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RESEARCH

Extending the Life World: Phenomenological Triangulation Along Two Planes

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Abstract
Phenomenology is often mistakenly understood as both introspectionist and anthropocentric and thus as incapable of providing us with objective knowledge. While clearly wrong, such critiques force us to spell out how the *life world* that is given in human experience is in fact not anthropocentric and not incompatible with science. In this article we address this by adapting a recent proposal to extend the key methodological principle of cognitive semiotics, *phenomenological triangulation*, along two planes. The first is horizontal and concerns the dimensions of Self, Others and Things, as irreducibly interrelated dimensions of the life world. The second is vertical, and deals with the way phenomena are accessed: from a first-person (philosophical), second-person (empirical in a qualitative sense) and third-person (scientific in a quantitative sense) perspective. With each perspective, the life world becomes correspondingly extended beyond direct experience. It is thus neither static nor confining. We exemplify each step with corresponding research, also providing examples of how non-human animals and not only human beings may serve as Others, thus addressing the critique of anthropocentrism. We conclude by pointing out how, despite some theoretical differences, the focus on subjectivity and the explicit or implicit adoption of the principle of phenomenological triangulation can serve as common ground for cognitive semiotics and biosemiotics.

Keywords Cognitive semiotics · Phenomenology · Intersubjectivity · Constitution · Non-human subjects

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Introduction

While mind-body dualism is claimed to be outdated, it is amazing how persistent, at least in Western culture, is the view that every one of us is trapped in our individual "mental bubbles". This is also often complemented with an equally depressing assumption of a "purely objective" reality, located somewhere beyond human perception, and perhaps ultimately unknowable. Given this situation, one of the most liberating contributions of the school of thought inaugurated by Husserl (2001 [1900-1901]) known as *phenomenology* is that it frees us from what Sokolowski (2000: 9) calls the "egocentric predicament" that we can only know our own minds. While commonly misunderstood by detractors like Dennett (2001) to be an anti-scientific "philosophy of consciousness", phenomenology in fact offers an alternative to both subjectivism and objectivism (Merleau-Ponty, 1962). It urges us to return "to the things themselves", in the famous Husserlian dictum: from priorly held assumptions, prejudices, theories, beliefs – to an unbiased reflection upon our experience of the world as it is given to us. In doing so, we find that it is groundless to claim that what we experience are only "appearances", and that reality is somehow hidden behind this. Rather, we are led to embrace our inextricable embeddedness in the *life world*,[1] the one and only reality that we are both part of and can fully know. In the words of Sokolowski (2000: 14): "The way things appear is part of the being of things; things appear as they are, and they are as they appear." Against various claims that we only have access to "representations" or "signs", phenomenologists have always insisted that as the fundamental kind of intentionality, perception gives us direct access to the world; other intentionalities like remembering, anticipation and imagination complement this, by directing consciousness beyond the here and now. Yet, even they do not operate with "mental images" but with what Husserl called *Vergegenwäritung*, variously translated as "re-presentation" (Thompson, 2007) or "presentifying" (Zlatev, 2018), and may be best characterized as a kind of vicarious perception. Only on top of this come signs like words and images which do represent both concrete and abstract phenomena, but only for beings with reflective consciousness like ourselves (Zlatev et al., 2020), capable of grasping indirect, *signitive* (i.e. sign-based) intentionalities.

All these feats of human consciousness are fascinating to study, but what is even more important is once again that they open us for the multi-faceted, and multi-layered life world. Or as stated cogently by Zahavi (2019: 30):

> The reason for the phenomenological interest in intentionality is not primarily due to the narrow concern with and interest in subjective experiences per se. The argument is rather that if we really wish to understand the status of physical objects, mathematical models, chemical processes, social relations, cultural products, etc., then we need to understand how they can appear as what they are, and with the meaning they have.

[1] In the literature, this rendition of Husserl's term *Lebenswelt* is found, alongside *lifeworld, life-world* and *Lifeworld*. We prefer it, as it makes its referent appear more normal and natural, as should be the case.

There is a problem, however. Even disregarding culture-specific aspects of the life world – the different "home worlds" in terms of generative phenomenology (Steinbock, 2003) – and focusing on the universal, pan-human level of the life world – where the sun goes up in the morning and goes down in the evening, where objects tend to fall to the ground, where we are born, grow older and die, *etcetera* – is there not a risk of anthropocentrism? Even if we acknowledge the "intertwining" between the subject and the world, emphasized so much by Merleau-Ponty, does phenomenology not limit us to a world that is constituted, or even projected by *human* consciousness? For example, the following famous quotation uses the problematic terminology of "projection", which is at least on the face of it vulnerable to accusations of anthropomorphism (cf. Hverven & Netland, 2021).

> The world is inseparable from the subject, but from a subject which is nothing but a project of the world, and the subject is inseparable from the world, but from a world which the subject itself *projects*. The subject is a being-in-the-world [*être au monde*], and the world remains "subjective", since its texture and its articulations are sketched out by the subject's movement of transcendence. (Merleau-Ponty, 1962: 499–500, our emphasis)

Our aim here is to tackle such objections of anthropocentrism and anthropomorphism with a three-pronged argument. The first response is that the "constitution" of the life world is in fact a *co-constitution*, and not only between a single subject and the world as suggested by the quotation above, but by a plurality of subjects, in *intersubjectivity*. In section "Triangulating Ontologically from a First-Person Perspective" we elaborate on what this implies, enriching the argumentation by including encounters with non-human subjects, that is, other sentient creatures, most easily illustrated with domestic animals. This offers a first kind of "extension" of the life world, as alluded to in the title.

The second life world extension is more methodological: we encounter ourselves, others and things not only from a first-person perspective, but also from a second-person perspective, which involves an Other that is different from ourselves. This brings in an irreducible ethical dimension, as shown by Levinas (1969), but also an epistemological one, allowing us to move towards more "applied" forms of phenomenology in fields like psychotherapy and phenomenological psychology. We address this in section "Extending the life World with a Second-Person Perspective", and as with the first response, we also illustrate with examples involving non-human animals.

The third extension of the life world is in the direction of an even more detached, third-person ("they") perspective, as in natural science. Husserl (1970 [1936]) originally proposed the notion of the *Lebenswelt* in contrast to this, but there is no inherent contradiction between phenomenology and a scientific "world view" – as long as this is precisely understood as *a view*, of someone and from somewhere, rather than the proverbial and self-contradictory "view from nowhere" (Nagel, 1986; Zahavi, 2010; Gallagher, 2018).[2] Thus, we can turn towards ourselves, other subjects and physical

[2] A somewhat analogous critique of metaphysical conceptions of "objective reality" may be found within more philosophical-oriented studies in semiotics (e.g. Deely, 2009), as pointed out by an anonymous reviewer.

phenomena with the help of the instruments and methods of natural science, including genetics, neuroscience, etc. to better understand causal processes that as such are not accessible to phenomenology (Mendoza-Collazos & Zlatev, 2022). However, we do so not independently from the previous two perspectives, but by *triangulating* with them. This is perhaps how we can understand the statement in one of the final, unfinished works of Merleau-Ponty, who more than any other of the classical phenomenologists strived for extending the scope of the life world, both epistemologically and ontologically:

> The ultimate task of phenomenology as philosophy of consciousness is to understand its relationship to non-phenomenology. What resists phenomenology within us—natural being, the 'barbarous' source Schelling spoke of—cannot remain outside of phenomenology and should have its place within it. (Merleau-Ponty, 1964: 178)

Before we start, however, in the following section we wish to situate our approach within *cognitive semiotics*: a relatively new discipline that combines concepts and methods from semiotics, linguistics and cognitive science, and aligns these with the help of phenomenology (Zlatev, 2012; Konderak, 2018; Sonesson, 2022). We show how each of the three steps of the argument corresponds to adding an extra layer to the cognitive-semiotic principle of *phenomenological triangulation*. In doing so, we adapt a proposal made by Sonesson (2022) to complement the essentially epistemological "vertical" plane with an ontological "horizontal" plane. This extension, and the inclusion of examples of non-human animals, is also inspired by recent proposals within biosemiotics (Tønnessen, 2023), and we conclude with some suggestions for how phenomenology can help establish a common ground for cognitive semiotics and biosemiotics.

Cognitive Semiotics and *Extended* Phenomenological Triangulation

Cognitive semiotics is indebted to the philosophy of phenomenology in many respects, such as the understanding of perception not as based on "mental pictures" or any other kinds of representations (signs) but rather on enactive processes, such as those proposed in ecological psychology (Gibson, 1979). Correlative to this are narrower definitions of sign use (signification) than is customary in Peircean semiotics, namely as a derivative form of intentionality, presupposing reflective consciousness to be able to grasp the representational relation between expressions (representamina) and intentional objects (Sonesson, 2010; Zlatev et al., 2020). A further insight, as stated in the introduction, is to view imagination and remembering as rather intermediary between these kinds of intentionality: like perception, being directed to the intentional objects, and not to representations; but like signitive intentionality, involving a type of bifurcation of consciousness into a "here and now" and "there and then" (Thompson, 2007; Sonesson, 2022).

But one of the strongest influences of phenomenology upon cognitive semiotics in the last two decades has arguably been methodological. In developing the

theoretical framework of the *Semiotic Hierarchy*, Zlatev (2009: 178) formulated the principle that cognitive-semiotic research was "predicated on a 'triangulation' of methods from the three perspectives, or what are usually called 'subjective', 'intersubjective' and 'objective' methods" and was initially illustrated as shown in Table 1.

This proposal was rather preliminary, and one can notice that even within "cells" the mentioned methods are rather heterogeneous; for example, "conceptual analysis" is a trademark of analytic (language-oriented) philosophy (e.g. Wittgenstein, 1953), while the other two first-person methods are clearly phenomenological. Nevertheless, there was something important about this classification, as it brought together academic approaches that are usually opposed, implying complementarity rather than antagonism. The inspiration came from linguistics – as such triangulation is required by the different ways in which the phenomenon of language is manifested: as language norms, interactions and behaviors. The respective roles and primacy of intuition, empathy and observation – the dominant modes of access corresponding to the three different manifestations of language listed above (Itkonen, 2008) – has been long debated. However, it is commonly recognized that they are not incompatible but complementary (Geeraerts & Cuyckens, 2007; Zlatev, 2011).

This principle was initially referred to as "methodological triangulation" (Zlatev, 2012), but this was a misnomer, as the latter only requests *two* kinds of methods or even data (e.g. Tashakkori & Creswell, 2007). Further, while these kinds of methods are often contrasted by being "qualitative" and "quantitative", this is not explicitly formulated in terms of the type of perspective (or viewpoint) the researcher takes on the object, and no priority of one type of method is presumed. Consequently, Pielli and Zlatev (2020) rephrased the principle as *phenomenological methodological triangulation*, and formulated it as follows:

> (…) begin the investigation by using first-person methods like phenomenological reduction and intuition analysis. This combines naturally with second-person methods like participant observation and interviews, which are grounded in empathy (e.g., Itkonen, 2008). Third-person methods, like experiments and computational modeling, are then ones where the relationship to the phenomenon is most distanced, and apparently "objective" by isolating aspects of the phenomenon that can be manipulated and quantified. (4–5)

Table 1 The first schematic presentation of the principle of phenomenological triangulation (from Zlatev, 2009: 178)

Perspective	Method	Appropriate for the study of
First-person	Conceptual analysis Phenomenological reduction Imaginative (eidetic) variation	Normative meanings, rules Perception Mental imagery
Second-person	Empathy Imaginative projection	Other persons (e.g. as in conversation analysis), [including] "higher" animals
Third-person	Experimentation Brain imaging Computational modelling	Isolated behaviors (e.g. spatiotemporal utterances) Neural processes

As can be noticed, there is now an explicit precedence (and hence methodological dominance) of the perspectives, from top to bottom, and "objectivity" is formulated as a form of *distance* or detachment: a view of a more or less anonymous "they", rather than the more involved first-person ("I") or second-person ("you") perspectives. This, of course, was why the terms "subjective" and "objective" were used in scare quotes from the start, as it is never a matter of "mind-internal" vs. "mind-external" objects and corresponding methods that are being triangulated, but once again, of different perspectives, with that of the researcher's own subjectivity as the starting point. Or as stated by Gallagher and Zahavi (2012: 99): "Phenomenologists remind us that our knowledge of the world, including our scientific knowledge, arises primarily from a first- and second-person perspective, and that science would be impossible without this experiential dimension." Given that phenomenology is not only a philosophy but also a methodology that focuses precisely on different intentionalities and perspectives, it was only natural for the label to be once again adapted, and simplified to *phenomenological triangulation* by Mendoza-Collazoz (2022: 19): "the primacy of first-person methods (e.g., intuition-based analyses) and at the same time triangulation with second-person methods (e.g., interviews) and third-person methods (e.g., experiments)".

A more substantial extension of the principle was proposed by Sonesson (2022), who noticed a certain ambiguity in the way the terms of the three levels were being used. On the one hand, it is a matter of differences in the *mode of access*: (a) in direct givenness to the researcher, (b) in dialogue between the researcher and the study participant, or (c) abstracted from these, with the pluses and minuses that this implies, as "accessed" by an impersonal community. This plane is essentially epistemological, and corresponds to the three levels as *perspectives*, as reflected in Table 1. However, Sonesson noticed, the phenomena under study are of different kinds, belonging to different ontological regions: (i) the self, (ii) other subjects, and (iii) "neutral" entities. Sonesson tried out different terms for these, including the three Peircean categories (Firstness, Secondness, Thirdness), but in his final publication on this matter (Sonesson, 2022), he used the notions of "ipseity", "dialogicality" and "neutrality". These are, however, about as difficult to define as the Peircean categories, and perhaps as deeply controversial.[3]

Hence, we propose formulating this ontological plane as the three *dimensions* of Self, Others, and Things, using capitals when we refer to these as such, to differentiate them from the everyday English words. Crucially, it is the intertwinement of these dimensions that is a fundamental insight of phenomenology, as argued by Merleau-Ponty (1962: 66, our emphasis):

> The first philosophical act would appear to be to return to the world of actual experience which is prior to the objective world, since it is in it that we shall be able to grasp the theoretical basis no less than the limits of that objective world, restore to things their concrete physiognomy, to organisms their individual

[3] Sadly, Göran Sonesson passed away soon after this publication. So we must both give credit to Göran for this idea of extending phenomenological triangulation, and to express regret concerning the impossibility to continue the discussion with him on how best to formulate it.

> ways of dealing with the world, and to subjectivity its inherence in history. Our task will be, moreover, to rediscover phenomena, the layer of living experience through which other people and things are first given to us, *the system 'self-others-things' as it comes into being*.

As we elaborate in the next section, it is crucial to be able to distinguish, but to not dichotomize (or trichotomize) these dimensions, as they are fundamentally indivisible aspects of the (human) life world as a whole; when we turn our attention to one, we find ourselves necessarily intermingled with the others (Hass, 2008; Zahavi, 2019). Yet, by distinguishing them as in Table 2, we can clarify how they play out differently in terms of different (prototypical) methods. Starting with the fundamental first-person perspective of phenomenology emphasized in the quotation above: in reflecting on the Things of the life world, we see them as correlates of the *noetic* acts that we direct toward them as *noemata*, rather than as just "things out there", as we do when in our default, so-called, natural attitude. This is the essence of the famous phenomenological reduction: "In the natural attitude we head directly to the object; we go directly through the object's appearances to the object itself. From the philosophically reflective stance, we make the appearances thematic. We look *at* what we normally look *through*" (Sokolowski, 2000: 50). But in doing so, we are drawn to our own consciousness, and explore it in acts of reflection. At the same time, or perhaps even prior to this, developmentally speaking (see section "Triangulating Ontologically from a First-Person Perspective"), we *perceive* (rather than "infer") at least some of the intentionalities of other subjects through spontaneous, bodily-grounded empathy.

So far, we conduct the investigation using a fundamentally first-person, philosophical (and transcendental) perspective. But we may go on from this to a more empirical and carefully controlled form of investigation involving other researchers and participants, as in the social sciences. This, of course, does not imply leaving the philosophical first-person perspective, but rather complementing it with that of a more balanced viewpoint, where I treat my participation in the study on a par with that of other subjects. As we exemplify in section "Extending the life World with a Second-Person Perspective", now we can deepen our self-understanding by taking the perspective of an (empathetic) Other, as, for example, in psychotherapy. Alternatively, we turn our attention to the experiences of another person, as in a (qualitative) interview: a paradigmatic second-person method. Or compare our (still qualitative) observations of Things – for example of behavioral patterns – to establish descrip-

Table 2 Extended phenomenological triangulation along two planes: the three kinds of perspectives of the vertical level, and the three kinds of ontological dimensions on the horizontal, with example methods that are only prototypical and not exclusive for each cell, as we explain in the following sections

Dimension	Self	Others	Things
Perspective			
First person	Reflection	Empathy	Phenomenological reduction
Second person	Psychotherapeutic dialogue	Interview	Intersubjective validation
Third person	"Third-person data" analysis	Psychological experiment	Causal explanation

tions that can be claimed to be intersubjectively valid, and thus counter objections that they are "merely subjective".

Finally, we may go down even one more layer of "objectivity" to a third-person perspective, the hallmark of which is that it operates with formalizations and quantitative analysis. The degree of detachment to the phenomenon is now maximum, giving the impression that we are dealing with perspective-less "facts". But both theoreticians and practitioners of science are aware that this is an idealization: no matter if what we are "explaining" is ourselves, other persons or even the (inanimate) universe, the perspective of the previous two levels are at best backgrounded, not reduced away (Zahavi, 2010; Gallagher, 2018). So when (some) hard-nosed scientists wish to reduce "humans" to neuro-chemical mechanisms and, for example, to explain away agency as "illusional" (Wegner, 2018) they in fact indulge in self-deceiving "neuromania" (Tallis, 2011).

The point of our argument, however, is not so much to be critical but conciliatory, showing that while cognitive-semiotic research may follow phenomenological triangulation *explicitly*, various forms of it are performed *implicitly* in many other fields, even at the frontiers of modern science such as genetics and quantum physics, albeit not systematically. There is an added theoretical and methodological value, we claim, in actually spelling out the dimensions and perspectives and their various possibilities of combination. Table 2 presents this crossing of the ontological dimensions and the epistemological perspectives in a schematic way, with prototypical methods, in each cell, which we discuss in the following sections.

The reader should read each of the following three sections with the schema in Table 2 in mind, with each section adding one more layer to the one above.

Triangulating Ontologically from a First-Person Perspective

In one of the many forceful statements in the preface to *The Phenomenology of Perception*, Merleau-Ponty writes that "we shall find in ourselves, and nowhere else, the unity and the true meaning of phenomenology" (1962: xii). This highlights the fundamental role of (embodied) subjectivity but can be misinterpreted as closing oneself off from the world. Indeed, phenomenological reduction is sometimes claimed to be nothing but unreliable "looking into" the private corners of our minds, an "introspectionist bit of mental gymnastics" (Dennett, 1987: 153). But this, as we indicated in the first lines of this paper, is to misunderstand phenomenology completely, as its foremost aim is precisely to appreciate the carnal richness of the world. For example, in looking out through the window, one of us at the moment of writing this sees snow-covered fields in shades of blue shadow from the afternoon sun, with layers of multi-colored clouds in the sky; a few houses and trees in the distance, and a couple walking with their happy dog on the slippery path… These are all "things" in the life world. They are "given to", or disclosed by consciousness, but not inside it, as "in a box", as Husserl would say. Zahavi (2019: 58), formulates this intertwining of immanence and transcendence eloquently:

> Subjectivity is essentially oriented and open toward that which it is not, and it is exactly in this openness that it reveals itself to itself. What is disclosed by a phenomenological reflection is, consequently, not a self-enclosed mind, a pure interior self-presence, but an openness toward otherness, a movement of exteriorization and perpetual self-transcendence.

There is, in other words, a fundamental "symbiosis" between us and the world, one that is to some degree paradoxical, and impossible to capture in the dichotomous language of "subject" and "object". On the one hand, the Things that we reach out to are not independent of our own bodily experience – as the example above illustrates: the colors, the joyful movements of the dog, the careful ones of the walking couple, etc. While we *constitute* intentional objects, in the phenomenological sense of "bring it to light, to articulate it, to bring it forth, to actualize its truth", as clarified by Sokolowski (2000: 92), it is also the case that "phenomenology insists that identity and intelligibility are available in things, and that we ourselves are defined as the ones to whom such identities and intelligibilities are given. We can evidence the way things are" (ibid.: 4).

It is exactly this symbiotic relation between Self and Things that phenomenologists try so hard to articulate, as one of the first goals is "to liberate us from our natural(istic) dogmatism and make us aware of our own constitutive involvement, of the extent to which we are all involved in the process of constitution" (Zahavi, 2019: 38). Zlatev and Konderak (2022) attempt to illustrate this as in Fig. 1, schematically displaying *intentionality* as pointing away from the subject, towards the (objects of the) world, and the flip side of the coin, *semiosis* (understood as meaning-making in general, and not as sign use in particular), pointing backwards.

But as all representations, this does not do full justice to the richness of the phenomenon that is being represented. First, displaying intentionality as an arrow as customary, lends itself to the terminology of "projection", which as we showed in the introduction is problematic. The broader understanding of intentionality as "openness to the world" (*l'ouverture au monde)* (Merleau-Ponty, 1968: 37) is in this

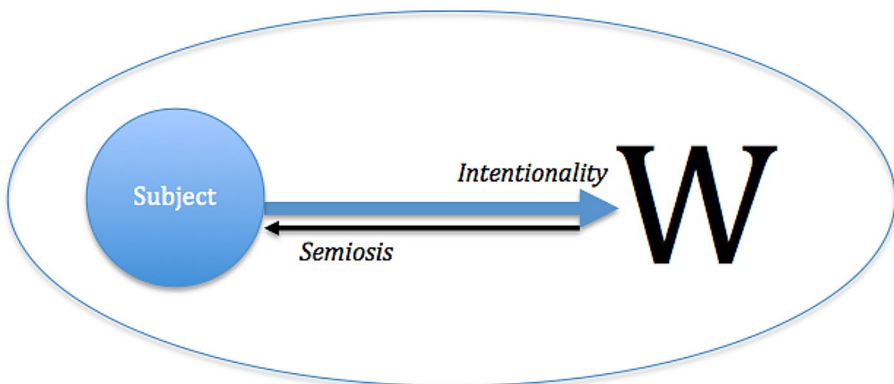

Fig. 1 The symbiotic relationship between Subject and World, with intentionality directed "outward", and semiosis (meaning-making, interpretation) "inward", as represented in a cognitive semiotics diagram (from Zlatev & Konderak, 2022)

respect more satisfactory, as it implies “beneath the intentionality of representations, of a deeper intentionality, which others have called *existence*” (Merleau-Ponty, 1962: 140). This includes layers of intentionality/semiosis that we are only marginally conscious of, as they are manifested not so much in our thoughts, but in our bodily comportment in the world, and very often are not even directed toward particular objects, as exemplified by Thompson (2007: 23):

> Many kinds of everyday experience, however, are not object-directed. Such experiences include bodily feelings of pain, moods such as undirected anxiety, depression, and elation, and absorbed skilful activity in everyday life. These activities are not or need not be “about” any intentional object.

Since we become the embodied subjects that we are as a result of all such conscious, semiconscious, and even unconscious intentional acts, it is more appropriate to label the relationship in Fig. 1 as *co-constitution*. A second reason why the figure is not optimal is because the (life) world is not what we are primarily directed to, or even open to, but the horizon of all Things as well as the Others that are embedded in it – at the same time that they (paradoxically) participate in its constitution. A third aspect of what is potentially misleading with Fig. 1 illustrating the co-constitutive, intertwined, “chiasmic” relationship between subjectivity and objectivity, is the representation of the “monadic”, transcendental Subject – while as stated repeatedly, and as captured by the notion of ontological triangulation that we are here explicating, the symbiotic “system” involves Self, Things and *Others*. Such other subjects are fundamentally different from inanimate objects, or “things” as the term is ordinarily understood; in this respect, English and many other human languages are true to this basic experiential-ontological fact: “the second person” as a grammatical category distinguishes “you” from “I”, and in the third person, while many languages, for example Thai, do not distinguish “he” and “she”, they separate these pronouns from “it”.

As mentioned in the “Introduction”, the Self-Other relation is not only ethical but also ontological-epistemological. Husserl even goes so far as to state that if it were not for the “foreign subjectivity” of others we would not be able to escape solipsism: “Here we have the only transcendence that is genuinely worthy of its name, and everything else that is also called transcendent, such as the objective world, rests upon the transcendence of foreign subjectivity” (Hua 8/495, cited by Zahavi, 2003: 115).

A simple illustration of this is the certainty with which we “apperceive” the sides of physical objects that we cannot see from our present viewpoint. To some degree this is due to our embodiment, resulting in perception being dynamic and always interlinked with motility, in rich multi-sensory perception crucially involving kinaesthesia. But this is not ultimately sufficient to account for our experience of the transcendence of physical objects, as they contain automatic references not only to how I would be able to see them from another place and time, but how *Others* would do so – at this very moment: “I appreciate the object as so transcending my own viewpoint: I see it precisely as being seen by others and not just by me” (Sokolowski, 2000: 153).

But for such *transcendental intersubjectivity* to be possible, the Others must be simultaneously differentiated from Things on the one hand, and from the Self, on

the other hand. The essential component for achieving both conditions is *empathy*. Husserl, as well as Merleau-Ponty, understands this special form of intentionality as fundamentally rooted in a key characteristic of our embodiment, involving the intermixing of two different perspectives: "My body is given to me as an interiority, that is, as a volitional structure and a dimension of sensing (…), as well as a visually and tactually appearing exteriority. (…) [I]n both cases I am confronted with my own body" (Zahavi, 2003: 103). The first aspect is usually referred to with the German term *Leib*, while the second with the term *Körper*. As living, experiential bodies, we are existentially aware of this duality from the time we are born – though its dialectic undergoes development, not without thresholds, and sometimes traumas. A basic phenomenological insight is then that it is our universal *Leibkörper* nature that makes intersubjectivity possible: "I am experiencing myself in a manner that anticipates both the way in which an Other would experience me and the way in which I would experience an Other… The possibility of sociality presupposes a certain intersubjectivity of the body" (ibid.: 104).

When we touch one of our hands with the other, as in the famous example of "double sensations", we oscillate between the two perspectives not unlike as when we are presented an ambiguous image such as the Necker Cube: is it the right hand that is touching the left, or is it the left that feels being touched by the right? The way that our own selves are given to us both as immanent and as transcendent, and we pass more or less seamlessly from one to the other, is analogous (but not identical) to how we experience other subjects. Due to this, we do not need a "theory of mind" or "simulation" to perceive foreign subjectivity (Gallagher, 2012), but at least in some, and arguably the most fundamental, cases we *perceive* (rather than infer, imagine or interpret) this directly:

> For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow and pain in tears, with his shame in blushing, with his entreaty in his outstretched hands (…). If anyone tells me that this is not "perception", for it cannot be so, in view of the fact that a perception is simply a "complex of physical sensations" (…), I would beg him to turn aside from such questionable theories and address himself to the phenomenological facts. (Scheler, 1954, cited in Gallagher, 2005: 228)

Importantly, this type of empathy extends naturally beyond the perception of other people to at least animals, as originally argued by Hans Jonas in *The Phenomenon of Life* (1966). Recently there appears to have been a debate in the literature on whether Jonas' phenomenology succumbs to accusations of anthropomorphism (or even dualism), but we are in agreement with the clear defenses and explications offered by Hverven and Netland (2021: 327) that Jonas grounds his phenomenological analyses on the basis of "direct encounters" with non-human Others: "Experience of the reality of nonhuman others (and human others, for that matter) depends on encoun-

ters with these others, in which their "insistence on themselves" as purposive, living beings is "affectively felt".[4]

It is easiest to exemplify this with animals that we are familiar with, and especially domestic animals. So if we return to the example of a few pages back, we can say that we are phenomenologically justified not only to use the term "perception" with respect to the careful movements of the people due to the slippery ice-covered path, but also for the happiness of the dog, expressed in the joyous jumps and playfulness. Importantly, however, we do not experience foreign subjectivity, either human or animal, in the same way as our own: it is a question of *likeness* rather than *identity* (Hverven & Netland, 2021). This is in fact essential for the second fundamental feature of empathy (as opposed to some more primitive forms of self-other interaction such as contagion): the perception of the other precisely as Other, rather than as a projection of myself:

> (…) we are dealing with a subject-subject relation insofar as the Other is experienced in its subjective inaccessibility. It is essential (…) that it involves an *asymmetry*. There is a difference between the experiencing subject and the experienced subject. But this asymmetry is a part of any correct description of intersubjectivity. Without asymmetry there would be no intersubjectivity, but merely an undifferentiated collectivity. (Zahavi, 2003: 114)

Once again, this non-reducibility of the Other to the Self is essential not only for providing "a correct description" as Zahavi notes, but as the necessary basis for the kind of ontological triangulation that is needed to co-constitute the life world. And as indicated above, this does not need to be a life world limited to human beings, since it is indisputable that we have subject-subject relations with at least some other animals as well. For example, all dog-owners will recognize the spontaneous acts of sorrow in separation, joy in reunion and companionship, and care in many potentially dangerous situations like swimming, expressed by our animal friends. While skeptics would cry "anthropomorphizing" and "projecting", we could with Scheler beg them to rather turn to "the phenomenological facts". Sokolowski (2000: 46) manages to formulate a particular touching illustration of a universal experience that captures the intertwinement between ourselves and others, and the world as a whole: the experience of grief and mourning.

> Since we live in the paradoxical condition of both having the world and yet being part of it, we know that when we die the world will still go on, since we are only a part of the world, but in another sense the world that is there for me, behind the things I know, will be extinguished when I am no longer part of it. Such an extinction is part of the loss we suffer when a close friend dies; it is not just that he is no longer there, but the way that the world was for him has also

[4] We are very grateful to an anonymous reviewer for pointing out this recent paper to us, as it helped clear up some of our own ambivalence about Jonas' work. Hverven and Netland (2021) point out some residual aspects of anthropomorphism in Jonas' argumentation, as well as directions in which they could be resolved, with focus on "likeness" rather than identity between Self and Others, and applying this to both human or non-human others.

> been lost for us. The world has lost a way of being given, one that has been built up over a lifetime.

This can help explain the grief that one of us feels after more than a year since the passing of a beloved dog: there is more than missing the security of habits like morning walks and other routines, or the selfish gratification of being the "master" (though these could be part of the experience as well). While all sentient non-human animals have different ways in which the world is given to them, with domestic animals we can experience this, and thus its loss when it is permanently gone. Perhaps not as much as family members or close friends, but nevertheless. And arguably both the presence and the absence of this subjectivity is still best captured by the rather outmoded word "soul".[5]

Extending the Life World with a Second-Person Perspective

The kind of extension of the life world based on the triangulation between Self, Others and Things that we discussed in the previous section is in a philosophical sense transcendental, and has *intuition* as its ultimate criterion of validity: "what is given or accepted as evidence must be actually experienceable within the limits of and related to the human experiencer" (Idhe, 2012: 9). But it is also possible to extend the scope of the investigation – and thus of the life world – by *explicitly* taking into account a perspective where you and I meet on the same level: a methodological second-person perspective. As pointed out by Sonesson (2009: 127), this poses no contradiction: given that phenomenology is fundamentally "a method of description, it should be considered an empirical method". In fact, a considerable amount of Husserl's work was dedicated to the possibility of a phenomenological approach to psychology as an alternative to the dominant at the time (and still so) physicalism, thus pioneering the development of *phenomenological psychology* (Gurwitsch, 1966; Spiegelberg, 1975; Scanlon, 1976). Such phenomenologically grounded investigations differ from the objectivism of mainstream psychology since:

> the question is how (…) persons comport themselves in action and passion—how they are motivated to their specifically personal acts of perception, of remembering, of thinking, of valuing, of making plans, of being frightened and automatically startled, of defending themselves, of attaching, etc. (Husserl, 1970: 317)

By foregrounding experience and meaning, phenomenological psychology does not aim at identifying causal factors and corresponding explanations. The goal is rather "to investigate intentional consciousness in a non-reductive manner, i.e., in a man-

[5] Of course, not in any dualistic sense, but rather in the sense intended by Jonas (1966: 57): "Thus, after the contraction brought about by Christian transcendentalism and Cartesian dualism, the province of "soul," with feeling, striving, suffering, enjoyment [, can be] extended again, by the very principle of continuous graduation, from man over the kingdom of life".

ner that respects its peculiarity and distinctive features" (Zahavi, 2019: 118). Such an approach recognizes that lived experience is complex, paradoxical, imbued with meaning, and goes beyond the premise that one explanation could account for the phenomenon under scrutiny.

Most forms of psychotherapy, and especially those that are phenomenologically informed (Binswanger, 1963; Moustakas, 1988; May, 1990) presuppose a second-person approach. As indicated in Table 2 in section *"Cognitive Semiotics and Extended Phenomenological Triangulation"* the focus here is on the Self dimension, since despite all differences between various kinds of practices, a common denominator is that the client is to obtain insights into their existential condition. This implies a joined sense-making process, where one attends to the Self through the Other, using the space that is created between them to unravel their experiences and to go deeper, palpate different paths and explore different interpretations, which could often be conflicting. The therapist should be typically more passive in the process, as pointed out by Maslow (1996: 13):

> Slowly and painfully we psychologists have had to learn (…) to wait and watch and listen patiently, to keep our hands off, to refrain from being…too interfering and controlling, and—most important of all in trying to understand another person—to keep our mouths shut and our eyes and ears wide open.

Unlike the practice of psychotherapy, in disciplines that incorporated ideas from phenomenology like sociology (Schutz, 1932; Garfinkel, 1967) and psychology (Katz, 1935; Straus, 1935), the focus has been more explicitly on the experiences of *other* human beings. More recently, a number of qualitative phenomenological approaches such as Micro-Phenomenology (Petitmengin, 2006), Phenomenological Psychology (Giorgi, 2009), Interpretative Phenomenological Analysis (Smith et al., 2009), the Existential Hermeneutic approach (van Manen, 1990), and the Phenomenological Interview (Høffding & Martiny, 2016) have been developed. Some of these were motivated by a crisis in psychology around the 1970's when the mainstream was perceived to be of "*a-historical/a-cultural, essentialist, dualist and scientistic nature*" (Langdridge, 2007:154, emphasis in original). Despite their diverse character, and criticism on the degree to which some of these approaches are consistent with phenomenological philosophy (Zahavi, 2019, Chap. 10), they have made an important contribution to understanding human experience from a methodological second-person perspective. Their main method is that of a phenomenologically informed *interview*, combined with participatory or non-participatory observation. A key element is to regard the mind of the other not as something internal and hidden that needs to be brought to the surface, but as immanent in the interaction, and expressed both verbally and non-verbally, with irreducible reciprocity. As stated by Zahavi (2005: 12): "On such an account, the second-person perspective involves a reciprocal relation between you and me, where the unique feature of relating to you as you is that you also have a second-person perspective on me, that is, you take me as your you".

In accordance with this, the phenomenological interview does not involve a rigid methodology or an established protocol, but rather stresses the reciprocal nature of the encounter between two subjects, and the co-generation of knowledge (Høffding

& Martiny, 2016). Here the roles of Self and Other are almost equally active in the process: the participant provides what is aimed for (e.g., the description of a lived experience), and the researcher engages in the interaction to facilitate it. In that sense, the knowledge produced is co-generated, since it is – to a large extent – defined by the dynamics between the participants in the encounter. Naturally, this implies the researcher's active presence and a holistic understanding of what is being communicated or observed, accounting for all possible meaning-bearing elements (e.g., bodily expressions, prosody, etc.). In the words of Varela and Shear (1999: 10), the role of the researcher:

> (…) is not that of a neutral anthropologist; it is rather of a coach or a midwife. His/her trade is grounded on a sensitivity to the subtle indices of his interlocutor's phrasing, bodily language, and expressiveness, seeking for indices (more or less explicit) which are inroads into the common experiential ground.

Validating the findings of such studies also essentially involves intersubjective, second-person practices such as eliciting "the phenomenological nod" (Munhall, 1994) as an expression of resonance, turning back to the participants for validating the outcome, and engaging in collaborative dialogues with research groups and peers in different stages of the process. In some cases, especially when more directly observable aspects of the interaction are concerned, like words and gestures – what would count as Things on this level of phenomenological triangulation – it is also possible to establish coding protocols and annotation schemes. But as noted by Stec (2015: 61), this is:

> a process which involves watching the data, creating and piloting an annotation scheme with multiple passes through one's data, improving that scheme as one makes new observations or encounters unexpected difficulties, implementing it and obtaining (if desired) measures of inter-rater reliability. However much we would like annotation schemes to be "objective" measures (…), they reflect theoretical choices and interpretations at every step of the way.

This is why we include *intersubjective validation* as the aspect of the second-person perspective that most directly addresses "Things" in Table 2. They are still (co-) constituted in experience as in the first-person perspective, but now from a more distanced approach, extending both the scope of the inquiry, and of the correlative life world.

Is it also possible to extend this beyond *human* experience, as we did for the first-person perspective in section "Triangulating Ontologically from a First-Person Perspective" with the co-constituting experience of animal Others? Standard comparative psychology, focusing on animal behaviors in laboratories in specifically designed experiments would, of course, say "no". Even most ethologists, with their focus on animal behavior in natural conditions, usually have the ideal of a third-person, "objective" observation as in the natural sciences, and are suspicious of any kind "anthropomorphizing" that would inevitably result if researchers would interact with animals on a more reciprocal level.

Interestingly, it was exactly such an environment involving close interactions between people, bonobos and chimpanzees that led to one of the breakthroughs in attempts to communicate with non-human animals through a basic form of language (Savage-Rumbaugh & Lewin, 1994). As often recalled (e.g. Deacon, 1997), the infant bonobo Kanzi "passively" participated when his adoptive mother Matata unsuccessfully took part in traditional, behaviorist-inspired attempts to teach her the basics of a language, and to everyone's surprise, later showed that he had learned much in the process. What followed was that Kanzi, and then other apes in the facility, started to communicate with their human interactants spontaneously, and made progress without explicit teaching protocols, but through improvised interactions, quite similar to how we interact with children. According to Segerdahl et al. (2005: 20), what allowed this was that:

> Kanzi already shared perspective with his human companions when his language developed. His linguistic development deepened the shared perspective – what we now call the intermediary Pan/Human culture – but language was not a prerequisite for a shared way of living. It was the other way around.

While not unique for this research group, their strong emphasis on a reciprocal relation between human beings and animals, within the limits that are possible, has been something of a trailblazer. They received much criticism at the time from both psychologists and linguists, but with their at least implicitly phenomenological (and for Segerdahl explicitly informed by the philosophy of the later Wittgenstein) approach, they seem to have been ahead of their time, for example by stating: "The moral relation to the apes must be the overriding factor of the work, its first principle, which means that apes allowed to affect us, just as we affect them: the emerging Pan/Homo culture is an intermediary form of life" (Segerdahl et al., 2005).[6]

Extending the Life World with a Third-Person Perspective

In one critique of phenomenology applied in psychology, Paley (2017: 30) argues that we should aim to "explain, theorise, model, test, hypothesize, evaluate, infer, simulate" human experience rather than to just describe it, and this requires a proper scientific approach. But as Zahavi (2019) points out, this criticism completely misses the mark, since phenomenology was never meant to replace natural scientific investigations, but rather to place these in their proper place: as a special type of activity involving embodied human beings and the social institutions that they participate in. As stated once again forcibly by Zahavi (2010: 2): "Scientific objectivity is something to strive for, but it rests on the observations and experiences of individuals; it is knowledge shared by a community of experiencing subjects and presupposes a triangulation of points of view or perspectives".

[6] This can be sadly contrasted with the killing of three chimpanzees and wounding a fourth in an incident that occurred in Sweden over a year ago. www.theguardian.com/world/2022/dec/14/three-chimpanzees-shot-dead-after-escape-from-swedish-zoo.

In our framework of phenomenological triangulation, the standard scientific approach fits nicely as the third-person epistemological perspective: a view not "from nowhere", but belonging to the "they" of the scientific community. Further, this is not a single monolithic view, as it is made up of multiple ones belonging to different researchers and different theoretical frameworks. As reflected in Table 2, the focus here is primarily on Things, and the usual aim is to produce causal explanations. Natural science has made great progress over the past century, from the understanding of (some of) the "building blocks" of matter and life, to technological and medical applications of these discoveries that are altering our everyday lives – for better and for worse. But it has suffered from hubris in several ways. The first is that mentioned above: the mistaken belief that it can be fully objective ontologically (by claiming to study "reality as it is") and epistemologically (by representing a "view from nowhere"). Even at the time when Husserl (1936) wrote *Crisis of the European Sciences*, these views were already becoming discredited, and the issue was how not to lapse into the opposite extreme of relativism. More troublesome today is another fallacy: to treat other subjects, and even ourselves as "things"! That is, to embrace one or another form of extreme "naturalization", where both subjectivity and intersubjectivity is claimed to be "in principle" reduced away:

> There is only one sort of stuff, namely *matter* – the physical stuff of physics, chemistry, and physiology – and the mind is somehow nothing but a physical phenomenon. In short, the mind is the brain. According to materialists, we can (in principle!) account for every mental phenomenon using the same physical principles, laws, and raw materials that suffice to explain radioactivity, continental drift, photosynthesis, reproduction, nutrition and growth. (Dennett, 1991: 33)

As phenomenologists of science like Romdenh-Romluc (2018) would argue, it is rather the other way round: "physical principles, laws, and raw materials" are in fact constituted intersubjectively through the interactions of researchers. At the same time as scientists aim, as they should, to leave aside their individual biases and not to allow their prior expectations to determine how they conduct their studies and analyze the results, when they interpret these results, they often need to make "abductive" leaps that help unite the individual findings in a coherent, meaningful explanation:

> Not only should scientists studying human existence aim to discover the essences of experience via a sort of insight, this is *in fact* what *all* scientists – including those studying human existence and those studying the natural world – are already doing. (…) [A] law of nature is an essence or meaning that unites disparate experiences. (ibid.: 355-6)

This is in fact how (ethically conducted) experiments with both human and animal subjects are justified. For example, one study showed that 18-month old and 24-month old Swedish children, and four chimpanzees (including some of those killed in the incident mentioned in footnote 6) were at chance level when they were given prompts on where to find a reward using photographs or 3D models; at the same time, they

managed much better when given indexical cues like points and post-it markers, while 30-month children could benefit from the iconic signs (Zlatev et al., 2013). However, as the authors show, there are several possible explanations of this finding, and it is hard to say which one is preferable.

To what extent can the third-person, natural-scientific perspective give any insights on the Self, and not in the generic sense, but in the subjective qualities of my own, ontologically first-person, subjective experiences? This is where natural science, and neuroscience has been at its weakest, and has often succumbed to "neuromania": a term used for over-enthusiastic but simplistic appeals to neuroscience in the humanities and social sciences (Tallis, 2011).[7]

But Varela (1996) and other neuro-phenomenologists have shown how it is possible to carefully correlate the data from neuroimaging experiments with the subjective reports of the participants, especially when the latter are taught to be observant of their experiences. Such studies have provided fruitful results, sometimes calling for re-examining some phenomenological analyses, and providing more detailed descriptions, showing the potential for "mutual illumination" (Gallagher, 1997; Thompson, 2007) between phenomenology and (neuro)biology.

So once again, with time and when it is successful, science extends the pre-scientific life world, without abandoning the ground from which it springs from. This is how Husserl conceived of the relationship between the pre-theoretical and the scientific levels of the life world, at least in some of his writings. Or, as stated by Zahavi (2019: 51–52): "It would be wrong to conceive of the relation between the lifeworld and the world of science as a static relation. Science draws on the lifeworld, but it also affects the lifeworld, and gradually its theoretical insights are absorbed by and integrated into the latter".

But while indispensable for natural science, and for the social sciences and the humanities when they aim at causal theories supported by quantitative measurements, the conclusion from phenomenological triangulation is that they "come third" – only after the first-person and the second-person perspectives, as our schema in Table 2 shows. As we mentioned in section "Cognitive Semiotics and Extended Phenomenological Triangulation", studies which "start from the bottom", or even claim to be limited to it, have already used the first-person and second-person perspectives implicitly. If not, they would be blind as to what they are studying, and unethical towards their participants.

To round off this section with how non-human subjectivity can be investigated on this level, we can once again take the case of domesticated and self-domesticated animals. The origins of language, and more generally the capacity to communicate with (true) signs as opposed to signals (cf. Zlatev et al., 2020) is actively researched, but continues to be an unresolved mystery. One of the key puzzles has been how to account for the emergence of the kind of *pro-sociality* that is necessary to support the altruistic sharing of information between individuals that sign use implies, in

[7] The problem of reductionism in cognitive science is also addressed by Gallagher (2018), who argues that it is a byproduct of a dated conception of "nature". However, understanding the latter in more inclusive ways, informed by both phenomenology and pragmatism, would frame the issue of "naturalizing phenomenology" in a new light, see also Zahavi (2010).

the face of the constraints posed by the "selfish gene" (Dawkins, 1976) principle of evolution, according to which the only features that spread in a population are those that promote the spread of their underlying genes. A recent proposal to solve the apparent paradox of the evolution of altruistic behavior (especially beyond "kin", i.e. genetically closely related individuals), is the so-called "self-domestication hypothesis", proposed by Hare (2017). According to this, human beings, bonobos and possibly also elephants, have undergone spontaneous selection for features that are quite unusual in the animal world, such as:

> (i) reduced aggression (…); (ii) socially sensitive cortisol levels, which are regarded as a reliable biomarker of altered stress responses and changes in the management and control of aggression; (iii) extended juvenile period and enhanced play behavior, as domestication usually results in neotenic features with child-like behavior favoring many of the processes associated with social learning; and (iv) sophisticated communication systems. (Raviv et al., 2023: 3)

Such a hypothesis and correlation of data across different domains could obviously only be formulated from the third-person perspective of science. But at the same time, we can note that the formulation above includes notions like "aggression", "play", "child-like behavior", and especially "sophisticated communication systems", which are not observable in any naturalistic sense. Rather, they presuppose both prior first-person, and second-person understanding of these phenomena. And in the process of theory-formation and further exploration, abductive, insight-like leaps will necessarily be required, in accordance with the argumentation of Romdenh-Romluc (2018), as we explained earlier.

Conclusions

Typical approaches within cognitive semiotics (e.g. Zlatev, 2012) and biosemiotics (e.g. Kull, 2015) may differ substantially in how they define basic notions like sign and semiosis, but they also strongly cohere by emphasizing the fundamental role of *subjectivity* in meaning-making, and its role in co-constituting the everyday world: von Uexküll's *Umwelt* and Husserl's *Lebenswelt*. As argued by Tønnessen (2023), there are also significant overlaps in methodology between the two traditions, by adopting, explicitly or implicitly, the principle of phenomenological triangulation.

While cognitive semiotics, grounded as it is in Husserlian phenomenology, necessarily departs from *human* experience, we have discussed how it should not be understood as limited to such experience. That is, it is not anthropocentric. The life world that we exist in is co-constituted by the interactions between Self and Things, with the necessary mediation of Others. And the latter can be non-human, as well as human subjects. By extending the concept of phenomenological triangulation along two planes, the ontological and the epistemological, we have tried to show how both human and non-human subjectivity can manifest on the philosophical first-person perspective, the psychological second-person perspective, as well as on the natural-scientific (e.g. biological) third-person perspective.

We exemplified with domestic and (self) domesticated animals, since they are closest to us, psychologically and experientially, and it is easiest to step beyond the human life world with their help. But there is no reason to stop there, and one can, with appropriate encounters, continue the process of extension far beyond, for example to octopi, as shown in the wonderful documentary *My Octopus Teacher* (Ehrlich & Reed, 2020). The important constraint is that we cannot just "postulate" non-human subjectivity on theoretical principles. Rather, we need to experience it in intersubjectivity: ontologically on the first-person perspective level, and methodologically on the second-person level. From then on, we can go on and produce scientific explanations of animal minds from the third-person perspective of science, analogously to how we do so with ourselves, with the help of the most recent developments in neuroscience and technology. The classical work by Jonas (1966), and perhaps even more so some of its current interpretations and elaborations (e.g. Hverven & Netland, 2021), suggest fruitful ways in which these lines of inquiry can be further pursued.

The main difference is that when we apply this approach to ourselves, we can triangulate such causal explanations with subjective experience on the first-person level, or the reports of participants on the second-person level, as in Varela's neurophenomenology. It is much harder to do so with non-human animals, since they can alas not *describe* their first-person experience, either for themselves or for us – because they lack language. So even for this reason, a breakthrough in linguistic communication with animals such as the one we described in section "Extending the life world with a second-person perspective" would have immense significance. Yet even in its absence, this would not absolve us from the need for an ethical relation to animal Others, and especially towards those whose lives are totally dependent on us. For these and similar reasons, we anticipate further rapprochement between cognitive semiotics and biosemiotics.

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