



Explanation, Enaction and Naturalised Phenomenology

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Abstract

This paper explores the implications of conceptualising phenomenology as explanatory for the ongoing dialogue between the phenomenological tradition and cognitive science, especially enactive approaches to cognition. The first half of the paper offers three interlinked arguments: Firstly, that differentiating between phenomenology and the natural sciences by designating one as descriptive and the other as explanatory undermines opportunities for the kind of productive friction that is required for genuine ‘mutual enlightenment’. Secondly, that conceiving of phenomenology as descriptive rather than explanatory risks committing us to what Zahavi (2019) identifies as the error of equating the phenomenological with the phenomenal. Finally, that the erroneous reduction to the descriptive occludes the rich resources that the phenomenological tradition can contribute to investigations of non-human cognition. The second half of the paper then turns to focus specifically on the promising relationship between phenomenology and enactive approaches to cognition. It will suggest that phenomenology must be seen as having explanatory capacities if it is to shed light on the structures of “mind in life” (Thompson, 2007), before drawing on the model of explanation put forward by Louis Sass to explore what this might look like.

Keywords Phenomenology · Explanation · Enactivism · Temporality

This paper will focus on the implications of conceptualising phenomenology as explanatory for the naturalisation of phenomenology, especially for the ongoing dialogue between the phenomenological tradition and enactive approaches to cognition. The goal here is twofold, namely, to highlight the deleterious effects of relegating

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phenomenology to the realm of description, as well as to draw out the advantages of recognising phenomenology's explanatory power.

The former goal is the focus of the first three sections of the paper, which explore some general ways in which the attempt to position phenomenology as a non-explanatory enterprise can affect dialogues between phenomenology and the natural sciences. Section 1 argues that differentiating between the interlocutors in this discourse by designating one as descriptive and the other as explanatory undermines opportunities for the kind of productive friction that is required for genuine 'mutual enlightenment'. Section 2 contends that conceiving of phenomenology as descriptive rather than explanatory risks committing us to what Zahavi identifies as the error of equating the phenomenological with the phenomenal (2019). I suggest that this error can lead us to assume that taking up a phenomenological approach entails subscribing to particular claims about the nature of phenomenal experience. Crucially, as I then endeavour to show in Section 3, this can also prevent us from taking advantage of the resources afforded by the phenomenological tradition for contributing to investigations that go beyond the domain of phenomenal experience.

Section 4 pursues the second aforementioned goal of setting out the kind of benefits that can be generated if we acknowledge phenomenology as an explanatory inquiry. The paper will here focus specifically on the promising relationship between phenomenology and enactive approaches to cognition, suggesting that the model of explanation put forward by Louis Sass exemplifies how phenomenology can illuminate the structures of "mind in life" (Thompson, 2007). Sass (2010, 2014) outlines six types of relationships and processes that he believes phenomenology can help to explain, rather than just describe. The final section will argue that Sass's approach is particularly useful for conceptualising phenomenology's explanatory capabilities in two respects. First, he highlights and challenges the reductive assumptions about causality upon which many rigid distinctions between explanation and description rely. Second, he cashes out his framework in temporal terms, sorting it into synchronic and diachronic elements. This, I propose, provides us with a vocabulary for articulating a type of explanatory contribution that phenomenology is especially well-positioned to make. As a mode of inquiry that is particularly sensitive to the importance of time, and that has the tools for self-reflexively conceptualising its own temporal unfolding, phenomenology can recognise, investigate and (crucially) weave together the temporalities of both explanandum and explanans, showing how these generate and interlock.

1 Explanation, dialogue and productive friction

The dialogue between the phenomenological tradition and cognitive science (or dialogues, perhaps, given the multifarious and contested nature of the field) has occasioned a great deal of meta-methodological reflection about the scope and limitations of each discourse's respective contributions. The tendency to position phenomenology as a mode of inquiry that can at best describe or understand, but never explain the phenomena that it studies is arguably less prevalent now than it was a decade or so ago. However, it remains influential. One of the reasons for its continued appeal

may well be that it provides a convenient way of bypassing what we might call the problem of the competition for authority.

The competition for authority arises if we take each discourse to be positioning itself as a fundamental arbiter for other modes of inquiry, thus placing the other under its dominion (see Wheeler 2013; Clavel Vázquez & Wheeler, 2018; Zahavi, 2004, 2013). These commentators suggest that phenomenology can be defined in part by its investigation of the structures underlying experience and rendering possible all other forms of inquiry, including the natural sciences. These structures “cannot themselves be brought within the explanatory reach of that scientific sense-making” because the latter is taken to presuppose the former in such a way that it cannot examine them, at least not to the extent that phenomenology can (Wheeler, 2013, p. 140). This supposed inability to properly investigate their own foundations means that scientific accounts are to some extent doomed to incompleteness and may end up “taking [its presuppositions] for granted” (Zahavi, 2013, p. 33). Scientific inquiries, this perspective suggests, cannot countenance an inability to account for their own presuppositions, and must refuse to accept that they depend upon phenomenology to investigate these in their stead. This refusal is said to be grounded in two related consequences of the sciences’ commitment to naturalism. The first is that “philosophy should be continuous with empirical science” (Wheeler, 2013, p. 141) or “integrated into an explanatory framework where every acceptable property was continuous with the properties admitted by natural science” (Zahavi, 2013, p. 30), with philosophy having to give way in any matter of disagreement between itself and the sciences. The second is that the sciences cannot accept the notion of any realm of inquiry significant to them being entirely beyond their scope of investigation (Wheeler, 2013, pp. 140–142; Zahavi 2013, pp. 33–34). This contradicts phenomenology’s supposed assertion that it investigates structures that are indeed outside of the scope of scientific investigation. It also entails that the scientific perspective must deem phenomenological claims (either about reality or scientific inquiry itself) illegitimate if they conflict with its own understandings. The natural sciences are taken to hold that phenomenology must ensure its claims meet scientific approval. Those who view interdisciplinary relations as a competition emphasise that this constrains the conceptual framework of any interaction with phenomenology in ways that it could not accept. There is a competition for authority, then, in that each discourse would claim the authority to evaluate and ultimately reject the validity of the other’s explanation, while at the same time insisting that the other discourse could not legitimately exert a similar pressure.

One way to avoid this conflict is to set up a ‘division of labour’ that neatly cordons off each side from the purview of the other. Sometimes, this is explicitly cashed out in terms of explanation on one side and description or understanding on the other (Giorgi, 2012; Rupert, 2009). Even where this is not the case, we arguably see traces of that division, with explanation still playing the operative role in demarcating tasks. Wheeler (2012, 2013), for example, draws on McDowell’s distinction between constitutive and enabling understandings. Constitutive understandings deal with “the identification, articulation and clarification of the conditions that determine what it is for a phenomenon to be the phenomenon that it is” (Wheeler, 2012, p. 183). Meanwhile, enabling understandings concern.

the causal elements, along with the organisation of and the systematic causal interactions between those elements, that together make it intelligible to us how a phenomenon of a certain kind could be realised or generated in a world like ours¹. (Wheeler, 2013, p. 143)

According to Wheeler's reading of McDowell, these types of understanding can function relatively independently of one another, although each can inform the other. A constitutive understanding of a particular phenomenon need not compete with, and can indeed complement, an enabling one (Wheeler, 2013, pp. 142–44). For Wheeler, this provides a good template for cooperation between phenomenology, which he takes to aim for constitutive understandings, and the natural sciences, which he thinks target enabling understandings. They can work together in that phenomenology "will isolate and identify particular phenomena for which the corresponding cognitive science will then try to identify the underlying causal mechanisms", while the findings of cognitive science "may sometimes lead us to revive our conception of what the phenomena under investigation are" (Wheeler, 2013, p. 144). Even though both types of inquiry here are labelled 'understanding', it is clear that 'enabling understandings' broadly correspond to a causal, nomological conceptualisation of explanation, while 'constitutive understandings' cover tasks usually associated with both description and understanding. To be sure, this is an advanced version description that can shed greater light upon phenomena than first impressions might reveal, but nonetheless, it remains an inquiry focused on bringing the object of study into focus for deeper, more systematic analyses carried out by other means.

Differentiating between explanation and understanding or description in this way can be useful for encouraging a dialogue that is 'mutually enlightening' (to borrow Gallagher's phrase). It reminds us that phenomenology and cognitive science need not always compete – whether for authority or anything else – because their methods, tasks and goals can be complementary. It helps us to distinguish between disputes that demand a choice of one account of the other, and those cases in which differences between accounts can help each to supplement or enhance another. This means that substantive disagreements will stand out, rather than being submerged within a blurred mass of hostilities; the reasons for and ramifications of specific tensions can then be more carefully considered on a case-by-case basis.

However, maintaining that phenomenology aims only at understanding or description while cognitive science aims at explanation remains problematic for a variety of reasons. I will highlight three of these reasons here. The first is an issue arguably common to many forms of what Reynolds (2018, p. 23) dubs "methodological separatism": That is, instituting a division not only between tasks but also domains can run the risk of isolating these segregated labours from one another, dissolving the potential, not only for conflict, but also for contact. It is important to keep in mind that these discourses at least sometimes aim at substantially different kinds of goals or different aspects of a particular phenomenon. However, the emphasis upon assigning different kinds of intellectual labour to each begets the temptation to setting

¹ Throughout this section, note that I am relying on Wheeler's interpretation of McDowell rather than proffering my own interpretation.

their ‘specialisation’ up in a way that prevents them from truly addressing the same phenomenon. Wheeler’s account in particular reminds us that we need to secure the value of interaction in each case if we are indeed applying such a general separation between modes of inquiry. The McDowellian distinction, while useful, needs to be treated carefully to avoid relegating enabling and constitutive understandings to entirely different domains, such that it becomes an excuse for the disciplines to avoid collaboration, preventing the kind of productive friction that is important for fruitful dialogue. Productive friction here refers to what happens when distinct frameworks (with their own methods, ambitions and understandings) come into genuine contact in a way that lets each attain a real grip on the other’s assertions and perspectives. For this to happen, interlocutors must avoid positioning themselves in such a way that they will only ever talk past each other; they must be allowed to confront their differences, with a real possibility of substantive disagreement. If we propose a deep divide between phenomenology and cognitive science based on each engaging in a fundamentally different mode of inquiry, then we risk losing this possibility (naturally, a lot of this will also depend on exactly what we mean by ‘explanation’, which is an issue that will be explored later.)

Not all friction is productive, of course, which brings us to the second, related issue. Even in those cases where such a deep methodological divide does not prevent genuine contact, it can set up the kind of power imbalance that undermines the usefulness of such interactions. If phenomenology were only ever capable of description or even understanding, it seems that there would always come a point at which it would have to defer to the natural sciences (including cognitive science) about a phenomenon both are studying. While it is not inconceivable that a discrepancy between description and explanation could motivate a re-examination of the latter, it seems more likely that the opposite would be far more likely. It would surely be tempting to ascribe any conflict to an expected difference between how things are (explanation) and how things seem (description), and to dissolve such conflict in favour of the former. This can again be seen in Wheeler’s McDowellian approach, which was initially taken to be subject to what Wheeler called the “muggle constraint” (2013, p. 155). That is, in a substantive conflict with the natural sciences, phenomenology must surrender by default:

[If] and when there is a genuine clash between philosophy and some (eminently well-supported, by the data) empirical science, then there is good reason for the philosopher to at least revisit her claims, with a view to withdrawal or revision. The envisaged clash, on its own anyway, puts no such pressure upon the scientist. (Wheeler, 2013, p. 157)

If a phenomenological inquiry “demands the presence of some entity, state, or process which is judged to be inconsistent with empirical science”, then “it is philosophy and not science that must concede” (Wheeler, 2013, p. 156). Phenomenology has no comparable recourse, no legitimate way of returning that pressure. However, such surrender by default would hardly constitute a satisfactory or balanced dialogical outcome. Wheeler himself has recently revised his model for the cooperation between phenomenology and the natural sciences to reflect a more equitable, open, and pro-

ductive distribution of constraints. Clavel Vázquez & Wheeler (2018) describe a renewed “practice-centred analysis of the phenomenology-science interface”:

As practices, phenomenology and science have different goals, questions, methodologies, and techniques. Any collaboration will be regulated by the practice within which it is framed, rather than by the ultimate authority of one discipline over the other. This means that although there is always a power imbalance in force, just who holds power will depend on the kind of task that is being carried out. (pp. 155–56)

If we cash out the “kind of task” specific in such a proposal purely in terms of either explanation or description/understanding,² however, we risk reproducing the problem of foreclosing any kind of genuine friction. In order to allow for a “symmetrical asymmetry” (Clavel Vázquez & Wheeler, 2018, p. 156) that is effectively and flexibly determined by specific practical contexts and concerns, we cannot restrict phenomenology to ‘mere description’ on principle.

That a rigid distinction between inquiries that aim at explanation and understanding can turn into a hierarchy can also be seen in the history of the reception of Dilthey’s own account. As Apel (1987) and Nelson (2017) note, Dilthey’s distinction between explanation as the domain of the natural sciences and understanding as the domain of the human sciences (*Geisteswissenschaften*) has been interpreted by defenders of both ‘sides’ as a slight against the autonomy of their chosen enterprise. Nelson (2017) also shows that Dilthey’s later work makes apparent that the distinction was not meant to be cashed out in this way: “[Dilthey] did not maintain an opposition of methods – understanding and explanation – and a duality of sciences – natural and human” (pp. 101–2). The psychology that Dilthey advocated, which influenced both Brentano and Husserl, was to make use of both in grappling with the overlapping networks of meaning and meaning-making that constitute human existence, where “relations of meaning and causal relations are mutually entangled” (Nelson, 2017, p. 102). This brings us to the third issue to be examined in this section. If we choose to exclude phenomenology from the domain of explanation on principle, then we are occluding important and illuminating complexities in the history of ideas, especially within the phenomenological tradition itself.

Of course, the canonical representatives of the phenomenological tradition often emphasise descriptive modes of inquiry and distanced themselves from the causal explanations of the natural sciences. This is, after all, how Brentano distinguished between genetic psychology and descriptive psychology, or phenomenology. However, from Husserl onwards, emphasis on descriptive modes was never taken to mean that description or interpretation would be that the sole function of phenomenology. As Sass (2010) points out, Husserl did not just posit explanatory methods and goals for phenomenology; he also problematised the distinction between description and explanation:

² Note that I am not suggesting Clavel Vázquez and Wheeler do this themselves; rather, I think this is one way that others may apply their model.

It is clear, in any case, that Husserl (1989, p. 402) gradually moved away from Wilhelm Dilthey's sharp opposition between description (as the goal of the human sciences) and explanation (as the goal of the natural sciences). In his lectures on phenomenological psychology of 1925, Husserl (1977 [p. 39]) spoke of "ultimate unclarity concerning the mutual relation of nature and mind and of all the sciences which belong to these two titles what seems at first obviously separated, upon closer inspection turns out to be obscurely intertwined, permeating each other in a manner very difficult to understand". (Sass, 2010, p. 637)

This resonates throughout the phenomenological tradition. The early Heidegger's (1927/2001) project proceeds from the claim that description alone cannot suffice because the structures that enable and shape human experience are such that they work both for and against the phenomenologist's project. These structures give the phenomenologist, as Dasein, unique access to Being at the same time as they entail tendencies to flee from and occlude this, meaning that we cannot take experience at face value. The structures that we uncover if we go beyond the surface – including the ontic-ontological difference that operates here, that allows us to uncover itself – are fundamentally explanatory in nature. They are not merely intended to clarify or articulate that and how things are, but why they are, why human experience and inquiry take particular forms, and thereby explain both the enabling conditions and the scope of explanation itself. Merleau-Ponty (1945/2012) did not simply seek to refine the *descriptions* of perceptual experience. His critique was not just targeted at empiricist or intellectualist accounts of what it is like to perceive, but at their attempts to explain the processes of perception, especially as they go awry. Arguing that a case like Schneider's cannot be adequately captured in purely physiological terms is not to oppose explanation with description, but to target the former with a competitor of its own variety, and to say that the physiological account does not hold up by the standards of *explanation* itself.³ Of course, this is a very rough sketch that must remain vague and incomplete until we have more details about what explanation might mean in this context, a topic that will be addressed later in this paper.

2 Phenomenology and phenomenal description

The discussion so far has focused on broad concerns about the impact that excluding phenomenology from the domain of explanation might have on the preconditions for genuine interdisciplinary dialogue. Specifically, there are concerns that it forecloses productive friction, establishes a deleterious power differential, and occludes important aspects of one participant's self-understanding. Conceptualising phenomenology in this way can, however, also result in local as well as global distortions, that is, ones limiting how its arguments may be taken up.

³ This refers to the case of the patient whose inability to perform what Merleau-Ponty (1945) called 'abstract' actions while retaining the ability to enact 'concrete' ones illustrates, according to the latter, the relationship between embodiment, situation and intentional arc.

One such distorting effect is that this move replicates and reinforces the erroneous reduction of phenomenology to the phenomenal. In a recent critique of Van Manen and Smith's respective proposals for phenomenological approaches to qualitative research, Zahavi (2019) notes that phenomenology is too often misrepresented as a description of first-person lived experience:

[...] the terms “phenomenology” and “phenomenological” are often used as synonyms for ‘phenomenality,’ that is, as labels for the qualitative character of experience. To discuss phenomenology in that context is consequently to discuss a certain dimension of experience and at best to offer first-person descriptions of what the “what it is like” of experience is really like. This way of talking about phenomenology has, however, little to do with phenomenology understood as a specific method or tradition in philosophy. (p. 901)

This distortion is particularly pernicious because it occludes the “systematic and argumentative work that we find in the phenomenological philosophers”, who themselves “dismissed a purely descriptive endeavour devoid of systematic ambitions as mere ‘picture-book’ phenomenology” (p. 902).

Relegating phenomenology to mere description artificially reduces the scope of its investigations. This is the case even if we consider description at a relatively advanced clarificatory or critical level, one that looks beyond immediate impressions of what it is like to inhabit a particular state and asks, in Zahavi's terms, “what the ‘what it is like’ of experience *is really like*” (my italics). If we take such a restrictive view of phenomenology, we can acknowledge that descriptions of phenomenal experience can be rich and involve significant levels of interpretation, and even that they can motivate us to rethink assumptions about the nature and structure of experience. However, we will ensure that they cannot challenge these assumptions themselves, at least not head-on; they will always need a mediator, a translator, a means of demonstrating how and why they could even begin to matter on a structural, organisational or causal level.

Confining phenomenology to the phenomenal also risks committing the former to unnecessarily restrictive views of the latter. For example, if phenomenology only focused on describing what it is like to have particular experiences, then we might start to think that the phenomenologist can only legitimise their endeavours by placing phenomenality at the centre of any broader account of mind or cognition. We might be tempted to believe that the phenomenologist must then conceptualise phenomenal experience or consciousness in ways that grant them privileged access to that domain. On the one hand, this can lead us down the road to conflating the phenomenological method with introspection.⁴ We may consider that the phenomenologist ought to subscribe to the view that there are special phenomenal properties, committing them to the existence of some kind of qualia – perhaps even to epiphenomenalism. In the end, we may even end up allying phenomenology with claims about the subject who undergoes these experiences that risk undercutting the discourse's primeval anti-dualism. We risk privileging the domain of ‘inner experience’,

⁴ Zahavi (2013) articulates a form of this latter concern about reducing phenomenology to introspection.

locking phenomenology into a quasi-Cartesian view of the mind as immediately and infallibly accessible due to its internality. On the other hand, such an emphasis can obscure phenomenology's capacity to generate insights that apply to forms of phenomenal experience or consciousness that are very different to our own – a concern that will be the focus of the following section.

The point here is not to argue that any emphasis on description or concern with the phenomenal will 'corrupt' phenomenology, threatening to turn it inside out (or outside in, perhaps). Rather, the claim is that positioning the phenomenal as the sole domain and focus of phenomenological inquiries risks trapping the latter within ever-narrowing circles. If phenomenology were restricted to investigating only one aspect of cognition or experience, then each attempt to legitimise its own autonomy as a mode of inquiry will result in centring and elevating that aspect in distorting and distracting ways. To quote Zahavi (2019), the "claim [...] is not that phenomenologists are not interested in the phenomenality of experience, [but] that phenomenology cannot be reduced to a concern with that topic" (p. 902). Reducing phenomenology in this way would be inaccurate, given the history of the tradition, but it could also trap phenomenology within the kind of internal realm that it has always tried to dismantle.

3 Phenomenology beyond the phenomenal

There is still some mystery about the concern that restricting phenomenology to the phenomenal might lead the former to put the latter at the centre of any account of mind or cognition. It may remain unclear why this should be an issue. After all, even if phenomenology has capabilities beyond description, understanding or interpretation, it might seem strange to think that it should view phenomenal consciousness or experience as anything less than central to a satisfying account of what it means to be a cogniser. Doing so, however, would – to return once more to the theme of dialogue – cut off a wide range of potential and existing conversations, especially because it would limit the scope of phenomenology to cognisers capable of phenomenal consciousness.

If phenomenology can only ever really speak about what it is like to experience something from the first-person perspective, then it will have little to say to discourses that challenge the importance, or even the existence, of that perspective. This may not seem like a problem: phenomenologists might naturally have little to say to an eliminativist or illusionist. However, this lack of correspondence would arguably also preclude any chance of a real challenge. A discourse that calls itself phenomenological while taking itself to be *describing* something that eliminativist or illusionist frameworks reject will, as we have seen, not only fail to fully acknowledge the full scope of the tradition from which it draws, but also lack the vocabulary to confront the aforementioned frameworks on a meaningful level, for that would require looking beyond the phenomenal to the structures that are meant to give rise to it, and examining where, how and why *explanations* linking the latter to the former end up diverging.

More importantly, however, centring the phenomenal would undercut existing dialogues between phenomenology and various approaches that do not share such an

emphasis. This is not to say that those interlocutors disregard phenomenality; rather, they deprioritise it in various ways. For many 4E⁵ models of cognition, for example, a system's capacity for subjective perspective is less important than other factors for determining whether it counts as a cogniser. Responsiveness to salience here tends to require a 'thin' locus of concernful activity, but the question of whether a bacterium, for instance, has a thick sense of *what it is like* is not the operative factor that decides whether what is happening meets the criteria for cognitive activity, nor is it the most interesting focal point for investigating that system's behaviours.

The importance of this point for phenomenology comes to the fore in one of the recurring objections to the dialogue between phenomenology and 4E approaches to cognition, which is that the former can only speak to human forms of consciousness and experience, making it increasingly less relevant to the latter. Some participants in these dialogues are happy to accept this for the sake of fidelity to the phenomenological tradition. However, this limitation is arguably becoming more and more restrictive. 4E models are challenging the foundations of the claim that human cognition is fundamentally different in kind to that enacted by other types of cognisers. This is the case for both functionalist and enactivist approaches, which each tend to ascribe cognition to very minimal systems and reject the notion that the components of such systems must necessarily be neural or, in some cases, organic, let alone the idea that they should resemble human biomatter. If phenomenology is to participate productively in dialogues with these approaches, to sustain the kind of conversations that have already yielded a variety of important insights, then it needs to look beyond the phenomenal – something it can do again precisely because it has already done so.⁶ That is, the phenomenological tradition itself, as we have seen, precludes a reduction to the phenomenal; recognising this is beneficial for both the phenomenologist (thus avoiding the trap of restricting their mode of inquiry in a way that obscures the rich resources present within the tradition informing it) and their scientific interlocutors (in order to avoid unfairly constraining or indeed caricaturising their dialogue partner). To reiterate a previous point: this is not to say that phenomenology must abandon the phenomenal, or that it must be capable of supplying analyses that are grounded in something else entirely. In partnering with cognitive science to explore the nature and structure of cognition, the phenomenologist's first question should not be what it is like to be a particular cogniser – nor should they feel the need to exit the conversation if it is not clear whether being that system is 'like' anything at all. Phenomenology can and does extend beyond this, and to acknowledge this and take

⁵ That is, embedded, embodied, extended or enactive.

⁶ As a reviewer has noted, this raises the spectre of anthropocentrism. That is, a phenomenologist's refusal to look beyond the human may be motivated by the concern that we cannot simply project structures of human cognition onto other types of cognisers. This is an important problem. One potential response here is that we face this worry either way: Whether we restrict our inquiries to human cognition or look for structures shared with other cognisers, we risk making the human case the paradigm. However, if we take up the latter, we arguably have a greater hope of dismantling an overemphasis on our own 'specialness'; we can maintain phenomenology's critical, non-reductive impetus while at least trying to contextualise human cognition and affirming that it is not the only form thereof. We do not know what it is like to be a bat, but we do not have to in order to use phenomenology to explore connections between its form of cognition and our own, because phenomenology has never truly limited itself to 'what it is like'.

up its potential, both the phenomenologist and their interlocutor must conceive of it as more than a descriptive mode of inquiry.

4 Enaction, phenomenology and Sass's model of explanation

To add more detail to this claim, we can focus on one conversation of this type: the ongoing dialogue between phenomenology and enactivism.⁷ Enactive approaches to cognition define the cogniser as an autonomous, adaptive system, that is, a self-producing and self-maintaining unity that persists in the face of constant precarity by flexibly tracking and responding to actual and potential threats/benefits (Maturana & Varela, 1980; Varela et al., 2016; Di Paolo, 2005). This is a relational view of cognition: such a system cannot be what it is apart from its environment, with which it collaborates to enact or “bring forth a world” (Varela et al., 2016, p. 209) of significance defined through its needs, capacities and specific sensorimotor modalities. For enactivism, cognition is also fundamentally embodied, proceeding through the dynamic feedback loops of the cogniser’s “sensorimotor coupling” (Thompson, 2005, p. 407) with its world.

There are clear resonances between this view of a cogniser that is shaped by and generates its world, where neither is separable from the other, and the various conceptualisations of the subject-world relation in the phenomenological tradition. This resonance is especially apparent with respect to Heidegger’s model of Dasein’s Being-in-the-world as a “unitary phenomenon” (1927/2001, pp. 78, 53; see also Stendera 2015) and Merleau-Ponty’s account of perception as a dialogue between body and world (1945/2012; see also Thompson, 2007). Since its inception, enactivism has explicitly engaged with – and been informed by – the phenomenological tradition (Roy et al., 1999; Varela et al., 2016).

Enactive approaches emphasise that cognition is not restricted to systems as complex as humans.⁸ The conditions for cognition are said to be coextensive with those of life itself, as reflected in the claim that enactivism sees “mind in life” (Thompson, 2007). Any system capable of autonomy and adaptivity counts as a cogniser, from humans and other primates down to bacteria and slime mould. This makes the aforementioned concern about phenomenology being restricted to human cognition a particularly urgent problem for what is otherwise a fruitful, longstanding relationship with enactivist approaches (Stendera, 2016). One answer to this concern, of course, would be to say that this only restricts phenomenology’s scope, rather than its significance; providing insights into what occurs among human cognisers is still an important task. However, the phenomenological tradition does have the resources to

⁷ I will focus here on the version of enactivism that directly takes up the project of Varela et al.’s *The Embodied Mind* (2016), rather than the perception-focused variant associated with the work of Alva Noë or Hutto and Myin’s radical enactivism.

⁸ It is worth noting here that references to humans being more ‘complex’ than other types of cognisers is not intended to be a value-judgement, nor to imply that humans are the most complex cognisers. Complexity here refers more to some types of cognisers having more structures and processes, with more levels of interaction and layers of, for example, temporal extension and interconnection than others. Thank you to a reviewer for pointing out the difficulties with using terminology like this.

speak to other matters and to shed light upon the structures of cognition more broadly – provided that we do not position it as a merely descriptive enterprise.

The discussion so far has provided largely negative reasons in support of that point, focusing on the harmful effects of excluding phenomenology from the domain of explanation. However, there are also positive reasons for conceptualising phenomenology in explanatory terms. One reason is that there are deep resonances between enactive explanations and the kind of explanations that phenomenology could offer. Enactivism itself challenges the distinction between explanation and description, not least because it describes processes that do not fit neatly into traditional frameworks of linear causality. Enactive cognition involves intertwined processes and feedback loops whose components and stages cannot be easily disentangled. These processes and loops often not only shape but also generate each other, with complex temporal relationships between different stages of the system, its regulatory norms, its responsiveness to stimuli, and its world enaction. Phenomenology is particularly well-positioned to contribute to such complex, intertwined explanations, integrating understanding and interpretation with a multifaceted understanding of causality.

To examine this in more concrete terms, I now turn to Louis Sass's model of phenomenological explanation, which represents causality in terms that are particularly suitable for the enactive framework. Sass (2010, 2014) outlines six related but distinct forms of explanation that phenomenology can provide, classified with reference to synchronic or diachronic relationships. On the synchronic side, we find explanations uncovering relationships that are.

- a. equiprimordial, where elements are equally and mutually significant such that “neither is more basic than the other” (2010, p. 644);
- b. constitutive, where elements generate each other in a way that does not involve “creation” or “temporal succession”, but instead sees them “co-occur”, so that “each lacks the kind of independence that is required for most notions of efficient causality” (2014, pp. 368–369); or
- c. expressive, where a specific instance or element “seems to reflect or manifest some more general, perhaps formal, structure” (p. 370) – the closest here to traditional understandings of description, especially as this mainly occurs in cases of one type of experience referring to a broader experiential structure.

Meanwhile, the diachronic relationships that phenomenology can explain are.

- d. primary, where an initial event or “irritation” (2010, p. 648) sets off subsequent events;
- e. consequential, referring to those subsequent events arising and corresponding most closely to Aristotle's notion of the efficient cause (2014, p. 372); or
- f. compensatory, where the initial cause in a particular chain of events provokes a counterreaction, with a vaguely teleological shape leading it to resemble the narrative of the Aristotelian final cause (p. 372).

It is worth noting that the primary aim of Sass's framework is to show how phenomenology and psychiatry can together produce more effective explanations of the

symptoms of schizophrenia. This may at first seem to undermine its usefulness here – indeed, to counteract the aims of the paper – since it explicitly defines phenomenological explanation within the context of human experience and cognition. However, the way that Sass constructs his model means that it, like phenomenology, is applicable beyond its original context. This is apparent in two key aspects of Sass’s conceptualisation of causality – motivation and temporality.

Sass (2014) points to a range of discourses, from Aristotle’s model of the four causes to contemporary debates about the nature and role of mental causation, that show how complex and contested definitions of causality have been and continue to be. Meta-philosophical approaches that define causality in strictly physical terms and use this to determine which discourses are capable of explanation need to at least justify that choice with care, rather than take such a reductive view of causality for granted. Despite taking up such a nuanced view of causality, Sass (2010) nonetheless also resists reducing explanation to the study of causal processes. Accounts of synchronic relationships “do not involve either causation or genesis over time, [but] they do involve forms of what might be called ‘phenomenological implication’ – and thus they perform an explanatory rather than merely descriptive function” (p. 643). Thus, if we follow Sass’s model, phenomenology is explanatory regardless of whether we define explanation as the study of causal relations; explanation and causality are both richer and broader phenomena that cannot be contained by simple binary distinctions.

One such complex aspect of cognitive causation is what Sass – following Husserl, Stein, and Merleau-Ponty – calls “motivational causality” (2010, p. 637). This sort of causality is distinct from both physical causation as well as traditional mental causation in the sense of articulable reasons, beliefs or intentions; it refers instead to a nexus of concern around which the interpretation of the world is centred and from which action proceeds. In Merleau-Ponty’s words,

One phenomenon releases another, not by some objective efficacy, like that which links events in nature, but by the meaning it offers – there is a *raison d’être* that orients the flux of phenomena without being explicitly posited in any one of them, a sort of operant reason. (as cited in Sass, 2010, p. 637)

This resonates strongly with the enactive model of the cogniser as a locus of sense-making, a sort of minimal perspective from which and for which particular actions are meaningful – something we would need to consider in order to, for example, differentiate a living, self-maintaining cogniser from a system which only follows external directives. That is, a system can only be classified as a living cogniser if the source of unity, actions and adaptive norms is intrinsic rather than extrinsic – if it maintains itself because of its own intrinsic resistance against annihilation, rather than merely following a set of instructions. Thus, it might be that we must be able to recognise a basic form of motivational causality – something arguably akin to what Heidegger might, at the human level, call “for-the-sake-of-which” (Heidegger, 1927/2001; Stendera 2016) – to even identify a cogniser, let alone to study the structures that shape and enable its behaviours.

Interestingly, this theme appears prominently in recent work that has focused on addressing so-called gaps within the enactivist discourse. For example, Di Paolo et

al., (2017) argue that enactivism has neglected the theme of agency, especially the question of how its structures – which they define as “self-individuation, asymmetry [between organism and environment] and normativity” (p. 124) – develop and unfold in different types of system. Meanwhile, De Jaegher (2021) suggests that the “certain depth” that is “missing” (p. 849) in contemporary enactivist accounts lies in their inability to conceptualise “sophisticated knowing” (p. 848). She argues that this can be addressed by acknowledging the similarities between processes of knowing and loving. Both require “letting be”, meaning that knower and lover must interact with that at which they are directed “in a way that does not overdetermine it, nor underdetermine it” (p. 850); and both are “engaged” processes, meaning they are “not neutral” (p. 860). Rather, just as “[in] loving, *who* loves matters” (p. 860), “[e]very sense-maker is implicated in what they make sense of, because it matters to them—they care about it” (p. 862). Both of these accounts highlight the importance of motivational causality to identifying and understanding cognition. Recognising agency in enactive systems requires recognising a normativity that is intrinsic rather than extrinsic to the organism; conceptualising a sense-maker’s capacity to know requires conceptualising what it means for something to matter to them. This becomes particularly important for the key project of exploring how these processes can arise in minimal systems and then scale up across more and more complex cognisers. In order to explore how the minimal adaptive normativity of a basic organism compares to the complex multifaceted normativity of higher-level systems, and how a basic sense-maker’s concerned striving relates to sophisticated capacities of knowing and loving, we need to be able to understand what it means for a system to be the kind of organism to which something can matter at all, and what forms this mattering – this caring, this for-the-sake-of-which, this operant reason – can take.

Sass suggests that phenomenology is especially well-positioned to analyse motivational causality in both synchronic and diachronic forms. If so, we start to arrive at a richer picture of the insights that can be generated when we broaden our concepts of explanation and causality to make both accessible to the domain of phenomenological inquiry.

Sass’s account is also particularly suited to illuminate the dialogue between phenomenology and enactivism because it is framed in explicitly temporal terms. This is not an incidental feature, a convenient way of separating implicature from causation. Rather, Sass (2010) emphasises that the complex temporal linkages between the synchronic and diachronic aspects of phenomenological explanation are themselves significant:

[...] the synchronic and diachronic dimensions laid out in this paper can and should be combined into a more encompassing, integrated or dialectical account. After all, structures are themselves formed; and in turn they play a role in developmental processes that occur over time. [...] It is also important to consider how synchronic structures involving phenomenological implication may constitute the key context or contexts within which causal and diachronic processes may play themselves out. (p. 650)

The importance to enactivism of the rich, complex interplay between synchronic and diachronic axes – and the concomitant importance of modes of inquiry that are especially sensitive to such factors – is apparent in recent work defending enactivism against accusations of idealism. Crippen (2020) and Rolla & Figueiredo (2021) note that the emphasis upon the cogniser’s active role in generating meaning and enacting its world has led to enactivism sometimes being positioned as a form of subjectivism (even though the ‘subject’ in question can be a very basic organism). The concern is that enactive sense-making can start to sound like the projection of values and attributes upon an environment which is never truly encountered ‘in itself’, especially since the world that is enacted – the meanings, possibilities and threats – are not taken exist without the cogniser. For example, a particular accumulation of chemicals only becomes food or a threat in and through the presence of a cogniser with the relevant capacities and concerns. In response to this, both Crippen (2020) and Rolla and Figueiredo (2021, p. 3) offer arguments for a “middle way” between realism and idealism – arguments that, as we will see, are couched in the kind of temporal terms accessible to Sassian phenomenological explanations.

Crippen (2020) uses the example of a type of slime mould to explain how world enaction is a genuine dialogue between the organism’s perspective and its environment, such that the meaning it generates is both specific to the organism’s needs, aims and capacities, as well as truly being ‘out there’ in the environment. *Physarum polycephalum*, the slime mould in question, is a remarkable organism. It is not only capable of foraging and avoiding threats, but also of navigating mazes, modifying environments and producing rhythmic patterns that some artists have turned into music.⁹ It moves through its environment primarily by expanding when it senses beneficial chemical concentrations and contracting away from threats. In doing so, it lays down chemical trails which indicate where it has already been, which allow it to forage efficiently by avoiding areas already exploited. As Crippen argues, this is a very concrete, explicit example of world-enaction that makes the temporality of sense-making particularly clear:

[...] these organisms record past movements externally; they thereby organize their space, their local situation, and hence their sensorimotor engagements, largely according to resource availability. This means that they construct affordance-bearing chemical geographies that function as external memory traces [...]. (p. 5)

P. polycephalum shapes its world through its sensorimotor processes, which in turn respond both to the environment and to its own history, externalised and excreted in ways that continue to open and close possibilities for the system. It encounters literal traces of its own past needs and aims and navigates the world through accumulations of memories that are simultaneously future-directed markers. Moreover, a single response – for instance, foraging movements away from an area already marked as explored with slime – is all of this at once, sug-

⁹ See Stinson 2015 for examples of these slime mould songs.

gesting that action, cognition, perception, and valuation fuse in even relatively simple instances of life. (Crippen, 2020, p. 5)

That is, the synchronic and diachronic intersect in every moment of the slime mould's existence, as it must constantly integrate these in order to maintain itself.

Meanwhile, Rolla & Figueiredo (2021) defend enactivism against charges of idealism by focusing on a lesser-known concept within the discourse: 'natural drift'. This concept was used in *The Embodied Mind* as an alternative to adaptationist accounts of evolution; natural drift "denies that evolution occurs mainly by virtue of selective pressures and adaptation" (p. 15) and instead emphasises the organism's ability to shape its environment, giving this a greater role in affecting the path of evolutionary development. This shaping, for Rolla and Figueiredo, happens both through 'regular' and social niche construction, as organisms modify their physical environment and their relations to each other, giving rise to broader communal, cultural and even institutional aspects of worldhood that will influence that group's developmental trajectory.

This framework renders each action of the cogniser within its environment as "a single response [...] [that] is all of this at once" (Crippen, 2020, p. 5). Every modification that the organism makes to its environment is not only a simultaneous occurrence of perception, response, assessment, adaptation, recollection, projection and movement. It is also a small part of a much broader historical and developmental story. On the one hand, each act is a response to its own history and to the past and present worlds enacted by other members of its species, which would have had concrete effects upon the environment encountered by the cogniser, and also (through genetic means) upon the shape and sensorimotor capacities of the cogniser itself. On the other hand, each act is a note to the future, closing down some possibilities and opening up others for the organism's community – a group comprised of its contemporaries as well as those who are yet to exist, whose bodies and environments and thus worlds will already be affected by actions occurring long before they enter the arena of enaction.

These relations are particularly apt examples of some of the relationships that Sass argues phenomenology is equipped to uncover and study, including equiprimordiality, consequence and compensation. They also extend the synchronic and the diachronic in ways that enhance the scope and promise of Sass's original model. The synchronic is now not only the simultaneous occurrence of a few processes within one individual, but also a complex concatenation of a vast number of different interactions, while the diachronic is extended to timescales stretching across eons. Rather than threatening the viability of phenomenological explanations, these extensions reinforce the discourse's suitability for discussing even these distant reaches of cognition. After all, phenomenology traditionally emphasises not only temporality, but also historicity, not only the time of the individual, but the co-constitution of that temporality with social and historical times. The complex interrelations between individual, social, and historical timescales are, to a certain extent, built into the DNA of the phenomenological tradition, just as much as they are reflected in the genes of cognisers enacting a shared world.

The intermingling of synchronic and diachronic dimensions in these accounts overall suggests three important implications for conceptualising phenomenology's explanatory capacities as Sass has done. First, cashing out those capacities in temporal terms makes phenomenology useful, not just to the particular investigations named above, but to enactive approaches in general. Sass (2014) himself points to this intersection when he suggests that Thompson's bridging of phenomenology and enactivism is remarkable precisely for the way that it integrates the synchronic and the diachronic (p. 372). Phenomenology has especially promising resources for contributing to investigations of interlocking enactive timescales because it already moves comfortably within the domains of the synchronic and the diachronic, as well as the spaces formed at their intersections. Second, those variants of phenomenology that emphasise the connection between temporality and practice on the one hand, and between individual and social timescales on the other, will be best suited to the tradition's dialogues with enactivism. Consider Heidegger's model of Being-in-the-world, which Crippen (2020, p. 6) highlights as relevant to his inquiry. The early Heidegger not only defines temporality and practice in terms of each other, but also links these to broader intersections between historical, communal and individual temporalities in ways that resonate deeply with the concerns of the enactive approach (Stendera, 2015, 2016).

Finally, all this also points to the benefits of phenomenology as a discourse sensitive to its own temporality and historicity, and to its own participation in synchronic and diachronic interrelations. Wheeler makes a similar point, arguing that phenomenology's temporalized self-reflexiveness means that it is especially well-placed to acknowledge its own situatedness, and hence to revise its claims considering insights generated by dialogues with the natural sciences:

[P]henomenological analysis, as an interpretative activity, is itself inevitably guided by certain historically embedded ways of thinking that the phenomenologist brings to the task, meaning that its results remain ceaselessly open to revision, enhancement and replacement. (Wheeler, 2013, p. 138)

We can redirect this point towards the nature of explanation itself. As a discipline that not only centres temporality and history, but has also consistently engaged in critical meta-philosophical and meta-methodological examinations of its own scope and limitations, phenomenology is an explanatory mode of inquiry that has the resources to interrogate, highlight and analyse how that which is to be explained and the explanations themselves are produced in time and in history. As an explicitly historicised discipline that also concerns itself with the study of time and history, phenomenology is, perhaps uniquely, well-equipped to critically investigate the linkages between the temporality of the explanandum and explanans.

One last point of convergence that is worth mentioning here – not least because it ties together all of these threads: the importance of motivational causality, the interaction between synchronic and diachronic – is the concern about explaining how cognition can scale up from minimal to complex cognisers. We have already seen this form the basis of an objection against phenomenology's relevance to 4E cognition. This is also an issue that has plagued enactivism itself, in the form of what has

sometimes been called the problem of the cognitive gap (Froese & Di Paolo, 2009). An approach that locates cognition in even the most basic living organisms will need to pay particular attention to elaborating how the structures enabling sense-making at that level compare to those present in more sophisticated organisms, without simply cashing out the latter as having “more of the same” as the former (p. 442). Rather than driving enactivism and phenomenology further apart, however, this issue can instead serve to bring them closer together. If phenomenological explanations are especially apt for tracing out and analysing motivational causality, as well as the complex intersections between diachronic and synchronic relationships, and if these factors are, as we have seen, useful for talking about both minimal and advanced cognisers, then it seems that phenomenology assist enactivism in grappling with the problem. Phenomenology’s ability to offer descriptions, understandings and *explanations* that track the connections between intrinsic motivation, self-concern, sense-making, world-building, and temporality – and across multiple timescales – make it an ideal interlocutor in this enterprise.¹⁰

Phenomenology also stands to gain something from this interaction (beyond the chance to further clarify key concepts and significantly expand their scope). This is because the scalability of cognition also directly affects the nature of mind and experience at the level of phenomenology’s tradition focus, human experience. Consider Crippen’s point about the influence of alimentary processes upon cognition, especially through the affective dimensions of Being-in-the-world (2020, pp. 7–8). These processes (along with others that shape how we move through our lives) involve not only us, but millions of organisms that exist within and on the boundaries of our bodies. Non-human cognition is not only phenomenologically relevant because it scales up to human cognition, but because it plays a direct part in human cognition, constituting and generating key components of our own self-maintained unities. In other words, we encounter non-human cognition not only in diachronic and developmental terms, but synchronically; it is something that happens every time we perceive, act, experience. Given phenomenology’s history of making the familiar unfamiliar and of breaking down dualisms, it seems that an approach which acknowledges the non-

¹⁰ There remains a lingering concern, suggested by Haueis and Casper in their contribution to the present issue, about whether this approach to conceptualising phenomenology’s explanatory capacities is both genuinely explanatory and sufficiently distinctive. On the one hand, we may worry whether Sass’s model allows for the level of asymmetry traditionally required to exist between explanans and explanandum. On the other hand, we may wonder whether there is anything about all this that is unique to phenomenological explanation. In response to the first point, I would suggest that phenomenological explanations do seem to resist linear conceptualisations of explanatory asymmetry, especially if we consider structures that are equiprimordial or mutually (re)producing. However, I would argue that enactive models of, for example, sensorimotor coupling also do this in ways that suggest, for complex multi-levelled processes such as cognition, such asymmetry may be more heavily determined by the direction and target of our inquiry than by what is ‘out there’ independently of the latter. In response to the second point, I am not convinced that phenomenological explanations would need to be *sui generis*. A more appealing goal to me would be to show how they fit into existing models and types of explanation. Having said this, I do think that their capacity to capture the immanent motivational aspects of cognition may be a good candidate for a factor that sets apart phenomenological explanations from other types of cognition. Haueis and Casper might note that other approaches also draw out, for example, the justificatory connections between beliefs and actions, but I would say that phenomenology has the distinctive capacity to acknowledge the importance of – and set this out in – pre-reflective, non-inferential and non-assertoric terms.

human (quite literally) within the human would be a continuation, rather than a violation, of the discourse's key projects: the staging ground for yet another blow against the Cartesian ego and its disavowal of the body. Taking up the kind of explanatory capacities that Sass proposes and embracing the opportunities presented by the dialogue with enactivism would enable phenomenology to more fully explore the fact that, to use Varela's famous words, we are "a meshwork of selfless selves" (as cited in Froese 2017, p. 38).

5 Conclusion: the problem of fidelity

One obvious objection to the approach proposed here is that it appears to require fidelity to the phenomenological tradition in one instance but not in another. On the one hand, the present discussion attributes significance to phenomenology's self-understanding, suggesting that we should not confine it to mere description because this is something that key figures in the tradition have themselves resisted. On the other hand, however, those same accounts also implicitly or explicitly restrict themselves to human experience; yet in this case, the paper has argued against adhering to that limitation. This is one form of a more general concern that often haunts the dialogue between phenomenology and cognitive science. Sometimes the very aspects of phenomenology that make it such a suitable interlocutor for cognitive science also threaten to undermine that relationship. Of course, there is the option of a 'pick and mix' approach, by which we simply focus on those elements of the phenomenological tradition that are useful for a particular problem and disregard those aspects that are intractable or inconvenient. While this approach has more merit than the phenomenologist might like to countenance, there is another way of thinking about the dilemma.

The core problem here – the main motivator between the parts of this paper that are seemingly in tension – is scope rather than fidelity. This paper is less motivated by the goal of remaining faithful to a particular set of texts, and more by the concern that a rich and relevant tradition is threatened by unnecessary restrictions. Confining phenomenology to description and to human cognition are both examples of such restrictive moves. Of course, the intention is not to declare 'open season' on phenomenology: claims drawing upon the phenomenological tradition must still be grounded in, and at least in principle supportable by reference to, that discourse's history, claims, concepts and/or methodologies. In the case of arguing against the confinement of phenomenology to phenomenal description, the support from the tradition is clear. As Zahavi (2019) and Sass (2010, 2014) note, the tradition never conceptualised itself in such a limited way. In the case of arguing for the expansion of phenomenology beyond the domain of the human, the requisite support is more implicit, often coming from points that need to be read 'against the grain' (Stendera, 2016). Even these readings, however, are arguably 'destructive' in a way that resonates with phenomenology's characteristic approach to its own sources: they exhibit a fidelity in the lack of fidelity. Overall, then, the aim is to gain as much from phenomenology as possible without, thereby, rendering the result entirely or obviously antithetical to

the discourse. There is reason to think that extending phenomenology to non-human cognition stretches, rather than distorting or breaking the tradition's core.

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