

**HUSSERL'S SOMATOLOGY
RECONSIDERED:
LEIB AS A METHODOLOGICAL
GUIDE FOR THE EXPLICATION OF
(PLANT) LIFE**

The purpose of this paper is to explore some of the possibilities for approaching and understanding the phenomenon of “life” from a phenomenological perspective: Can phenomenology, with its methodological and epistemological grounding in the first-person investigation of the lived experience, enable us to gain insight into the fundamental structures of “the living”? To address this issue we will anchor our analysis in two central phenomenological notions. First is the Janus-faced construal of the body: the fact that, *as a living being*, I not only *have an object-body (Körper)*, but also, and primarily, *I am a lived body (Leib)*. The lived body, it may be argued, is the epistemic ground zero of all phenomenological investigation, so any grounded bio-phenomenological account must start from there. Secondly, and interrelatedly, my embodiment is said to play the key role in *empathy*, which is often considered to be a *via regalis* to intersubjectivity in phenomenology, and is therefore integral in how we approach and understand other living beings.

However, to make the ordeal of taking the phenomenological notions of embodiment and empathy as methodological guides to the category of life even more challenging, our main object of research will *not be human or animal*, but *plant life*. Plants have been, for the most part, neglected or trivialized by

phenomenological approaches.¹ Their unique place in the realm of the living makes them, as critics of bio-phenomenological approaches would probably agree, especially interesting candidates for such an undertaking.

The fundamental recognition and understanding of plant life is, like all forms of life, *not* derived from biology, but *precedes* it: For us to be able to investigate it scientifically, we must already have a certain preconception of plant life based on our everyday experience. Of course, parts of our understanding may change in light of such investigations, but the very experience of the fundamental “aliveness” of plants must be there a priori for the whole scientific endeavor to take off at all. The question here is: Can an embodiment-based bio-phenomenological approach ground this experience and make sense of vegetal life?

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From the anthropocentric perspective of phenomenology, which takes the lived body of a normal, adult human being as the “originary norm” or *Urnorm* (Hua 1: 154), plants appear to be *anomalies par excellence*. Specifically, vegetal life seems to be, at least *prima facie*, characterized by a fundamental *lack*: while the sessile being-in-the-world of plants seems to be *bereft of sensorimotor intentionality*, their modular, de-centered structure seems to bespeak the *absence of vital individuality*. In this regard, plant life – much more than the pet-example of some contemporary bio-phenomenological approaches, the unicellular bacteria whose movements are much clearer indications of vital intentionality and individuality (Thompson 2007: 74) – can truly be said to be *the* “limit-phenomenon”² and can therefore serve as a “litmus test” for the

1 One notable exception to this general trend is the illuminating work on plant phenomenology by Michael Marder (e.g. 2012a, 2012b, 2014).

2 “Limit-phenomena”, as defined by Anthony Steinbock in his account of generative phenomenology, are “those matters that are on the edge of accessibility in a phenomenological approach to experience”, and can include “the unconscious, sleep, birth and death, temporality, the other person, other worlds, animal and plant life, the Earth, God, etc.” (Steinbock 2003: 290; for a further treatment of biological generativity in line with Steinbock’s thinking, see Affifi 2015). However, unlike Steinbock, who seems to hold that these limit phenomena have to be ultimately exposed as “inessential” (ibid.: 311) so as to become a *phenomenon proper*, i.e., a subject matter of phenomenology, we suggest that liminality be treated as *constitutive* for the phenomenon under discussion (i.e. vegetal life). For a further analysis of liminal experience see Breyer 2010.

feasibility of any comprehensive bio-phenomenological account. Thus, one of the main goals of our paper is to show that a modified version of Husserlian somatology can pass such a test, and that its anthropocentric character can be critically transformed due to the multifaceted, even self-alienating, nature of empathy.

This article consists of two main parts. First, we provide an outline of Husserl's somatology, "the science of the lived body", as a fundamental methodological and conceptual framework for a phenomenological reconstrual of life sciences in general and botany in particular. Second, in order to demonstrate why and how the somatological approach might be useful for conceiving vegetal life through the phenomenological lens we identify, in the writings of Husserl, a three-step procedure for operationalizing the native (empathic) perception of another living being (the three steps include: eidetic self-modification; intercorporeal pairing; and appresentation of an alien field of experience). After expounding on each step, we draw some tentative conclusions, particularly on how our analysis might impact the construal and understanding of empathy that lies at the very heart of "somatological life sciences".

1. The Case for Botanical Somatology

The main reason for going back to Husserl is that he still offers one of the most refined methodological tools for a phenomenological approach to life, whose subtleties have yet to be fully explicated. Husserl laid the foundations for such an undertaking under the heading of somatology. The term makes its appearance in *Ideas III* (written in 1912, but published posthumously), where it is used to designate "the science of the lived body" (Hua 5: 7) or of "animate organicity" (*ibid.*: 8). However, the original scope of somatology did not extend to life in general, but was limited to animal life. This is why the main goal of the Husserlian somatology, as originally construed, was to reconceptualize zoology in phenomenological terms. However, as we will argue below, if appropriately modified, the general framework of somatology could perhaps be extended to all life sciences, botany included.

But how does one instigate such a phenomenological re-conceptualization? The way Husserl envisions somatology is as a “science” based, first of all, on subjective analysis of one’s own lived body (*Leib*); and secondly, on the study of the intercorporeal (*zwischenleibliche*) dimension presupposed by all positive sciences of the living. This would mean that, at its very basis, somatology faces two essential methodological questions: How is my own lived body given to me in my experience? And how does this epistemological vantage point enable me to approach the lived corporality of the other (here: animal)? In other words, in order to perceive a given entity (say, a stray dog) as a lived body and not as a Cartesian *bête machine*, two elements are required: first, the *somatic perception* of my own body; and second, the *somatic interpretation* (*Eindeutung*) of the alien body (Hua 5: 8).

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Let us start with the more basic of the two, somatic perception. Husserl’s account of the phenomenological constitution of the body is extremely nuanced, and cannot be adequately addressed in the present paper. For our purposes, the most important thing is that, according to Husserl, the most fundamental way in which my lived body is given to me experientially is as a *bearer of sensations* (or more precisely, *sensings*). To get a better view of what Husserl has in mind here, consider his description of what happens when my hand touches a table:

“Moving my hand over the table, I get an experience of it and its thingly determinations. At the same time, I can at any moment pay attention to my hand and find on it touch-sensations, sensations of smoothness and coldness, etc. In the interior of the hand, running parallel to the experienced movement, I find motion-sensations, etc. Lifting a thing, I experience its weight, but at the same time I have weight-sensations localized in my Body. And thus, my Body’s entering into physical relations [...] with other material things provided in general not only the experience of physical occurrences, related to the Body and to things, but *also the experience of specifically Bodily occurrences* of the type we call sensings. (Hua 4: 146)”

In other words, in addition to sensations (*Empfindungen*), which relate to the sensed qualities of the tactual thing (e.g. smoothness, coldness, etc.), I also experience the co-occurring sensings (*Empfindnisse*) (Hua 4: 144), which relate to and are localized in my own body (touch-sensations, motion-sensations, weight-sensations, etc.). Thus, on this fundamental, pre-reflective or lived-through level, the body is constituted as a *domain of immediately felt sensings*.

So, if in the first step (somatic perception) I am immediately given to myself as a lived body, i.e., as a distinct region of extended fields of sensings, then, in the second step (somatic interpretation), this bodily self-giveness enables me to see the alien body as another lived body endowed with its distinct field of sensings. Namely, the somatological re-construal of zoology entails that we conceive of the animal body not only as a material object in the vein of natural sciences, but also as a “bearer of sensings”, as a field of subjectively and immediately localized sensations. But how does this “intercorporeal synchrony” take place? How can I move from my own lived corporeality to the lived corporeality of the other?

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According to Husserl, the central capacity by means of which we access, and understand, the other is “empathy”. The precise meaning of “empathy” has been a matter of some debate (see, e.g., Marder 2012a; Zahavi 2001, 2012b), not least because of Husserl’s not always unequivocal use of the term. However, there seems to be a growing consensus that, at least in Husserl’s most important works on intersubjectivity and embodiment (e.g. Hua 1, 4, 14, 15), it denotes *unmediated* intercorporeal access to the subjectivity of the other, and not a *mediated* inferential or (self)projective achievement. In the words of Zahavi, empathy in Husserlian phenomenology “is not a question of feelingly projecting oneself into the other, but rather an ability to experience behavior as expressive of mind, i.e., an ability to access the life of the mind of others in their expressive behavior and meaningful action” (Zahavi 2012a: 186—187). A more detailed account of empathy in Husserl will be the central topic of the next section.

It is *empathy*, then, that is said to enable us to move from somatic perception to somatic interpretation. Consider, for instance, the famous and illuminating case of the jellyfish discussed by Husserl in 1921:

“If [the animal] possesses parts that are ‘sensitive to the light’, which can be considered similar to the eyes, insofar as they can be subjectively grasped as sensitive to the stimuli, then we can ask ourselves how it is with the corresponding kinesthetic system, which we can assume to be ‘available’ to the unknown ensouled subject (*Seelensubjekt*)? And it is in light of this rudimentary type of such [kinaesthetic] system [...] that we interpret the seeing of this animal, i.e., we get to understand what kind of ‘things’ are visually constituted for this [living] being or how the optical layer of the whole ‘thing’ looks like for [this] being. (Hua 14: 116—117; our translation)”

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We know what it is like to see, not because we have studied the physiology of the eye and the visual circuits in the brain, but because, by means of somatic *perception*, we are experientially given to ourselves as visual beings. Further, we know that the eyeless jellyfish sees not solely by studying the physiology of its sense apparatus but because we are able, by means of somatic *interpretation*³, to understand that the functioning of this apparatus coincides with the appearance of sensations, which makes jellyfish a distinct bearer of visual sensings and therefore a seeing entity. But even if we are willing to concede that all this is true in the case of “lower” animals such as jellyfish, are we also allowed to extend the same empathic procedure to other living beings, say, plants? Is not vegetal life, in its radical otherness, an unsurpassable “point of resistance” to somatic interpretation, an unsurmountable “barrier to empathy” (Marder 2012: 260, 261)?

It is interesting to note that Husserl himself explicitly expresses doubts about the possibility of including *botany* in his somatological framework (Hua

3 It should be noted that the term “interpretation”, which is used in the standard English translation of Hua 5 as an English substitute for a rather uncommon German word *Eindeutung*, does not imply an implicit opposition to, or rejection of, a “direct perception” approach to intersubjectivity. In fact, the very opposite seems to be the case. To a first approximation, we can think of “Eindeutung” as simply a synonym and precursor of “appresentation”, a term frequently used by the later Husserl (see section 2.3). The positive function of “interpretation” – understood as an active intervention undertaken by an attentive subject, which helps bring to the fore the “anomalous” life of the plant – is further developed in section 2.2.

5: 9; see also Hua 14: 118). The reason, he says, is that, when confronted with plant bodies, we lack a determinate mode of empathy that would justify the appropriate somatic interpretation:

“The universal and completely indefinitely performed empathy that permits the analogy is not enough for the investigator; he needs concrete experience of concrete sensitivities related to concrete organs, whereby the analogy of the plant organs with brute-animal ones, to which well-known sensitivities belong according to experience, must be broad enough to ground the probability of the interpretation. (Hua 5: 9–10)”

As we can see, Husserl here mentions another element that is required for somatic interpretation, namely *analogy*. Basically, he seems to be arguing that the dissimilarities between what we know about plant bodies and what we experience as our own *Leib* are too pronounced to justify the “standard” empathic procedure of somatic interpretation. However, this seems to leave us in a rather unfortunate predicament: Is the prospect of establishing “somatological botany” doomed from the very beginning?

Things are not as grim as they might appear at first sight. Note that, in the quoted passage, Husserl does not claim to have given the final answer to the problem. This is already clear from the fact that he appeals to matters of *probability* (“whereby the analogy [...] must be broad enough to ground the probability of interpretation”) rather than to matters of *principle*, which is to say that, in his view, the issue is not set in stone, but is an empirical matter open to subsequent revision. In fact, it turns out there are at least two further developments which might allow us to reassess plant life by increasing the viability of somatic interpretation. The first possible development is related to a refinement and extension of somatic methodology: the idea here is to enable new ways of empathizing and drawing analogies that are hidden at the more basic stages of somatic interpretation (more on this shortly). The second possible development relates to what we may call, with Thomas Kuhn, a “paradigm shift” in life sciences, i.e., a radical shift in how life sciences are conceptualized and practiced, which would have profound effects on all of their (sub)branches, botany included.

Husserl himself indicates that the exclusion of vegetal life from somatology is not due to its principled inaccessibility or incomprehensibility, but rather due to his intention “to be as accommodating as possible to the prevailing field of physiological botany and biology in general” (Hua 5: 10). In other words, Husserl seems to have given up on the idea of somatic botany not for some principled reason, but only because, in light of the hostile climate towards non-mechanistic approaches in the scientific establishment, the conditions for pursuing such a line of investigation seemed rather unfavorable. However, he leaves open the question of whether somatic interpretation in botany “cannot play — or whether in fact it is not playing — its fruitful role after all, as it undoubtedly does in zoology, although here, too, this is often not appreciated” (ibid.). This seems to imply that a phenomenologically-inspired paradigm shift in life sciences, and consequently in botany, might eventually lead to the inclusion of vegetal life in the framework of somatology.

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Hence, the possibility of somatic interpretation of the plant body depends not only on developing a specific methodological toolbox for such interpretation, but also on the advances in, and modifications of, life sciences based on new scientific methods for investigating vegetal life. Recent studies of the *behavior* of plants, which usually go by the name of “plant intelligence” studies (Pollan 2013; Marder 2012), as well as raging controversies over the legitimacy of so-called “plant neurobiology” (Baluska/Mancuso 2007), indicate at least one thing: that the issue surrounding the somatic interpretation of the plant is far from settled. If the plant, then, is truly the litmus test for the soundness of any phenomenological account of life, we can conclude that the prospect of “somatological life sciences” is at least feasible. But what would constitute, in the case of vegetal life, specific conditions for the appropriate application of somatic interpretation?

2. A Biological Reading of *Cartesian Meditations*

To answer this question, let us now turn to what might be termed a biological reading of *Cartesian Meditations* (CM), particularly of the famous CM V on intersubjectivity. Originally, the phenomenological analyses and syntheses presented in CM V are meant to address the following question:

“How is *the Other* given to me on the most basic level?” (Stahler 2008: 105; our emphasis). A biological reading reinterprets this question as: “How is the *other living being* given to me on the most basic level?” Ultimately, the aim of the biological reading of CM V is to find a more refined account of somatic interpretation based on Husserl’s multifaceted account of empathy⁴.

In CM, Husserl outlines a fundamental three-step procedure meant to specify the process of somatic empathy towards another living being. These three steps are as follows:

- (i) eidetic self-modification;
- (ii) inter-corporeal pairing; and
- (iii) appresentation of an alien field of experience.

Let us have a look at each in turn.

2.1 Eidetic Self-modification, or What It Is Like To Be a Potted Plant?

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The main idea behind the first step (*eidetic self-modification*) is to take the so-called *eidetic variation*, one of the cornerstones of phenomenological method, and use it on somatic perception, on the self-giveness of my lived body. Eidetic variation is a method based on “free imaginative variation”, and

⁴ Here, it might be worthwhile to mention that the proposed biological reading of Husserl differs from some other contemporary readings (e.g. Steinbock 1995, Zahavi 2001, Lobo 2013) in that it puts *empathy* back in the center. This, of course, is not to deny that empathy, conceived as “a *thematic encounter with a concrete other*”, is only *one particular form* of (pre-linguistic) intersubjectivity (in addition to a *priori* intersubjectivity, radical otherness, and alterity in self), and that “some of the most interesting and far-reaching phenomenological analyses of intersubjectivity are all characterized by going *beyond empathy*” (Zahavi 2001: 153). But this does not preclude its usefulness in explicating how other living beings are given to me *on the fundamental level*. For it should be clear by now that Husserl’s key insight concerning somatic interpretation still holds: To experience another body as *Leib* is the result of having performed a corresponding empathic act. In fact, there has recently been a considerable renewed research interest in empathy due to its implications for cognitive sciences, clinical psychology, and interpersonal interaction research (e.g. Zahavi 2012b).

is supposed to help us grasp the essence (*eidōs*) of a given phenomenon: by imaginatively altering various properties of the phenomenon in question, Husserl believes that we may arrive at its essence, i.e., to a horizon of invariant aspects within which that phenomenon can change without losing its unique identity (Zahavi 2003: 39):

“Suppose we are seeking the essence of an act of perception itself, an example Husserl gives in the *Cartesian Meditations*. We can take any current perception, for example *seeing* a table, and then seek to alter its constituent parts, while retraining the perceiving element in the act. The essential features are those which cannot be varied in our imagination. Imaginative free variation plays a helpful role in allowing the *eidōs* or essence of the phenomenon to manifest itself as the structure of its essential possibilities. (Moran 2000: 155)”

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Now, transferred onto somatic perception, eidetic variation might enable me to modify my factual self-givenness as this particular human *Leib*, in order to ultimately arrive at the essence of being a bodily ego, or the essence of being a *Leib* in general. For instance, when I face the potted plant on my windowsill, I can eidetically self-modify by imagining myself as being in its place: what would it *be like* to be a potted plant, to have a plant-shaped body, etc.? The general question here is whether we could, by performing this type of imaginative operation, gain any essential insight into *what it's like* to have a *Leib* for *every* living being (plants included).

Husserl was convinced that the main value of eidetic variation lies in its uncovering of the *universal* structures of experience, which presumably hold for *all* conceivable variations of subjectivity. So, for instance, even if I imagine myself being a potted plant, I must conclude that all transcendent objects that enter into a perceptual relation with my vegetal body will still appear to me *perspectivally*, i.e., they will give themselves to me not in “one fell swoop”, but through a series of perspectives, or “adumbrations” (*Abschattungen*), as Husserl called them. This holds true for all embodied living beings, be it plant, animal, or human.

Furthermore, when applied to the alien plant body, eidetic variation proves beneficial in that it supports the viability of empathy by stimulating my

capability of imagining alien modes of bodily life.⁵ This becomes clearer if we take into account that the process of eidetic variation includes the so-called genetic “dismantling reduction” (*Abbaureduktion*), which Husserl, drawing on the jellyfish case mentioned above, elucidates as follows:

“We can, to a certain extent, *systematically dismantle* our full-blown experience ([our] perception, [our] originary experiential apperception), [and] we can consider how perception is constituted from its horizons if we *exclude* certain experiences from *the genesis* [of the overall experience], that is if we assume that certain groups of experiences are impossible in principle. [...] (Hua 14: 115, our translation and emphasis)”

And, on another occasion, he writes:

“We can only say this much: there is, in the human environment (*Umwelt*) and in the human being itself, as its subject, a layer that can be abstractly discriminated – a layer of animality (*das Tierische*), that is to say, that which is shared with the animal (and whose unearthing requires a more in-depth examination). (Hua 15: 180, our translation)”

Hence, my attempts to imagine alien modes of bodily life are not entirely ungrounded, but can orientate themselves towards the imaginative “inversion” of my genetic becoming. This would mean that, by progressively dismantling in my imagination various layers of my experiential edifice, I can find, lurking hidden underneath the upper (genetically more recent) strata, the experiential

5 Some authors explicitly deny that imagination plays a central role in empathy (e.g. Zahavi 2012b: 237). However, since Husserl treats imagination in the context of eidetic self-modification in CM IV, which may be read as paving the way for the topic of intersubjectivity in CM V, it seems important to elucidate the exact nature of the link between empathy and imagination. Even if imagination does not play a central role in empathy *in general*, we might still maintain that there can be various “modifying types of empathy” (*Abwandlungsformen der Einfühlung*) (Hua 29: 329, our translation), and that it therefore plays a role in *a certain type* of empathy, e.g. in empathy towards *anomalous* living beings.

“vegetal-body” resources for imagining what it is like to be a plant.⁶ In other words, the process of dismantling reduction enables me to move from the various capacities and properties of my fully developed, egoically and reflectively given, adult human *Leib* – to the more fundamental (pre-egoic, pre-reflective) layers which, it might be argued, all living beings have in common. It would seem that Husserl has something similar in mind, when he writes:

“Is it not here necessary, in order to attain a scientifically comprehensible construal, to enter into the domain of the ideally possible modifications of the way in which our own interiority is given to us solipsistically, to construct *eidetic types*, to differentiate between, and modify, different layers [of experience], to consider *the founding layers in light of their single-sided commutability and relative autonomy* [...]? (Hua 14: 125, our translation and emphasis)”

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However, despite all these benefits, the straightforward answer to the question of whether eidetic reduction can help us gain insight into what it is like to have a *Leib* for *every* living being would be a resolute *no*: eidetic variation provides me with no valuable somatological insight, since we should not mistake “free imaginary possibilities” for motivated, real possibilities (see, e.g., Lobo 2013: 264, 266). Put differently, the main virtue of free imaginative variation is also its main vice: it enables me to extend the conceivable possibilities of embodiment without being constrained by any factuality (Hua 1: 110). For nothing prevents me from stepping beyond the selected example of the potted plant and imagining being in place of some *inanimate* object (say,

⁶ In fact, Husserl holds that each human being, as a being that is always becoming, carries “in itself a genesis that has arisen out of the community” (Hua 15: 155; our translation). In this particular context, Husserl takes this to be a merely inter-human issue, but it can be argued, based on other texts, that he also considers “generative unity” as a biological phylogenetic fact (see e.g. Hua 15: 172–173, 179). Accordingly, the famous supplement no. 23 to *Crisis*, dedicated entirely to the question of biology, states that biology is literally a reflection or mirroring of the *intentionale Ineinander* (Hua 6: 482).

a stone or a piece of wax).⁷ This goes on to show that my imagination was not motivated by some specific feature of the plant encountered, but was the result of my arbitrary decision. For this reason, it could be said that the mediation by eidetic self-modification, although *potentially beneficial* in “anomalous” cases of empathy (see below, section 2.2), is *neither necessary nor sufficient* for performing an act of real empathy towards every living being.

2.2 Intercorporeal Pairing, or Resonating with a Potted Plant

This brings us to the second step of the elementary empathic procedure, which we may call *intercorporeal pairing*. We use this term to describe how my own *Leib* relates to the encountered alien body on the basis of “inter-bodily resonance” (Fuchs 2016, in press), e. g., on the basis of perceived similarities in form, modes of behavior, etc. The necessary condition for intercorporeal pairing is that my own *Leib*, which is given to me from the “inner” perspective as a field of sensings, coincides with a particular organismic form of corporeality or *Körper*, which is given to me from the “outer” perspective:⁸

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“Here it must also be noted that in all experience of things, the lived body is co-experienced as a functioning lived body (thus not a mere thing), and that when it itself is experienced as a thing, it is experienced in a double way - i.e., precisely as an experienced thing and as a functioning lived body together in one. (Hua 14: 57)”

In other words, intercorporeal pairing presupposes that I am given to myself as, to use Husserl’s neologism, a *Leibkörper*, i.e., as a Janus-faced body

⁷ This is the reason “alien phenomenology”, with its main focus on the question “what is it like to be a thing?” (e.g. Bogost 2012), is methodologically misguided: its “speculative realism” relies only on free-floating imaginary variations without being constrained by real, motivated possibilities.

⁸ Our use of the inner/outer perspective here is strictly *methodological* and rests upon Husserl’s distinction of *Inneneinstellung* and *Außereinstellung* (see, e.g., Hua 4: 161). As such, it should not be mistaken as an epistemological, or even ontological endorsement of the representationalist conception of the mind-world relation.

construed as a “turning point” (*Umschlagspunkt*) (Hua 4:161), where the causal relations (relations between material objects) of the *Körper* are interrelated with and transformed into conditional relations (relations between psychophysical experiences) of the *Leib*. My own *Leibkörper* enables me, by drawing *behavioral parallels* between my body and the encountered entity, to perceive the latter as another *Leibkörper*: since my lived body (*Leib*), as a unique bearer of sensings, coincides with a specific object in the world (*Körper*), characterized by specific modes of behavior; and since the modes of behavior entertained by the encountered entity resemble those of my *Körper*, I perceive this foreign entity as an instance of a foreign *Leib*, a foreign field of sensings:

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“A body over there reacts to external stimulation, to the cold wind or the freezing rain, for example, in the same way as my own arms and hands: it shivers. And when it bumps into another thing, it does not halt or bounce back, but restores its balance and circumvents the obstacle. Such behavioral similarities motivate a complex of synthesizing experiences which terminates in an act in which I transfer a sense of sensing over to a perceived body. As a result, that body appears as a material thing with its own system of sensations, sensations that I cannot have or live through but are indicated to me by the thing’s behavior. (Heinämaa 2012: 227)”

It is important to note, however, that, according to Husserl, intercorporeal pairing is *not a cognitive procedure*, and that, consequently, the manifestation of a *somatic analogy* between the two bodies is not based on projection, interpretation, or inference, e.g., on an argument from analogy or inference to the best explanation (see, e.g., Heinämaa 2012: 228; Zahavi 2012a: 181; Zahavi 2012b: 234—239). On the contrary, the key point of intercorporeal pairing is that it is a (bi-directional) “transfer of sense” (Hua 1: 142), which, although it can be pre-prepared by the eidetic self-modification, can ultimately happen only by what Husserl calls *passive* association.

“Passivity” in this context does not denote a “lack of activity”, but rather those aspects of constitutive or sense-bestowing activity of our embodied ego that are relegated to the pre-egoic, unthematic background. In other words, passive association is a pre-reflective constitutive activity taking place “in the

background”, i.e. it is that which precedes and underlies the active (reflective) synthesis occurring “in the foreground”. I *do not infer* (derive, deduce, etc.) that the entity confronting me is another living being; instead, my embodied perception *is sensitive to and resonates with the other body*. It is a matter of a “pre-reflexive intertwining of lived bodies in which my own is affected by the other’s body as much as his by mine” (Fuchs 2016: 9, in press). Or, consider the example provided by Heinämaa:

“For example, when I turn over soil in order to make a hole for roses, I suddenly detect a quivering movement among the falling clods. This quivering stands out immediately in my perceptual field, and I switch from perception of mere matter to perception of a living thing: a worm or a millipede. [...] Rather than being an inference, the change from one type of experiencing (‘mere matter’) to the other (‘living’) resembles a *Gestalt switch*. (Heinämaa, 2012: 227–8)”

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This example portrays a kind of immediate Gestalt switch from the lifeless to the living which shows that intercorporeal pairing, as conceived in terms of “perceptive association” (Husserl 14: 530; our translation), is not an active (reflective) achievement, but rather an experiential, and to a certain extent a contingent, fact. What it does not show, however, is that the fact of becoming passively (pre-reflectively) paired with another body implies – in cases, such as that of the plant body, where we want to become more familiar with an otherwise unfamiliar life form – its own temporal dimension: it has the *immediacy* of the Gestalt switch (it is direct, unmediated), but one that *unfolds in time*. In other words, it is not so much a matter of “a flash of insight”, as it is a matter of “intercorporeal re-sonance” in the sense of dynamic (to-and-fro) interplay in the mutual alignment of two sensing bodies. In this regard, the main value of intercorporeal pairing is precisely in its adding what was lacking in the first step, i.e. in the *narrowing down* of the unbridled, free-floating self-modification of eidetic variation to particular instances of encountered bodies.

However, we are immediately faced with another problem: Namely, how can we claim that these encountered bodies encompass *all* living bodies? To see this consider that, in the process of intercorporeal pairing, it is my own human

Leib that is taken to be the “original prototype” or “originary norm” (*Urnorm*) (Hua 1: 154); but if this is the case, then how are we supposed to be motivated⁹ by passive association to extend our empathy to *anomalous* bodies, i.e. to all the other living organisms *apart* from man and (perhaps) higher animals? Indeed, given the striking *dis-similarity* of most, if not all, non-human living beings (potted plants in particular!), how are we supposed to *relate* to their anomalous animated bodies?

One way out of this predicament would be to try and broaden the possible scope of intercorporeal pairing by implementing two *enhancement strategies*, both of which take us beyond Husserl’s original work. The first strategy consists in *clarifying the notion of analogy*. As Kant once remarked, analogy is not an issue of imperfect similarity or *likeness*, but rather an issue of perfect similarity or *proportional equality*. In other words, analogy holds between two entities whose relations are, in some significant respect, proportionally equivalent, even though they are otherwise *completely* unlike one another:

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“By means of such an analogy I can therefore *provide a concept of a relation to things that are absolutely unknown to me*. E.g., the promotion of the happiness of the children = a is to the love of the parents = b as the welfare of humankind = c is to the unknown in God = x, which we call love: not as if this unknown had the least similarity with any human inclination, but because we can posit the relation between God’s love and the world to be similar to that which things in the world have to one another. (Kant 2004: 109, our emphasis)”

This example, reminiscent as it is of the traditional role attributed to analogy in the Scholastic era, might sound a little awkward when transferred into a biological context, but it does a perfect job in illustrating the general function

⁹ The term “motivation” plays an important part in Husserl’s theory of perception. Its use stands in stark contrast to natural causal theories of perception in that it puts emphasis on “a form of spiritual causation”, which is said to be enfolding between the object and the subject of experience: “We do not just causally interact with objects in the world but we deliberately turn our attention towards them, they ‘motivate’ our interest: ‘The room’s stale air (which I experience as such) stimulates me to open the window’ [Hua 5: 229]” (Moran 2012: 32).

that analogy is supposed to fulfill, i.e. allowing us to expand and deepen our grasp of the *epistemically* transcendent or the “absolutely unknown”. For it would seem that, in relation to the anomalous living bodies such as that of the plant, we find ourselves in a similarly embarrassing situation. Kant’s clarification helps us to get out of the “epistemic rut” by distinguishing between somatic analogy and the simple registering of organismic similarities. In fact, Husserl himself seems to be adopting a similar view when he suggests that we are capable of recognizing anomalous modifications to the human *Leib* if these stand in certain proportional relations to our own lived body as an *Urnorm* – as, e.g., when we are confronted with sense organs which are *phenomenally completely foreign* to us (say, the antennae of an insect), but serve *the same orientation function* as our organs (Hua 15: 626). Put differently, I can hold that the foreign organism’s *relation* to its sense organs is the *same* as mine is to my sense organs *without* thereby laying claim to a phenomenal similarity between our sense organs.

In fact, in a truly Kantian spirit, Husserl emphasizes the ever-abiding foreignness, an unsurpassable distance, which comes to full fruition in our empathy towards anomalous bodies. Namely, in order for me to enter the pertinent relation of co-resonance with the other body it is not necessary for the act of empathy to end in fulfillment; instead it can remain an empty form, without thereby losing its distinct experiential character (Hua 14: 479, 526). This is why Husserl conceives of (intercorporeal) pairing as “congruence at a distance (*Deckung in Distanz*)” (ibid.: 531, our translation). With this in mind, we are entitled to the belief that the human *Urnorm*, which is the basis for intercorporeal pairing, is *not* “a kind of matrix that I rely and draw on when understanding others”, but rather “a necessary contrast foil on the basis of which others can be experienced as others” (Zahavi 2012b: 240). In other words, “my self-experience doesn’t constitute the [positive] model; rather it is that against which the other’s difference can reveal itself” (ibid). Hence, the difference between my *Leib* serving as a matrix and my *Leib* serving as a contrast foil allows us to distinguish between naive and critical forms of anthropomorphism. Naive anthropomorphism draws analogies between myself and the alien entity based on our similarities (likenesses) and thus tries to tame the other by subsuming it to the modes of embodiment that I am most familiar and intimate with. Critical anthropomorphism, on the other hand, draws analogies between myself and the

other entity based on certain congruencies in relations and attitudes, while at the same time insisting on the (unbridgeable) distance of the other. In more general terms, we may discover here the *self-alienating* nature of empathy, which suggests that the “limits of empathy” (Marder 2012a) are perhaps far more remote than one might have expected them to be.

The second enhancement strategy for mending, or re-pairing, Husserl’s notion of intercorporeal pairing consists in broadening the scope of somatic interpretation by *technological means*. This refers to the so-called “phenomenotechnology” (*Phänomenotechnik*): the use of technologies, especially sense-bestowing technologies (*Sinn Techniken*), as an (often unnoticed) intermediary in how specific phenomena manifest or appear to us.¹⁰ In our context, *Phänomenotechnik* would allow for an auxiliary use of scientific studies on plant biology and of time-lapse videos in order to bring forward the formerly “hidden” or “unapparent” (*unscheinbare*) behavior of plants, which in turn would make their specific mode of embodiment emphatically more accessible, as it brings them in resonance with our own *Leibkörper*. But it is important to note that such technological tools are not supposed to substitute, but only to *in-form*, or even *trans-form*, our habitual intercorporeal experience, which is ultimately still governed by passive association.

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2.3 Appresentation of an Alien Field of Experience, or Living Up to the Subjectivity of the Potted Plant

Let us now turn to the third, and final, step of somatic interpretation as laid out in CM, to a new type of apprehension that might be called *appresentation of an alien field of experience* (Hua 1: 139). This last step is a supplement to, and an expansion of, the pairing relation described in the previous subsection: motivated by the ongoing inter-bodily resonance between myself and the other

¹⁰ See, e.g., Waldenfels 2006. As pointed out by Waldenfels, the technological mediation of appearances needs to be understood *universally*, as the term “technology” covers not only the use of tools and machinery, but also technologies of speech and action, body techniques, image technologies, navigation techniques, etc., so that ultimately the arrangement of every experience can be investigated from a distinct technological perspective (ibid.: 368).

entity, I attribute *inner life* (a distinct primordial sphere of lived experience) to the latter. The use of the term “appresentation” here refers to the idea that we directly experience another *stream of presence*, another *being-here*, which, although originally inaccessible (Hua 1: 144), presents itself to me as seated in the other *Leibkörper*. In other words, we are led to acknowledge that, what we are in the presence of, and what presents itself to us, is a foreign kind of “elementary subjectivity” (Fuchs 2012: 161), which is recognized to *express itself* in and through the other *Leibkörper*.¹¹

Note that, in the proposed biological reading of CM, the term “alter ego” is deliberately omitted and replaced by “elementary subjectivity”. In fact, one of the more considerable benefits of (re)construing appresentation in this way would be that it transcends the strictly egological framework commonly associated with the Husserlian phenomenology. The resources for this turning away from the transcendental self-reflection of the full-blown embodied personality towards the bio-phenomenological recognition of the impersonal elementary subjectivity can already, to a certain extent, be found in Husserl, insofar as he acknowledges that “the structural analysis of the primal presence” ultimately leads us to “the radical pre-egoic” (*das radikal Vor-Ichliche*) – to the founding “basic layer of non-egoic streaming” (*Unterschicht des ichlosen Strömens*) (Hua 15: 598). The same theme is even more explicit in Merleau-Ponty, for instance when he writes:

“My personal existence must be the resumption of a prepersonal tradition. There is, therefore, another subject beneath me, for whom a world exists before I am here, and who marks out my place in it. This captive or natural spirit is my body, not that momentary body which is the instrument of my personal choices and which fastens upon this or

11 This fundamental question – whether we are obliged to recognize the elementary subjectivity of all living beings – is to be distinguished from the follow-up question, investigated by Heinämaa (2013), namely whether some anomalous living beings (animals, children, mentally disabled, etc.) may count as co-constituting subjectivities of our world. Husserl argues that not all living subjectivities are our “transcendental companions” (Hua 15: 160, our translation) or “co-bearers of the world” (ibid.: 162, our translation). Thus, being co-constitutive of the world is not, for Husserl, a necessary condition for being an elementary subjectivity.

that world, but the system of anonymous ‘functions’ which draw every particular focus into a general project. (Merleau-Ponty 2002: 296)”

Thus, we can take up what was said earlier regarding the role of genetic dismantling (*Abbau*) in the context of imaginative variation (see section 2.1) and say that, by a personal (egoic) enactment of the dismantling reduction, I may discover, within myself, a *pre-personal (non-egoic) basic layer of experience*, “another subject beneath me”. This finding provides me with the *semantic resources* that are needed for appresenting an elementary kind of subjectivity; however, this time the imaginative variation is not free-floating, but *motivated and restrained* by the way the encountered body is given to me. Put simply, by facing up to my own genetic (temporal, multi-layered) constitution, I get a basic idea of what it would mean to attribute elementary subjectivity to a plant body.¹²

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Of course, the bio-phenomenological idea of appresentation does not resolve all the problems that are in potential conflict with this account. Above all, there remains the pressing question of whether our human capacities for eidetic self-modification, coupled with the well-founded motivations gained through intercorporeal pairing, will ever turn out to be sufficient for experientially appresenting elementary subjectivity in any specific entity – say, in the case of the potted plant resting silently on my windowsill. This, it would seem, remains a matter of contingency, a mere hypothetical speculation. In order, however, to at least partly mitigate this worry, we may recall that the human *Leib* serves only as a *contrast foil* and that the anticipated outcome of said appresentation is therefore *not to adequately represent* the supposed elementary subjectivity – the “originary inaccessibility” of foreign subjectivity remains an ineradicable fact – but rather *to experience oneself in the presence of another subjectivity*. We may call this a *Levinasian-inspired* turn, which tentatively goes beyond what was originally intended by Husserl in the direction of *practically inverting* the meaning of appresentation (Marder 2014). Applied to the vegetative body I am currently perceiving this interpretation of appresentation would imply what is

12 Accordingly, to meet the challenges of “pre-animal monads” (*vortierische Monaden*), Husserl, in his later reflections (around 1933), assumes that there exists an “infinity of monadic levels” (*Unendlichkeit von Monadenstufen*) (Hua 15: 595, our translation).

called a “counter-experience” (Marion 2002: 215) in similar examples of limit phenomena: it is not so much the plant that enters *my* field of presence, but rather, in a quite uncanny experience, *me* who is entering *its* field of presence.

3. Conclusion

Such, then, is the general outline of botanical somatology as conceived through the lens of the “biological rendition” of the tripartite empathic procedure in Husserl’s CM. The first step, *eidetic self-modification*, is a methodological tool that enables me to imaginatively modify my self-givenness as this particular human *Leib* so as to arrive at the essence of lived corporeality, and thus shed light on the living body which I am currently perceiving. However, due to its unconstrained (imaginative) nature, its main usefulness, particularly when confronted with an anomalous life form, is in supporting the empathic process by initiating the “dismantling reduction”, and thus paving the way to later steps, in which it must find its ultimate grounding. The second step, *intercorporeal pairing*, denotes a pre-reflective synchrony or resonance between my lived body and that of the encountered alien being. The most important point here is that such intercorporeal resonance is not a matter of inference or projection, but rather of an on-going, dynamic interplay between the two bodies that occurs on a *pre-reflective* level. Finally, *appresentation of an alien field of experience* is the direct experience of elementary subjectivity (another “stream of presence”) in the encountered being: grounded in the on-going process of the intercorporeal pairing, I apperceive the other human being as yet another sphere of lived experience. This apperception, however, is not meant to be an adequate representation, but rather a co-presentation or co-experience: the subjectivity of the other is presented to me through the presentation of my subjectivity to the other.

The common thread that has been weaving through all three steps is the necessity of the *pre-egoic* (pre-reflective) and *bilateral* construal of empathy: the empathic process is no longer a matter of my trying to reflectively subsume the foreign embodiment under my particular mode of embodied being, but rather a matter of a pre-reflective resonance and co-presentation at the most rudimentary level of (co)being: *an on-going, pulsating corporeal congruence at*

a distance. Construed in this sense, empathy becomes much more akin to what Marder terms “ontological empathy”, which is “no longer determined by ontic similitude but, instead, by a sense of proximity to the *being* of other creatures [...]” (Marder 2012a: 268). This, in turn, has important consequences to how we conceive of anthropocentric approaches: As our reading of Husserl’s somatology suggests, taking the human experience of the *Leib* as a vantage point for the exploration of life is not undermined by a seemingly inescapable commitment to an unbridled (naïve) anthropomorphism, since empathy, which lies at the very heart of the somatological approach, is *not* synonymous with the imposition of anthropomorphic conditions onto the experience of the living. Instead, it must be understood as the gradual formation of a contrast foil whose aim is to efficiently bring to the fore the peculiarity of non-human life forms. Thus, the phenomenological notion of empathy, in its protean nature, turns out to be considerably more resilient to the biological challenge than one would have expected initially.

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