first and third factor more frequently.

Our statistical analysis suggests that the factors did indeed influence our participants' ticket choices because there were significant differences between the four groups of ticket choosers regarding the factors they judged as influential.

In order to test if the factors are as influential as the participants indicated a follow-up study could aim at focusing participants' attention on certain factors to influence their decision-making. If, for example, consideration of the factor "my future life as a nonhuman animal" often led to choosing the vegan ticket, it might be possible to convince people to take a vegan ticket. The living conditions of the animals could be emphasised in more detail and the question regarding the ticket choice could be directed towards that aspect of the decision (e.g. "Which risk of living as a nonhuman animal would you take?"). As this factor represents the more empathetic aspect of the decision process the use of illustrations supports the manipulation of participants' choices. However, it is also possible that the manipulation does not work that way. As our statistical results do not show the direction of dependency it is also possible that those participants who took the "vegan ticket" (for some other reason) were also those who thought about their life as animals more often. The underlying psychological traits might not have been revealed by our study.

Furthermore, it cannot be concluded from our data whether this factor is influential for the participants' life style decisions outside the experiment. Nevertheless, the results could be interesting for animal liberation activism when developing tools for effecting behavioural changes among non-vegans.

In contrast, the factor "my current eating habits" is a hint towards another potential starting point for changing a person's decisions. If it was possible to change to a vegetarian/organic/vegan life style without fundamentally changing what people consider their "current eating habits" a change towards a different choice might no longer seem too difficult for them. The growing market for fake animal products, the increasing availability of organic alternatives and more frequent use of labels and information on food packages are indicators that stepwise changes of habits are more and more facilitated.

References

Berndsen, M.; van der Pligt, J. (2005). Risks of meat: the relative impact of cognitive, affective and moral concerns. *Appetite* 44 (2): 195–205.

Berndsen, M.; van der Pligt, J. (2004). Ambivalence towards meat. *Appetite* 42 (1): 71–78.

Bratanova, B.; Loughnan, S.; Bastian, B. (2011). The effect of categorization as food on the perceived moral standing of animals. *Appetite* 57 (1):. 193–196.

Festinger, L. (1962). *A theory of cognitive dissonance*. Stanford university press.

Gentle, M. J. (1992). Pain in birds. *Animal Welfare* 1 (4): 235–247.

Gutjahr, J. (2013): The reintegration of animals and slaughter into discourses of meat eating. In Helena Röcklinsberg, Per Sandin (Eds.): *The ethics of consumption*, pp. 379–385

Rothgerber H. (2014). A comparison of attitudes toward meat and animals among strict and semi-vegetarians. *Appetite* 72: 98–105.

Hayley, A.; Zinkiewicz, L.; Hardiman, K. (2015). Values, attitudes, and frequency of meat consumption. Predicting meat-reduced diet in Australians. *Appetite* 84: 98–106.

Macdiarmid J. I.; Douglas, F.; Campbell, J. (2016). Eating like there's no tomorrow: Public awareness of the environmental impact of food and reluctance to eat less meat as part of a sustainable diet. *Appetite* 96: 487–493.

Joy, M. (2003). *Psychic Numbing and Meat Consumption: The Psychology of Carnism*. Available online at https://books.google.ch/books?id=bD-yygAACAAJ.

Leahy, E.; Lyons, S.; Tol, R.S. J. (2010). *An Estimate of the Number of Vegetarians in the World* (ESRI working paper, 340).

Loughnan, Steve; Haslam, Nick; Bastian, Brock (2010): The role of meat consumption in the denial of moral status and mind to meat animals. In *Appetite* 55 (1), pp. 156–159.

Nagel, Thomas (1974). What is it like to be a bat? In *The philosophical review* 83 (4): 435–450.

Piazza, J.; Ruby, M. B.; Loughnan, S.; Luong, M.; Kulik, J.; Watkins, H. M.; Seigerman, M. (2015).Rationalizing meat consumption. The 4Ns. *Appetite* 91: 114–128.

Rothgerber, H.(2014). Efforts to overcome vegetarian-induced dissonance among meat eaters. *Appetite* 79: 32–41.

Segner, H.(2012). *Fish: Nociception and Pain: a Biological Perspective*.Federal Office for Buildings and Logistics (FOBL).

Veilleux, S. (2014): Coping With Dissonance: Psychological Mechanisms That Enable Ambivalent Attitudes Toward Animals.*Honors College*. 196. http://digitalcommons.library.umaine.edu/honors/196

5 General discussion & limitations

The main goal of this interdisciplinary doctoral project was to collect, investigate and challenge intuitions towards theoretical concepts of animal ethics, especially the moral status of nonhuman animals, with the innovative application of different empirical methods; and to discuss the philosophical meaning of the results for theoretical animal ethics, especially for the concept of moral status, against the background of the findings. The aim was subdivided into five different aspects:

1) to suggest methods to approach animal ethics empirically, in line with the methodology of other fields in bio(medical)ethics, and especially experimentally.

2) to empower the participants of the qualitative studies to express their view on the human-nonhuman animal relationship and the moral status of nonhuman animals freely; and to challenge the view of the participants of the quantitative experiments

3) to explore the participants' intuitions regarding the moral status of nonhuman animals.

4) to discuss the empirical results in the light of terms, concepts and approaches in theoretical animal ethics; furthermore, to critically look into exemplary approaches in animal ethics regarding their applicability and regarding their strength in connecting with lay animal morality as it is presented in the results.

5) to investigate the implications of the findings for laws and guidelines and potentially for other practical purposes aiming at behavioural changes.

The findings and conclusions regarding the five aims will be discussed separately before elaborating on limitations of this project and implications for future research. Aim 3) and 4) will be discussed in one section as they are intertwined – animals' moral status is part of certain concepts in animal ethics.

The methods

A mix of methodologies was successfully deployed in the project.

First, based on the methodology of established empirical biomedical ethics, it was argued in chapter 2.1 that qualitative interviews contribute pivotal insights to the innovative field of empirical animal ethics. suggest that they help to identify

- ethical issues that have not been addressed so far;
- (application) problems with laws and guidelines;
- (Robust, ambivalent or contradictive) concepts in lay animal morality;
- Cognitive biases;
- And challenging or problematic concepts in theoretical animal ethics.

In chapter 3.1 an example for a crucial factor (and its challenging implications) for "folk" moral considerations of nonhuman animals is provided that was brought up by all interviewees, the individual relationship to nonhuman animals. Additionally, three aspects of theoretical (animal) ethics are discussed: 1.) the importance of context and 2.) the problem of moral distance on the basis of the interview data in chapter 3.1 as well as 3.) the concept of animal dignity in chapter 3.2. The latter exemplifies also an application "problem" with a law, namely the Swiss Animal Welfare Law. The difficulties of those applying the law are elaborated, potential reasons are discussed and an alternative concept – animal integrity – is offered. Cognitive biases and corresponding coping strategies could be detected in both the interviews and the thought experiments. In the interviews it was especially interesting to learn about the participants' awareness of their biases and the spectrum of reactions to them, from ignorance to thorough reflection and behavioural changes.

The issue that we are not able to directly access the nonhuman animals' perspective with the help of social science methods is also addressed. While carefully avoiding the simplifying extrapolations of certain armchair philosophers of the past ("What we think must be what 'people' think.", see chapter 1.4) it must be admitted that we cannot ask animals how they think or feel about issues. For instance, it would be most interesting to learn if they really chose safety over freedom as as been suggested by one of the farmers we interviewed. He described that all his animals, including cows and pigs, would occasionally leave the farm but eventually come back to him willingly. He assumes that they see his farm as their home, they like him and his co-workers and enjoy the comfort of being fed on a regular basis. From an anthropogenic perspective this explanation might be obvious. However, it is also plausible to assume that the animals who are used to this farm life cannot imagine a different life

(although they would prefer it if they knew it); they did not learn how to lead an independent life outside human-made living conditions, so they just follow their habits without expressing a preference. The question of whether he animal liberationist slogans “until all cages are empty” or “until all are free no one is free” really express the needs and preferences of nonhuman animals, however, goes far beyond the discussion of this project’s methods.

Further, the value of results obtained by the methods of the natural sciences is mentioned in chapter 2.1. Those data are indispensable when it comes to the physiological basis of human moral capabilities (e.g. “ought” implies “can”; possibilities and limits of education etc.). At the same time, they are our source of knowledge about morally relevant properties of nonhuman animals (pain in crustaceans, grief in elephants etc.). This doctoral project does not comprise data collection of either area of the natural sciences. However, the multidisciplinary field of empirical animal ethics should clearly take the results of scientific research in the mentioned areas into consideration as a complementary source to qualitative research.

Second, as an additional method an innovative approach in visual research was suggested in chapter 2.2. Without a guiding question or task, participants reveal their (partially stereotype but as well critical or very individual) perspective on human-animal relationships. Presenting a pilot study, we judge the method to be promising regarding the range of questions that could be addressed, the variability of the setting (building tasks for groups of participants, modification task for a given scenario, task to build a scenario under a guiding title or question etc.) and different approaches of analysis (qualitatively and quantitatively). Additionally, the playful atmosphere presents a contrast to traditional interview or (online) questionnaire settings and therefore facilitates the access to intuitive, not reason-based judgements.

Third, the methods of experimental philosophy are applied. Thought experiments are criticised in the literature for many reasons (Sosa 2010; Kauppinen 2007; Ludwig 2010; Lieberman 2014). While taking into account the limitations of fictional scenarios, each experiment was carefully pilot tested, and text, layouts and questions were continuously adapted. In case of the fairy experiment and the rescue scenario in space illustrations were added to facilitate the participants’ orientation for the different options they could choose from. At the same time, another source of potential biases was thereby provided. It could be assumed, for example, that a participant might have chosen fairy ticket D because he thought the corresponding animal was cute; another participant might have rescued the robot in space because it reminded her of a toy from her childhood. However, feedback for the illustrations was very positive as they supported the structure and clarified differences between options, so it was decided to keep them in the experiment. Rather than excluding every potential source of confusion or bias the participants were asked after the experiment about the factors that influenced their choices.

The findings support the claim that thought experiments – as they were used here – offer a valuable contribution to empirical animal ethics. They a) shed light on group differences as in the space rescue scenario, b) help to find out about moral intuitions regarding ethical evaluative terms such as blameworthy, dignified, responsible, justified, free, valuable c) allow for the investigation of different meanings of terms in expert language and everyday language (for instance, “dignity”) and d) enable us to identify factors that are responsible for moral judgements/decisions (under given circumstances). The latter is the most prominent benefit in this project. Although it did not provide the capacity for broad, abstract generalisations (more repetitions, larger sample sizes and additional testing for parameters would have been necessary) it was possible to point to interesting patterns, biases and potentially crucial factors. Thereby, it presents the groundwork for more detailed experimental research in empirical animal ethics that is yet to come.

The participants' reactions

This doctoral project's studies clearly showed how participants can be empowered to express their ideas, attitudes and emotions regarding a given question/topic and beyond.

It was demonstrated that empirical animal ethics can benefit from qualitative interviews in manifold ways. At the same time the interviews offered a chance for a very special, though heterogenous, group of experts to be heard in the discourse of human-animal studies.

While the interview participants were considered as "folk" they were by no means arbitrarily selected members of our society. Being lay people from the perspective of Philosophy, they were experts in being with and treating nonhuman animals. The semi-structured interview technique with (mainly) open, narrative-generating questions gave the participants the opportunity to elaborate on general, personal or rather job-specific aspects of human-animal relationships. During the interviews a broad range of fields that are not part of the mainstream discourse in human-animal studies was covered, such as communication with a bird of prey or with bees, the tension of helping pets and at the same time generally criticising the way pet owners keep them, naming cows but not pigs, what sheep would do if they were not fenced, struggling with drinking cow's milk, a circus horse being an employee, or being fascinated when watching a flatworm. Themes go even beyond the two prominent topics presented in chapter 3. Without a narrowing framework of a standardised questionnaire and without being a homogenous group that can be asked comparative and specific questions, the participants made use of the opportunity to draw their very own image of nonhuman animals, report unique relationships and surprise with unexpected viewpoints. Such a data set makes it difficult to impose expected findings on the results – which is a pivotal advantage. In line with those who criticise armchair philosophers for predicting "common sense", "folk morality" or "what we think" we want to emphasise the scientific value of diverseness, or, to get back to Knobe and Nichols (2007a, p. 3), of what is "messy, contingent, and highly variable across times and places". Although in a next step the results were clustered and integrated to be able to investigate patterns, it must be acknowledged that the very individual and multifaceted findings cannot be represented quantitatively. The interviews clearly revealed that human-animal studies cannot simply follow the worn-out path from "industrialised farming is bad", over "animal experimentation is highly controversial", to "pet-keeping is absurd" and "freedom is the ultimate goal". Therefore, quantitative methods naturally fall short of capturing all aspects that are brought up in the interviews.

The last block of interview questions, as reported in chapter 1.4.1, was not narrative-generating but rather associative and abstract. Several of the participants seemed confused or admitted having difficulties with abstract terms such as "right of an animal" or "dignity of an animal". Although they

came up with definitions and explanations, their answers were less personal, less based on their own experiences and more characterised by commonplaces in need of explanation such as “respect”. Therefore, the value of open, narrative-generating questions compared to direct, questions must again be emphasised. However, thought-provoking impulses do have their place in the interviews. When the interviewer was able to link an abstract concept, e.g. “freedom of an animal”, to a passage of the narrative earlier in the interview, e.g. the participant talking about zoo animals living in a zoo willingly, interesting generalisations or conclusions could be drawn by the interviewee, which led to a new level of abstraction in the interview.

The participants in the thought experiments were not contacted by us individually or directly. They chose their task from a platform for online workers (www.clickworker.de) and their incentive was most likely the money they earned. It was not possible to record their reactions like in the interviews and the circumstances under which they answered the questions were not accessible. That is a very basic challenge, common to many studies in experimental philosophy, as many researchers rely on crowdsourcing – for English speaking groups of participants it is usually Amazon Mechanical Turk. However, this way of recruitment is still superior regarding several data quality aspects (for example regarding representativeness for a society) to participant group acquisition through emails or social media (Casler et al. 2013). The discourse about working conditions for online workers (ethical aspect) and consequently about potential losses of data quality (scientific aspect) did not give us reason to abstain from recruitment via crowdsourcing platforms (Schmidt 2015; Woo et al. 2015). In fact, crowdsourcing is judged to be able to “solve a problem that has vexed the research community for decades, namely, the severe oversampling of participants from Western, educated, industrialized, rich, and democratic (WEIRD) backgrounds.” (Landers, Behrend 2015, p. 153) Clearly, by restricting the sample of this study to the German speaking European population, we did not make use of that advantage, but the potential should be emphasised here.

Being offered open-ended questions, the participants were given the chance to express the reasons for their decisions individually. Some of their general, context-independent attitudes and emotional reactions could be captured that are concealed in standardised answers. For instance, a group of animal experiment disapprovers (independently of species and relationships of the animal), the unexpected importance of legality of the suggested animal experiments and an emotional outrage against using pets for lab experiments in the rats and dogs scenario were detected (see p.102 ff.). In the rescue scenario in space the answers of the participants revealed an additional decisive factor that we had not considered relevant before: the chances of survival of the saved creature. Apparently, the provided information inadvertently led some participants to the conclusion that two of three creatures would not survive if they were rescued. Thereby, they did not merely point to a flaw in the study design

but also reveal their analytic pattern in an emergency scenario. Those who considered the survival chance decided rationally, deliberatively and consequentialist (or so they rationalised in hindsight, (Haidt 1995)).

Moral status & other concepts in animal ethics

Data analysis revealed a spectrum of – often differentiated – attitudes towards the moral status of nonhuman animals. Clearly, all interviewees and a majority of the thought experiment participants did not merely consider intrinsic properties to be relevant for a moral consideration of nonhuman animals.

In chapter 3.1 we explicitly discuss – literally – relational properties. In a strikingly precise way the narrations of the interviewees carve an image of the animals' moral status that corresponds with Delon's (2015) account. There are some rather blunt differentiations between animals based on intrinsic properties such as species (rabbits, pigs and hens do not have names; bovine animals are interesting animals, not different from horses). When the stablehand directly admits that there is no (intrinsic) difference between her cattle and her horses but as she wants them to be different (the former as food, the latter as companion) she creates different relationships, she presents a supposedly rare exception of a conscious differentiation process. This, as a side note, would be an interesting case in which Haidt's (2001) claim of rationalising in hindsight is put to the test. If the interviewee correctly reports that she rationally decided to make the distinction between the two groups of animals because she knew that her moral judgement would be different if she treated them equally, she describes a deliberate process of moral reasoning.

However, most examples show that the interviewees' moral decisions or attitudes regarding (their) animals depended on a relationship, i.e. a context-dependent, extrinsic property, or, to return to Delon again, a property that "is not shared by perfect duplicates since the circumstances of its manifestation can vary if the environment changes". It was put in a nutshell by the veterinarian who answered the question "What is the decisive difference between the chicken in your garden and the chicken on a farm" with "I know the chicken in my garden personally" when she could have said – in line with the traditional account of moral status – "There is no (morally relevant) difference". A similar result was revealed by the thought experiment with rats and dogs (chapter 4.2). Although the animals were described in the three different versions of the vignette merely as "rats"/"dogs" – without pointing to any differences regarding their intrinsic properties – the participants judged the three cases of wild, laboratory and pet animals clearly differently. They explained that it was cruel/immoral to take pets for the experiments, as there is a special responsibility towards them. In both the interviews and the open-ended answers of the thought experiment, it became clear that teh participants did not (merely) refer to relational differences descriptively, but also normatively. Some of the thought experiment participants expressed indignation when learning about pets being used for scientific experiments. Some interviewees presented their statements about animals who were close to them almost as if justifying their actions. The underlying explicatory helplessness points toward a moral intuition: as Haidt described it "I don't know, I can't explain it, I just know it's wrong." (Haidt 1995, p. 1024).

Animal ethics theories that take relationships into account give credit to this moral intuition. Briefly, Ursula Wolf's ethics of human-animal relationship (2012) should be mentioned again, as well as Clare Palmers "Animal ethics in context" (2010), see p.97. Both approaches suggest treating animals differently according to their relationships to humans/the human society, regarding not only intrinsic properties of nonhuman animals but also the context, and considering the rightful expectations of those that we made dependent on us. Although it was emphasised throughout the project that jumping from empirical results to normative conclusions should be avoided, the findings underline a strong advantage regarding intuitivity, acceptability, and thereby applicability of the mentioned animal ethics theories.

It is not surprising that animal dignity, as it is understood in the Swiss law but also in potential other interpretations, did not seem a useful concept for folk animal morality. Being very abstract and having a religious connotation, dignity is mainly associated with human dignity. Understandably, many of the participants connected animal dignity with human dignity and defined it as "having respect for animals" or "respecting animals". This intuition, in contrast to the above mentioned relational explication, refers to a very basic intrinsic property of animals, namely, being an animal. Human dignity is understood as unconditional and attributed to all humans – for example as a fundamental principle in the German Basic Law, first article, "Human dignity shall be inviolable.", and also in the Swiss Federal Constitution, seventh article, "Human dignity must be respected and protected.". Therefore, "animal dignity" is understood by the interviewees to be unconditional in the same sense. However, "respect" refers rather to a basic attitude than to a concrete moral guiding principle. On the one hand, adopting the general attitude of respecting animals could per se prevent certain actions, for instance using animals as mere means to an end. In practice, on the other hand, a respectful attitude does not seem to contradict killing animals for consumption pleasures, as discussed on p. 67.

Again, there are animal ethics approaches suggesting a basic attitude of respect – that obviously has to go beyond a hollow lip service. Those ethicists that stress the importance of empathy/sympathy or compassion, for instance Elisa Aaltola (2015), Carol Adams (2007), Josephine Donovan (1996), and Lori Gruen (2015), suggest that it is precisely this very general human attitude that could improve the situation for nonhuman animals. Gruen coined the term "entangled empathy" that she defines:

> "a type of caring perception focused on attending to another's experience of wellbeing. An experiential process involving a blend of emotion and cognition in which we recognize we are in relationships with others and are called upon to be responsive and responsible in these relationships by attending to another's needs, interests, desires, vulnerabilities, hopes and sensitivities." (2015, p. 3).

She explicitly refers to relationships like the interview participants and mentions the importance of both emotion and cognition. That moral intuition is not to be limited to emotional judgements is supported by the findings from the rescue scenario in space. Here, the emotional trigger – a snail-like being crying in pain – was as "successful" in convincing participants to rescue as the cognitive argument – the human-like creature is similar to me. Although language did not play a pivotal role in the thought experiment (the robot was only rescued by ca. one sixth of the participants, see Figure 22), communication with nonhuman animals was reported as very important by several interviewees. Being able to communicate – which includes not only human language – can contribute to understanding the other being regarding the aforementioned needs, desires, vulnerabilities, hopes and sensitivities. About one third of the thought experiment participants chose "compassion" as a decisive factor for their choice (see Figure 23), which is in line with the basic idea of care ethics.

The other side of the coin is the question of what relational ethics mean for animals who do not have a relationship with humans. Not only do the interviewees talk about "respecting" free living animals; quite a few of the participants of the playmobil study also presented nature scenes with free living animals (see for instance Figure 9, Figure 10, Figure 14, Figure 16) and the thought experiments with rats and dogs as well as the one with the fairy revealed insights about the attitudes towards those animals. On the one hand, the life of a free animal seems preferable over captivity. The high percentage of participants choosing the "vegan" ticket option in the fairy thought experiment (see chapter 4.3 "Results and Analysis") suggests that free living animals have positive connotations. Accordingly, several interviewees talked about being fascinated by free living animals. One participant suggested that dignified animal life was only possible in "total freedom" (see page 86). On the other hand, open-ended answers of those participants in the fairy experiment who did not choose the "vegan" ticket revealed an awareness of the struggle and deprivation that come with animal life in nature. Hunger, diseases, predators and defending territories put a continuous stress on wild animals. Estimations suggest that for most of them, suffering outweighs happiness in an individual´s life (Horta 2015). The suffering and welfare of and duties towards wild animals have raised much attention in recent animal ethics (for a collection of articles see e.g. Faria, Paez 2015). The related ongoing tension between general goals of conservation and animal advocacy have already been discussed in the context of approaches like "land ethics" (Callicott 1989) or "deep ecology" (Naess 1973).

Wolf differentiates between three types of relationships between humans and "animals in nature" (2012, p. 98): a) a one-way relationship; if one species is used by another – e.g. hunting; or helping free-living animals in need; b) mutual relationship; competition or cooperation; example: a mole and a garden owner compete for a piece of land; and c) co-existence without interference, which is hard to find as indirect human influence (competition for resources and space, pollution of air and water

etc.) is detectable almost everywhere (2012, pp. 98–101). She emphasises mainly negative duties towards all of those groups (do not harm them, do not inflict stress, pain or fear upon them) and recommends we try to 1.) consider nonhuman animals as fellow beings who are – like us – inevitably exposed to experiences of suffering and 2.) at the same time regret that we are responsible for some of the animals' suffering. However, Wolf claims that we are obliged to help wild animals in acute emergencies like accidents. In those cases, the mere spatial proximity to the animal creates a moral duty (one-way relationship, a), even without any further mutual relationship (ibid. 2012, p. 167). Special attention is often granted to stray animals (Kymlicka, Donaldson 2011; Palmer 2010; Wolf 2012) who indirectly depend on human civilization. Their expectations create a responsibility towards their needs that is different from the situation of animals living independently in the "wilderness". Intuitively, the thought experiment participants judged our moral responsibility towards stray dogs and rats quite as being similar to those towards laboratory animals (see page 105 f.) i.e. similar to animals that are highly dependent on us but do not have a close personal relationship. It is striking that the study participants did not agree with for instance Wolf's account of the principle of nonmaleficence, which she equally grants to all animals, independent of their relationships to humans (2012, p. 98). While the principle is strongly supported for pets by the thought experiment participants, it is negotiable for animals living in laboratories or synanthropicly. However, the moral status of wild animals and of those who adapted to urban life needs to be discussed on a larger societal scale because their lives and living conditions are influenced – strongly but mostly indirectly – by human life.

Again, care ethics offer an approach to unify conservation and animal ethics: "Since ecological relationship is based upon interaction between individuals, knowledge of and respect for such interaction is crucial to conservation. And equally, since it is through relationship that we come to know about the world – including the natural world – knowledge of individuals and their interactions with others is vital to our understanding of nature. Our sense of caring, too, is rooted to a great extent in our own experiences of care of or for individuals. The emotion of caring drives and empowers the practice of conservation." (Aitken 2004, p. 115)

Implications and Outlook

The findings of this doctoral project provide important insights for practical applications. Especially the chapter on animal dignity exemplifies how asking the general public or certain stakeholders can contribute to the evaluation and refinement of legal concepts and guidelines. The interviewees' expressed difficulties with animal dignity as a concept suggests that it could be of great value to include the public's opinion in the process of lawmaking more intensely. Despite being well-meant, animal welfare laws can turn out to be cumbersome in application, too abstract, mere lip service or a collection of immense bureaucracy that fails to improve the situation for animals (see chapter 3.2). At the same time, it is necessary to look beyond the basic physical needs of animals and the every-day challenges of people handling animals when implementing animal welfare laws. In the age of genetic modification, it is essential to ask questions about the animals' integrity, about what it means to be a glowing zebra fish, a wingless fruit fly or a mouse with a human ear on her back, and about the frontiers of scientific justifications. We recommend a balanced inclusion of philosophical and practical challenges and inputs on the basis of our study.

However, as most interactions between humans and nonhuman animals are not carefully planned and guided by laws but every-day events our results are of value for zoos and parks, veterinarians, animal shelters and welfare organizations, conservation organisations, animal liberation activists, teachers at schools and universities, authors and farmers, to mention only a few. The importance of individual relationships and compassion that is supported in different ways by our data suggests an education of the public that makes use of our intuition. As Elisa Aaltola puts it: "In order to alter the ensuing morality, one needs to address the underlying stereotypes and emotions. This means that change in moral beliefs happens primarily via the social sphere, which affects our automated, affective responses and thus pushes forward new intuitions." (2015, p. 204). An example of a moral belief being established by what Aaltola refers to as "social sphere" is the attitude known as "carnism" (Joy 2011b) we discussed above (chapters 3.1, 4.2, 4.3). Our society institutionalised a clear distance between humans and those animals that are considered edible, relationships are prohibited, and no attitude of care or compassion can manifest – although cognitively the living and dying conditions of industrially farmed animals are criticised throughout. A change in this moral belief can start by educating people – and especially children – to establish meaningful, respectful relationships to nonhuman animals and to other humans. Empathy, as a core human capacity, can be trained and supported or suppressed.

A vivid example for the idea that even the conservation movement can benefit from an attitude of care for individuals is put forward by environmental organisations who support feeding birds in the winter. Although it is not certain that endangered bird populations benefit from feeding activities of urban citizens (Chamberlain et al. 2005; Robb et al. 2008) NGOs see an advantage from the educational point

of view (https://www.nabu.de/tiere-und-pflanzen/voegel/helfen/vogelfuetterung/00840.html, 08.12.2017). A feeding ground presents a unique opportunity for very close human-wildlife interaction and continuous observation. People become sensitised for needs and life circumstances of nonhuman animals and certainly more empathic towards them. Most likely, those people consider for instance needs and preferences of birds when structuring their garden, avoiding pesticides or buying organic food, too.

These correlations would be one example for further questions that could be tested with the box of tools introduced in this dissertation. The multifaceted methodology and, accordingly, the multilayer results encourage deeper investigations of various kinds. Qualitative methods promise valuable knowledge about attitudes of important stakeholders in human-animal relations. Rather than aiming at a spectrum of attitudes as they are presented in this project research could be focussed on particular groups with a narrower set of questions in a next step. One issue, for instance, that was especially contemplated by the interviewed farmers and zoo workers, which is by people who keep nonhuman animals in captivity, was “freedom” of nonhuman animals. A project comparing different concepts of animal freedom, including the mentioned groups, people working with free-living animals and for example the contrasting view of animal liberation activists, could result in a very differentiated image of what it means to be “free” in a descriptive and a normative sense. The constellation could also be fruitful in a focus group. In a next step, thought experiments could be designed to refine diffuse concepts or as well distinctly different concepts of freedom and to reveal (contextual) factors that lead to normative judgements regarding freedom. Complementary, results from the scenario building method with a guiding question could be used to provide additional, nonverbal aspects to the concept of freedom. Participants could for instance simply be asked to build a scenario with the title “freedom”.

Likewise, the results of our thought experiments allow for follow-up questions. The rescue scenario in space (see chapter 4.1) points, on the one hand, to a gender difference that could further be investigated. Can the finding be confirmed that male participants are significantly more motivated to a moral action by similarity, rationality and language skills of a creature than women? And, contrarily, is the ability to feel pain a significantly more important factor for women? On the other hand, the results point toward a question that goes beyond those rather social-psychological aspects: Which factors promote an action that is judged as motivated by “compassion”? Apparently, both female and male participants reported compassion as influencing their decision although the other factors that were important for them (the creature was similar to me, was rational, could feel pain or used language) differed. Under which circumstances do people act compassionately and how do they define “compassion”? It would be interesting to isolate factors that make a decision or action more likely to be motivated by compassion. That type of research would valuably add to the finding that ethics

concepts which base on compassion and relations, such as care ethics, are in line with lay moral intuition regarding animals' moral status.

References

Aaltola, E. (2015). The Rise of Sentimentalism and Animal Philosophy. In E. Aaltola, J.Hadley (Eds.), *Animal Ethics and Philosophy: Questioning the Orthodoxy*. Rowman and Littlefield International: pp. 201–218.

Adams, C. J. (2007).The war on compassion. In Donovan, J. & Adams, C.J. (Eds.). The feminist care tradition in animal ethics: A reader. Columbia University Press: pp. 21–38.

Aitken, G. (2004). *A new approach to conservation: the importance of the individual through wildlife rehabilitation*. Ashgate.

Callicott, J. B. (1989). *In defense of the land ethic. Essays in environmental philosophy*. Suny Press.

Casler, K.; Bickel, L.; Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior* 29 (6): 2156–2160.

Chamberlain, D. E.; Vickery, J. A.; Glue, D. E.; Robinson, R. A.; Conway, G. J.; Woodburn, R. J. W.; Cannon, A. R. (2005). Annual and seasonal trends in the use of garden feeders by birds in winter. *Ibis* 147 (3): 563–575.

Delon, N.(2015): Against moral intrinsicalism. In E. Aaltola, J.Hadley (Eds.), *Animal Ethics and Philosophy: Questioning the Orthodoxy*. Rowman and Littlefield International: pp. 31–46.

Donovan, J. (1996). Attention to suffering. A feminist caring ethic for the treatment of animals. *Journal of Social Philosophy* 27 (1): 81–102.

Faria, C.; Paez, E. (Eds.) (2015). *Animals in need. The problem of wild animal suffering and intervention in nature*. HeinOnline.

Gruen, L. (2015). *Entangled empathy. An alternative ethic for our relationships with animals*. Lantern Books.

Haidt, J. (1995). The emotional dog and its rational tail: A social intuitionist approach to moral judgment.*Psychological Review*, 108: 814–834

Horta, O. (2015). The problem of evil in nature. Evolutionary bases of the prevalence of disvalue. *Rel.: Beyond Anthropocentrism* 3: 17–32.

Joy, M. (2011). *Why we love dogs, eat pigs, and wear cows: an introduction to carnism*. Conari Press.

Kauppinen, A. (2007). THE RISE AND FALL OF EXPERIMENTAL PHILOSOPHY. *Philosophical Explorations* 10 (2): 95–118.

Knobe, J., and Nichols, S. (2007). An experimental philosophy manifesto. In Knobe, J., and Nichols, S. (eds), *Experimental Philosophy*. Oxford University Press.

Kymlicka, Will; Donaldson, Sue (2011): Zoopolis. A political theory of animal rights. Oxford: Oxford University Press.

Landers, R. N.; Behrend, T. S. (2015). An inconvenient truth. Arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology* 8 (2): 142–164.

Lieberman, J. K. (2014). *Fight the Hypo. FAKE Arguments, Trolleyology, and the Limits of Hypotheticals*. Inaugural Lecture No. 1. New York Law School. New York, 2014. Available online at https://ssrn.com/abstract=2559724, checked on 11/19/2017.

Ludwig, K. (2010). Intuitions and relativity. *Philosophical Psychology* 23 (4): 427–445.

Naess, A. (1973). The shallow and the deep, long-range ecology movement. A summary. *Inquiry* 16 (1-4): 95–100.

Palmer, C. (2010). *Animal ethics in context*. Columbia University Press.

Robb, G. N.; McDonald, R. A.; Chamberlain, D. E.; Reynolds, S. J.; Harrison, T. J. E.; Bearhop, S. (2008). Winter feeding of birds increases productivity in the subsequent breeding season. *Biology letters* 4 (2): 220–223.

Schmidt, G. B. (2015). Fifty Days an MTurk Worker. The Social and Motivational Context for Amazon Mechanical Turk Workers. *Industrial and Organizational Psychology* 8 (2): 165–171.

Sosa, E. (2010). Intuitions and meaning divergence. *Philosophical Psychology* 23 (4): 419–426.

Wolf, U. (2012). *Ethik der Mensch-Tier-Beziehung*. KlostermannRoteReihe.

Woo, S. E.; Keith, M.; Thornton, M. A. (2015): Amazon Mechanical Turk for industrial and organizational psychology. Advantages, challenges, and practical recommendations. *Industrial and Organizational Psychology* 8 (2): 171–179.

6 Conclusion

The main goal of this interdisciplinary doctoral project was to investigate and challenge attitudes towards theoretical concepts of animal ethics, and especially the moral status of nonhuman animals, with the innovative application of different empirical methods and to reflect on theoretical animal ethics approaches against the background of the findings. In a first step, methodological groundwork was laid to explain the benefit of treating questions in animal ethics with methods of social sciences, natural sciences, visual sciences and experimental philosophy (chapter 2). Despite their respective limitations, it was demonstrated that in combination those methods provide a powerful toolbox to gain new insights regarding human-animal relationships and animal morality and to critically challenge established approaches of animal ethics.

In chapter 3.1 individual relationships between nonhuman animals and humans were carved out as pivotal factors in (lay) animal morality. Based on this finding, animal ethics approaches that consider context and personal relationships as important take account of lay moral intuitions in a special way. The importance of relationships was further specified in chapter 4.2. A close personal relationship presents an influential factor for the degree to which nonmaleficence is defended. At the same time, the moral status of pets stands out against other relationships of dependency. Additionally, the divergent attitudes towards different species of animals were underlined by our data. These aspects offer several opportunities for follow-up studies regarding the importance of species and different relationships for moral attitudes and decisions regarding nonhuman animals. Further factors influencing moral decisions in the human-animal context were presented in chapter 4.1. Not only do the results point towards (physical) similarity to humans and the ability to feel pain as morally relevant intrinsic properties, there is also a difference between the attitudes of female and male participants. These interesting linkages to questions of moral psychology could not further be investigated in this doctoral project but they present, again, a great opportunity for future research.

The presented findings also provide a basis for discussions and evaluations of laws and guidelines. As demonstrated in chapter 3.2 it can be beneficial to include the informed and involved public in the evaluation of legal concepts. The question to what extent animal welfare laws are comprehensible, applicable, helpful for both the nonhuman animals and those dealing with them, and specified for application contexts, can fruitfully be discussed with those people who deal with nonhuman animals on a daily basis. As complementary approach to juridical research, empirical philosophical-conceptual work can thereby contribute important insights regarding the impact of laws.

A central result of this project was an (approximate) presentation of a complex phenomenon – peoples' intuitions regarding animals' moral status. Although the dominant discourse seems to be about both, the main differences between humans and nonhuman animals and at the same time about

incredible cognitive, social and emotional capacities of nonhuman animals, our research revealed the – at least – equal importance of relational, extrinsic, context-dependent factors for moral consideration of nonhuman animals. While living (and dying) conditions of nonhuman animals in our society are frequently denounced, those conditions are supported by individual (consumption) behaviour, institutionalised processes, political decisions, and habituation to a system that is not at all in line with basic intuitions regarding animals' moral status. The findings of this dissertation suggest that encouraging compassion on different levels (the concrete, individual, as well as the abstract, representative) could make an effective difference. Those findings also support claims of theoretical animal ethics based on care and compassion.

Learning about peoples' motivations for a compassionate attitude and behaviour regarding nonhuman animals provides a solid basis for successful measures aiming at societal and political changes in human-animal relationships. Therefore, the results of that type of scientific inquiry can be of use for academic as well as non-academic purposes, such as the work of NGOs, lawmakers or people working in the educational sector.

Appendix

Interview guide, German, example (adapted for each interviewee)

Interview-Leitfaden:

„In dieser Studie möchten wir mehr über die Mensch-Tier-Interaktion herausfinden. Wir befragen dazu verschiedene Personengruppen. Das Interview wird mit dem Computer aufgezeichnet und später verschriftlicht. Alle Angaben werden anonymisiert, sodass nach der Textanalyse kein Rückschluss auf Ihre Person möglich ist. Sind Sie damit einverstanden?

Das Interview ist relativ kurz, machen Sie sich also bitte keine Gedanken darüber, ob Sie zu viel erzählen. Sprechen Sie frei und so offen wie möglich. Ihre Einstellungen werden in keiner Weise beurteilt."

1) Wenn Sie an Ihre Kindheit denken – wie kamen Tiere da vor?
    a. Können Sie Beispiele nennen?
    b. Gab es positive oder negative Erlebnisse mit Tieren?

2) Und wie ist es heute? Wie und wann begegnen Sie Tieren?

3) Was machen Sie denn mit den Tieren?
    a. Wie kommt/kommen _____ (zuvor beschriebene Tiere) in Ihrem Tagesablauf vor?
    b. Gab es mal ein Erlebnis mit einem Tier/mehreren Tieren nennen, in denen Sie unsicher waren, wie Sie sich richtig verhalten sollten?
        i. Können Sie das genauer erläutern? Was war das Schwierige in dieser Situation?
    c. Und wie kommunizieren Sie mit Tieren?

4) Inwiefern sind Tiere Teil Ihres beruflichen Alltags?

5) Was wäre für Sie ein Anreiz, ein Tier aus dem Tierheim aufzunehmen?

6) Inwiefern unterscheiden sich Menschen und Tiere Ihrer Meinung nach voneinander?
    a. Gibt es bestimmte Fähigkeiten?
    b. Unterschiedliche Bedürfnisse?
    c. Gilt das für alle Tiere gleichermassen?
    d. Inwiefern halten Sie diese Unterschiede für relevant? Haben die Konsequenzen für das Handeln, den Umgang?

7) Wonach entscheiden Sie, wenn Sie mit Tieren umgehen?
    a. Inwiefern haben Sie sich informiert oder etwas darüber gelernt?

b. Inwiefern sind Vorschriften oder Gesetze dabei wichtig für Sie?
c. Inwiefern sind religiöse oder weltanschauliche Überzeugungen dabei wichtig für Sie?

8) In verschiedenen Teilen der Welt gibt es ja unterschiedliche Vorstellungen von Tieren. In Asien werden Hunde gegessen, in Südamerika Meerschweinchen, andere Menschen halten Schweine als Haustiere. Wie denken Sie darüber?
   a. Was unterscheidet verschiedene Tiere oder Tiergruppen aus Ihrer Sicht?

9) Im schweizerischen/deutschen Tierschutzgesetz heißt es
Schweiz: „Art4, Abs. 2 Niemand darf ungerechtfertigt einem Tier Schmerzen, Leiden oder Schäden zufügen, es in Angst versetzen oder in anderer Weise seine Würde missachten. Das Misshandeln, Vernachlässigen oder unnötige Überanstrengen von Tieren ist verboten."
Deutschland: „§1, Niemand darf einem Tier ohne vernünftigen Grund Schmerzen, Leiden oder Schäden zufügen."
Was wäre aus Ihrer Sicht ein Grund dafür, Tieren Schmerzen, Leiden oder Schäden zuzufügen? Wann ist das „notwendig" oder „erlaubt"?
   a. Denken Sie, dass Sie oder andere Menschen in unserer Gesellschaft gegen dieses Gesetz verstoßen?

10) Beschreiben Sie bitte, was Sie mit folgenden Begriffen verbinden:
   a. „Zweck" eines Tieres
   b. „Würde" eines Tieres
   c. „Wert" eines Tieres
   d. „Recht" eines Tieres
   e. „Freiheit" eines Tieres

Toy figurine study: Instructions, German version:

Aufgabe:

Vielen Dank, dass Sie sich bereit erklärt haben, an unserer Studie teilzunehmen. Wir untersuchen das szenische Darstellen mit Spielzeugfiguren.

Bitte bauen Sie in 5 Minuten innerhalb der mit Klebeband markierten Fläche eine Szene mit den zur Verfügung stehenden Materialien. Sie dürfen so viele oder wenige Figuren und Gegenstände benutzen, wie Sie möchten.

Nach Ablauf der Zeit möchten wir Sie bitten, die Szene mit der Kamera zu fotografieren.

Anschliessend gibt es einen kurzen Fragebogen mit einigen demografischen Angaben und der Möglichkeit, Rückmeldungen zu geben.

Als Dankeschön erhalten Sie einen Riegel.

Viel Spass und vielen Dank für Ihre Teilnahme!

Toy figurine study, questionnaire 1, feedback and explications, German version:

Erläuterung und Rückmeldung

Wir möchten Sie nun bitten, ihr Szenario kurz zu erläutern und uns anschliessend eine kurze Rückmeldung zur Studie zu geben!

- Was stellt Ihre Szene dar?

- Warum haben Sie sich für diese Szene entschieden?

- Worüber haben Sie während des Bauens nachgedacht?

- Gibt es weitere Anmerkungen, Unklarheiten oder Fragen zu unserer Studie?

Toy figurine study, questionnaire 2, demographics

Studie: Das Mensch-Tier-Verhältnis – Szenisches Darstellen mit Spielzeugfiguren

Studienleitung: Kirsten Persson, Doktorandin & Wissenschaftliche Assistentin

Fragebogen

Wir möchten Sie um folgende demografische Angaben bitten:

1) Wie alt sind Sie?

_____

2) Mit welchem Gender identifizieren Sie sich?

   - Weiblich
   - Männlich
   - Sonstige
   - Keine Angabe

3) Leben Sie mit Tieren zusammen?
   - Nein
   - Ja, und zwar:

---

4) Sind Sie mit Tieren aufgewachsen?
   - Nein
   - Ja, und zwar:

Vielen Dank für Ihre Teilnahme!

Vignette Rats& Dogs, English version:

Mr. Smith works as a neuro-researcher in a scientific institute. He is planning an experiment: A new substance is expected to improve the learning ability in mammals by helping new inter-neuronal connections to grow. Mr. Smith wants to test how the substance works in dog/rat brains, which has never been done before. The effects the substance might have on dogs/rats are not known. The dogs/rats will receive injections every day. They will also have to do learning tasks. At the end of the experiment, the dogs/rats will be killed and their brains will be dissected to investigate the growth of new inter-neuronal connections. Mr. Smith asks his assistant, Mr. Miller, to bring him 3 dogs/rats for the experiment.

A) Mr. Miller knows a place where a lot of stray dogs/rats live. They are half-wild and no one takes care of them. He goes there, catches three of them and brings them back to Mr. Smith.

B) Mr. Miller knows a company that breeds dogs/rats for laboratories. He goes there, buys three dogs/rats and brings them back to Mr. Smith.

C) Mr. Miller has three pet dogs/rats at home. He goes there, takes the dogs/rats and brings them back to Mr. Smith.

Vignette Rats& Dogs, original German version:

Herr Schmidt arbeitet als Neurowissenschaftler an einem Forschungsinstitut. Er plant ein Experiment: Eine neue Substanz soll das Wachstum von neuronalen Verbindungen fördern und später zur Heilung neurodegenerativer Krankheiten (wie z.B. Alzheimer) verwendet werden. Herr Schmidt möchte testen, wie die Substanz sich auf die Gehirne von Hunden auswirkt, was noch nie zuvor getestet wurde. Die Effekte, die die Substanz auf Hunde haben könnte, sind unbekannt. Die Hunde werden täglich Injektionen bekommen. Am Ende des Experiments werden die Hunde getötet und ihre Gehirne werden auf das Wachstum neuer neuronaler Verbindungen untersucht. Herr Schmidt beauftragt Herrn Müller, seinen Assistenten, ihm drei Hunde für das Experiment zu besorgen.

A) Herr Müller kennt einen Ort, an dem viele Strassenhunde leben. Sie sind halb-wild und niemand kümmert sich um sie. Er geht dorthin, fängt drei von ihnen und bringt sie zu Herrn Schmidt.

B) Herr Müller kennt ein Unternehmen, das Hunde für Labore züchtet. Er geht dorthin, kauft drei Hunde und bringt sie zu Herrn Schmidt.

C) Bei Herrn Müller zu Hause leben drei Hunde als Haustiere. Herr Müller geht nach Hause, nimmt die drei Hunde und bringt sie zu Herrn Schmidt.

In wieweit würden Sie zustimmen oder nicht zustimmen, dass das Verhalten von Herrn Müller moralisch akzeptabel ist?

(Nicht zustimmen – eher nicht zustimmen – eher zustimmen – zustimmen)

Vignette fairy, German version:

Während eines Waldspaziergangs treffen Sie auf eine fiese Fee, die Ihnen ein Angebot macht. In ihrem Feenhut befinden sich Tickets mit vier verschiedenen Buchstaben (A, B, C, D). Sie müssen sich für ein Ticket entscheiden, es öffnen und die Aufschrift lesen. Daraufhin werden Sie sich sofort in das Wesen verwandeln, das auf dem Ticket beschrieben ist. Von nun an werden Sie als dieses Wesen weiterleben. Die Fee erklärt ihnen die unterschiedlichen Tickets (A, B, C, D):

Auf der Hälfte der A-Tickets steht "Fleisch essender Mensch" und auf der anderen Hälfte "Tier in konventioneller Tierhaltung".

Auf der Hälfte der B-Tickets steht "vegetarisch lebender Mensch" und auf der anderen Hälfte "Tier, das zur Milch- oder Eiproduktion gehalten wird".

Auf der Hälfte der C-Tickets steht "Mensch, der nur ökologisch erzeugte Tierprodukte isst" und auf der anderen Hälfte "Tier in ökologischer Tierhaltung".

Auf der Hälfte der D-Tickets steht "vegan lebender Mensch" und auf der anderen Hälfte "frei lebendes Tier".

Wenn Sie sich entscheiden, gar kein Ticket zu ziehen, wird die fiese Fee Sie augenblicklich in ein Tier verwandeln und zwar

- in ein Tier in Massentierhaltung, wenn Sie zur Zeit ein Fleisch essender Mensch sind

*- in ein Tier, das zur Milch- und Eiproduktion gehalten wird, wenn Sie Vegetarier*in sind*

- in ein Tier in ökologischer Haltung, wenn Sie zur Zeit nur ökologisch erzeugte Tierprodukte konsumieren

*- in ein frei lebendes Tier, wenn Sie Veganer*in sind.*

Würden Sie ein Ticket ziehen? Und wenn ja, welches?

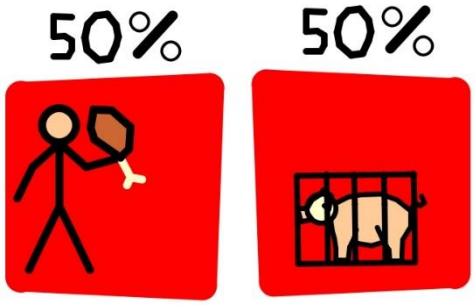
Warum haben Sie sich für dieses Ticket entschieden?

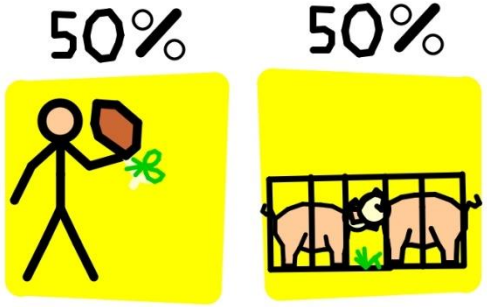
Welche der folgenden Faktoren waren ausschlaggebend für Ihre Entscheidung (keine Nennung oder Mehrfachnennungen möglich)?

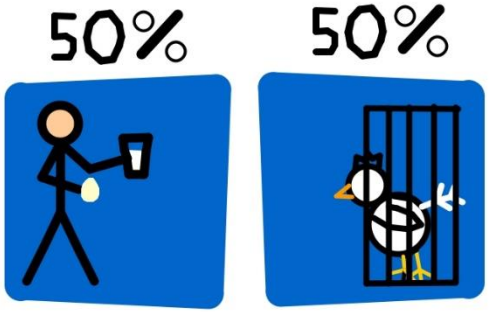
- *die Perspektive, als Tier zu leben*
- *Ich habe auf den bestmöglichen Ausgang für mich geschaut.*
- *Ich habe darüber nachgedacht, dass ich bereit sein muss, als Tier eines bestimmten Typs zu leben, wenn ich entsprechende Tierprodukte konsumiere.*
- *meine derzeitigen Essgewohnheiten*
- *die Art, wie ich in Zukunft als Mensch leben möchte.*

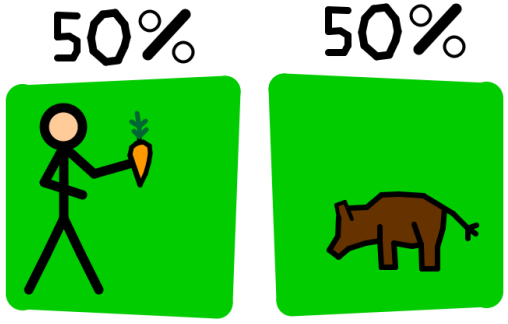
- *Ich habe auf den schlechtestmöglichen Ausgang für mich geschaut.*
- *Ich habe über Fairness nachgedacht.*

Images: fairy in the woods

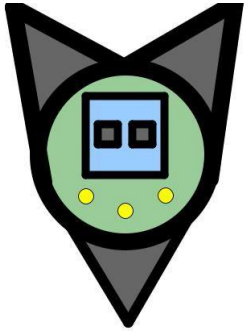


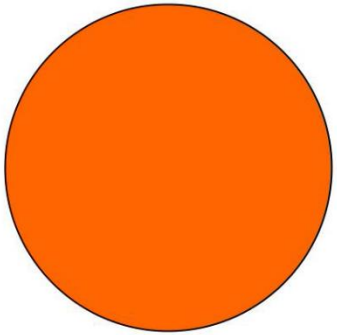


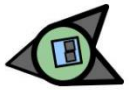


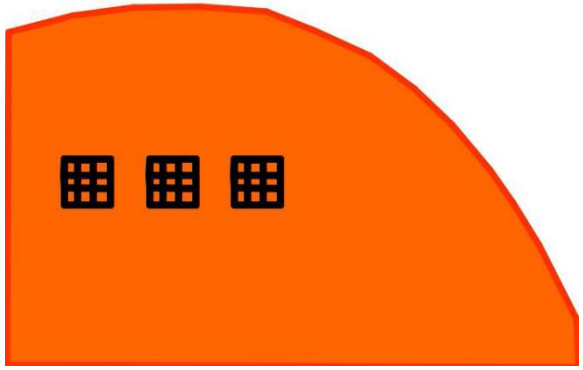


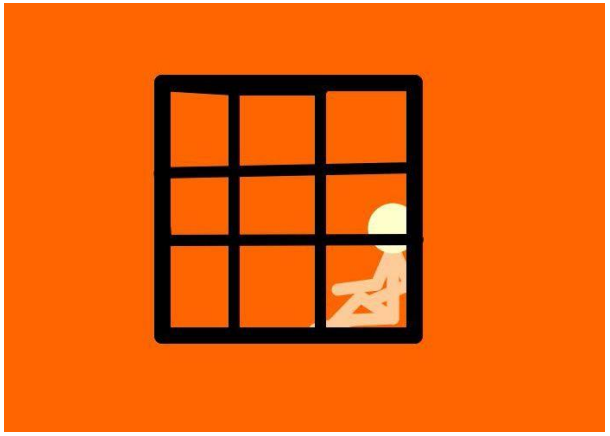
Images: rescue scenario in space

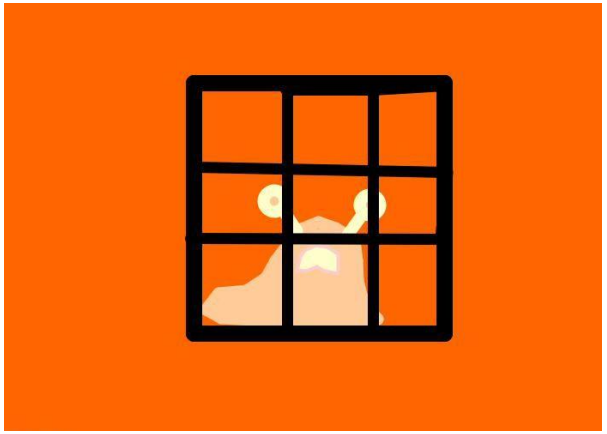


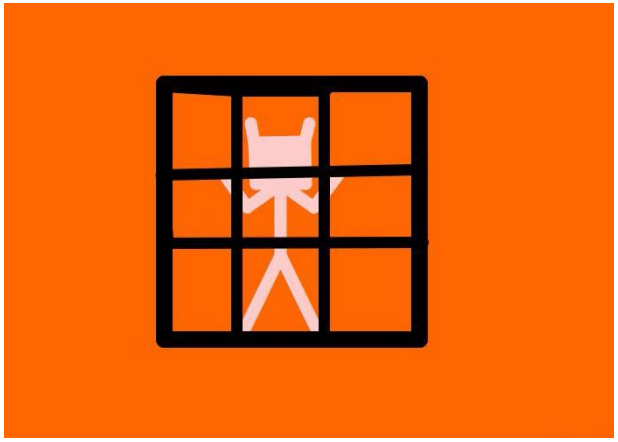












Curriculum Vitae

KIRSTEN PERSSON

Email: KirstenPersson@gmx.de
Date of Birth: 22nd December 1985

EDUCATION

2013 - 2018 University of Basel, Switzerland

PhD Student, Bioethics

Project: New approaches in empirical animal ethics – using experimental philosophy to challenge intuitions regarding the moral status of nonhuman animals

2011 - 2012 Lund University, Sweden

Master of Science, Biology (degree: October 2012)

Degree project: Metapopulation structure & population size in natterjack toads (*Bufo calamita*)

2010-2011 University of Münster, Germany

starting Master of Science, Biology; special study programme "Evolution & Biocomplexity"

2010 - 2012 University of Münster, Germany

Master of Arts, Philosophy (degree: October 2012)

Final Thesis: The ethical aspects of experiments on animals in biology education with particular focus on Ursula Wolf's animal ethics

2009-2010 University of Tübingen, Germany

starting Master of Arts, Philosophy

Participation in annual interdisciplinary course of lecture and group project of the "Forum Scientiarum", topic: "Kosmologie, Evolution, Geschichte" (Cosmology, Evolution, History); group project on "Zwischen Anthropozentrismus und Physiozentrismus. Grundzüge einer zeitgemäßen Naturethik." (Basics of an up-to-date environmental ethics approach)

2006-2009 University of Bielefeld, Germany

Degree: Bachelor of Science 09/2009, Major: Biology, Minor: Philosophy

2005 - 2006 annual general studies: Leibniz Kolleg, Tübingen

2005 school graduation: Gymnasium Letmathe der Stadt Iserlohn

WORK EXPERIENCE & INTERNSHIPS

2013 – 02/2017 Research Assistant, Institute for Biomedical Ethics, University of Basel, Switzerland

02 - 07/2010 student assistant: Botanical Garden, University of Tübingen

04 - 09/2009 stipendiatische Koordinatorin (scholarship holder's spokesperson) at the "Evangelisches Studienwerk e.V. Villigst"

10/2008 - 03/2009 student assistant: Institut für Konflikt- und Gewaltforschung (Institute for Conflict- and Violence- Research), University of Bielefeld

07 - 09/2008: internship in field biology, project office Öko-LOG, Wittlich

08 - 09/2007: internship in laboratory, Leibniz Institute of Neuroscience, Magdeburg

SCHOLARSHIPS/FUNDING

2013 - 2014 Anschubstipendium as associated member of the PhD programme "Law and Animals: Ethics at Crossroads", Law Faculty, University of Basel

2006 - 2012 scholarship of the "Evangelisches Studienwerk e.V. Villigst"

PUBLICATIONS

Colledge, F., Persson, K., Elger, B., Shaw, D. (2014). Sample and data sharing barriers in biobanking: consent, committees, and compromises. *Annals of diagnostic pathology,* 18(2), 78-81.

Persson, K., Shaw, D.M. (2015). Empirical Methods in Animal Ethics. *Journal of Agricultural and Environmental Ethics,* 28(5), 853-866.

Persson, K., Elger, B.S., Shaw, D.M. (2017). The indignity of relative concepts of animal dignity: A qualitative study of people working with nonhuman animals. *Anthrozoös*, 30(2), 237-247.

CONFERENCE PRESENTATIONS

Persson, K. (November 2013). *An evil fairy in the woods – What we can learn from experimental philosophy regarding our intuitions about the moral status of non-human animals.* Presented at ICAS 3rd European Conference – Technoscientific Development and Critical Animal Studies. Karlsruhe.

Persson, K. (September 2015). *Dogs, pigs and bugs. Attitudes towards "animals"*. Presented at Animals in the Anthropocene. Human-animal relations in a changing semiosphere. Stavanger.

Persson, K. (April 2016).*The relevance of species and relationships for the folk conception of animal morality.* Presented at Experimental Philosophy as Applied Philosophy - the 2016 Ratio Conference & 7th Annual Conference of Experimental Philosophy Group UK, University of Reading.

Persson, K., Shaw, D.M. (October 2016). *Rationality, similarity, pain: Factors influencing moral judgements regarding nonhuman animals.* Poster presentation at Rational Animals? Comparing Human and Animal Minds from an Interdisciplinary Perspective. Interdisciplinary Workshop, Ruhr University Bochum.

TEACHING& ORGANISING EXPERIENCE

2013-2016 Seminars and Lectures in German and English on Biomedical Ethics, Environmental Ethics and Animal Ethics for Students in Medicine, Geology, Biology, Pharmacology, Psychology, Neurosciences

03/2016 Member of organising team of the international workshop "Animal ethics and law in life sciences" (http://www.animalethicsandlaw.ch/), Bern

09/2014 – 01/2015 Responsible organiser of lecture series "Current topics in animal ethics", Basel

08/2013 Member of organising team for: 27 th European Conference on Philosophy of Medicine and Healthcare, Basel