Learning to See Mice

(Stray Philosophy III)

Eva Meijer

Faculty of Humanities
University of Amsterdam, Netherlands

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Abstract: This essay describes the author's experiences in living with ex-laboratory mice, and investigates how these can function as a starting point for getting to know these mice beyond the confines of the current scientific paradigm and for building new relations with them. Laboratory mice are generally seen as replaceable exemplars of a certain species. This essay focuses on their social lives and draws attention to their ways of being, their individuality, sense of community, language, and practices of care, showing their many forms of creating meaning. The first part of the text focuses on their daily lives, personalities, and relations. The second part of the text uses these auto-ethnographic investigations to critically evaluate academic literature about laboratory mice, drawing on insights from political animal philosophy, critical animal studies, and ecofeminism. These sections examine knowing mice, learning to see them differently, and building new political relations with them.

Keywords: *mouse philosophy; animal sanctuary; laboratory mice; animal politics; multispecies conversations; interspecies democracy*

Bio: Eva Meijer is a philosopher and writer. She works as a postdoctoral researcher at the University of Amsterdam, on the four-year research project *The Politics of (not) Eating Animals*, supported by a VENI grant from the Dutch Research Council, and at Wageningen University in the project *Anthropocene Ethics: Taking Animal Agency Seriously.* She is the chair of the Dutch study group for Animal Philosophy. Meijer has written fourteen books of fiction and non-fiction, and her work has been translated into over twenty languages. Visit her website at www.evameijer.nl.

Email: e.r.meijer@uva.nl

ORCID: 0000-0002-9597-5833

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When Vachtje[1] (Furry) could not run in the running wheel anymore, she decided to sit next to it and run with her hands. The ex-laboratory mice who live in my house do this if they want to join someone else in the wheel, in order to judge the speed with which the other is running, to get a feeling for it before they jump in. Vachtje had a tumour in front of her left hind leg, making it impossible for her to run in the wheel, though she could still walk. By running with her hands she could still take part in the activity. Vachtje's hand running shows that the mice like to run in the wheels, but there is more to it. Running in the wheels is also a habit, and something that gives meaning to their life.

The ten brown female mice who live in the mouse house at my house were born in a laboratory at the University of Utrecht, Netherlands. They were bred to be used in experiments, but never took part in any. Usually, such mice are killed. In the Netherlands 159,614 mice were used in experiments and killed in 2019, and in the same year at least 262,238 mice were killed who had been used for breeding or who had been bred but not used in experiments.[2]

Together with around a hundred other rats and mice, these mice were rescued by a group of Dutch animal rights and animal welfare organizations, in a pilot project in which laboratory mice and rats could be adopted by the general public.[3] The project is aimed not only at helping individuals, but also at changing public opinion about laboratory animals by drawing attention to their subjectivity.

The mice were born in February 2020 and came to live with me in August of that year. In the time that followed, I watched them often, and interacted with them on their terms. In the beginning, they

1 For portraits of the individual mice, see the gallery at the end of this article.

2 See NVWA, *Zo doende 2019*. On the empirical, moral, and political problems with animal testing, as well as alternatives, see Herrmann and Jayne, *Animal Experimentation*.

3 The organizations involved were De Dierenbescherming [Dutch Society for the Protection of Animals], Animal Rights Nederland, the rodent shelter Knaagdierenopvang "Het Knagertje", Stichting Hulp en Herplaatsing Huisdieren [Pet Aid and Rehoming Foundation], and the Instantie voor Dierenwelzijn Utrecht [Animal Welfare Body Utrecht]. See also: https://www.animalrights.nl/een-tweede-leven-voor-kleine-proefdieren.

did not like me much. They thought my hands smelled bad, but they did like my voice and came out of their sleeping houses when I called them.[4] Because they liked my voice, I began playing songs for them on the guitar, ukulele, and piano. I do not always play for them; sometimes I just sit and watch them. At the time of writing, January 2022, three of the ten mice are still alive: Kleinoor (Small Ear), Witoog (White Eye) and Bullie (Little Bull). They walk around freely in the room, sometimes using my body as an object to climb on. Witoog also likes to sit by my side.

The "I" in this story is a political philosopher who writes about animal languages and political voice, interspecies politics, and forming new multispecies communities.[5] This essay is part of an ongoing investigation into how the perspectives of other animals can be foregrounded in political philosophy,[6] how the animals can co-shape research questions, and how humans writing about other animals can cultivate attentiveness to their ways of life.[7] Cultivating attention and thinking with, instead of about, other animals includes recognizing and supporting their agency.[8]

There are to my knowledge no long-term studies about the social lives of laboratory mice. Mice are generally studied in order to learn more about questions that concern humans, and are seen and treated as replaceable.[9] In this essay I want to challenge this view of laboratory mice and bring the actual animals, their personalities and social relationships, into view. This requires a Gestalt switch, another way of looking at them. In particular, I focus

4 I sometimes call when it is time to eat, but also just to say hello in the morning and good night in the evening—during the day most of them are asleep, though Kleine Muis and Kraaloog like to do a bit of running in the afternoons, and others are up during the day sporadically too.

5 For reasons of space, I cannot defend my views on language and politics in detail in this paper. I do this in *When Animals Speak* (2019), and *Animal Languages* (2020), and touch upon them in different sections below.

6 See Meijer, "Stray Philosophy" and "Stray Philosophy II".

7 See Crary and Gruen, *Animal Crisis*.

8 For example, in animal sanctuaries. See section IV below.

9 One important exception is the work of Joanna Makowska. See for example Makowska and Weary, "A Good Life".

on their individuality,[10] sense of community, practices of care, and ways of creating meaning. I do so by alternating narrative — telling stories about the mice — and philosophical reflection. This mirrors my attitude towards the mice: I look at them and what they tell me, then reflect, then look again.

In the first part of the text, I mainly tell stories about the mice, to give an impression of what kind of beings they are. I then contrast this with existing views of mice, in the laboratory and in culture more generally. In the final sections, I propose to view the interactions I have with the mice as dialogues that can play a role in changing the political circumstances that determine the lives of mice. My aim in this essay is quite modest, however: I want to give an impression of the mice that I was fortunate enough to get to know and explore new ways of thinking about mice-human relations, not to provide a full account of what it means to be a mouse, or to live with mice justly. For that, society would need to change. This text can only offer the first steps in thinking and living differently.

I. Life in the Mouse House

The mice live in a house with two floors that contains several running wheels, one or two large cardboard boxes for sleeping, and other smaller boxes for hanging out, hiding, eating, or climbing on. They have different stairs for getting to the top floor, and sometimes I give them a so-called "snack labyrinth", which takes up most of the space on the ground floor. There are always many toilet rolls to walk through or hide in. I also make objects our of clay for them and give them willow branches to climb and chew on.

The mice are awake around dusk and dawn. Most of them sleep during the day and during the early hours after midnight, but at times someone wakes up in daytime and runs in a wheel or eats something. When only one or two mice are awake, that is all they do; when most of them are awake they have social encounters, play, and are more eager to explore and try out new activities. Besides

10 I do so not just in the text, but also through the photographs that accompany this essay. See also the portraits at the end of this essay.

Figure 1:

Bullie, Kleinoor and my slipper.

Figure 2:

The mouse house.

All images are by the author.

eating and sleeping, their main activities are running in the wheels, working on their nests by collecting scraps of paper, nest materials and hay, exploring or inspecting the house (spaces often need to be inspected again), and social events like grooming.

I scatter their food twice a day on the floor and in the different boxes, and after that they spend time looking for the foods they like and eating. Individual mice have specific preferences. For example, some like zucchini, others not; about half of them like chickpeas; most are fond of dandelion leaves; all like breadcrumbs, rice, pasta, oatmeal, and nuts; most like bananas; none of them likes apples, but I know other mice who do; they do not really like carrots but will eat them. Some mice like many foods, like Bullie and Vachtje, while others are really picky, like Mooitje (Little Beauty) and Kraaloog (Beady Eye). They also have different habits concerning how much they eat and how much time they spend on it. Kraaloog and Kleine Muis (Little Mouse) prefer running to eating. They eat a bit when I give them the food but soon continue their activities and will eat a little something later. Other spend hours looking for the exact right nut or grain. Bullie eats a lot.

The same applies to running. The first time I put a running wheel in the house they immediately liked it, and I understood I had to get more because they all wanted to run at the same time. They prefer the wooden wheels to plastic ones. I had to throw the wooden wheels away because of a blood louse infestation, and bought plastic ones instead. But in the weeks that followed they did not run much and gained weight. I bought wooden wheels again and the mice ran the whole day; this was clearly a joyful event.

As mentioned above, when mice want to join someone else in the wheel they first run with their hands, and then just climb in, which often disrupts the other's running. They might try to climb up in opposite directions for a while until one of them leaves. After a year, they learned to run side by side in the bigger green wheel. When running together does not work out, sometimes the mice involved will start grooming one another. When a mouse falls out of the wheel because someone else is heavier or runs faster, they will wash their faces for a couple of seconds to recuperate.

The mice are very particular about their boxes, using nesting material, cardboard, paper, and hay to build nests in them. Some materials need to be in some of the boxes, and other materials need to be removed. It is not always clear to me why some bits of paper should be in the nest and others not, but the mice are in no doubt about this, and never have a difference of opinion about it. They keep their sleeping spaces clean, and use or or two corners of the house as toilets.[11] I offer the mice many small cardboard boxes to hide in and climb onto. After a day or two I understood that they want not one but many doors in their boxes, but it took me months to understand that they also really like holes in the ceiling. Because they are inquisitive, I add or remove objects daily.

In addition to more serious activities like eating, nest-building, and running in the wheels, the mice like to play. Sometimes one of the mice just runs all around the house. This also happens when I play certain songs on the ukulele. They enjoy running over the roofs of houses and boxes and create different routes through different boxes. I clean their house once a week and usually do not take them out because they don't like it when I touch their bodies, so I first clean one floor and then the other. Afterwards the mice are really happy. All of them are awake, everything is in a new spot, and they explore the whole new set-up together. Some run in the wheels, others climb over the houses, everyone goes up and down the stairs multiple times. This is a social event; the joy is shared. The ritual used to be quite exuberant when they were younger, now they are more thoughtful and slower. They still make jumps of joy, like foals or rabbits do.

The mice usually sleep together, sometimes with the whole group in one cardboard box and sometimes in smaller groups, though usually not more than two groups. When it is really warm, one or two mice might find a place alone on the top floor, but most will still join the others. They sometimes sleep on top of each other.

11 The two other groups of mice I have now both use plastic running wheels as toilets. Cf. Makowska et al., "Standard Laboratory Housing".

Figure 3:

Grote muis in the mice's favourite wheel

Figure 4:

The mice usually sleep together

Some mice are more solitary than others. They will still join the others for sleeping or grooming, but also like to spend time alone. Witoog for example likes to be apart from the others sometimes, spending time upstairs when the rest of them are downstairs. Now that she is old, she sleeps a lot and does not avoid the others anymore, but she still keeps to herself. Mice who are ill may also become more solitary. For example, when Vachtje's tumour was big she was awake more and spent more time looking for food while the others slept. Kleine Muis and Kraaloog often run in the wheel when others sleep, but this has to do more with their temperament—they like to do a lot of running—than with the fact that they like to be alone, because they are often with the others and seem to enjoy the collective activities.

The mice do not desire much contact with me. When I went to Het Knagertje to pick them up, I only had experience with liminal mice who lived in the wall of our former house. These mice had had some experience with humans before they came to live with me, and were not afraid of me, nor violent towards me. But they were also not eager to establish a relationship. Early on, I sometimes put my hand inside their home, but they regarded it as a foreign object to be buried with nesting material. They will still smell my finger when I hold it near them, but then they move away. There are individual preferences. Vachtje liked being touched from time to time. Witoog liked me most in the beginning and still likes me best, although Kleinoor nowadays also does not mind when I touch her. Witoog also likes to sit next to me when Bullie and Kleinoor are exploring the room. Bullie still prefers not to be touched by me.

Mouse Language Games

The mice communicate using touch, taste, sounds (they squeak, but only very rarely and softly in my hearing range, and make a sort of chewing sound, "chuck, chuck"), sight, and scent.[12] They also make use of tail and ear movements, facial expressions, gestures, and other movements, such as mimicking the movement of others.

12 Flankie went blind in one eye when she was one year old and used her hands and body more in exploring than the others, showing that the others rely on sight more; she was also brave and was usually the first to climb onto everything.

A few examples: Holding one's tail up straight into the air indicates excitement. The "chuck chuck" sound is used when exploring. The mice often kiss each other on the mouth when they run into each other, perhaps to identify each other, or as a greeting. I will get back to facial expressions in more detail below, but the reason I knew they did not like my hands was the look of disgust on their faces. They like to sit beside someone else when eating, sometimes very closely, with their sides touching. They also like to sit next to others and do nothing. The mice do not like to step over each other's tails, they will move a tail they come across with their hands so they can walk around it. Their movements are generally elegant.

Language is often seen as a strictly human capacity. But the question of who speaks is a political one, even in the case of humans, and ideas about language are not neutral or objective but informed by power relations in society.[13] Other animals express themselves in a variety of ways, using sight, scent, touch, sound, gestures, colour, movement. They use language to create meaning, build social relations, have arguments, and so on. Wittgenstein's later work, specifically his notions of language-games and family resemblances as put forward in *Philosophical Investigations*, offers a good framework for further thinking about animal languages, because it draws attention to the embodied and situated character of language.[14] To understand and conceptualize language-games of different species and communities of animals further, we need to study them in the practices in which they take place. Mouse language encompasses (ultrasonic) sounds and scents, but also gestures, movement, and grooming. The mice who live in my house have their own language-games, but also developed new ones in relation to me.

An example of a language-game is an argument. The mice argue occasionally. Their arguments usually last for one or two seconds and are very rare; in fact, I have witnessed only a few. Because their lives are short, everything happens fast: learning, mourning, arguing. The

13 See Derrida, *The Animal That Therefore I Am*, e.g. the discussion of *logos* and the *as such* in Chapter 4; cf. Meijer *When Animals Speak*, Chapter 1.

14 For a longer version of this argument, see Meijer, *When Animals Speak*, Chapters 1–3.

arguments were about food, though they usually do not mind when someone else steals their food and will just look for something else. Arguments include loud noises, gestures, and bodily movements, and are easy to understand for a human witness.

Another example of a language-game is greeting. The mice have different ways of greeting one another—such as kissing the other on the mouth, or aligning their movements with those of the other. When a mouse meets another mouse, they might give up their own activity, and follow the other, mimicking her movement or posture. They also have ways of greeting me, acknowledging my presence by making eye contact or coming up to my hand.

Practices of Care

The mice have many ways of caring for one another. The most obvious practice of care is grooming. They spend a lot of time grooming others, in pairs or threes. When they were younger, they groomed one another in the cardboard boxes and sleeping houses or in the wheels, later on they also did it in plain sight, and when they are roaming freely in the room, they use the space underneath my legs.

Grooming can take a long time (up to ten minutes) and is often reciprocated, around sixty per cent of the time. Grooming ends when one of the two mice leaves because they want to do something else, or when a third mouse joins them and the one who was doing the grooming now turns to the new person. Grooming involves licking the other, often using the front paws to hold onto the other's skin. This can be for balance, or because the work requires it, for instance when washing someone's ear. Ears can take very long to clean. Grooming can be very gentle, or more like a massage. Some mice really relax when they are being groomed and may put their face flat to the floor (looking like humans receiving a massage). The mice are very clean and never smell bad. But the grooming habits are also a social practice. When the mice had just arrived, they did not groom much, perhaps because they had had no houses, hiding spaces, or wheels in the laboratory and they did not feel safe enough for grooming or did not have enough room for it.

Mice also care for others who are ill. When Vachtje was ill, she once ran into Kleine Muis in the snack labyrinth. Kleine Muis put her front paws around Vachtje's neck, and gave her some kisses. This was a hug. She then climbed up the wall to make space for Vachtje, who could not climb anymore because of her tumour. I also saw Witoog give Breedsnuit (Broadsnout) a hug when the latter had a big tumour. She put her arms around her, gave her some kisses on the neck, and moved on. When Mooitje suddenly lost a lot of weight for reasons unknown to me, Vachtje often sat very close to her. Mooitje recovered within a day because I fed her some foods she really likes, mostly rice. After Bullie had a stroke, Kleinoor went up to her often to give her kisses on her snout and on her neck. Witoog sat with her and crawled over her. This happened when only Bullie, Kleinoor and Witoog were still alive.

I have also twice seen four or five mice surround a mouse who was ill. They briefly formed a circle around her, a circle of support, and then went on with their business.

Bullie always sits with mice who are ill and does not leave their side when they are dying. I usually take her with me when someone needs to go to the vet. When a mouse is very ill and I know she does not have long to live, I keep an eye on Bullie to judge the situation.

Care also takes place after death. Vachtje, Breedsnuit and Kleine Muis all died in a single week, in July 2021. The others did not seem to respond much. When Mooitje and Grote muis (Big Mouse) died on 1 September of that year, the others were scared and shy for a week. They did not eat well and hid in their boxes. Flankie was the sixth to die, and after her death the other mice tended to the body. Her friend Kraaloog often went up to her to greet her after she died, and finally pulled her into a corner by a leg. Kleinoor and Witoog groomed her and then buried her with the nesting material.

Ecofeminist scholars often draw attention to care as a fundamental axis for reconfiguring relations with other human and nonhuman animals and the natural world.[15] A focus on care foregrounds

15 See Adams and Donovan, *Feminist Care Tradition*.

Figure 5:

Flankie grooming Bullie.

Figure 6:

Witoog and Bullie eating side by side.

Figure 7:

Kleinoor grooming Witoog under my leg.

Figure 8:

Bullie likes to climb inside the leg of my jeans, but I don't let her do that anymore because she also likes to chew on my leg hair.

relationality and interconnectedness. This provides an alternative to liberal modes of being that view human subjects as atomistic and autonomous agents, and systems in which humans are positioned hierarchically above other animals. Care can be both a theoretical lens and a praxis. An ethics of care encompasses situated and embodied attentiveness towards individuals, as well as attention for exploitative economic and political structures and a commitment to change these structures.

I will return to these exploitative structures below. On the personal level, the mice and I are connected through daily relations of care, because I feed them and make sure their house is clean, and we communicate. As Josephine Donovan writes, relations of care with other animals should be dialogical and include their perspectives.[16] When the mice are older or ill, the daily care intensifies: I pay more attention to the physical wellbeing of the mice, and they are more prone to illness, so they need more support from me. Flankie needed antibiotics and painkillers for a while, and mice with tumours may need more or different stairs in the house, and wider openings in the sleeping boxes. By keeping me company, the mice care for me too. This is not a symmetrical relation, but they are responsive towards me and acknowledge my presence. I also share some of the care with other humans, by telling them about the mice, and discussing the highs and lows with them, whereby they care for me too.

Caring for the mice is not only nice or friendly. It involves holding them captive, giving them medication against their will, and in general controlling many of their life choices. They did not ask for my interference and at times show that they do not want it, for example by resisting when I try to give them their medication, or by trying to escape. Similar to how this works with dog companions however, my agency here is also limited. I cannot end the use of laboratory animals singlehandedly, and we all live in a world hostile to mice and most other animals. My job is to remain attentive and support the mice's agency and wellbeing where I can.

16 Donovan, "Feminism and the Treatment of Animals".

For the mice, community is central, and care is an expression of community. Socially and emotionally, they care well for one another, and therefore do not need me.[17] How this plays out differs from mouse to mouse. Bullie takes grooming extremely seriously. She used this to comfort other mice in their final moments, and by accompanying them to the vet and staying very close to them. Others, like Kraaloog, have a more casual way of being with others. But she often went to greet her best friend Flankie when Flankie was ill. She died not long after Flankie died. The others did not stay with Kraaloog when she died; she chose a space apart from them.

II. What Is a Mouse?

Mice are communicative beings who actively form meaningful relations with creatures from their own and other species. Through watching them, I learned about their social relations and individuality. What they show me stands in stark contrast to cultural views about mice.

Both cultural ideas and scientific knowledge about mice are in large part shaped by prejudice and human domination. According to Google, for example, a mouse is someone to be killed. When I search for "mice", the first page gives twelve links to pest control companies, and two Wikipedia pages. ("Mouse" gives me a page full of links to computer mice.) Only on the third page is there a link to the Dutch organization for responsible pet ownership. How humans see different groups of mice is generally based on their use for humans. Laboratory animals or companions are seen as useful, wild mice are generally respected or even admired, liminal[18] mice, such as the ones that take up residence in human houses or gardens, are considered to be pests.

This is not unique to mice. Knowledge about other animals often reflects their use for humans. Humans in most parts of the world currently live in societies that are anthropocentric in nature. In this

17 In contrast to my dog companions Doris and Olli, who desire and have much closer relations with me, which include more mutual care.

18 Donaldson and Kymlicka, *Zoopolis*, Chapter 7.

worldview, humans are not only the most important animals, they are also the standard by which other animals are measured. In certain areas—such as law or politics—this goes hand in hand with a strict distinction between humans on the one hand and all other animals on the other. This hierarchy is inherently violent: Dinesh Wadiwel calls it "epistemic violence".[19] Epistemic violence serves to legitimate other forms of violence, because it makes them invisible. The fact that our institutions do not recognize other animals as subjects or individuals worthy of rights and protection follows from an anthropocentric worldview. In the case of mice, epistemic violence legitimates institutional violence, such as experimenting on mice as if they were objects, but also direct violence—maiming and killing liminal mice is seen as completely acceptable by most citizens and institutions.

Current scientific research usually reinforces epistemic violence. Processes of knowledge production are not neutral, but intertwined with political, social, and economic structures. Neoliberal capitalism for example has an effect on the objects and methods of study, because it favours knowledge that is deemed economically useful. Anthropocentrism also affects knowledge production.[20] Scientists have long used other animals to gain knowledge about humans, or other topics relevant to humans, instead of trying to find out their perspective on the world or relations. Earthworms for example are often used to study soil and ecosystems, but not to find out anything

19 Wadiwel, *War against Animals*, 36.

20 I should note that this mode of animal research is increasingly coming under criticism. Ideas about how humans can get to know other animals are changing rapidly in different fields of study. In fields such as biology and ethology, there is more and more attention for the animal perspective. In the study of animal languages, for example, human language is no longer automatically taken as the blueprint for what language is, but instead species-specific languages and modes of expression are studied. Furthermore, researchers are becoming increasingly aware of their own position and of how the material, social, psychological, and other conditions under which the animals in question are studied may influence the outcome of studies. In the humanities, a similar development can be detected. Instead of simply looking at the information we have about other animals—for example concerning their cultures, emotional lives, forms of cognition—in different branches of critical animal studies the political and social frameworks in which this information is generated are also taken into account, including power relations between humans and other animals. Still, a majority of the studies in which mice and other animals are used are for human purposes, which is reflected in how they are set up.

about earthworms.[21] Similarly, mice are used to study human diseases, the origins of human emotions, and many other topics, but not to find out more about mice perspectives on a shared world. When their behaviours, emotions or cognition are studied, the outcomes are influenced by the material conditions under which knowledge is generated, such as isolation and captivity, electroshocks, and genetic manipulation.

The scientific apparatus affects not only mouse welfare and knowledge production about mice, but also the agency of human researchers.[22] Klaus Amann traces how mice and other living beings are transformed into technofacts in the laboratory.[23] In DNA research, for example, the structure of the scientific machine translates real animals into a certain kind of information. This translation follows larger scientific-political structures. Tracing how specific forms of knowledge production form different images of mice, or produce different kinds of facts, can help to make visible power relations and show how agencies are intertwined. But getting a clearer view of, and responding to, the actual mice involved also requires attentiveness to larger political structures, as the study of mice's facial expressions and Donna Haraway's discussion of the OncoMouse shows.

Responding to Mice: Facial Expressions and the OncoMouse

Mice are the most commonly used animals in experimentation in the Netherlands. Even though mice are used in studies aimed to benefit humans, this has also led to knowledge about their bodies and minds. Empathy and care for others have been studied extensively in mice, for example, which shows that they feel each other's pain and fear, and will console others when they are in pain.[24] These studies often involve hurting mice and making them watch others being hurt, but the more benevolent studies usually also result in death—there

21 Meijer, *When Animals Speak*, chapter 6.

22 Birke et al., *The Sacrifice*.

23 Amann, "Menschen, Mäuse und Fliegen".

24 Pierce, "Mice in the Sink".

are no large-scale rehoming programs for mice.[25] Kristin Andrews and Susana Monsó write about a similar moral problematic in the case of rats. Rats are used in experiments that "prove" their moral worth, but they are still killed afterwards.[26]

The problems with these studies are not just moral, but epistemological too. Vinciane Despret shows how researchers' views about animals often determine the outcome of studies.[27] Research questions often reflect prejudices related to identity categories, such as species and gender. Because research questions set the frame in which animals can answer, production of knowledge that is uncritical about power hierarches produces knowledge that tends to reaffirm the social status of the beings in question.

An example of how the way in which research is set up affirms stereotypical views of mice is the study of mice facial expressions. Researchers at the Max Planck Institute of Neurobiology in Munich, Germany, studied facial expressions in mice and were able to connect five emotional states to these expressions: pleasure, disgust, nausea, pain, and fear. Using computer algorithms, they could also measure the relative strength of the emotions. The goal of the study was not to understand mouse emotions better, but to investigate the basic mechanisms of how emotions are generated and processed in the brain. Mouse emotions and expressions are described as if the mice were machines. For example: "Mouse facial expressions evoked by diverse stimuli could be classified into emotion-like categories", or "[t]o study facial expressions, we exposed mice to a diverse set of sensory stimuli that can be assumed to trigger changes in emotion state."[28] Describing mice in this way influences the outcome of the study. If you study mice as machine-like beings, this will have an effect on what you see, or what the computer sees. It is also interesting to note that the researchers themselves were not able to see these mice's expressions and did not take the time

25 This would make an interesting meta-study: what do studies about mice empathy show us about the empathy human researchers feel for others?

26 Andrews and Monsó, "Rats Are Us".

27 Despret. *What Would Animals Say*.

28 Dolensek et al., "Facial Expressions", 89.

to learn them, so they used computer algorithms. The descriptions of the mice used in the experiment are based on prejudice, but also reinforce views of mice as acting more strongly on instinct than humans, being replaceable, and other common views of mice.

There are many problems with this study, such as the violence inflicted on the mice, the focus on human benefit, the mechanistic, Cartesian conception of animals. But it also does not begin to do justice to mice facial expressions. As I will discuss in the next section, it took time to get to know the mice. But some of their facial expressions were clear from the beginning—such as the look of disgust they gave me when they smelled my hand. Now that I know them better, there are many things I can read in their faces. I can see if they are curious, excited, hesitant, satisfied, uninterested, concentrated on food or nesting material, excited with big eyes after running, greeting others. Their sleepy faces, when they come out of the sleeping house after they have just woken up, are worth a special mention. Describing facial expressions in the way that the study does by no means begins to do justice to what they can tell with their faces, even to this human observer who misses much.

The Cartesian perspective on mice is challenged by Donna Haraway in her discussion of the OncoMouse, a type of laboratory mouse that has been genetically modified to be a breast cancer model for human women. Haraway criticizes viewing these mice as a sacrifice for human Reason, as well as perspectives that condemn breeding and killing OncoMice as a form of domination. Instead, she proposes to view laboratory practices, such as the ones in which OncoMice are created, used, and killed, as a historical and contingent inequality in which the multiplicity of the world is reflected. Humans and mice are entangled in different ways and in different webs, and Haraway regards the OncoMouse as a being in which nature and culture come together, as her sister and sibling.[29]

Recognizing that agencies are interconnected, that similar cultural patterns play out in beings of different species, and that there are

29 See Haraway, *When Species Meet*, chapter 3; cf. Haraway, *Modest Witness*, 79.

different kinds of interdependencies, is valuable. But when Haraway writes that the OncoMouse is her "sibling" and "sister", this is not simply an ontological statement: it is also a normative claim. She endorses animal experimentation by emphasizing the interconnectedness, but this conceals political human dominance. As Zipporah Weisberg writes, by comparing herself to the OncoMouse, Haraway sets up: "a false identity between herself—a relatively free and inviolable human subject—with a totally unfree and utterly violated subject-turned-object."[30] Furthermore, there is no curiosity or invitation towards the actual OncoMice, they are not asked if they would consider that specific human kin too. I cannot speak for the OncoMouse, but it is difficult to see why they would consider Haraway as sister or sibling. Taking the OncoMice's perspective seriously demands a fundamental change in economic practices, political structures, personal habits.

Words matter here too. Haraway uses a very different kind of vocabulary than Dolensek and his colleagues at the Max Planck Institute. To those who are familiar with and sympathetic towards feminist, posthumanist, and new materialist theory, and acknowledge the need to rethink the figure of the human, many of her claims may sound convincing. But they are also deceiving, and a political lens shows they are inconsistent. Take "Sharing Suffering", the title of the chapter of *When Species Meet* in which the OncoMice feature. Suffering is part of life for everyone, and we cannot keep others safe. Sharing suffering refers to empathy, recognition, and caring for others. When my dog or human companions suffer, I suffer too. But using this phrase in the context of the OncoMouse, glosses over of large-scale human exploitation of mice. Perhaps individual workers can share suffering, but as societies humans should rather focus on not inflicting suffering. For Haraway, this framework of exploitation is legitimated by a "greater good calculation".[31] But the calculation of this greater good clearly depends on whom you ask.

30 Weisberg, "Broken Promises", 48.

31 Haraway, *When Species Meet*, 87.

As discussed above, political and scientific structures are interconnected and mutually reinforce each other. In the production of knowledge, different agencies intermesh and affect outcomes. This insight challenges human supremacy and opens the way for acknowledging other agencies, ontologically and politically, which can be a basis for reforming relations. However, recognizing limits on individual human agency does not legitimate large scale institutional human violence. A political lens allows us to see the large-scale injustice that most people would not find acceptable in the case of humans. Finding it acceptable in the case of other animals is conceptually and morally problematic. Recognizing this does not lead to abolishing relations—as the new field of animal labour shows, for example, it can also mean reformulating them.[32]

What is a mouse? And who decides? After describing in great detail the lives of the songbirds she lived with, Len Howard concludes she cannot make general claims about bird species like great tits.[33] Like humans, individual birds have very different personalities. While we can describe characteristics of species, and critically review how this relates to the roles that they play in human societies and imaginations, this is an important point to keep in mind, especially for animals who are made invisible and replaceable in laboratories, and in different kinds of texts.

III. Learning to See Mice Differently

Learning to see other animals as their own beings takes time. Alice Crary and Lori Gruen describe how ideologies distort how humans view other animals.[34] Portrayals of animals in documentaries and art can affirm or contest existing relations; seeing is not neutral but interconnected with animals' status in society. When a human sees a mouse, what they see is inevitably shaped by received cultural opinions that follow from how they were socialized. Crary and Gruen emphasize that humans are capable of moving beyond this immediate response, as they are in relation to other humans. This requires

32 See Blattner et al., *Animal Labour.*

33 Howard, *Birds as Individuals.*

34 Crary and Gruen, *Animal Crisis*, 107–19

Figure 9:

Kraaloog and Flankie on the futsal field.

Figure 10:

Witoog's tail.

moving away from the self and focusing on the actual other; certain forms of art and critical theory can help to open the way.

Looking at the mice changed how I saw them. It took me several months to learn to tell them apart. The only one I recognized from the first day onwards was Vachtje, because her fur was a bit tousled. After a few months I began to perceive differences in size and body shape among the others. I began to notice that two of the mice were larger than average — Grote Muis and Kleinoor — while two were smaller — Kleine Muis and Kraaloog. Bullie was a bit bigger than all the others. Once I was able to describe everyone's posture, I could begin to recognize them as individuals. This took practice, and for a long time there were uncertainties, for example when someone was in the wheel and I could not tell if it was Grote Muis or Kleinoor, who look very similar except that Kleinoor's left ear is slightly smaller than the right one. But with time it became clearer, and I began to recognize their faces as well.

Barbara Smuts describes how learning to see other animals works in relation to a troop of baboons and a companion dog. The processes she describes are very different — in the case of the baboons she needed to learn to "speak baboon" in order to be accepted as a friendly stranger, but always kept her distance. In the case of the companion dog, Safi, the relationship includes close proximity and sharing a house, as well as developing daily habits. But in both cases learning to see the animals correctly required an attentive awareness, not just with her mind, but also with her body and spirit, that was fostered and learned in dialogue with the animals in question.[35] Another example is the work of biologist Deborah Gordon, who describes how watching ants for a long time allowed her to see them.[36] Howard also emphasizes that learning to see other animals takes time.[37] Observing animals in only one setting for a limited amount of time often leads to errors in the interpretation of behaviours, because one does not know the individual personalities of the animals

35 Smuts, "Encounters".

36 See Gordon, "Wittgenstein".

37 See Howard, *Birds as Individuals* and *Living with Birds*.

involved, their habits, histories, and interpersonal relations. This mode of individualised observation stands in stark contrast to the mechanistic laboratory setting in which individuals are only seen as representatives of their species, and allows researchers to ask very different kinds of questions.

Some of the behaviours of the mice were immediately clear to me, for example, when they were shy or curious. Other behaviours and activities took longer to understand, and the same applies to understanding their friendships, and the ways in which they create meaning more generally in terms of relations, play, spatial arrangements.

Learning to see mice is not just something that is interesting theoretically. It is also an important component of learning to care for them. Because compared to ours their lives are short, there is not a lot of time to make mistakes. Through offering the mice different options concerning the houses, wheels, foods, spatial arrangements in their house, and contact with me, I investigated their preferences. As I wrote above, one of the things I discovered is that they like holes in the ceilings of the boxes. This may seem like a minor issue, but it matters to them. Another example is their clear preference for the wooden wheels. What matters to them most is that I often change the setup, preferably daily. Trying out new things is fun for the mice, they enjoy being busy, but it is also important, because they are curious and investigating the new matters to them.

Seeing mice also matters in relation to knowing how to care for them when they are ill. Vachtje was the first mouse to fall ill, and the first to die because of her tumour. Breedsnuit and Mooitje also died from a tumour. Kleine Muis and Grote Muis both died rather suddenly, after being ill for only a day. Flankie and Kraaloog died of old age, though Flankie also had an ear infection and symptoms of paralysis in her hind legs. Mouse health care is not very advanced, which is ironic in light of the fact that we know so much about their bodies. Sunaura Taylor has written about interconnections between disability and animality, drawing attention to human practices that make other animals disabled, as well as the animalization of humans with

disabilities.[38] We find many of these practices in relation to laboratory mice. The bodies of lab mice are altered by humans for human purposes—sometimes genetically, sometimes they are made ill individually or collectively. When they live longer, many of these mice develop tumours, which is connected to breeding processes in historical cancer research. Because mice are seen as commodities and because they do not live long, their lives are not valued by human societies. There is usually little that can be done when they are ill—the vet's repertoire mainly consists of eye or ear ointment, painkillers, antibiotics, and euthanasia. I have been learning how best to assist them though, and I have got better at judging situations. While it was easy to see that the mice were ill from the start, it took time to learn to understand how diseases progress, mostly with regard to the timing. Everything is faster with the mice than with cats, dogs, or humans. While my vet and the internet helped me judge the severity of situations, there is a certain knowledge that only comes with experience. This was not only true for me. The mice also learned about what it means when one of the others is ill, and have learned what death entails, as the description of their behaviours in relation to death above shows.

An important aspect of learning to see others is allowing oneself to be transformed.[39] Matthew Calarco argues that ethology should be seen as a transformative practice.[40] He discusses the ethological work of Joe Hutto, who studied a pack of wild mule deer. Hutto was adopted by them and formed new social relations, that made him see the reality of the deer differently, as well as making him more aware of the demise of the deer's lifeworld due to ecological collapse. Calarco draws attention to the social, environmental, and mental dimensions of ethology, which he describes as a pro-animal practice aiming to reform and re-envision relations between humans and other animals. Practicing ethology in this sense enriches one's world, but also makes one more sensitive to the suffering of other animals and the broader environmental catastrophe. This is true for living with lab

38 See Taylor, *Beasts of Burden*.
39 Cf. Smuts, "Encounters".
40 Calarco, "Three Ethologies".

mice as well. Learning to understand the depth of their feelings and relations, caring for them, and being studied by them is joyful and a way of becoming more worldly. But it also makes reality more unbearable, because I now better understand the suffering of other mice, inside and outside the laboratory. Experiencing the full cycle of life with these mice, who only live to be around two years old, and witnessing their deaths, was also transformative. It made me view life itself differently, because it gave me a better understanding of its fleeting nature, and of how different the shape of one's life can be. Some mice suffered before they died, especially the ones who died when they were older. I looked after them and felt for them. I suffered, but did I share in their suffering? I am not sure. I do know that all of us are here only very briefly, and I learned that for the mice death matters exactly as much as for humans.

IV. Political Mouse–Human Dialogues

Working towards a better world for mice should be aimed at large-scale structural change. Current political, social, and economic practices and institutions can play a role in moving towards just interspecies societies. A first step towards more just relations with laboratory mice could for example be protection by labour rights, including the right to a pension. But change is also necessarily interconnected with small-scale experiments in which mice and other animals are consulted about their thoughts on the matter. Otherwise, humans still have the last word in determining what is good for others. There seems to be a large gap between the daily interactions that I have with the mice and larger political, economic, cultural, and social structures in which animals are exploited. However, there are different ways to bridge this gap. In this last section I will briefly explore two: viewing mouse-human conversations as components of larger systems of deliberation, and writing about mice.

Recent work in animal philosophy posits communicative interactions between humans and other animals as deliberative practices. Theorists emphasize the embodied and habitual nature of human political conversations, as well as the need to analyse the role of power in constructing who has political voice, and argue that from

this perspective certain conversations between humans and other animals can also be seen as deliberation. Multispecies conversations already take place, but they can be improved.[41]

Multispecies deliberation requires taking seriously animal languages and multispecies language-games, as well the material surroundings in which conversations that place. Clemens Driessen points to the importance of material interventions for human-nonhuman animal deliberation, such as the cat flap and the milking machine.[42] Sue Donaldson directs the focus to the space in which humans and other animals deliberate.[43] She argues that embodied interactions between animals of different species that take place in a shared commons can lead to more just relations between humans and other animals and new ways of co-existing. Through embodied interactions in which animal agency is foregrounded, new forms of government can also come into being. An example is VINE Sanctuary, an LGTBQ-led farmed animal sanctuary in Vermont. The human animals who reside there view the sanctuary as a multispecies community in which the other residents are not seen as beings with pre-determined interests, but as subjects who can co-create the conditions under which they live.[44]

Within this framework, the interactions I have with the mice can be understood as ongoing conversations. Our dialogues are embodied, not dependent on human language, often revolve around objects, require curiosity from both sides, take time, will include misunderstandings and understandings, begin with a basic sense of connectedness as vulnerable beings, do not have a fixed outcome, and when there seems to be an outcome this does not mean one should stop being curious. I say something—perhaps by putting a willow ball in their house—and they tell me if they like it by using it or ignoring it or trying to get rid of it. Or I offer them small pieces of vegan cheese and they will either eat it or not. Some of these conversations take place once or

41 For a longer discussion of multispecies deliberation, see Meijer, *When Animals Speak*, chapter 9.

42 Driessen, "Animal Deliberation", 138.

43 See Donaldson, "Animal Agora".

44 See Blattner et al., "Animal Agency"; Gillespie, "Cow"; jones, "Oxen"; Jones, "Captivity"; Meijer "Sanctuary Politics".

twice, others are ongoing. For example, I sometimes ask them if they already like my hand by putting my hand in their house, and they say no. Another example of an ongoing conversation is our music ritual. I know they like some songs for running so I play these, or invent new ones like them, and they respond by running in the wheel or through their house. In these conversations embodied forms of language play a role, as well as habits and objects.

Recent proposals to consider the whole system of deliberation, instead of only considering the deliberative quality of separate spheres, offer a framework for translating the conversations that take place on the microlevel to larger structures.[45] In this way, conversations between the mice and me could influence legislation and decision-making concerning mice, and this could function as a first step in the transition towards a just multispecies democracy.

Our conversations can also affect cultural understandings of what it means to be a mouse. I give talks about the mice and write about their lives in newspapers and on my weblog, which may contribute to social and political conversations that take place on other levels of society, and more generally may invite other humans see them differently.

V. Meaning-Making in the Mouse House

The mice have different ways of creating meaning, in their relationships with one another, in relation to me, through using objects, and forming habits and rituals, like the party when their house is clean. Understanding their ways of creating meaning as a human requires paying attention, taking the time, and experimenting. It also requires thinking about language, in two senses. Better understanding the perspective of mice on our common world requires learning about their languages, and how these can and do co-shape our common world. But language also matters on the level of the words and stories I as a human use to think and write about them. It is important to be precise about actual interactions, but also to not use the type of clinical, generic language that is reserved for objects, and that scientists often use when writing about mice, because in that specific

45 See Meijer, *When Animals Speak*, chapter 9.

language-game there is too much that cannot be articulated, and it does not do justice to their ways of being.

On the day that the mice came to live with me, I gave them a large brown envelope. They were so happy with this envelope, moving in and out of it, and using it to sleep in. Their first running wheel was also a source of great joy. After spending the first six months of their lives in a small laboratory box, their world suddenly became much bigger and things began to happen. With more space and new objects their relationships with each other could also change, and they continue to change now that they are old. In a society that respects mice their lives would probably have been better. But even under these circumstances, they created beauty and meaning, individually and as a community.

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PORTRAIT GALLERY

Breedsnuit (Broadsnout)

BREEDSNUIT is full of power, open to the world, funny, and very gentle.

Bullie (Little Bull)

BULLIE is enthusiastic about food and running. She is strong and strong-willed, the only mouse to survive a stroke. If another mouse is ill she will keep her company. She also comforts the other mice when they are at the end of their lives, by grooming them and sitting with them.

Flankie (Flankie)

FLANKIE went blind in one eye when she was about six months old. She is curious, likes surprises, and touches everything with her hands because of her poor eyesight. She is eager to participate in activities and to explore new objects in the house. She is brave (the best climber of the group) but modest. KRAALOOG is her best friend.

Grote muis (Big Mouse)

GROTE MUIS is calm and has a steady personality. She is not easily impressed. She sometimes steals food from the others and follows her own compass.

Kleine muis (Little Mouse)

KLEINE MUIS is cheerful, curious, open, and open-hearted. She is active, social, fast, and loves to run in the wheel and explore new things.

Kleinoor (Little Ear)

KLEINOOR is calm yet curious and always happy to hear my voice. She is solid, outgoing; she is one of my special friends.

Kraaloog (Beady Eye)

KRAALOOG is cheerful and curious. She is even a bit more energetic than KLEINE MUIS. She is also smart and sweet and friends with FLANKIE.

Mooitje (Little Beauty)

MOOITJE enjoys group activities. She is modest yet curious, not someone who likes to be in the spotlight. She likes running in the wheel and climbing on the wooden house. The vet called her an "ultra-runner" because she kept going for so long even when she was ill.

Vachtje (Furry)

When she was young, VACHTJE was fierce, towards me but also towards the other mice. When she grew older she became more generous and quiet, and for a while she was the one who liked it most when I touched her. Then she fell ill, and grew even more shy and cautious.

Witoog (White Eye)

WITOOG is very steady. She likes me more than the others and is my friend like KLEINOOR. She is calm, has a strong personality but is also modest. She makes her own decisions, and she is quite autonomous and wise.