



Introduction to the Special Issue ‘Umwelt Theory and Phenomenology’

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Abstract

This introduction to the special issue “Umwelt Theory and Phenomenology” is composed of a brief theoretical introduction to phenomenology seen as a key attitude of philosophical research, an investigation of the possibilities offered by a combined application of phenomenology and biosemiotics, and an overview of the articles that are included in the special issue. The theoretical introduction stresses the possibility of distinguishing, within phenomenology, between approaches centred on the object (in other terms, the phenomenon), and subject-centred approaches which have emerged in the wake of Kantian transcendental idealism. The connection with biosemiotics is explored for both kinds of approaches, showing how Uexküll, and many other scholars after him, have used phenomenological tools and perspectives in the study of biological meaning and meaning-making processes. For each article in the collection, the overview of the articles indicates one or two points that we believe are of the greatest interest for the reader.

Keywords Umwelt theory · Phenomenology · Biosemiotics · Jakob von Uexküll · Biological meaning-making · Subjectivity · Agency · Lifeworld

Introduction

The English term ‘phenomenon’ relies ultimately on the Greek root *phainein*, ‘to appear’. Since its inception, philosophy has had a conflictual relationship with appearance, the sphere of what shows itself spontaneously. On the one hand philosophers have been fascinated by the incredible richness of the phenomena (as exempli-

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fied by the seminal role Aristotle gives to wonder), on the other many thinkers recoil – almost indignant, in some cases – from the chaos of the phenomenon, its transience and mutability. In classical Greek thought, philosophy not only establishes a sharp contrast between the truth of the *logos* – rational thought – and the tricky sensible appearances of the perceivable world, but also tries to reduce the extent of mutability and inconstancy of the sensible world by tracing appearances back to ideal, timeless, eternal principles. At the beginning of philosophy, in other words, the main concern seems to have been to reduce the variability of phenomena by tracing them back to immutable ontological entities – which could be external to the sensible things, like Plato’s ideas, or internal to them, like Aristotle’s substantial forms.

With the inevitable simplifications, we can consider this inclination towards the ‘vertical’ ontological stabilization of the sensible sphere as a long-term tendency in philosophy – which, however, is periodically counterbalanced by episodes of ‘horizontal’ opening towards the variety of everything that exists, that is, phases in which the philosophical inquiry seeks not so much solid principles of order, but new materials to deal with. In the 20th century, one of these phases, which is maybe the most relevant for the goals of this Special Issue, chooses for itself a very explicit name: phenomenology, the ‘study of what appears’. The inspiring source for this line of enquiry – which, more than a current, can be defined as an attitude of research – is Edmund Husserl’s motto “back to the things themselves”: a precious motto for all those periods in the history of philosophy that, for reasons that can be very different, are hampered by an excessive presence of dogmatic theories or weighed down by the tendency to repeat reassuring, but not very profitable paths. In other terms, phenomenology and, more extensively, the phenomenological phases of philosophical enquiry, often provide access to rich deposits of research materials that are, so to speak, not yet too theory-laden. In the first, observation-based phase of the research, an excessive theory-ladenness, in addition to hindering the ‘sensing potential’ of wonder, can prevent the emergence of original categories of thought, which are valuable for grasping ontological novelties at every level of reality.

Phenomenology, however, allows not only to open the inquiry towards a broad spectrum of possible objects of investigation. It also allows for grasping the wide range of possible *subjective* ways of entering into relationships with the objects of experience (as we will see shortly, both opportunities are of great importance for biosemiotics). If we return to the root of the phenomenon as ‘that which appears’, in fact, we realize that the inquiry into the phenomenon can go in two directions: not only towards the object, but also towards the subject, towards the ‘being’ to which the phenomenon appears.

From a historical-philosophical point of view, the subject-centered approach has for quite some time been prevailing. We owe to Kant the generative idea of the phenomenon as *Erscheinungswelt*, a world of appearances (and notably, a scientifically reliable one) constituted by the subject thanks to his or her transcendental forms (space, time, the categories of the intellect) and contrasted with the unknowable *noumenon*. The *Erscheinungswelt* was part of the Kantian conceptual framework that von Uexküll (1909) adopted and within which Umwelt theory was from his side designed to operate.

Kant's role in phenomenology, along with that of several other thinkers, including Hegel, makes clear that phenomenology did not start with Husserl and is a far richer school of thought that can not be reduced to Husserlian philosophy (Spiegelberg, 1982). However, in the philosophical development of the phenomenological tradition, we owe to Husserl an unprecedented attention to the possible diversifications of the subject's phenomenological activity of constitution of objects of experience. Husserlian consciousness – the functional equivalent of Kantian pure reason, as far as the constitutive relationship to the objects is concerned – presents itself as a bundle of possible noetic acts (perception, memory, imagination, theoretical knowledge, etc.). Without any claim to exhaust such a broad topic, we can therefore identify, within phenomenology, approaches that are more focused on the subject and its ability to determine (constitute, produce...) the world of phenomenal experience, and approaches that instead – leaving the genealogical question of the origin of the phenomenon in the background – focus on the free description of the phenomenal field, often opening up to a greater awareness of the experiential weight of the human condition (mortality, finitude, corporeity). If the first direction has Kant and Husserl as its best-known representatives, in the group of more descriptive approaches we can place Max Scheler, Martin Heidegger, Merleau-Ponty, and many others (see Buchanan, 2008 for a treatment of Heidegger and Merleau-Ponty's relation to von Uexküll's work).

After this brief introduction, we now come to the inspiring reason for this Special Issue, namely the desire to explore and understand the outcomes of the encounter between phenomenology and biosemiotics. By biosemiotics, we here mean all instances of theoretical biology and the behavioral sciences that see the notion of meaning and other semiotic tools as an integral part of their field of study.

It must be said, first, that biosemiotics meets phenomenology in both the declinations that we have identified above. Let us return to one of Jakob von Uexküll's best-known methodological quotes: "The task of biology consists in expanding in two directions the results of Kant's investigations: (1) by considering the part played by our body, and especially by our sense-organs and central nervous system, and (2) by studying the relations of other subjects (animals) to objects" (von Uexküll, 1926: xv). Both possibilities of phenomenological investigation – the transcendental and the descriptive one – are contained here: on the one hand the possibility of focusing on the world-generative structures of living subjectivities, on the other the horizontal attention given to the unfolding phenomenon of life on the anatomical, physiological and behavioral level. In both attitudes of inquiry, a new attention to the 'role of the body' is required. Since subjectivity is always embodied, the transcendental process of the constitution of the world of experience – the *Umwelt*, in Uexküll's thought – has to be reconstructed through the study of physiology and behavior; and, even if one wants to limit oneself to the horizontal description of life, it becomes soon very clear that the organic body is ontologically different from inorganic entities – it is *Leib* and not *Körper*, agency and not mechanism.

It is therefore not excessive to state that Uexküll's thought, seminal as it is for biosemiotics, contains in essence both the possibilities of investigation that philosophical phenomenology explored in the 20th century, and does this in a form that is both paradigmatic and extensive (in the sense of being inclusive towards non-

human subjectivities). In the question “How do the things of the world appear to living beings?”, which opens the foundational text *Umwelt und Innenwelt der Tiere* (Uexküll, 1909), there is an echo of the inspiring nucleus of transcendental phenomenology. Moreover, the careful reconstructions of case studies of interspecies relationships presented in *A Foray into the Worlds of Animals and Humans* (von Uexküll, 2010: 40–137) and *A theory of Meaning* (von Uexküll, 2010: 139–207) move in the direction of a meaning-based ethology. In the implied research agenda, the descriptions of animal behavior do not shy away from reflection on the meaning of environmental objects for the organism and do not aspire to any replacement of animal intentionality with one or more of the theoretical tools of classical mechanism (stimuli, responses, instincts understood as chains of reflexes).

The proximity between Umwelt theory and phenomenology has been highlighted several times in the literature. Faced with Uexküll’s use of the term *Tönung* to indicate the meaning-ladenness of an object in the Umwelt of a non-human animal (von Uexküll & Kriszat, 1956: 69), Portmann saw the possibility of integrating the quantitative methods of investigation with attention to the “side of lived experience [*Erleben*]”, so that “the world of experienced properties in its colours, shapes, sounds, scents, with its pains and pleasures now appears as a fully-fledged object of biological research” (Portmann, 1956: 10; our translation). To underline the relevance of the *Umweltlehre* for the description of the organic world, Plessner’s also concisely stated that Uexküll’s scientific program is to develop a “phenomenology of living behavior” applicable to non-human organisms (Plessner, 1975: 63; our translation).

In contemporary scholarship, a distinction is often made between philosophical phenomenology, i.e., phenomenological theorizing carried out by philosophers, and applied phenomenology. The latter concerns the use of phenomenological methods, ideas and concepts in other disciplines, and entails that empirical research is inspired by phenomenology and focused on understanding first-person perspectives (Zahavi, 2023; Beck, 2021). Applied phenomenology is currently particularly common in certain disciplines and fields of study in the social sciences, the humanities, and health studies – notably in sociology, anthropology, nursing studies, psychology and psychiatry, and is central in contemporary discussions about qualitative methods generally. Husserl’s single most influential idea, at least outside of philosophy, is the notion of the *lifeworld* (German: *Lebenswelt*), which was most developed from his side in texts that were only published posthumously (Husserl, 1970). In many of the mentioned fields of study, reference is made to lifeworld accounts etc., but the methodology differs, though it is typically related to verbal or textual data (Tønnessen, forthcoming). Applied phenomenology has not been much used in the context of biology, but a case can be made that a version of applied phenomenology informed by Umwelt theory is relevant e.g. for ethology, veterinary science and zoo biology (Tønnessen, 2023; Tønnessen, forthcoming). This would be a more-than-human applied phenomenology suitable for studies of human and animal lifeworlds alike, human–animal interaction included, with the latter making it relevant even for traditional disciplines customarily placed in the humanities or social sciences.

Given its contemporary advocacy of Umwelt theory, and semiotic contextualization of it, biosemiotics should be well-positioned to contribute to development of current phenomenology (Tønnessen et al., 2018). Among semioticians, opinions differ

on how signs and phenomena relate to each other. Drawing on von Uexküll's work, the most common biosemiotic understanding is that all phenomena are sign-based. A biosemiotic outlook could be useful for many philosophical and applied phenomenologists. However, biosemioticians should also learn from work done in cognitive semiotics which aims to integrate semiotic and phenomenological theoretical perspectives and combine these with systematic, triangulated use of empirical and philosophical research methods (Sonesson, 2009; Zlatev, 2018).

Overview of Articles in the Special Issue

The variety and richness of the contributions collected in this Special Issue fully reflect the wide spectrum of possibilities offered by phenomenological approaches, in both declinations we have highlighted. Some of them explore particular angles that phenomenology opens when it comes to approach the ontology of living processes and/or living agencies, often relying on or reinterpreting Uexküllian thought. Tiago Rama's paper "The Explanatory Role of Umwelt in Evolutionary Theory: Introducing von Baer's Reflections on Teleological Development", for example, shows that the biological-theoretical approach centered on teleology that was proposed by von Baer and Uexküll can elucidate the traits of goal orientation and adaptivity manifested by the development processes of living nature. The contribution by Carlos Vidales and Julio Horta "A Philosophical and Cybersemiotic reading of von Uexküll's Umwelt Theory" also navigates at the level of the phenomenology of living processes, focusing on the phenomena of meaning emergence and the active meaning-making by biological-semiotic agencies and shows how it is possible to re-read in a cybernetic sense the Uexküllian notion of the functional circle. Still remaining within the phenomenology of living processes, another fruitful interpretation of Uexküll's thought is provided by the paper by Lenka Ovčáčková and Jana Švorcová "Metaphysics of the Organic Whole: Ehrenfels, Uexküll, and Merleau-Ponty"; their paper establishes a comparison between Ehrenfels' theory of Gestalt qualities (which is in itself a sort of proto-phenomenology) and the concept of Umwelt, relying on the phenomenology of Maurice Merleau-Ponty as the primary source for the comparison.

A group of three articles addresses a classic theme of Uexküllian biosemiotics and its reception, namely the relationship between the two concepts of Welt and Umwelt and the possible usefulness of this conceptual pair for understanding the difference between human and non-human animals. They do this from different perspectives. Matej Pudil's "Man in Relation to the World: Umwelt–Welt Transition" proposes a critical reflection on the Umwelt–Welt distinction, emphasizing the peculiarity of the second notion – which refers to the world as a transcendental field from which events arise – by using phenomenological analysis of inter-corporeality. Jessica Lombard's "A Foray into Welt and Umwelt: Rereading the Onto-Ethological Discussion between Heidegger and Uexküll" focuses on the Heideggerian reception of Uexküll's Umwelt theory in the *Fundamental Concepts of Metaphysics* (Heidegger, 1995), challenging the idea of the animal as "poor in world" with the aim of showing that both humans and animals perceive the fundamental nature of the world, albeit in different ways. Also Siiri Tarrikas, in her paper "Animal Attention in the Context of Zoosemiotics",

questions the condition of non-human animals with biosemiotic tools, specifically by investigating the phenomenon of attention and connecting it with the active capacity of animal agencies to endow reality with meaning.

Some of the articles take their starting point in natural science. Two articles, Pascal Carlier's "Descriptive Phenomenology as an Alternative to Prevent the Theory-Ladenness of Observation in the Study of Animal Behavior: Opening towards an Etho-Phenomenology" and Gordon Burghardt's "Jakob von Uexküll, Heterophenomenology, and Behavior Systems I: Core Ethology and Merleau-Ponty", both approach the Umwelt theory and phenomenology from the point of view of ethology. They treat aspects of the history of animal behaviour studies in ways that are informative with regard to how such studies can be carried out today. Moreover, Federico Comollo's article "A Foray into the Worlds of Plants and Fungi" draws on contemporary botany to critically assess von Uexküll's work on lifeworlds beyond animal lifeworlds.

Two of the articles take a methodological outlook as their starting point. In their article "Extending the life world: Phenomenological triangulation along two planes", Jordan Zlatev and Alexandra Mouratidou convincingly argue that phenomenological triangulation involving studies of experience from different perspectives is equally useful for biosemiotics and cognitive semiotics. In "Umwelt Theory and Dis/Harmony: Forays into Dis/Ability, Dis/Ease, Trauma, and Ethological Divergence", Ombre Tarragnat addresses important issues related to diversity, trauma and dysfunction. This article offers timely critique of Umwelt theory in its classical version, while at the same time contributing to development of a more comprehensive Umwelt theory capable of dealing with divergence, crises and trauma.

John Pickering's article "Umwelt theory, Biosemiotics and damage limitation" deals with the phenomenological and ecological situation we are currently in, in which the reflexive nature of human consciousness ironically does not necessarily equip us to see the natural world as it is, given that we are heavily influenced by technological developments. Still underlining the continuity with the non-human semiotic processes, other contributions explore the wide and manifold field of the phenomenology of the human world of culture, art, symbolism and symbolic forms. The paper by Alin Olteanu and Sigmund Ongstad "Utterance-genre-lifeworld and sign-habit-Umwelt compared as phenomenologies. Integrating Socio- and Biosemiotic Concepts?" interprets some well-established notions in social theory (utterance, genre, lifeworld) in a biosemiotic key, showing how, after this rethinking, they can constitute the biosemiotic framework for a descriptive phenomenology. The contribution by Susanne Kass "Technology and Interspecies Musical Practice" shows how playing music with other species widens the range of our phenomenological understanding of music; the author moves from the work of the interspecies musician David Rothenberg (who also translated Arne Næss' main ecophilosophical work to English) and discusses the links between Umwelt theory, biosemiotics, and the theory of human-technology relations. Still in the field of the phenomenology of art, the paper by Ke Tang "The Implications of Umwelt in Poetics: The Case of Ye Xie, a Seventeenth-Century Chinese Poet and Critic" explores the phenomenology of the personal Umwelt developed in poetry in the Chinese context, with particular refer-

ence to the Seventeenth-century author Ye Xie and his view of the Umwelt as a result of the intertwining of universal truth and subjective life experience.

These first previews certainly cannot exhaust the richness of the proposed discussions, for which we refer to the direct reading of the papers. Already from them, however, we can notice that the establishment – or, in some cases, the rediscovery – of solid theoretical links between all involved research lines – Umwelt theory, biosemiotics, and the different versions of phenomenological thinking – can be extremely fruitful.

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Declarations

Competing Interests The authors declare no competing interests.

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