Husserl on Minimal Mind and the Origins of Consciousness in the Natural World

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Abstract
The main aim of this article is to offer a systematic reconstruction of Husserl’s theory of minimal mind and his ideas pertaining to the lowest level of consciousness in living beings. In this context, the term ‘minimal mind’ refers to the mental sphere and capacities of the simplest conceivable subject. This topic is of significant contemporary interest for philosophy of mind and empirical research into the origins of consciousness. I contend that Husserl’s reflections on minimal mind offer a fruitful contribution to this ongoing debate. For Husserl, the embodied character of subjectivity, or consciousness, is essential for understanding minimal mind. In his view, there is an a priori necessary constitutive connection between the subjective and objective aspects of the body, between Leib and Körper, and this connection is especially important for exploring minimal mind from a phenomenological perspective. Thematically, the essay has three main parts. In Sect. 2, I present an overview of how minimal mind is framed in contemporary philosophy of mind and empirical research. I then analyse Husserl’s conception of embodiment with regard to the problem of minimal mind in Sect. 3. Finally, I present a more detailed investigation into Husserl’s account of minimal mind, highlighting features from his descriptions of animal mind and consciousness in early infancy (Sects. 4 and 5).

1 Introduction
Throughout Husserl’s entire career, ‘the mystery of subjectivity’ was the central problem of his philosophy (Husserl, 1976:3; Moran, 2000: 60). His work set out to understand the essence of subjectivity, where subjectivity is understood as consciousness. According to Husserl, consciousness has several different layers and
forms, of which a fully mature, rational, and responsible human mind—capable of highly sophisticated conceptual thought—is the highest and most developed form. In his various works and numerous research manuscripts, Husserl took up different approaches to render the deepest layers of consciousness accessible in a phenomenologically legitimate manner. The fundamental level of consciousness—that is, the line which separates conscious mental states and actions from the unconscious—and the border which divides conscious living beings from the non-conscious are limit cases which pertain importantly to the essence of consciousness in general. In this article, I focus on Husserl’s various attempts to disclose the lowest conceivable level of subjectivity and to explore how the mental life of the simplest conscious organisms might be rendered phenomenologically accessible.

In Husserl, we can find two fundamental approaches to exploring the deeper layers of subjectivity: self-reflection (wherein the philosopher reflects on her own consciousness) and intersubjective constitution (wherein the philosopher reflects on other ostensibly ‘less evolved’ minds). In the former approach, Husserl’s method chiefly involves ‘dismantling-deconstructing’ (Abbau)—carefully attempting to abstract higher layers from experience in order to make the lower levels accessible. The second approach thematizes ‘lower level’ subjects—such as animals and children—as anomalous agents who motivate empathy that constitutes them as conscious beings within the philosopher’s lived experience, despite their respective differences. Amongst these anomalous subjects, there are some who differ in the extreme, at least from the perspective of a mature rational subject, and could be regarded as examples of the simplest conceivable minds—such as invertebrate animals and embryonic consciousness. The key question concerns how far it is possible for phenomenologically motivated empathy to conceive these subjects as subjects.

Husserl’s theory of embodiment is also highly relevant to any inquiry into the limits of subjectivity. First, according to Husserl, embodiment is an a priori necessary structure in the self-constitution of the ego. In other words, concrete personal subjectivity cannot be constituted without the bodily character of existence (e.g. Husserl, 2012: 380); and embodiment fundamentally affects every layer of mental life. Second, again following Husserl, the constitution of concrete intersubjectivity is founded through embodiment. I am only capable of grasping another subject’s body as the living sensing body of an experiencing person because there is an essential constitutive similarity between my body (as a concrete unity of subjective and objective aspects, as Leib and Körper) and the body of other subject. Empathy is principally motivated by this structural similarity between my body and this other body.

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1 Unconsciousness is a key problem for phenomenology in general, and it was discussed at length by Husserl. A full review of this issue, however, exceeds the scope of this present study.
2 Husserl understood that these lower levels would only ever be indirectly accessible because the higher layers—such as conceptuality—could never be entirely removed in this process.
3 From time to time, Husserl mentions jellyfish as an example of an animal which might be conscious at a minimal level (Husserl, 1973a: 112–119, Husserl, 2003: 136, Husserl, 2020: 52f).
Husserl’s notion of subjectivity as inherently embodied implies that *minimal mind involves a certain form of minimal embodiment.*

I contend that Husserl’s investigations concerning minimal mind and embodiment have considerable potential to enrich contemporary philosophical and scientific research on the origins of consciousness in the natural world. Husserl’s particular conception of embodiment, as derived through his phenomenological methodology, offers a promising foundation for a deeper theory of minimal mind—one which might guide scientific endeavours towards understanding where and under what conditions consciousness first appears.

Bringing together the aforementioned topics, this article is divided into five main sect.: 2. The problem of minimal mind in general; 3. Husserl’s theory of embodiment and its relevance for the minimal mind; 4. The question of animal consciousness in Husserl; 5. ‘Lower-level’ consciousness: invertebrate and embryonic mind; and 6. Conclusion.

# 2 The Problem of Minimal Mind in General

## 2.1 Initial Conceptual Clarifications

The words ‘mind’ and ‘consciousness’ are strongly interrelated terms, but they are not entirely synonymous. For the purposes of this article, ‘mind’ refers to the entire mental life of a subject, including her subconscious mental contents and processes. ‘Consciousness,’ in the strict sense, here means subjective phenomenal awareness. Husserl famously defined consciousness in terms of ‘intentionality,’ but he also emphasized that intentional experience has certain non-intentional components, such as ‘sensation’ (*Empfindung*). In his view, we are not intentionally directed to sensation, but rather we live it through (*erleben*). Sensation is nevertheless still a part of consciousness.

‘Minimal mind’ refers to the internal life of a subject (or living being) who has the most basic capacity for mental activity. In this context, however, we are primarily interested in subjects who can have *phenomenally conscious experiences* at the lowest conceivable level. We can and do have subliminal contents in our mental life but, from a Husserlian perspective, organisms are ‘minimal subjects’ in a strict sense only if they are capable of having phenomenally conscious experiences (cf. e.g. Husserl, 1973b: 42–48). A conscious experience of the lowest intensity could be referred to as ‘minimal consciousness’. For Husserl, the capacity for phenomenally conscious experience is an essential structural component of minimal mind.

## 2.2 Contemporary Views on the Origins of Consciousness in Nature

In contemporary philosophy of mind and empirical research, there are three main conceptions concerning the origins of consciousness in the natural world. Interestingly enough, all three of these positions can be found in Husserl’s texts too.
The first main standpoint holds that consciousness exists at the bottom-most level of physical reality. All distinct physical entities—including subatomic and atomic particles—possess a certain grade of consciousness. This view is called "panpsychism," and it is a very popular standpoint among philosophers and a considerable number of scientists. In an unpublished manuscript from 1908/09 (Ms. B I 4), Husserl entertains the panpsychist perspective but ultimately dismisses this stance due to the impossibility of phenomenological evidence.

In this article, I cannot go into detail concerning the problems of panpsychism. I would only like to mention here that, in my opinion, panpsychism violates the principle of Ockham’s razor; it demands of us that we assume consciousness even at a level where there is no evidence. Despite its philosophical advantages, if we take contemporary empirical research on consciousness into consideration, I think that it is most unlikely that consciousness is present at the lowest level of physical reality.

The second main standpoint holds that life and consciousness are “co-emergent”—that is to say, every living being, even a single-cell organism, is at least minimally conscious (e.g. Margulis, 2001). This perspective is known as biopsychism. We can find the outline of such a conception in Husserl too. He refers to the fully concrete personal subject—with all its mental contents, memories, experiences, thoughts, habitualities, capacities, etc.—with the Leibnizian term ‘monad’ (e.g. Husserl, 1950: 102f). From time to time, however, he also speaks about ‘plant monads’ (Husserl, 1973c: 595f; Husserl, 2006: 171; see also: Lee, 1993: 225ff), and in some cases he even entertains the possibility of ‘unicellular monads’ (Husserl, 2006: 169, 174f). However, this model appears in Husserl’s texts very rarely and only ever as a passing hypothetical.

I contend that there are problems with biopsychism which parallel problems with panpsychism, from a phenomenological perspective in particular. There is no distinct line between living beings and inanimate entities—consider forms of viral ‘life’, for instance—and therefore this standpoint raises the same questions which panpsychism attempts to address, thus facing the same theoretical difficulties. There are some philosophers and scientists who attribute consciousness in a wide sense to include plant life (e.g. Mahen, 2017). However, this remains controversial considering how most scientific evidence concerning consciousness in the strict sense—that is to say, subjective phenomenal awareness—gestures towards the importance of a nervous system as developed in animals. The third main standpoint takes up this evidence; certain animals with a nervous system are evidently conscious. This standpoint is interested in discerning which animals are conscious and why. In other words, what is the precise relationship between consciousness and the nervous system?

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4 Transcription: p. 30. “Das Bewusstsein steht in Akkord mit anderen Bewusstsein. Es scheint in ein anderes Bewusstsein hinein: Diesem erscheint ein physisches Ding, das Einfühlung zulässt. Erscheint jedem Bewusstsein das physische Ding, das es in anderen weckt, als sein Leib? Hat jedes Atom, das ich in uneigentlicher Weise als Einheit einer Erscheinungsmannigfaltigkeit setze, da ich sie als Dinge setze, den Charakter eines Leibes, das heißt, es ist ein Bewusstsein, das eine solche unbekannte Erscheinungsmannigfaltigkeit in Wirklichkeit und Möglichkeit in sich birgt, und dessen sonstige Erscheinungen zu ihm analog stehen wie unsere Leiberscheinungen zu unserem sonstigen Bewusstsein.”.
Most scientists and philosophers of mind share this third view. In many of Husserl’s more concrete statements on the topic, Husserl was also of this opinion; he seemed to think, at the very least, that animals with a nervous system should be considered conscious beings. There is still much debate over the extent to which the centralization of the nervous system is connected to the emergence of consciousness. A minority of researchers purport that explicit self-representation is a prerequisite for phenomenal consciousness (Carruthers, 2000). According to this view, only humans and very few non-humans (e.g. some hominids) are conscious in this way. Most philosophers and scientists, however, agree that vertebrates more generally are conscious in the strict sense. Matters concerning invertebrates are less certain. Are there any invertebrates which could be regarded as conscious, from scientific and philosophical perspectives? Which ones and why? Cephalopod molluscs (such as octopuses, squid, and cuttlefish) exhibit strong behavioral evidence that they have phenomenal consciousness (cf. Feinberg & Mallatt, 2016; Ginsburg & Jablonka, 2019). But what about insects? Promising research has, in recent years, suggested that insects might have minimal mind. The next subsection will explore some of these cases. Below the level of insects and arthropods in general (concerning, for example, worms and jellyfish), most philosophers and scientists hold that invertebrate behaviour is too mechanistic, and that these nervous systems are not sufficiently centralized, to attribute phenomenal consciousness to these life forms.

2.3 Invertebrates as Possible Candidates for Minimally Conscious Being

According to contemporary scientific research on the origins of consciousness, it is most probable that vertebrate animals are minimally conscious. As mentioned above, the big question is whether there is sufficient philosophical reason and scientific evidence to support the claim that ‘lower level’ invertebrates—most prominently arthropods (such as insects)—are conscious. Those who already hold that insects are conscious premise their arguments on striking similarities between the behavior, functional apparatus (nervous systems), and cognition of vertebrate animals and insects. In this subsection, I review some recent attempts to demonstrate consciousness in insects.

Not everyone shares my assumption that creatures with minimal mind are necessarily phenomenally conscious. According to Vincent Torley (2007), minimal mental representations—different intentional states, desires, beliefs, etc.—need not be phenomenally conscious. Torley defines minimal mind instead in terms of a certain flexibility and complexity of behaviour, and he relates mentality to a degree of goal-oriented agency (intentional agency). He discusses four basic types of agency relevant for minimal mind: operant (capacity to remember and learn), navigational (capacity to navigate the environment), tool-related (capacity to use elements of the environment to achieve goals) and social (capacity for social communication within the species). He attempts to show that, with the exception of social agency, three of these types can be found in insects. Like
Torley, Bryce Huebner (2011) articulates a concept of minimal mind which avoids the notion of phenomenality. He also assumes that the behavioral and computational capacities of insects justify the attribution of rudimentary mental states to these creatures. He offers a mechanistic account of minimal mind, which he conceives in terms of elementary action and goal-oriented mental representations ("pushmi-pullyu representations": 452).

Other researchers contend that phenomenality is necessarily connected to the mental sphere, and they seek out external indicators of phenomenal consciousness in insects. Michael Tye (2017) emphasizes the structural overlap between behavioural patterns in humans and insects (pp. 75, 134–159). Barron and Klein (2016) partly follow Björn Merker (2005, 2007) in stating that we can locate the neural basis of consciousness in the vertebrate midbrain and basal ganglia. According to Merker, subjective phenomenal awareness is necessarily predicated on an egocentric perspective, complex decision-making (involving action-selection, target-selection, and internal motivation), and dynamic modelling of bodily movements in space. Barron and Klein posit that these very same functions are also evidenced by the activity of insect brains, and thus that we can conclude that insects are phenomenally conscious.

Feinberg and Mallatt (2016) offer a detailed and far-reaching investigation into the evolution of the nervous system. They attempt to show isomorphism between phenomenally conscious mental images and neural patterns. They also distinguish between different sorts of minimal consciousness, such as exteroceptive, interoceptive, and affective consciousness, and they identify various neural conditions which are necessary for their realization. According to Feinberg and Mallatt, these neural conditions can indeed be found in certain arthropods. Ginsburg and Jablonka (2019) focus on the behavioral structure of living beings, and they take the capacity for dynamic open-ended learning and environmental adaptation to sufficiently demonstrate the presence of phenomenal consciousness in an animal. They emphasize that this behavior is clearly present in insects. Jonathan Birch (2020), in a recently published article, takes a comparative approach concerning the respective behavior of humans and insects. He claims that if an insect shows itself to have certain key behavioral capacities, which are accompanied by conscious awareness when witnessed in humans, then we have a sound theoretical basis for attributing, at the very least, a minimal degree of consciousness to the insect in question.

These accounts are mostly attempts from the third-person empirical perspective to understand minimal mind. In phenomenology, the first-person perspective is the fundamental point of departure. From a phenomenological perspective, minimal mind is structurally connected to the capacity for phenomenal consciousness. Furthermore, phenomenality is an intrinsic feature of consciousness at every constitutive level, and thus also at the level of minimal mind (cf. Gallagher & Zahavi, 2008: 113–121). But there is a further crucial point stemming from phenomenology in this regard—the essentially embodied character of subjective experience. In a phenomenological account of minimal mind, the problem of embodiment cannot be disregarded (a point made by Husserl long before the ‘Embodied Cognition’ movement gained traction). Consequently, in the next
section, I attend to Husserl’s notion of embodiment with a special regard for the question of minimal mind.

3 Husserl's Theory of Embodiment and its Relevance for Minimal Mind

Husserl became aware relatively early—at the latest in 1907, in his lectures on Thing and Space—of the central role of the phenomenon of the body with regard to experience in general, and specifically in the experiential constitution of self, other, and world. His account of the body overcomes the rigid Cartesian dualism of mind and body (cf. Moran, 2013; Zahavi, 1994); according to the latter, body, and mind are sharply delineated entities. For the purposes of an investigation into minimal mind, Husserl’s idea of the necessary a priori connection between the subjective and objective aspects of the body, between Leib and Körper, is especially important. This concept of constitutive necessity between bodily subjectivity and objectivity makes it possible to articulate a deeper theoretical explanation of minimal mind, which is not simply another empirical and contingent (third-person) approach. In this section, I therefore attempt to shed light on the nature of this ‘constitutive necessity’ and how this connection between the two sides of the body should be understood.

3.1 The Notion of Constitutive Necessity

Husserl’s theory of constitution reached maturity when he elaborated on his idea of the ‘phenomenological reduction’ around 1906/07. The phenomenological reduction allows the philosopher to reduce their domain of concern to that which is purely given in experience, and to treat this as the strict basis for philosophical reflection. The notion of ‘constitution’ refers to the a priori laws of appearance (Erscheinung) and sense-bestowal which make it possible for phenomena to appear at all. According to Husserl, these laws are disclosed through the reduction—hence the relationship between constitution and reduction. Reduction enables us to see the a priori connections between different phenomena and their objective sense through the evidence of experience.

So what is meant by this a priori necessary connection? It means, for example, that a three-dimensional object, e.g. a cube, cannot appear from the front side without necessarily indicating its unseen rear side. It refers, for example, to the fact that, if I turn this cube around, the unseen rear side presents itself as seen from the front and I am able to see it (Husserl, 1950: 77–83). A single spatial object indicates its internal and external horizons. It cannot appear otherwise. To take a temporal object as another example, a melody cannot appear without indicating its past and possible future temporal phases. The experience of a single note (an original impression) is embedded into the temporal horizons of past and future by eidetic necessity. We cannot experience temporal objects otherwise (Husserl, 1969). Husserl maintained that
there is also a necessary connection between the subjective and objective aspects of the body; one cannot appear without referring to the other. For Husserl, this bodily *a priori* necessary connection is also the constitutive foundation for any concrete experience of another subject (Husserl, 1950: 138–156).

### 3.2 Aspects of embodiment

For Husserl, every other phenomenon gains its specific objective sense in relation to the experiential constitution of the body. My body appears as the zero-point of orientation—a necessary structural component of the phenomenal field. It is an absolute ‘here’, an ultimate point of departure for the constitution of “thing and space” (Husserl, 1973d). I can constitute objects in their entirety, as well as the spatial relations between them, by engaging with them actively through the body. In other words, I have to go to them, touch them, taste them, and smell them—all of which requires my active bodily motion. Even if I stay in one place and do not move, the experience of things presupposes certain actions of my body, such as turning my head or moving my eyes towards the things in question. My stream of experience is made up of three fundamental components: interoceptive, affective-emotional, and exteroceptive experience. The first two refer to a bodily subject’s self-experience. The latter relates to one’s own body (as experienced from the outside) and its surrounding world.

The interoceptive layer of experience explicitly refers to our lived body (*Leib*), as well as affections and emotions related to the subjective side of embodiment. The lived body is constituted as a *unified system* of bodily feelings, sensations, and capacities, including kinaesthetic and proprioceptive sensations and potentialities such as the consciousness of the “I can”, “I move”, or “I do”. At the same time, I continuously perceive my body externally, as a physical body, as *Körper*. My internal bodily sensations, affections, and capacities gain their more concrete meaning in relation to this objective aspect of my body; in fact, in the course of my bodily self-constitution both *Leib* and *Körper* show themselves to be different sides of the same coin—two inseparable interdependent subsystems of the very same phenomenal structure (cf. Husserl, 1973a: 263, Husserl, 1973b: 75–77). When I move, act, and live my bodily life, I experience how intimately the moments of these two sides of my body are interwoven, and phenomenological reflection informs me about the *a priori* character of this entwinement.

*Leib* and *Körper* together constitute a concrete person. Husserl is very clear about the fact that no concrete personal subjectivity is conceivable without their unity (Husserl, 2012: 380).\(^5\) This is a necessary structural feature of the constitution

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\(^5\) Ibid. “Eine Person kann konkret nicht sein, ohne einen Körper als Leib zu haben.”.

It is an important question in the context of the present study as to whether *Leib* and *Körper* are sufficient to constitute a person, as well as whether there are any higher cognitive and spiritual elements—such as rationality and self-responsibility—which are also necessary in the constitution of personhood. We can speak of persons and personhood both in a narrower and a wider sense in the context of Husserl’s work. A person in a narrower sense is, in particular, a human person with the faculties of rationality, clear self-consciousness, and self-responsibility (Cf. Husserl, 1952: 257). There are, however, also non-human (animal) persons according to Husserl, so persons in a wider sense can be understood in this way. The Husserlian term ‘monad’ refers to this notion of a person in the wide sense. The idea of the monad—
of transcendental subjectivity as a bodily being living in a world (Husserl, 2008: 251–258). But exactly how is this unity constituted? According to Husserl, an investigation into the phenomena of bodily organs can go some way to providing an explanation.

3.3 The constitutive role of organs

For Husserl, the term ‘organ’ has a dual meaning. First, an organ can refer to the entire body, as a means of will for the ego to act in the world (Husserl, 1952: 151–152). Second, a bodily organ can refer to a subsystem of the lived body (Leib), as a partial system of proprioceptive and kinaesthetic capacities and feelings. The whole body is an organized system of such organs. Even the faculty of perception refers to the body and its bodily organs—any particular mode of sensory perception indicates a correlative bodily organ which realizes the perceptual mode in question (e.g. visual experience indicates visual organs such as eyes). The subject is connected to the world through its bodily organs and overall system.

In the unification of Leib and Körper, the phenomenon of ‘double sensation’ is of special importance; when I use my one hand to touch the other, and I can experience my hand as touching and touched at the same time, so I can constitute my hand both externally and internally, both as Leib and Körper (Husserl, 1952: 145). I experience my sense organs from the ‘inside’ through kinaesthetic and proprioceptive feelings. These organs connect me to the world, and their functioning is already accompanied by certain motor sensations and activities—such as oculomotor experience (Husserl, 1973d). When I perceive and act in the world, I experience my body as a whole. I experience the interrelatedness of my different bodily organs and that they are integrated into the organic unity of my body according to their particular respective functions. My body realizes a unified concrete mode of being in the world, and its particular organs realize partial moments of my worldly existence. In everyday experience, I can partially constitute my bodily parts and organs externally (i.e. as Körper), but my body still largely presents itself as an incompletely constituted entity. I cannot see my eyes or my back directly, for example. It is only other subjects who can constitute these parts of my body more concretely and completely.

In Husserl’s view, no phenomena or objective meaning could be constituted concretely in the absence of intersubjectivity; more precisely, they could not be fully constituted without intersubjectivity (cf. Zahavi, 1996, pp. 32–40). Earlier versions of Husserl’s phenomenological reduction put intersubjectivity ‘out of play,’ bracketing it out as irrelevant. However, Husserl later found a way to bring intersubjectivity
back in a strictly phenomenological manner. In his 1910/11 lectures, *The Basic Problems of Phenomenology*, he discusses a ‘double reduction’. By this, he means that the phenomenologist should first bring the experience of interest into the sphere of pure immanence (i.e. attending only to aspects directly given in experience), before then focusing on the intentional content of this experience in a strictly phenomenological manner (Husserl, 1973a: 178). The double reduction in Husserl’s work exclusively discloses the *meaning* which is implied in a given experience of interest. Not only could intersubjective experiences be thematized in this way under the phenomenological reduction, but also certain positive scientific assumptions and hypotheses as well—in a very limited and strictly conditional way, but always within the parameters of a phenomenological inquiry. In *Ideas* (1912), Husserl does not explicitly mention the double reduction, but clearly applies this method.

This point is important due to the fact that Husserl, in the second book of *Ideas* and in certain other texts, attempts to thematize a very particular type of organ from a phenomenological point of view—namely, the *nervous system*. How can we thematize the nervous system under the *epoché* in a phenomenologically legitimate manner, when this organ is barely accessible at all through direct experiential intuition? According to Husserl, the nervous system is an *organ*, the particular function of which is to realize the *partial psychophysical dependency of the soul on the body* (Husserl, 1952: 294–297; cf. also Yoshimi, 2010). It is the organ which implements the ultimate unity of *Leib* and *Körper*, and which ensures communication between subjective and objective aspects of the body. It is important to note, however, that the nervous system for Husserl is not what the pineal gland was for Descartes. Husserl instead attempts to offer a phenomenological explanation. For him, the nervous system is a *phenomenal subsystem* in the constitution of the entire concrete body, the *meaning* of which is to coordinate the functioning of different bodily parts, to connect the psyche to the body, and to realize our concrete conscious bodily being-in-the-world.

As we can see, there is a certain *circularity* in the constitutive relationships between bodily self, other persons, and the world. This circularity, however, has a priori necessary features, and the body still has a certain *precedence* in the concrete constitution of experience in general. The role of embodiment in concrete subjectivity and intersubjectivity is evidently pertinent for the present investigation into minimal mind. Neither the self-reflective deconstructive approach nor the intersubjective reconstructive approach to understanding minimal mind can begin without such reflections on the necessity of embodiment for subjectivity.

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7 Husserl (1952): 39, 156, 165, 189, 218, 231, 288–297, 343, 372–373. Cf. also: Husserl (2020): 50–53.
4 The Question of Animal Consciousness in Husserl’s Thought

There is an incredibly rich body of secondary literature on Husserl’s account of the animal. Especially for the late Husserl, the similarities and differences between humans and animals comprised an essential question. The topic came to prominence within the context of his studies on intersubjectivity, wherein animals appeared as an anomalous form of subjectivity. Here I will only sketch out his basic framework on the topic as relevant for our present concern, i.e. for understanding the nature and genesis of minimal mind.

In this section, I analyse animal consciousness in general as a ‘lower’ form of consciousness and its differences in contrast with human consciousness. I offer a closer examination of three ways in which Husserl approached the problem of animal subjectivity: (1) empathy and intersubjective constitution; (2) the deconstructive-dismantling analysis (Abbau) of one’s own subjectivity; and (3) instincts.

4.1 The Animal in the Context of Empathy and Intersubjective Constitution

A fundamental concept in Husserl’s theory of intersubjectivity is empathy (Einfühlung). Empathy is a particular form of intentionality, which renders the other as other present directly while at the same time making us aware that other persons’ mental spheres can only be attained indirectly—thus their experiences cannot be accessed in their originality (Husserl, 1950: 151ff). In empathy, directness and indirectness are entwined. Empathy is, moreover, a founded experience, founded upon the experience of the other person’s physical objective body (cf. Moran, 2000: 176).

There is another body, which is partly similar to mine and which I can apperceive as analogous to my body. The partial similarity of my body to the other’s makes it possible to experience the other’s physical body as the body of another subject, as having an inner mental aspect. This experience is a direct act, though it is founded; I apperceive the other’s body as the physical manifestation of a subject immediately, ‘in one blow’. As Husserl put it in 1935, in an unpublished manuscript, “The physical body, that we call lived body, expresses through its ‘appearance’ a person, a human subject, who lives and exists corporeally in the world” (Ms. K III 14, p. 14, my translation). The particular intentional structure which makes this achievement possible—the apperception of a physical body as another subject’s lived body—is empathy itself, which is motivated by the external similarity of my own and the other’s body. Due to empathy, I know that the particular physical

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8 Just to mention a few references: (Cabestan, 1995; Depraz 1995, Martín and Peñaranda, 2001; Lotz, 2006; Painter, 2007; Di Martino, 2014; Dufourcq, 2014; Monod, 2014; Ciocan, 2017; Ferencz-Flatz, 2017; Zirión, 2020) (Manuscript). More recently: Vergani (2021). In this context, I want to highlight Vergani’s achievement in particular, who has carried out a rich and extensive comparative analysis of Husserl’s various statements on different kinds of animals, and also gives a detailed account of how Husserl tried to extend personhood to animals.

9 Pagination of transcription. “Der Körper, der da Leib heisst, drückt durch sein „Aussehen “ eine Person aus, ein menschliches Subjekt, das in der Welt leibt und lebt”.
body, which I see now, is not just a physical thing in nature, but also a lived body of another person who has thoughts, feelings, and experiences, just like I do.

Husserl approaches the problem of animal subjectivity first and foremost through an understanding of animal body. On his interpretation, the phenomenon of organic animate body founds the phenomenon of psyche or soul (e.g. Husserl, 1952: 176, 182ff, 203f). The similarity between my own and another subject’s body motivates my empathy with this other. Even the body of an animal is, anatomically and functionally, similar to mine. It has body parts like mine—legs, arms, and a head, as well as organs like my own, including lungs, a stomach, and a brain, etc. According to Husserl, I perceive the animal body as an anomalous body, as an abnormal variant of the human body (Husserl, 1973b: 126). The animal appears on the horizon of my perception as an abnormal version of a human being (Husserl, 1950: 154; see also Ciocan, 2017).

Despite the differences, the animal’s body is similar enough to motivate empathy. Nonetheless, I cannot communicate with an animal in a strictly linguistic way; I can instead grasp their internal mental states as expressed in their bodily gestures and behavior (cf. Husserl, 1973c: 662; also: Ms. K III 14, pp. 8–10). I can perceive joy and suffering in the behavior of animals. I can even communicate with them after a fashion, e.g. my dog or cat can figure out what I want from them and vice versa (cf. Monod, 2014; also Ferencz-Flatz, 2017). As far as I can constitute animals as conscious living beings, I can also conceive of them as transcendent co-subjects, with whom I constitute the world together in its entire concreteness (see Dufourcq, 2014; Ferencz-Flatz, 2017). Annabelle Dufourcq goes as far as saying that a world without animals cannot be intelligibly constituted (Dufourcq, 2014, p. 90f).

In Ideas II, Husserl takes a bottom-up approach to understanding the constitution of animal psyche. He starts out by considering inorganic nature—the realm of mere substantiality and causality. He contrasts this with the phenomenon of life—living, self-controlling, and self-sustaining organisms. At a certain point along this spectrum, I am motivated by empathy to constitute living beings as conscious creatures, as organisms which are complex and similar enough to me that I conceive of them as experiencing subjects. The question—which is the main topic of the next part of this essay—is where the border between conscious and non-conscious organisms lies, where intelligibly motivated empathy begins (cf. Zirion 2020). An organic body that I can constitute as an anomalous variant of my human body implies an anomalous soul as its internal aspect. Husserl discusses ‘somatic’ in a phenomenological context, the task of which, amongst others, is to make a phenomenologically legitimate distinction between conscious and non-conscious organisms (Husserl, 1971: 5–20). His conclusion is, in Ideas III at least, that while it is highly problematic that

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10 Pagination of transcription. “Hinsichtlich der Menschen und der sonst <igen> animalischen Realen ist das zum Ausdruck kommende die Person (bzw. das tierische [10] Subjekt). In schlichter Erfahrung des Menschen (so schlicht, dass eben ohne weiteres, als unmittelbar erfahren ein Mensch für uns als dieses Reale, ‘du ‘ ist/ ist der körperliche Leib nicht als purer Körper erfahren (es wird nicht abstrahiert), sondern zwar als daseiend, aber ohne weiteres als Ausdruck eines personalen Seins, das seinerseits nur durch Ausdruck als menschliche Person erfahren ist” (op. cit. 9–10).
a plant might be considered a conscious creature, I can indeed constitute an animal as a conscious being (Husserl, 1971: 10).

4.2 The Deconstructive-Dismantling Analysis (Abbau) of one's Own Subjectivity

While Husserl was developing his genetic phenomenology in the 1920s, he was also undertaking thorough investigations into animal being—the animal within—through a deconstructive analysis of human subjectivity. As pointed out earlier, an anomalous body implies an anomalous soul which differs from me in essential ways. The most important difference between human and animal souls is the lack of rationality in the latter, as can be demonstrated by phenomenological analysis of their bodily functions and behaviour (cf. e.g. Husserl, 1973c: 405, Husserl, 1988: 99f, Husserl, 2004: 239f, see also Di Martino, 2014). A more ‘primitive’ body involves a more rudimentary consciousness which constitutes the world (its environment) in a much more limited way than rational human consciousness. There are many animals with far better and more precise sensory organs than humans (e.g. the eagle’s eye, the dog’s nose, the cat’s ear, etc.), but these animals still arguably constitute the world in a much more limited sense than humans due to their lack of rationality and conceptuality. There are several layers to my subjectivity, and I can abstract from the higher levels in order to reconstruct what a lower form of consciousness might be like from the first-person perspective.

It should be emphasized that this ‘layer-cake’ model of subjectivity, even in Husserl, has its limits. The layers of consciousness interpenetrate, form, and co-determine each other; I cannot abstract from one layer without having a fundamentally new type of subject as a result. There is, however, scope for phenomenological reconstruction. There are basically two interrelated approaches to deconstructing-reconstructing animal subjectivity—the genetic method and eidetic variation. With respect to the former approach, Husserl, in his genetic phenomenology, always attempted to maintain the connection between the lower and higher levels of subjectivity—from simple sensation (Empfindung) to perception, and finally to conceptual thought. We can reconstruct a subject without conceptual thought, a subject capable of sensation only, or, on a higher level, of non-rational non-conceptual perception. This subject would only have an environment of sensual data and, on a higher level, perceptual connections to which it is instinctively bound.

The latter approach, which is strongly related to the former, is eidetic or imaginative variation. I can undertake a complete eidetic analysis of the essential structure of human consciousness. Then I can vary it; I can abstract from one or more essential features or elements, in order to eidetically reconstruct an abnormally functioning consciousness (madness) or a functionally normal lower form of subjectivity (that is to say, an animal mind), or even the lowest possible type of subjective being (Husserl, 2012: 328–334, 337f, 358–362). Husserl concludes that the animal mind, just like human consciousness, has an egoic structure (Ichstruktur, Husserl, 1973c: 177); animals are embodied, like us, and they constitute a sensuous (and perceptual) environment through passive instincts. The question of animal instincts will be the topic of the next subsection.
4.3 Animal Instincts

Since Nam-In Lee’s classic monograph on Husserl’s phenomenology of instincts, most Husserl scholars accept the importance of the problem for the late Husserl (Lee, 1993). The role of instincts in the reconstruction of animal subjectivity is of special relevance to this article. Instinct intentionality in the phenomenological sense was, for Husserl, a passive teleological directedness at unfolding, reaching, and constituting certain appearances and their connections in an entirely (or predominantly) passive way. According to Husserl, four main levels of instinct intentionality can be identified—the hyletic, the perceptive, the intersubjective, and the spiritual-cultural (i.e. the instinctive striving after rationality and culture). The first three can be found in animals, while the fourth is exclusive to human beings.

Later, in the 1930s, Husserl elaborated a more detailed phenomenological theory of transcendental instincts. As indicated before, he inferred that there were lower and higher levels of instincts, which correlated to lower and higher levels of subjectivity and constitution. The highest form of instinct is a passive directedness towards rationality, while the lower instincts function at the level of perception and—on the lowest level—pure hyletic sensibility. Understanding the functioning of instinct in the phenomenological sense can, for this reason, help us to understand the lower levels of subjectivity—that is to say, the animal mind. The phenomenology of instinct could be an indispensable means for reconstructing animal subjectivity, and to have a partial understanding of what it is like to be an animal.

It is problematic to presuppose whether or not there is any possible subjectivity without intersubjectivity. In this respect, intersubjective instinct forms a fundamental type of instinct on its own. Even on the level of hyletic constitution, there is an instinctive passive openness to the other (see e.g. Husserl, 1973c: 605–608; also: Lee, 1993: 198ff; Pugliese, 2009). Intersubjective instincts can clearly be identified in animals; for instance, there is an instinctive relationship between the animal child and its mother, and social instincts are present among other animals (cf. e.g. Husserl, 2006: 212f, 217f; Husserl, 1973c: 602, Husserl, 1992: 10f). While hyletic instincts can be found in all animals, perceptual instincts are most obviously present only in ‘higher’ level animals.

Self-preservation (Selbsterhaltung) is an especially important manifestation of instinct in Husserl’s view (Husserl, 2014: 98–102). In this context, self-preservation is to be understood as an instinctive striving for the preservation of bodily existence on both the individual and genetic level (self-reproduction and sexual reproduction). From a phenomenological point of view, instinctive self-preservation on the physical level is to be interpreted as a perpetual and constitutive renewal, sustainment, and preservation of embodiment. This instinctive constitution means, on the one hand, experiential subjects have a passive openness to certain hyletic and perceptual patterns and relations; and on the other hand, subjects have a passive teleological drive towards such sensible appearances pertaining to their self-preservation.

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11 Sources include Husserl (1973c), Husserl (1992), Husserl (2008), Husserl (2014), Husserl (2006).
It is a crucial point in Husserl’s conception of instinctive animal life, and instincts in general, that the passivity of instinctive intentionality and action is never to be conceived straightforwardly as mechanistically determined consciousness and behaviour. Instincts do not force a living being to act mechanistically, nor do they imply a mechanistic attitude. Instinctive intentionality and action are motivated; they open and articulate a horizon of possible actions; they always offer several options in an indeterminate way. Instincts present certain non-specified goals to us, but they do not inform us about how to attain them. This much falls to us, or to the animal in question. Husserl’s philosophy of life is never deterministic, not even in the case of animals.

5 Lowest Levels of Consciousness: Invertebrate and Embryonic Mind

All the essential components have now been reviewed such that it is possible here to reconstruct Husserl’s account of minimal mind. Husserl’s points of departure for conceiving of the ‘lower’ forms of consciousness are anomalous forms of subjectivity, such as the minds of animals and children. These types of consciousness have a normality of their own; there is a normality in relative abnormality (cf. Ciocan, 2017: 10). According to Husserl, however, there are extremely anomalous forms of consciousness, which can be considered as examples of minimal mind. Access to such forms of subjectivity can be gained ontogenetically and phylogenetically—in other words, from the most primitive organism in nature that has conscious experience, and from the earliest stage of human ontogenesis in which consciousness appears. Husserl, in this context, explicitly draws parallels between the ‘lower-level’ animals on the one hand and the embryo and the infant on the other (e.g. Husserl, 1973b: 112–120, Husserl, 2014: 218–227). These considerations again raise questions concerning empathy: which kinds of beings can be constituted as conscious from the phenomenological point of view? (Cf. Makkreel, 1996; Zirión, 2020).

5.1 The Phylogenetic Approach to Minimal Mind—the Jellyfish

At certain points, Husserl hypothesizes about ‘lower-level’ animals, such as jellyfish, and the potential to reconstruct any semblance of consciousness therein (Husserl, 1973b: 112–119, Husserl, 2003: 136). If the potential for consciousness is restricted to animals with a nervous system then the jellyfish, with its decentralized nervous system, could well be considered to be the bottom of the phylogenetic tree—at least amongst animals with nerves. As stated in subsection 3.3, the nervous system could be interpreted, from a Husserlian perspective, as a functional subsystem of the physical body (Körper) which integrates living being into nature, serving as a phenomenal bridge between the realms of motivation (spirit) and causation (nature) and fundamentally contributing to the constitutive being-in-the-world of the organism in question. Following this logic, it could be supposed that organisms with more complex nervous systems constitute a more complex experience of the world.
Consequently, the world of a jellyfish is perhaps the most primitive experiential world of the simplest subject.

From a phenomenological point of view, a living being can be constituted as a minimal subject ‘from the outside’ if it intelligibly motivates empathy while taking into account, in a phenomenologically reflective manner, the best possible and relevant scientific research concerning the functionality of organic bodies. There must be a structural and functional analogy between a jellyfish’s body and our own; it must have organs and body parts like ours—organs to move, sense, feed, urinate, sexually reproduce, metabolize, and process information concerning its external and internal environment (Husserl, 1973b: 67–70, 88f). The specific bodily constitution and functioning of an organism, its organic structure, and the particular characteristics of its organs mirror its specific environment. The body parts and organs are intentionally related to certain functions and moments of being-in-the-world. It is also important that a functional sublayer, like the nervous system, connects those other organs to the psyche. Of particular importance from a phenomenological perspective is the meaning of those bodily organs and their functionality.

When attempting to reconstruct a minimal subject ‘from the inside’ (e.g. to re-enact ‘what it is like to be a jellyfish’), every higher level of consciousness should be abstracted away, leaving only the most basic structures of subjectivity without which no subject or subjectivity of any kind could be conceived. Even at the lowest level of consciousness, it seems that there is an egoic structure (‘ego—cogito—cogitatum’) so there must also be an experiencing subject.12 With all higher layers of consciousness removed, only the most primitive capacities remain. At this level, there is only a rudimentary environment made up of the most elementary data—an environment of constantly flowing and changing hyletic contents which nevertheless form certain patterns to which an organism can respond.

A minimal subject, such as a jellyfish, discloses a ‘minimal environment’ with characteristics that are absolutely indispensable for its survival. There are minimal structures of purely passive instinctive intentionality, which are directed towards the surrounding world in ways that are crucial for the self-preservation of the subject. The subject experiences its own body, which makes up a system of primal kinaesthesia and proprioception. Such bodily experiences are necessary for the subject to continually adjust its position to a changing environment. The animal’s instincts enable it to navigate around possible food, sexual partners, or threats, for example. It instinctively moves towards positive stimuli and away from the negative. Instincts of

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12 At the lowest level of experience, the ‘cogitatum’ can be understood as the ‘hyle’ which are ‘alien to the ego’ (ichfremde). At that level, it is not necessary for there to be intentional morphe in order to have a ‘cogitatum’ in a wider sense. An ‘intentional morphe’ is an achievement of the intellect, according to Husserl, so it is the accomplishment par excellence of a higher subjective capacity. Husserl, however, in the C-Manuscripts (Husserl, 2006) and other late materials on genetic phenomenology, is quite clear that, at the lowest level of subjectivity, which is the level of primal passivity (Urpassivität), the hyle represents peculiar objective elements and relations in the world, and thus that the hyletic flow represents the world as such on its own. At the lowest level, the hyle (the hyletic relations, complexes, and the hyletic flow as such) is an immediate manifestation of something ego-transcendent, objective, or even the world as such.
self-preservation have their own periodicity. After satisfying periodic instincts, such as hunger and sexual drive, the urges return again and again, motivating the organism to explore its environment.

Furthermore, certain textual instances by Husserl support this view, according to which the fundamental level of consciousness could also be characterized as an elementary form of self-relatedness—a sort of self-disclosure (cf. Husserl, 1969: 83; also: Zahavi, 2017: 198).

5.2 The Ontogenetic Way to the Minimal Mind—the Primal Child

The late Husserl also attempted a systematic reconstruction of early childhood consciousness—particularly that of an embryo—which can similarly be understood as an approach to phenomenology of minimal mind. In this context, he differentiated between a first and a second childhood. The first refers to the embryonic ego. The subject in the first childhood is the ego in the womb, in the mother’s body. At this stage, the embryo co-exists in a unity with its mother, and its immediate environment is the womb. The second childhood is early infancy—the childhood of the newborn baby. In this context, attention should be drawn to Alice Pugliese’s research on the ‘primal child’ (Urkind) and its connection with the instinctive sphere of the ego. According to Pugliese, “By means of the phenomenological reduction, drives reveal a peculiar subject, the ‘original child’ (Urkind), which is described not as a figure of developmental psychology but as a transcendental subject pre-forming the way the world appears to us” (Pugliese, 2009: 141). It is of special importance for our present concern that the primal child is here understood as a transcendental subject.

On my interpretation, the primal child in Husserl is to be understood as the first awakening of the ego, and its early infancy is the beginning of its worldly constitution (cf. Husserl, 2006: 104f). We can speak of the primal child in the narrower sense of an embryo and in the wider sense of the newborn infant. The notion of primal child thus embraces and connects the concepts of first and second childhood (Husserl, 1973c: 604–608, cf. also Depraz, 2004: 207f). Thus the first and second childhoods merit a closer look.

Already feeling and perceiving, the embryonic ego is the most primitive earliest form of subjectivity. In its immediate environment in the womb, the embryo experiences itself in direct unity with its mother (cf. Miglio, 2019). It has a flow of primal kinaesthetic experiences, and it experiences its environment in the flow of primal hyletic data (cf. Husserl, 1973c: 604f; Husserl, 2014: 27). In the embryonic mind, this hyletic flow is connected with a flow of primordial present. The embryo has a rudimentary time-consciousness of its own (cf. Husserl, 2006: 74). According to Husserl, it inherits a complete system of instincts from the mother (Husserl, 2014: 222). This instinctual system is less developed in the womb, because the embryo has less developed needs and does not have to act and move much. Its needs are satisfied

13 Cf. e.g. (Husserl 1973b: 178–185, 233, 582ff, 595, 605–609; Husserl 2008: 466ff, 478–482, 485f; Husserl, 2012: 221f; Husserl, 2006: 74f, 104f, 108, 440, 444.)
immediately through the mother’s physiological processes. Being in the mother’s womb in the embryonic stage of development, the embryo has no world of its own.

World-constitution in the strict sense begins when the child is born. The newborn child is still a primal child. Everything is fresh for the newborn; in a stage of perpetual becoming and beginning, there are not yet any crystallized structures. Unlike the embryo, however, the newborn also has perceptions—not merely a flow of hyletic data. The child inherits a set of instinctual structures responsible for the constitution of its bodily being-in-the-world. This instinctual set, however, has several layers, some of which are inactive in the early stage of infancy, with the higher instinctual layers gradually activating as the child grows older. The whole instinctual set of self and world-constitution evolves and is activated as the child reaches full maturity.

In early childhood, the child’s world is multi-centred. The emergence and stabilization of the ego-centric perspective arrives with age. In early infancy, there are two centres in the life of the primal child—its own and that of its mother. The primal child is instinctively directed to its mother, on whom it is dependent for food (Husserl, 2006: 326), love, and safety. The primal child constitutes itself and its world in a constitutive entanglement with the mother. According to Husserl, the mother–child relationship is the first and primordial intersubjective relation (Husserl, 1973c: 511; see also Zahavi, 2003: 113; Pugliese, 2009: 154). It is a bi-polar unity of two subjects who constitute a world together.

With regard to the reconstruction of minimal mind, there is a fundamental difference between the child and the animal. A child inherits instinctual structures which eventually establish a teleology towards infinite rational worldly engagement (cf. Husserl, 1973c: 403–405; see also Di Martino, 2014: 67–71). An animal’s instinctual structures settle into a finite teleology, and enclose it into a finite environment. In Husserl’s opinion, the most important differences between child and animal are that the animal lacks the capacity of self-reflexivity and active transformation of its environment (cf. Husserl, 1973c: 184f). By contrast, the human child is instinctively directed towards rationality as infinite and universal praxis.

6 Conclusion

By following Husserl’s phylogenetic and ontogenetic approaches, as well as his comparative analyses of animal and child, this paper has offered a systematic reconstruction of Husserl’s theory of minimal mind. These reconstructive efforts lead to the conclusions that (1) even a minimal subject must have the ego–cogito–cogitata tripartite structure, and that (2) no consciousness, be it of the lowest level, can be conceived without phenomenality. Moreover, the minimal ego must constitute itself as a bodily being in a very primitive environment. It must have some kinaesthetic and proprioceptive experiences; it possesses a set of instincts through which it is directed to the constitution of certain hyletic data, which make up its environment.

This paper had two principal theses. First, I claimed that Husserl had a systematic theory of minimal mind and that, throughout his career, he perpetually worked on various methodological approaches that might render minimal mind accessible for phenomenological reflection. ‘Lower level’ animals (such as invertebrates) and
embryos represent subjects with such a minimal level of mentality. I have attempted to reconstruct the various important pathways through which he thematized the lowest level of subjectivity from the first-person perspective and in other subjects. In doing this, I drew upon the methodology of phenomenological reflection, according to which the concept of mind—mentality in the strict sense—cannot be separated from the general possibility of having phenomenally conscious experiences of the lowest intensity. My second main thesis was related to Husserl’s idea of the essential embodiment of the ego. According to Husserl, there is a fundamental a priori necessary connection between the subjective and objective aspects of the body, between Leib and Körper, that affects the subject’s entire mental life. This was important with respect to the overall argument in this article for two reasons. On the one hand, this conception of embodiment made it phenomenologically legitimate to regard bodily behavior as an indubitable indication of the subject’s internal life. On the other hand, this indication serves as a Leitfaden in conceiving of the simplest possible subject capable of any mental activity whatsoever. Minimal mind, due to the inevitable embodiment of subjectivity, implies minimal embodiment.

It is my hope that these theoretical considerations offer a fruitful contribution to contemporary research on the origins of consciousness in the natural world.

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