

Umwelt theory for practitioners: Semiotic guidelines for a more-than-human descriptive phenomenology

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Abstract: This chapter outlines a scientific method for conducting qualitative studies of human and animal lifeworlds by introducing a semiotically informed *descriptive phenomenology* that goes beyond the human. A depiction of the theoretical basis for a more-than-human descriptive phenomenology is followed by a depiction of its methodological basis. The chapter concludes with a number of semiotic guidelines for practical application of Umwelt theory organized by relevant professions and settings of study.

Keywords: Umwelt theory, descriptive phenomenology, human-animal phenomenology

1. Introduction

This chapter outlines a scientific method informed by both ethology and semiotics for conducting qualitative studies of human and animal lifeworlds, whether these are studied separately or in relation to each other. Specifically, it introduces a form of *descriptive phenomenology* that goes beyond the human.

Descriptive phenomenology denotes a scientific method for describing lived experience based on phenomenological philosophy (on the varieties of phenomenology, see Spiegelberg, 1982). Despite the fact that classics such as Husserl and Heidegger acknowledged the existence of animal lifeworlds, descriptive phenomenology in its current forms is typically only applicable to the study of human lifeworlds. Using the semiotically framed Umwelt theory of Jakob von Uexküll as foundation allows for the development of a novel version of descriptive phenomenology that is non-anthropocentric and pluralistic. In this chapter, I introduce semiotic guidelines for a more-than-human descriptive phenomenology which is applicable in the study of human as well as animal lifeworlds.

Whereas prominent current forms of descriptive phenomenology rely heavily on the study subject's mastery of verbal interviews and/or written accounts, i.e. the mode of human language, a more-than-human descriptive phenomenology depends primarily on participatory observation of and interaction with the subjects under study, possibly supplemented by expert interviews. Since human and animal action and interaction is mediated by signs, such phenomena can fruitfully be approached in semiotic terms. In the study of animals, applied Umwelt theory can be of use e.g. to veterinarians, ethologists, and zookeepers. It is also of use for any anthropologist or social scientist that studies humans who interact with animals.¹

2. The theoretical basis for a more-than-human descriptive phenomenology

Current literature in human-animal studies often suffers from a lack of connections with studies in the natural sciences and specifically biological studies. Application of the Umwelt theory of Jakob von Uexküll (1921, 1928, 1956 [1934-1940], 2010 [1934-1940]; see also Kull, 2001; Brentari, 2015; Tønnessen et al., 2016) can alleviate this problem. The Umwelt theory is quite often referred to by scholars from a range of different academic backgrounds, but it is seldomly applied in specific analyses, and even more rarely in any systematic fashion. Most often the theory is merely introduced, perhaps by way of a classical example from von Uexküll's work – and then the author moves on.

Despret describes having expected from Umwelt theory

[...] that this theory would invite us to consider animals as strangers, as “someones” whose behavior is incomprehensible, and not only ask us to suspend judgment but invite us to be tactful and curious: in what world must *this stranger* live so as to present such ways of being? (2016: 162)

However, she reports being disappointed: “The fact that this theory leads researchers to identify the signs that trigger affects [...] has encouraged them to focus on instinctive, and thus the most predictable, behaviors” (2016: 163). While that might be typical of many contemporary references to von Uexküll,

¹ I have chosen, in this chapter, to equate ‘practitioners’ with people who are in contact with animals and trained in relevant professions. This leaves out other practitioners who deal with animals, some of them on a daily basis, such as farmers, people involved in hunting, fishing, aquaculture or slaughtering, and pet owners. The justification for this choice is that I expect that people trained in relevant professions are more likely to be capable of conducting more-than-human descriptive phenomenology. However, this does not rule out the possibility that some ‘practitioners’ in a wider sense of the word are also knowledgeable enough to conduct more-than-human descriptive phenomenology.

notions such as ‘Umwelt transition’ (Tønnessen, 2009) and von Uexküll’s own notion of the ‘search image’ (von Uexküll, 1956 [1934-1940], 2010 [1934-1940]; discussed in Tønnessen, 2018) equips contemporary Umwelt researchers to portray Umwelten in more dynamic ways.

While also applicable to humans, Umwelt theory is usually applied to animals (Maran et al., 2016). It is thus a central constituent of zoosemiotics (Sebeok, 1972, 1990; Maran et al. (eds.), 2011), which Kalevi Kull characterizes as “the study of animal forms of knowing” (2014: 47). The Umwelt theory’s emphasis on the subjective dimension of animal lives aligns with a progressive agenda in contemporary biology. The classical ethologist Tinbergen (1963) left out the subjective experience of animals as a suitable topic for ethology, the study of animal behaviour. However, Burghardt (1997) suggests considering the study of ‘private experience’ as a central aim of ethology. In line with the heritage of neglecting subjectivity in ethology, animal individuality is also understudied, including in the context of animal welfare (Richter and Hintze, 2019; cf. also Broom, 2011).

The Umwelt theory’s affinity with phenomenology is evidenced by the facts that prominent phenomenologists have discussed von Uexküll’s work (Buchanan, 2008) and that the Umwelt theory can be interpreted as a contribution to phenomenology (Roepstorff, 2001). I understand Umwelt theory as a genuine perspective within phenomenology (Tønnessen, 2011b, 2015) and have argued that all phenomena in terms of phenomenology are of a biosemiotic nature (cf. also Tønnessen et al., 2018). The unique features of Uexküllian phenomenology is its assumptions that all organisms engage in sign activities, and that many organisms are endowed with an Umwelt, i.e. a subjective lifeworld, and experience perceptual phenomena. In the framework of Jaroš and Maran on different “narratives of anthropological difference” (2019: 381), the Umwelt theory is pluralistic (rather than e.g. gradualist) in that it implies that all Umwelten are unique in their own ways.

The Umwelt notion overlaps somewhat with Husserl’s (1954, 1970) notion of lifeworld (*Lebenswelt*) (Tønnessen, 2015), though Husserl for the most part applied his term within the human realm. Heidegger too focused on the distinctness of the human lifeworld (Heidegger, 1962 [1927]) but acknowledged the existence of animal lifeworlds (Heidegger 1995). Of the classical phenomenologists, Merleau-Ponty (1962 [1945]) stands out as the one who related most closely to empirical sciences, life sciences included.

In contemporary phenomenology, there has been sporadic interest in phenomenological approaches to animals (see e.g. Painter and Lotz, 2007; Ruonakoski, 2007). However, few if any attempts have been made to integrate animals as agential, experiencing subjects into descriptive phenomenology, which tend to be focused on humans only.

Within the life sciences, there are some tendencies towards more-than-human approaches and perspectives. For instance, in recent years, the One Health agenda, which aims to integrate human medicine and veterinary

science and see health issues in context across humans and animals (see Day, 2011), has increasingly been acknowledged and adopted internationally. A similar more-than-human integrative agenda, One Welfare, has been proposed with regard to human and animal welfare (Colonus et al., 2013, Pinillos et al., 2016). In the context of behaviour, Lestel et al. (2006) calls for seeing human and animal behaviour in context and refers to ‘Etho-ethnology’ and ‘Ethno-ethnology’.

Recent animal welfare literature has emphasized the importance of integrating ethical concerns (Fraser et al., 1997) and basing animal welfare assessments on science (Fraser et al., 2013), the concept of sentience (Duncan, 2006), animal agency and awareness (Špinka, 2019), emotions and their role in promoting positive experiences (Mellor, 2012, cf. also Yeates and Main, 2008), social support among animals (Rault, 2012), and animal play (Held and Špinka, 2011). These are examples of animal welfare research that aligns well with the Umwelt theory’s emphasis on subjective experience.

3. The methodological basis for a more-than-human descriptive phenomenology

Descriptive phenomenology is considered an “empirical qualitative research approach” that draws on Husserl’s phenomenology (Todres, 2005: 104). Of special relevance in Husserl’s work are the concepts of ‘life-world’, “the source of all experiential qualities” enveloping all that is “given to consciousness”, and ‘essences’, incorporating “the invariant features of something (its bare bones) and how these essential features interrelate to constitute the order of the experience as a phenomenon” (2005: 105). In Husserl’s classical version, descriptive phenomenology is focused on introspection, i.e. examination of one’s own thoughts and feelings. With this framing, descriptive phenomenology is necessarily limited to application within the human realm.

In contemporary times, Giorgi (2009) is known for his version of descriptive phenomenology, tailored for use in psychology. According to Todres, the main innovation in Giorgi’s version of descriptive phenomenology is “to use descriptions of experiences from others and not just from oneself as a philosophical reflection on experience” (2005: 106). This may involve analysis of written autobiographical accounts, or transcriptions of verbal interviews. Generally, contemporary descriptive phenomenology typically takes the form of searching for meanings and themes in thematic analysis of written accounts of lived experiences, which may be derived from interviews (see e.g. Sundler et al., 2019). Developing a more-than-human descriptive phenomenology requires going beyond textual and verbal (i.e. linguistic) data, though such accounts e.g. from experts or practitioners will still play a significant role.

Churchill (2006) and Lestel et al. (2014) both emphasize the importance of participatory observation and human-animal interaction in the context of phenomenological studies of animals (see also Lestel, 2011). Churchill cites Thure von Uexküll, who summarizes “the ‘specific method’ of ‘Umwelt-research’” (Churchill, 2006: 2):

The approach of Umwelt-research is ‘*participatory observation*’ where observation [Beobachtung] amounts to ascertaining which signs registered in my own experiential world are also registered by the living being under observation. [...] *Participation* [Teilnahme] is the reconstruction of the Umwelt and the sharing of the decoding processes which occur during [the organism’s] behavioural activities”. (Thure von Uexküll, 1992: 280-281)

In contemporary biosemiotics, some work has been done on connecting ethological field work and Umwelt theory, e.g. on ‘soundtopes’ (Farina and Pieretti, 2014) and ‘acoustic codes’ (Malavasi et al., 2014). On a more general level, Tønnessen (2011a) proposes steps in the mapping of human and animal Umwelten, starting by identifying who counts as ‘significant others’ in the Umwelt under study.

Within animal welfare research, methodology has changed considerably over time (for a portrayal of the history of different approaches, see Broom, 2011). Examples of contemporary methods include use of preference, motivation and aversion tests in the study of animal feelings (Kirkden and Pajor, 2006), tools for studies of animal emotions and moods (Mendl et al., 2010), methods for studying quality of life in humans and animals (Scott et al. 2007), and methods for studying positive experiences (Yeates and Main, 2008). While most of these are compatible with an Umwelt-based approach to more-than-human descriptive phenomenology, it should be noted that many approaches in current animal welfare research are of a quantitative nature, whereas the Umwelt-based approach is primarily qualitative.

4. Semiotic guidelines for practical application of Umwelt theory

The guidelines presented here are organized by a combination of profession (veterinarian, ethologist, zookeeper, anthropologist, social scientist) and setting (animal husbandry, companion animals, wildlife, zoos, human-animal interaction). Of the various settings, the first four are distinct from each other, whereas the latter one, human-animal interaction, may in principle overlap with any of the four distinct settings. An implication is that an anthropologist or social scientist may also try to adopt the more specialized perspective of a veterinarian, ethologist or zookeeper, depending on the exact study setting (or

at the very least draw on such specialized perspectives by way of expert interviews).

General guidelines for application in the study of animal and human Umwelten:

- Summarize your foreknowledge about the animal(s) and setting(s) of study.
- Identify typical actions and Umwelt objects that are pertinent to the setting(s) of study, and, in a longitudinal perspective, relevant Umwelt transitions.
- Observe how the animal(s) interacts with its environment.
- Observe interaction between selected professionals/practitioners and the animal(s) of study.
- Interact with the animal(s) of study in relevant setting(s), and observe the interaction.
- Summarize your (participant) observations in light of your foreknowledge and pre-identified Umwelt features.

Guidelines for veterinarians and ethologists in the setting of animal husbandry:

- Conduct interviews with relevant professionals, such as veterinarians/ethologists specialized on the animal(s) of study.
- Conduct interviews with other practitioners, such as farmers, fishers and breeders.
- While observing the animal's behaviour, pay special attention to social relations, environmental enrichment, stereotypical behaviour, and displays of emotions and moods.
- While observing human-animal interaction, pay special attention to fear/avoidance, and social engagement.
- While interacting with the animal, pay special attention to fear/avoidance, and curiosity.

Guidelines for veterinarians and ethologists in the setting of companion animals:

- Conduct interviews with relevant professionals, such as veterinarians/ethologists specialized on the animal(s) of study.
- Conduct interviews with other practitioners, such as pet owners and breeders.
- While observing the animal's behaviour, pay special attention to behavioral needs fulfilment, and displays of emotions and moods.
- While observing human-animal interaction, pay special attention to how the human behaviour affects the animal behavior.

— While interacting with the animal, pay special attention to how it discriminates between you and other human individuals.

Guidelines for veterinarians and ethologists in wildlife settings:

— Conduct interviews with relevant professionals, such as veterinarians/ethologists and/or zookeepers specialized on the animal(s) of study.

— Conduct interviews with other practitioners, such as hunters, fishers and hikers.

— While observing the animal's behaviour, pay special attention to social relations, mating behaviour, hunting/feeding behaviour, and displays of emotions and moods.

— While observing human-animal interaction, pay special attention to fear/avoidance, habituation, aggression, and curiosity.

— While interacting with the animal, pay special attention to fear/avoidance, and curiosity.

Guidelines for veterinarians and ethologists in the setting of zoos:

— Conduct interviews with relevant professionals, such as veterinarians/ethologists and/or zookeepers specialized on the animal(s) of study.

— Conduct interviews with other practitioners, such as zoo visitors.

— While observing the animal's behaviour, pay special attention to social relations, environmental enrichment, stereotypical behaviour, and displays of emotions and moods.

— While observing human-animal interaction, pay special attention to fear/avoidance, and personal relations.

— While interacting with the animal, pay special attention to fear/avoidance, and curiosity.

Guidelines for zookeepers:

— Conduct interviews with relevant professionals, such as other zookeepers, veterinarians and/or ethologists specialized on the animal(s) of study.

— Conduct interviews with other practitioners, such as zoo visitors.

— While observing the animal's behaviour, pay special attention to social relations, environmental enrichment, stereotypical behaviour, and needs fulfilment.

— While observing human-animal interaction, pay special attention to fear/avoidance, personal relations, and displays of emotions and mods.

— While interacting with the animal, pay special attention to how the animal's behavior changes when your posture and behaviour changes, fear/avoidance, and curiosity.

And finally, these are guidelines for anthropologists and social scientists in the setting of human-animal interaction:

— Conduct interviews with relevant professionals, such as veterinarians, ethologists and/or zookeepers specialized on the animal(s) and setting(s) of study.

— Conduct interviews with other practitioners, such as farmers, hunters, fishers, breeders, zoo visitors, pet owners and/or hikers.

— While observing the animal's behaviour, pay special attention to what appears to matter for the animal, and what it is curious about.

— While observing human-animal interaction, pay special attention to personal relations, and displays of emotions and moods.

— While interacting with the animal, pay special attention to how it discriminates between you and other human individuals.

5. Conclusion

This chapter has argued for the establishment of a more-than-human descriptive phenomenology by outlining its theoretical and methodological basis, with Umwelt theory as a starting point. Studies of human-animal relations and interaction are facilitated by the introduction of a number of practical guidelines for studying more-than-human contexts within the framework of descriptive phenomenology. This requires the use of interviews with experts and/or practitioners in combination with interaction with and participatory observation of animals.

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