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Can we trust the phenomenological interview? Metaphysical, epistemological, and methodological objections

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Abstract

The paper defends the position that phenomenological interviews can provide a rich source of knowledge and that they are in no principled way less reliable or less valid than quantitative or experimental methods in general. It responds to several skeptic objections such as those raised against introspection, those targeting the unreliability of episodic memory, and those claiming that interviews cannot address the psychological, cognitive and biological correlates of experience. It argues that the skeptic must either heed the methodological and epistemological justification of the phenomenological interview provided, or embrace a more fundamental skepticism, a “deep mistrust”, in which scientific discourse can have no recourse to conscious processes as *explananda*, with ensuing dire consequences for our conception of science.

Keywords Phenomenological interviews · Qualitative interviews · Ontological · Epistemological and methodological objections · Introspection

1 Introduction

“Cognitive scientists should not fear that introspective evidence will impugn the scientific credibility of their work. They should fear the Frankenstein science they will create without it.” (Jack & Roepstorff, 2003, xx).

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So ends Roepstorff's and Jack's introduction to the double special issue of *Journal of Consciousness Studies* called "Trusting the subject". The credibility of subjective reports and their integration into quantitative science is a recurrent issue and hot topic in the scientific community (see Frank et al., 2019), not least within philosophy of mind and the cognitive sciences (Roepstorff & Jack, 2003; Frankish, 2016; Hurlburt & Schwitzgebel, 2007; Varela et al., 1991; Lutz & Thompson, 2003).

This paper deals with a sub-question in this grand debate and defends the reliability and validity of what we call phenomenological interviews: semi-structured, ethnographically inspired interviews that inform discussions in phenomenology, philosophy of mind, and cognitive sciences, for instance as presented in Høffding (2019) and Martiny et al. (2021). The paper defends the position that, when properly conducted and analyzed, such interviews and the phenomenological analyses and conclusions drawn from them, are in no principled way less reliable or valid than other quantitative or experimental methods in general. The defense is against the general claim that interview based data is inherently unreliable and invalid, which we from now on shall call the "skeptical objection". We shall soon define what we mean by "reliable" and "valid".

The scope of the paper needs not be restricted to what we have defined above as the phenomenological interview, as it certainly also is of concerns to investigations in other interview based methods such as Micro-Phenomenology (Petitmengin, 2006, 2017), Phenomenological Psychology (Giorgi, 2009), Interpretative Phenomenological Analysis (Smith et al., 2009) and the Existential Hermeneutic approach (Van Manen, 1990). Collectively, these approaches all face the skeptical objection that interview subjects are unreliable. The solutions offered in this paper, however, may not equally apply to all these methods, but intend a defense of the particular kind of phenomenological interview that combines qualitative, ethnographic methods with phenomenological research questions.

The skeptical objection usually consists in variations over the claim that interviewees are not trust-worthy or reliable and that their testimonies cannot be validated. We agree with Jack & Roepstorff when they write that: "Most scientists do not have, or at least cannot coherently formulate, any principled objection to introspective reports; rather, they simply lack faith that introspective reports are reliable in practice." (Jack & Roepstorff, 2003, vi). Rather than precise objections, the use of interview-based data seems to stir a more general kind of scientific anxiety or skepticism. We see this for instance in philosopher Eric Schwitzgebel's general claim that: "We must abandon...research paradigms in psychology and consciousness studies that depend too trustingly on introspection" (Schwitzgebel, 2002, 50) or Ellen Fridland's that: "I'm deeply skeptical about what phenomenology can teach us about the nature of our mental states, conscious or nonconscious" (Fridland, 2014, 2733). A precise formulation of this skepticism is rarely found in writing and therefore difficult to defend oneself against.¹

¹ This paper is not primarily motivated by a specific set of arguments or papers, but rather by the social, academic reality of presenting interview-based papers at academic conferences. Only counting the first author, almost all of the approximately one hundred talks about musical consciousness delivered to philosophers, psychologists and cognitive scientists have spurred one or more versions of the skeptical objection, with which all three of us have firsthand acquaintance. In a neighboring field, colleagues in

We want to target the skeptic objection through a representative example, namely as voiced by the philosopher Daniel Hutto who claims that: “they might not even know what they are experiencing.”² Specifically, he has written about the poverty of episodic memory (Hutto & Myin, 2017), and generally, mistrust in experience abounds from the onset of cognitive science for instance with Tversky and Kahneman’s research on cognitive bias (Tversky & Kahneman, 1972). Let us call this the “mistrust objection”. Analyzing the mistrust objection, this article is structured into two halves. The first half consist in four “preliminaries” (reliability and validity; the phenomenological interview; introspection; metaphysical skepticism), which sets the necessary conceptual stage for understanding the mistrust objection. The second half analyzes three possible interpretations of the mistrust objection. First, the ontological objection claiming that experience is an improper scientific explanandum and that we should be after its psychological, cognitive, and biological underpinnings. Second, the epistemological objection, stating that bias and flawed episodic memory makes interviewees unreliable. Third and final, the methodological objection, claiming that there is no valid method for using interviews.

2 Preliminaries

2.1 Validity and reliability

Within qualitative methodology, the meanings of the terms reliability and validity are complex, confused and contested (see discussion in for instance Morse, 2017; Burke, 2017; Kvale, 1996, Chap. 12 & 13) often because qualitative researchers from the human sciences object to the application of standards from the so-called hard sciences into their own domain (see Morse, 2017; Kvale, 1996, Chap. 12 & 13). The skeptical objection could target several kinds of validity and reliability in the method of concern to this paper, for instance whether the interviewee is reliable and whether the interpretations following are valid. Here, one could understand validity in terms of consistency – whether the method consistently applies the same methodological steps or tools and arrives at somewhat reproducible conclusions – and transparency – whether the method discloses all its steps and presents the reasons for these steps, also such that it could potentially be reproduced. The part of the skeptical objection primarily targeted

Footnote 1 (continued)

phenomenological psychiatry also report being met with the objection that Schizophrenic patients cannot be trusted or that they are inventing their symptoms. In clinical practice, the skeptical objection leads to the refusal to admit mentally very ill people and therefore sometimes has dire consequences. A different area of research that has suffered from some version of the mistrust objection, is research into synesthesia. According to Cytowick and Eagleman (2009, 4), for a long time synesthesia was ridiculed as fake and therefore not pursued in research because of the neurocentric bias: since the brain’s processing of sensory input is modular, experiences of synesthesia as meshed modes of perception, were not reliable. Synesthetes were “just imagining” (ibid.) what is now recognized a real perceptual phenomenon.

² Thanks to Daniel Hutto for the objection, voiced at the “Enactivism: theory and performance” conference at the University of Memphis, March 2018.

in this paper, however, concerns whether the interview subjects themselves are reliable or trustworthy, giving less attention to the question of interpretation (but see again Morse, 2017; Kvale, 1996, chap. 12). Reliability rests on a correspondence claim i.e. whether a statement corresponds to a state of affairs in the world (as described and criticized by for instance Kvale, 1996, 231; Petitmengin, 2017, 142). For instance, a medical thermometer is reliable, if accurately and consistently shows the temperature of the person using it – if it corresponds to the state of affairs of body temperature. In the context of the phenomenological interview and in agreement with Petitmengin (2017), this definition is problematic for both pragmatic and metaphysical reasons. Pragmatically considered, we often have no way to assess a state of affairs other than through the interview. Metaphysically, the correspondence claim often entails a belief in a mind-independent world – a belief the phenomenologist in no way can accept. So, in this paper we shall pragmatically define reliability as trustworthiness: are we generally warranted in believing what interview subjects report? In contrast, we will define validity as pertaining to the method of generating and analyzing the interview, i.e. are we warranted in believing that, even if interviewees are reliable, that we can analyze the data in a transparent and consistent way such that the conclusions obtained have some degree of replicability? This choice of definition to some extent mirrors that of standard logic. Reliability, pertaining to the interviewee’s utterances, will refer to the truth of a proposition or premise. Validity, pertaining to the method for analyzing those utterances and drawing wider conclusions, will refer to whether the conclusion follows from those premises. Defined as such, reliability and validity of course intersect in many ways. The skeptic might assert that the latter doesn’t matter because the interviewee is inherently unreliable. In contradistinction, the qualitative researcher might retort that the former makes no sense apart from the latter, because it is the validity of the interview techniques and analyses, which confers reliability onto the interview itself. The present paper can be seen as an analysis of this discussion.

2.2 The Phenomenological interview

There is nothing particularly phenomenological about the phenomenological interview itself. It is a short hand term for a phenomenologically informed or phenomenologically enhanced qualitative interview. In our context, it refers to a semi-structured, qualitative, ethnographically inspired interview conforming to best practice (See Ravn, 2016, 2021; Allen-Collinson, 2009; Denzin & Lincoln, 2011; Hammersley & Atkinson, 2007) that “is informed by certain phenomenological commitments and in turn informs a phenomenological [or phenomenologically relevant] investigation” (Høffding & Martiny, 2016, 540). The phenomenological interview is not one integrated method, but two distinct methods that criss-cross in various ways, described as two tiers (Høffding & Martiny, 2016).

The first tier is the actual interview in which the interviewer has prepared an interview guide and preferably contextualized herself in the lifeworld of the interviewee through ethnographic participatory or non-participatory observations. Rules of thumb in this interview are to establish rapport, to listen intently and patiently to the interviewee and to elicit as nuanced descriptions (rather than opinion or theories)

of the phenomenon under joint investigation as possible. This tier is best conceptualized as a co-generation of data (rather than a “collection”, see e.g. Brinkmann and Kvale (2014)), because the interviewer’s interests and preferences partially steer the interviewee in his or her descriptions. The end of this tier can overlap with tier two and include the transcription and even early stages of coding or categorization of the interview. Throughout all of these phases, the researcher works under validity criteria of transparency and consistency.

In tier two, the greater amount of time is spent after the interview, analyzing it and drawing conclusions of phenomenological interest. The second tier, however, begins before the interview, with the formation of interest in certain research questions – usually of a phenomenological nature – that the interview(s) ideally can help enlighten. This interest pervades and guides the whole research process including the questions asked in the interview. However, the often more general and abstract questions of tier two cannot be directly answered by the interviewee in tier one, because the methodic strength of such an interview is, vis-à-vis its explanatory potential, restricted to the co-development of nuanced descriptions. These descriptions, once clarified in the end of tier one, can then enter into the tier two inquiry and be used to inform phenomenological discussions usually with more universal claims.³ Here, validity criteria will be those that normally pertain to philosophical discussion, such as argumentative, or even logic, consistency or strength.

Relevant examples of phenomenological interviews can be found in the phenomenology of disability (Martiny, 2015a, b; Martiny & Aggerholm, 2016), the bodily phenomenology of spatial neglect (Klinke et al., 2015), the development of bodily intentionalities in expert dancers (He & Ravn, 2018; Legrand & Ravn, 2009; Ravn & Hansen, 2013), the role of pre-reflection in aesthetic experience and museum curation (Høffding et al., 2019), or the effect of high-level reflection in expert music performance (Høffding & Satne, 2019). The approach has similarities with that of Microphenomenology (Petitmengin, 2006), Phenomenological Psychology (Giorgi, 2009) and the EASE interviews in phenomenological psychopathology (Parnas, 2005). We will not here discuss the similarities and differences between all of these.⁴ Rather, we conclude this preliminary by emphasizing again, that the phenomenological interview consists in a two-tier juxtaposition of two distinct methods with the aim of producing empirically enriched phenomenological discussions. Mastering two methods is demanding and time consuming and naturally requires methodological justification. Such justification has been attempted in previous work (Høffding & Martiny, 2016), which also addresses the pragmatics of the phenomenological interview. This paper will not address these pragmatics, but will remain with the philosophical analysis of the mistrust objection.

³ If the phenomenon remains too obscure after the intended tier two clarifications, one can in a loop-like fashion return to tier one and do more interviews. See (Høffding & Martiny, 2016) for details.

⁴ These similarities and differences should become more clear throughout this special issue, as well as in the forthcoming one on “Working with Others’ Experience: Theory, Practice and Application” (Heimann, Martiny & Høffding, [forthcoming](#)).

2.3 Introspection

It goes without saying that if one has no trust in one's interviewees, be they musicians or people with a disability, then one has blocked the way to learn anything scientific by way of interviewing such individuals. This is where Jack and Roepstorff's volumes on *Trusting the Subject* pick up. Their discussion, however, concerns the extensive debates of at least a century, on introspection. The same holds for Eric Schwitzgebel's position that we already quoted: "We must abandon...research paradigms in psychology and consciousness studies that depend too trustingly on introspection". (Schwitzgebel, 2002, 50).

We cannot present the full discussion on the nature of introspection or its historical roots in Titchener's training program (see Schwitzgebel, 2004, 58–76). It must, however be distinguished from phenomenology as Gallagher and Zahavi discuss in chapter two of *The Phenomenological Mind* (2008). Phenomenology is not an exercise of looking *inside* the mind (*introspectio*),⁵ but among other things a way of describing the *external world* and simultaneously analyzing the co-dependence of mind and world (see Gallagher & Zahavi, 2008, 24 on "constitution"). Further, Zahavi repeatedly mentions that phenomenology is not only, or primarily about the "what" of experience, be it the difference of various shades of red or about whether lime or lemon is more acidic. It is ultimately a transcendental endeavor aimed at revealing "how's" or "for whom's",⁶ i.e. relatively invariant structures of consciousness (Gallagher & Zahavi, 2008, 114–5; Zahavi, 2019, 9). Shedding light on the relation between content and structure of experience, between reflective and pre-reflective self-awareness, or on the relation between subjectivity, objectivity and intersubjectivity are phenomenological aims. And such aims are certainly different than those we associate with introspection: The contents of consciousness, the "what" might be available to introspection, but no act of looking inside on can by itself give us the "hows" and "for whoms" of consciousness – inquiries to undertake with a phenomenological method of the kind described by Husserl and his tradition.

The distinction between introspection and phenomenology, however, does not by itself redeem a phenomenological interview from objections raised against introspection. One further step, referring back to our two tiers, is necessary for such a redemption: reporting from memory instantiates an act of introspection. Hence, an interview asking for an interviewee's description of a past activity involves reference to an act of introspection. A phenomenological interview, however, does not consist in holding the microphone and reporting everything that one's interviewees utter.

⁵ Note also, that phenomenology as it has inspired much thinking in 4e cognition, denies that the mind exists solely inside the head.

⁶ A classical phenomenological example might go something like this: the vase in front of me is co-presented with a visually hidden backside as something I can grab (a "how" it is presented). This indicates that my perception is inherently bodily (things appear grabbable because I have a body with grabbing capacities) and intersubjective (things appear with backsides, because I tacitly perceive the world from the perspective of other people, or as objectively available). Further, when I keep looking at the vase, it appears to be the same vase. This identity seems to point to a diachronic identity of myself. The "for whom" is an inherently temporal being.

It rests on a careful, two-tiered ethnographic and phenomenological analysis (each with their requisite validity criteria) of interviews and the debates to which they pertain. This analysis is not least meant to confer a higher degree of generality – moving from personal interviewee descriptions to general phenomenological conclusions – than any conglomeration of introspective utterings could ever yield. The mistrust objection risks mistaking the phenomenological interview for a purely introspective method. More precisely, the mistrust objection risks falling prey to a decoupled or static understanding, thinking that interviewer is merely collecting data based on the interviewee's introspective utterings, when in fact the interview process is a highly dynamic, shared investigation: the interviewer attempts to guide the interviewee to ever more precise descriptions of some past action or state of affairs. In other words, the mistrust objection that is often a disguised objection against introspection, sets up a strawman, because it misconstrues the phenomenological interview for a simple conglomeration of introspective utterances and fails to take the methodology of the former into consideration.

We believe that neurophenomenology in its early days ran this same risk of a decoupled or static understanding: Lutz and Thompson (2003) defined neurophenomenology as the mutual adaptation of first-person reports and neurological evidence and defended it against standard objections such as bias and the explanatory gap between reports and biological data. The conceptualization of neurophenomenology as a combination of first- and third-person science, downplays the role of the interview as co-generated and therefore grounding an interactive, second-person science. This is consistent with neurophenomenology's idea of training subjects to provide more accurate reports of lived experience (Lutz & Thompson, 2003, 33) – the seeming assumption here is that if the interviewees are trained well enough, the interaction between those reports and the neurological data, can more easily get around the second-person perspective. In contrast, the phenomenological interview requires no training of the interviewee (see also Bockelman et al., 2013, 7). Instead, the interviewer takes on more work and interpretative responsibility: firstly by attempting to generate as detailed descriptions as possible, and secondly by interpreting what these descriptions mean. Lutz and Thompson, however, do emphasize interaction or “reciprocal, empathetically grounded exchange” (Lutz & Thompson, 2003, 40) in their conceptualization and enactivism at least in Thompson's work has recently endorsed the phenomenological interview as “fully enactive” (Thompson, 2017, 42) exactly because of the role of interactive co-generation of data.

In conclusion, in preliminary number two, we have established that arguments levelled against “introspection” do not necessarily pertain to the phenomenological interview as well. This is because the phenomenological interview does not consist in gathering introspective or first-person statements and correlating them with standard scientific third-person data. Rather, it is an interactive second-person methodology employed for the sake of phenomenological discovery and clarification.

2.4 Metaphysical skepticism

The final preliminary is a restriction of the scope of the argument of the paper. While we want to deflate skeptical arguments levelled against phenomenological interviews, we are uninterested in deflating skeptical arguments of a more metaphysical nature: examples of the latter can be found in Frankish's (2016) recent, edited double volume on "illusionsism" of *Journal of Consciousness Studies*, which concerns "the view that phenomenal qualities are an illusion" (Printz, 2016, 186). Here Garfield, for instance asserts that "there is no phenomenal consciousness" (Garfield, 2016, 73). The view that across the board denies either the existence or the reliability of phenomenal consciousness is widespread, as we already saw for instance in Fridland's work: "I'm deeply skeptical about what phenomenology can teach us about the nature of our mental states, conscious or nonconscious" (Fridland, 2014, 2733).⁷ Let us label this position the "deep mistrust" objection. It is deep because it doesn't merely hold that experience is sometimes unreliable, but that it is inherently and irrevocably unreliable or illusory. We do not want to engage the deep mistrust objection because of its fundamentally metaphysical character: metaphysical in the sense of making claims about the relation between mind and reality.

If one makes the deep mistrust objection, i.e. if one fundamentally rejects the existence or reliability of phenomenal consciousness, then it follows that one is also making the ordinary mistrust objection because one will mistrust any statement generated through a phenomenological interview. To the deep mistrust objection, there can be no methodological remedy to ensure the scientific credibility of interviews. This implies that no methodological suggestion made in this paper can counter the deep mistrust objection. In line with much phenomenological thinking, we do believe that the effort to eradicate the first-person perspective, or reliance on phenomenal consciousness from science is impossible, non-sensical and self-defeating, but we will not argue for that here. Those of our readers who endorse the deep mistrust objection will then not be convinced by the arguments presented here and are advised to approach the phenomenological classics on science, experience, and their relation such as *Phenomenology of Perception* (Merleau-Ponty, 2002) or *Krisis* (Husserl, 1970).

3 The Skeptic's worry

Before engaging the various skeptic objections, let us elucidate our argumentative strategy: the objections are structured beginning with the metaphysically most weighty. At each objection or juncture, the skeptic is confronted with the choice to relinquish her position and move to the next "milder" objection, or to embrace a more fundamental metaphysical skepticism, i.e. a deep mistrust with serious consequences for the very possibility of conducting science. This leads to a conclusion, at which the skeptic either

⁷ One is tempted to use Varela to reply to Fridland: "Any science of cognition and mind must, sooner or later, come to grips with the basic condition that we have no idea what the mental or the cognitive could possibly be apart from our own experience of it." (Varela, 1996, 331).

has gone “deep” or relinquished her objections, thus accepting that interviewees are indeed reliable, and that we are warranted in using this source of knowledge to inform our scientific investigations. Making this argumentative strategy bullet-proof, would require a great deal of space to work out all the details, so we are sure that the skeptic will somehow find wiggle room to resist our forced choices. Should that be the case, we will at least have clarified the stakes of the debate.

One example of the mistrust objection comes from Hutto who worries that “they might not even know what they are experiencing”. Hutto elaborated this worry into three sub-objections that encapsulate most of the formulations of the general mistrust objection we have encountered. The precise formulation here is our own:

- a) There is a categorical problem for people knowing the cognitive, psychological and biological underpinnings of their experience. We call this the *ontological objection*.⁸
- b) There is a categorical problem for people knowing their own experience. We call this the *epistemological objection*.
- c) There is a methodological problem in how to “control” that interviews are valid. We call this the *methodological objection*.

It will not be possible to exhaust the explanation necessary to fully address each of the three because doing so would necessarily involve a presentation of the pragmatics of the interview, or the “what, why, and how” of the interview. Such a presentation is much beyond the scope of this paper and has been treated in Høffding and Martiny (2016). The following will therefore only make the minimally necessary reference to interview pragmatics in order to stick to the deflation of the mistrust objection.

3.1 The Ontological objection

The ontological objection has a naturalistic bias attributing more importance to biology, (neuro)psychology, and (unconscious) cognition than to experience: understanding experience on its own is not our intended scientific explanandum. Experience is not the domain of real science. Rather, we should be explaining experience by understanding its cognitive, psychological or biological underpinnings. And interviews are unsuited for this, because experience doesn’t give the requisite access and interviewees hence do not know anything about these underpinnings. Before addressing this objection directly, it might be wise to remember Merleau-Ponty’s thinking on the founding-founded relation between our experience of the life-world and scientific data:

⁸ To both the general mistrust objection and the specific ontological objection, there is a question of exactly what is meant by knowledge. We do not want to engage in a classical discussion of epistemology here, however. We chose a pragmatic answer and claim the following: in the ontological objection, knowledge means conscious access to psychological, cognitive and biological underpinnings. In the epistemological objection, knowledge means something like unbiased or undistorted access to a past experience. In the methodological objections, the claim is not about the interviewee’s knowledge per se, but about the interviewer’s ability to report on that knowledge. Our replies to these objections are meant to problematize these conceptions of knowledge.

“The whole universe of science is built upon the world as directly experienced, and if we want to subject science itself to rigorous scrutiny and arrive at a precise assessment of its meaning and scope, we must begin by reawakening the basic experience of the world of which science is the second-order expression. Science has not and never will have, by its nature, the same significance qua form of being as the world which we perceive, for the simple reason that it is a rationale or explanation of that world.” (Merleau-Ponty, 2002, ix)

Qua phenomenology and Husserl’s entire project (Husserl, 1970; Zahavi, 2017), we might want to simply dismiss the ontological objection and remind the skeptic that in order to do science properly, we must first understand how experience works as a foundational project. Only then can we turn to correlations with psychological, cognitive and biological mechanisms. Even if we believe that this rejection of the ontological objection is warranted at a principled level, we do not advocate getting stuck in an orthodox corner: we only began to engage with interview methods because we believe phenomenology can be enriched through empirical investigation. This belief demands more than a mere dismissal of the ontological objection.

To claim that experience does not give us access to its own cognitive, psychological or biological underpinnings is a composite and complex claim that we can attempt to deflate in several ways. The challenge is similar to what Lutz and Thompson call “the explanatory gap” which “is the epistemological and methodological problem of how to relate first-person phenomenological accounts of experience to third-person cognitive-neuroscientific accounts.” (Lutz & Thompson, 2003, 47).⁹

In response, we could start out modest and emphasize that phenomenology since its inception did not mean to explain experience, but simply to describe it. This grants the objection, but at the prize of greatly restricting the explanatory power of the interview methodology. For an enactively inclined philosopher endorsing a “mind-life continuum” ideal of science, that price is too high, so what might be other options? We can lift some of the burden of proof by referring to one of Petitmengin’s studies: in the context of people with epileptic seizures, her thorough microphenomenological interviews (Le Van Quyen & Petitmengin, 2002; Petitmengin et al., 2007) enabled some of her interviewees to better anticipate the onset of seizures as a result of heightened attention to experiential or phenomenal details in their own mental lives. Such an ability is directly connected to the cognitive underpinnings, in this case, the neuro-physiological causes of experience. It is easily defeasible to claim that mental sharpening could grant us direct experiential access to all our bodily and sub-conscious processes. Petitmengin’s

⁹ It seems confusing that what we call an ontological objection, Lutz and Thompson call a “epistemological and methodological problem”. The difference can be explained as follows: We are trying to convince the skeptic to abandon first the ontological objection, then the epistemological objection, and finally the methodological objection. Lutz and Thompson, *qua* enactivist, consider mind and life to be continuous. They are not skeptics, but accept the reliability of experience. To them, there is no ontological problem and they can therefore skip directly to the epistemological and methodological problems of how to construct a scientific program that incorporates experience and biology.

study, however, shows that we also should not be too conservative in judging what physiological processes we hold to be experientially accessible or manipulable.¹⁰

We prefer a different explanatory strategy, namely to lift the burden of justification from the interviewee to the interviewer: subjects usually do not know the cognitive, psychological, or biological underpinnings of their mental life. And they do not need to. To expect or demand this, is exactly to conflate the two tiers of the interview. All that is needed in the first tier, is detailed descriptions. Only in the second tier are these descriptions analyzed and employed to discuss issues of cognition, psychology or even biology. For instance, musicians would usually not be able to pinpoint a change of the sense of agency as explanatory of the various unusual kinds of experiences they undergo while playing. That is an insight achieved by the researcher (Høffding, 2019), using the interviews combined with knowledge of phenomenology and psychology to understand and interpret something about psychological and cognitive, although not biological, underpinnings of experience. Note, however, that on an enactive or 4E view of cognition, those underpinnings are also found in the environment, and do not exist solely in the brain. Good descriptions from interviewees about the particular situations they find themselves in, when undergoing a certain experience are likely to be good pointers to understanding those environmentally located underpinnings. Ethnographically inspired methods, in particular, will be well-suited for accounting for the role of the environment.

Complementary strategies are to “front-load phenomenology” (Gallagher, 2003) into an experimental design or employ a mixed method set-up that applies mutual constraints such that interviews becomes a guide and arbiter to conclusions of those cognitive, psychological and even biological underpinnings. Explaining ways of working with mixed methods is much beyond the scope of the current argument that we address elsewhere (Martiny et al., 2021).

From here, the skeptic can make the following moves. She can reject the responses just presented and repeat that experience is unsuitable for scientific investigation: that micro-phenomenology helped people with epileptic seizures anticipate these is too insignificant and arbitrary a result. Shifting the explanatory responsibility from interviewee to interviewer helps nothing because experience just is the wrong kind of data to begin with and its ensuing interpretation therefore is nothing more than a kind of hand waving. Such a response is a retreat into the deep mistrust objection, to which we will not respond, because no amount of evidence will be able to convince the skeptic. She can also respond that, it may indeed be that the interviewee can know something about the cognitive, psychological or biological underpinnings of experience, or alternatively that the interviewer can use the reports to inform such investigations. She may then reformulate, and consequently claim that the problem resides in the interviewee misrepresenting her knowledge because of bias or flawed episodic memory.

¹⁰ Another study in the neurophenomenological tradition, likewise found that experienced monks were able to enter meditative states overriding or strongly inhibiting the startle reflex: a physiological response causally tied to the “reptilian” brain stem and thought to be completely beyond conscious control (Levenson et al., 2012).

3.2 The Epistemological objection

The claim above effectively takes us from the ontological to the epistemological objection, which could take the following form: “the responses to 3.a are insufficient because they already presuppose the reliability of experience, which I am not ready to grant.”

To begin deflating 3b, we may divide it into a weak and a strong position. The strong one holds that experience is inherently unreliable, which goes back to the deep mistrust objection and will not be considered here. Instead, the weak position remains. It can be taken to claim that there are blind angles in our experiential life and that we therefore fail to grasp and express our own experience accurately. This claim has been discussed since the 1970s under the concept of ‘cognitive bias’ (Tversky & Kahneman, 1972; Nibett & Wilson, 1977). When asking persons directly about their experiences, perspectives or life situation, the answers are conditioned by many complex biological, psychological, cognitive, and social factors. In many cases, we don’t know what we do, why we do it, and how we do it, and we end up giving descriptions that are plainly false and/or gloss over the nuances of our experiences. This is especially the case if we look at it in a healthcare setting. In describing their experiences, people living with cerebral palsy (CP) typically use medical, neuro-physiological and therapeutic terms and explanations instead of actually describing their experience (Høffding & Martiny, 2016), and they have created a self-understanding and -narrative that can be used as coping strategies for living with CP (see also Kelley & Clifford, 1997; Tighe et al., 2011).

This worry can be countered for example by constructing hypotheses that can be confirmed/rejected in a mutual constraint set-up between second- and third-person methods. This idea is similar to that of neurophenomenology (see also Petitmengin’s (2017) discussion) or “cardio-phenomenology” (Depraz & Desmidt, 2019). The interview situation in itself, however, is of course meant to ameliorate the fact that none of us have perfect self-insight. If we possessed such insight (whatever that would mean), there would be no point in developing qualitative methodologies and to train one’s interview techniques to begin with. The interviewer’s work is to generate reliable and valid data in spite of the fact that the interviewee’s descriptions are always biased, inaccurate, omissive, hesitant or exaggerated to some extent – an epistemic challenge Varela and Schear label the “hermeneutical objection” (Varela & Schear, 1999). One way of doing this work is, in the interview situation to alert the interviewee to confusing statements and seeming contradictions and keep asking for elaboration. If clarity cannot be obtained or if the interviewee cannot produce details, then the interview is simply unsuitable for scientific work. An experienced qualitative interviewer will relatively quickly be able to evaluate whether the current interview will provide good material and, if that judgment is negative, decide to cut the interview short.

Another and more specific version of mistrust objection 3.b. pertains to episodic memory. Hutto himself, as supported by several memory researchers, has demonstrated that episodic memory is not a mental mechanism whose role it is to report accurately on the past (Hutto & Myin, 2017, chap 9). Thus, using episodic memory, interviewees might not even know what they experienced, because they might have

experienced something else than what they are reporting. Let us call this the episodic memory objection and consider how to meet it. Here, at least two strategies are worth mentioning: that from microphenomenology as represented by Petitmengin and that of more traditional qualitative interviews.

To describe her interviews, Petitmengin uses the language of “evocation” or “elicitation”, which means a bringing forth or a bringing into existence. Part of the idea – called “embodied utterance position” (Petitmengin, 2006, 57) and later, theoretically more encompassing “performative validation of first-person descriptions” (Petitmengin, 2017, 141) – is that when the interviewee produces certain physical cues in the interview such as looking up, closing one’s eyes, speaking in the present tense, this indicates a direct pre-reflective access to the past experience. Such performative validation is supposed to ensure reliability because it makes one re-live the experience. If the experience is properly evoked or re-lived, this is not an act of remembering, but of “discovering” (ibid., 142), such that “the past situation becomes more present for her than the present situation is” (ibid.). This posited direct reliance on pre-reflective access to “visual, auditory, tactile, kinaesthetic and possibly olfactory sensations” (ibid), could then potentially get us out of the episodic memory objection. As Thompson also mentions (2017, 42), however, this account comes with some metaphysical baggage. Speaking about something episodically remembered is to bring to present awareness a past state of affairs that is not perceptually present. Even if not explicitly intended by Petitmengin, the idea of evocation seems to imply that one brings a past experience to life, such that it becomes almost perceptually present – hence the speaking in the present tense. But the state of affairs isn’t perceptually present. What is perceptually present is the present situation in which the interview is taking place. The evocation is of something remembered and imaginatively reinterpreted. The language of evocation risks blurring the distinction between what is remembered and what is perceived. This confusion might seem to derail the mistrust and episodic memory objections, but as the experience evoked is in fact always an experience remembered, this seeming derailing only avoids, rather than confronts the objection. That does not mean that the behavioral cues of speaking in the present tense of closing one’s eyes do not have some determination of the quality of an interview. We think they do. What is problematic is merely the metaphysical interpretation that the evocation label carries with it. This critical presentation of microphenomenology is certainly not providing the full picture and it should also be mentioned that its theoretical and practical tools have developed over the years and are still developing.

Ethnography generally works around the episodic memory objection in another way, by questioning the assumption of “data collection”: What is going on in the interview is not the “collection” of experiences from the past, but the “generation” of experience or data in the present (Legrand & Ravn, 2009, 395; Hammersley & Atkinson, 2007, 102; Thorpe, 2012, 54. See also the classic “miner vs. traveler” metaphor in Kvale, 1996), as the interviewer co-generates the descriptions together with the interviewee. In other words, the experience is generated because the description is generated. This move seemingly overcomes the episodic memory objection (I’m not remembering a past experience, but generating a new one), but introduces the

problem of accounting for the relation between the past and present experience and its generated description.

What is the status of this experience generation? As an interviewer, I am not usually interested in understanding the experience we are currently generating together. I am interested in understanding how the interviewee experienced having done *x*. I am not interested in our experience, but in yours. While the mode of inquiry is shared between interviewer and interviewee as a second-person method, the object of inquiry resides in the interviewee's narration of her experience and the posterior analysis hereof. Therefore, it is imprecise to claim that the experience in question is exclusively co-generated. It exists in a loop of auto-generation and co-generation. Failing to methodologically account for the role of the interviewee's auto-generation, risks an overly relativist position: If we were only co-generating the experience, it would subtract a lot of, if not all, ontological independence from the interviewee's own experience. In other words, we would be claiming that the experience was not had at a certain past point in time and space, it is not remembered, but produced in the moment of the interview. This understanding has unfortunate consequences: if the interviewer returns to the same subject and asks about the same experience, then she would have no possibility of judging one set of descriptions as better than another, because the two would be equally generated and in principle have no past, shared ontological ground or point of origin. They would be two different experiences. But qualitative researchers do acknowledge that one description can be more accurate than another. Such an acknowledgement requires a conception of the target experience as existing somewhat independently of its expression and further that different interview techniques or situations respectively, can unearth the target experience more or less accurately. Laying claim to such independence, however, need not entail that the target past experience exists in some mental or metaphysical space as fully constituted. It is possible to recognize that the interview brings new aspects to light, that perhaps were only vaguely intuited at the moment of its having. In other words, we advocate opting for a balanced position of shared constitution: one dimension of the experience in the moment of the interviewee having it, and one dimension in the moment of its shared remembering and description. This position is consistent with Merleau-Ponty's on speaking as the realization of thought (Merleau-Ponty, 2002, 206). It is not a distortion or a generation out of nothing, in the same way that reflection upon a pre-reflective mental act need not be considered a distortion, but an "opening up" of that act (Zahavi, 1999, 181–9; 2005, 89–96; 2011). There is something there, which is accomplished in its description. But it might be underdetermined until it is described and gestured. Description and gesture confer unto it a different and sometimes higher degree of determination, for example as when one realizes something profound about one's character by reflecting on a past action. The same holds for the interview and its analysis. Each step gives a different and hopefully increasing degree of determination to the target experience.

For the idea of generation to be consistent, it must then consist of both an auto-generation from the interviewee's memory and a co-generation of the descriptions of that memory shared between interviewee and interviewer. As was the case for micro-phenomenology, ethnographic interviews then, also cannot avoid the episodic memory objection. And they don't have to. Instead they can push back on the

mistrust objection with the following options. Either the objection is categorical in the sense that we *tout court* cannot trust experience, episodic memory included, which again leads us to the deep mistrust objection. Or the objection is merely methodological: we do have blindspots in our experiential lives and episodic memory can be inaccurate. The methodological remedies to which we will turn now, are meant to manage this situation, even if they can never eliminate the possibility of errors or misinterpretation. But it is unproblematic to admit this because it merely consists in admitting that the method is not bulletproof. It never purported to be so, and neither is any other scientific method. This move pushes the burden of evidence back onto the skeptic asking him or her to produce evidence that this methodology fares worse than others.

3.2.1 The Methodological objection

Finally, the skeptic can grant 3.a and b (experience is of concern to science and, in spite of bias, interviewees can report somewhat reliably on past experience), but claim that there is no method to validate the reliability of the reports. This takes the article full circle and we have at least two replies to this objection.

The first is to highlight the scientific validity criteria of the two tiers of the interview that satisfies the skeptic worries. The two first principles applied in this regard are transparency and consistency (See e.g. Brinkman & Kvale, 2014). The former consists in presenting one's interview data and methodological considerations in great detail. This gives the reader occasion to follow through every step of the scientific process and it gives her room to agree or disagree with the conclusions derived from the interview. Still, this is an ideal to strive for. It is practically impossible to achieve one hundred percent transparency, for instance for the simple reason that one cannot present the interview in its entirety in an academic paper.¹¹ But this likewise holds for experimental science, that cannot include a description of the totality of choices made in a prior experiment, but simply strive to communicate the ones deemed necessary for replication. Transparency also includes presenting the reasons behind the methodological choices made. Consistency refers to using the same technique or analysis strategy throughout the process. If methodologically committed to eliciting descriptions, one cannot suddenly ask the interviewee for her opinions or theories, at least not without explicit mention, if one includes it in the analysis. Another example is that if one writes that the transcriptions have been submitted to several close readings, that this is factually the case.

While transparency and consistency are necessary for valid qualitative work, they do not on their own deflate the methodological objection. Here it is apt to call on the concepts of internal and external consistency (Høffding & Martiny, 2016). The former means that the interview in its totality is making sense and that one's analysis of the meaning of the interview follows from its content. If the content is full of contradictions, for which one has no explanation, it is much less reliable and it will probably be impossible

¹¹ One can of course attach a transcription or recording. But in the case of the first author, whose interviews are in Danish, the issue of translation then again impedes a hundred percent transparency.

to produce valid interpretations. The notion of internal consistency does not imply that the interview and analysis should be seen as a method for evaluating the epistemic strength of each and every utterance. Rather, it is about grasping a general tendency, pattern, or meaning derived from many statements that support one another. This is not so different from ordinary scientific practice. Our knowledge of climate change does not primarily rely on the exactitude of each single study, but on the majority of studies that point to a general tendency and which support one another. If our interviewees really didn't know what they were experiencing, it would be highly unlikely that they could produce such consistent descriptions.

Even if an interview internally makes sense as its own unit, it must be connected to the wider net of scientific theories. External consistency refers to this exact exercise in which one's analyses are brought to bear on wider theoretical debates both "online" in academic talks and conversations and "offline" in peer-review, articles and books. External consistency provides a reality check for possible misinterpretations, omissions or exaggerations and can often give occasion to revisit one's interview material to double check for internal consistency or even to go all the way back to tier one and conduct more interviews in order to elicit further descriptions regarding a contended interpretation. One further and ideal step in external consistency is the translation of one's conclusions into practice or interventions available to practitioners such as therapists or teachers.

Let us pursue this idea and look at external consistency through the pragmatic impact of research based on phenomenological interviews. As an example, Martiny conducted phenomenological interviews with people with cerebral palsy (CP) (Martiny, 2015a, b). He found, among other things, in contrast to the mainstream biomedical conception that CP is not "just" a congenital brain-damage causing motor control disorder, but that it involves psychological, cognitive, and not least social consequences (Zahavi & Martiny, 2019). Based on these insights, he developed new strategies for interventions with youth with CP that emphasized social and playful aspects (Aggerholm & Martiny, 2017; Martiny & Aggerholm, 2016). These interventions have been successful and are being implemented into Danish national (re)habilitation strategies for interventions for people with CP. If Martiny's interviewees were unreliable, and if his method for interpreting the interviews was invalid, it seems very unlikely that his interview-based understanding could lead to improved healthcare strategies and interventions for a large number of other persons with CP.¹²

¹² The skeptic might here object that this claim is too strong and that we need additional arguments to demonstrate what is meant by «success» of these interventions and further to demonstrate that such putative success is causally linked to the phenomenological interviews. Even if we were to grant this objection, the following point nevertheless stands firm: the interviews give the people with CP a voice, acknowledges their subjectivity and their status as agents with self-determination. This acknowledgement transforms their role in the intervention from one of receptive objects for a "treatment" to co-creating, empowered agents.

4 Conclusion

The main claim of this paper harkens back to Jack and Roepstorff's (2003) special issue: we should trust the subject. We have provided arguments of both theoretical and pragmatic nature, justifying this claim and attempted to push the skeptic to either a) accept these arguments and embrace at least some level of trust in the co-constituted, two tiered phenomenological interview, or b) acknowledge that she is an incorrigible skeptic, clinging to the "deep mistrust" objection with its scathing implications for the potential of all scientific endeavors. Yet, it goes without saying that phenomenological interviews have a limited scope of applicability, as does any other method. We are hopeful and excited about the potential of mixed methods designs that combine interviews, experiments, measures and intervention even if the negotiation of research paradigms is, at best, complicated (Martiny et al., 2021). The phenomenological interview, we believe, has an essential role to play here. But we have yet to more precisely delineate the scope of the explanatory reach of the phenomenological interview, something we hope to accomplish on a large scale in the future (Heimann et al., forthcoming).¹³

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References

- Aggerholm, K., & Martiny, K. M. M. (2017). Yes we can! A phenomenological study of a sports camp for young people with cerebral palsy. *Adapted Physical Activity Quarterly*, 34(4), 362–381.
- Allen-Collinson, J. (2009). Sporting embodiment: sports studies and the (continuing) promise of phenomenology. *Qualitative Research in Sport and Exercise*, 1(3), 279–296.
- Bockelman, P., Reinerman-Jones, L., & Gallagher, S. (2013). Methodological Lessons in Neurophenomenology: Review of a Baseline Study and Recommendations for Research Approaches. *Frontiers in Human Neuroscience*, 7(608), 1–9.
- Brinkmann, S., & Kvale, S. (2014). *Interviews: Learning the craft of qualitative research interviewing* (3rd ed.). SAGE Publications Inc.

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- Burke, S. (2017). Rethinking ‘validity’ and ‘trustworthiness’ in qualitative inquiry: how might we judge the quality of qualitative research in sports and exercise sciences? In (Eds. Smith, B. & Sparkes, A.C.) *Routledge Handbook of Qualitative Research in Sports and Exercise*. New York: Routledge: 330–40.
- Cytowick, R. E., & Eagleman, D. M. (2009). *Wednesday is Indigo Blue*. MIT Press.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage Handbook of Qualitative Research*. Sage.
- Depraz, N., & Desmidt, T. (2019). Cardiophenomenology: a refinement of neurophenomenology. *Phenomenology and the Cognitive Sciences*, 18, 493. <https://doi.org/10.1007/s11097-018-9590-y>
- Frank, A., Gleiser, M., & Thompson, E. (2019). “The Blind Spot” Aeon. <https://aeon.co/essays/the-blind-spot-of-science-is-the-neglect-of-lived-experience>
- Frankish, K. (2016). Special issue on “Illusionism”. *Journal of Consciousness Studies*, 23(11–12), 11–39.
- Fridland, E. (2014). They’ve lost control: Reflections on skill. *Synthese*, 191, 2729–2750.
- Gallagher, S. (2003). Phenomenology and Experimental Design Toward a Phenomenologically Enlightened Experimental Science. *Journal of Consciousness Studies*, 10(9–10), 85–99.
- Gallagher, S., & Zahavi, D. (2008). *The phenomenological mind: An introduction to philosophy of mind and cognitive science*. (2nd ed.). Routledge.
- Garfield, J. L. (2016). Illusionism and Givenness. *Journal of Consciousness Studies*, 23(11–12), 73–82.
- Giorgi, A. (2009). *The Descriptive Phenomenological Method in Psychology: A Modified Husserlian Approach*. Duquesne University Press.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in practice*. Routledge.
- He, J., & Ravn, S. (2018). Sharing the Dance—On the Reciprocity of Movement in the Case of Elite Sports Dancers. *Phenomenology and the Cognitive Sciences*, 17, 99–116.
- Heimann, K., Martiny, K., & Høffding, S. (Eds.) (forthcoming). Working with others’ experiences: Theory, Practise and Application. *Special issue of Phenomenology and the Cognitive Sciences*.
- Høffding, S. (2019). *A Phenomenology of Musical Absorption*. Hampshire: Palgrave Macmillan.
- Høffding, S. & Satne, G. (2019). Interactive expertise in solo and joint musical performance. *Synthese*. <https://doi.org/10.1007/s11229-019-02339-x>
- Høffding, S. Houlberg, M., & Roald, T. (2019). Participation and Receptivity in the Art Museum – a Phenomenological Exposition. *Curator: The Museum Journal*. <https://doi.org/10.1111/cura.12344>
- Høffding, S., & Martiny, K. (2016). Framing a Phenomenological Interview: What, Why and How. *Phenomenology and the Cognitive Sciences*, 15, 539–564.
- Hurlburt, R., & Schwitzgebel, E. (2007). *Describing Inner Experience? Proponent meets skeptic*. MIT Press.
- Husserl, E. (1970). *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. D. Carr. Evanston, IL: Northwestern University Press.
- Hutto, D., & Myin, E. (2017). *Evolving Enactivism*. MIT Press.
- Jack, A., & Roepstorff, A. (2003). Why trust the Subject? *Journal of Consciousness Studies*, 10(9–10), v–xx.
- Kahneman, D., & Tversky, A. (1972). Subjective probability: A judgment of representativeness. *Cognitive Psychology*, 3(3), 430–454.
- Kelley, P., & Clifford, P. (1997). Coping with Chronic Pain: Assessing Narrative Approaches. *Social Work*, 42(3), 266–277.
- Klinke, M., Zahavi, D., Hjaltason, H., Thorsteinsson, B., & Jónsdóttir, H. (2015). “Getting the Left Right”: The Experience of Hemispatial Neglect After Stroke. *Qualitative Health Research*, 25(12), 1623–1636.
- Kvale, S. (1996). *InterViews*. Sage Publications.
- Legrand, D., & Ravn, S. (2009). Perceiving Subjectivity in Bodily Movement: The Case of Dancers. *Phenomenology and the Cognitive Sciences*, 8(3), 389–408.
- Le Van Quyen, M., & Petitmengin, C. (2002). Neuronal dynamics and conscious experience: an example of reciprocal causation before epileptic seizures. *Phenomenology and the Cognitive Sciences*, 1, 169–180.
- Levenson, R. W., Ekman, P., & Ricard, M. (2012). Meditation and the Startle Response: A Case Study. *Emotion*, 12(3), 650–658. <https://doi.org/10.1037/a0027472>
- Lutz, A., & Thompson, E. (2003). Neurophenomenology integrating subjective experience and brain dynamics in the neuroscience of consciousness. *Journal of Consciousness Studies*, 10(9–10), 31–52.
- Martiny, K. M. (2015a). *Embodying investigations of cerebral palsy: a case of open cognitive science* (Doctoral dissertation, Det Humanistiske Fakultet, Københavns Universitet).
- Martiny, K. M. (2015b). How to develop a phenomenological model of disability. *Medicine, Health Care and Philosophy*. <https://doi.org/10.1007/s11019-015-9625-x>
- Martiny, K. M., & Aggerholm, K. (2016). Embodying cognition: Working with self-control in cerebral palsy. *The Cognitive Behaviour Therapist*, 9.

- Martiny, K., Toro, J. & Høffding, S. (2021): Framing a Phenomenological Mixed Method: From Inspiration to Guidance. *Frontiers in Psychology*, 12, No. 602081. <https://doi.org/10.3389/fpsyg.2021.602081>
- Merleau-Ponty, M. (2002). *Phenomenology of Perception*. Routledge.
- Morse, J. (2017) Reframing Rigor in Qualitative Inquiry. In (Eds. Denzin, N. K., & Lincoln, Y. S. *The Sage Handbook of Qualitative Research* (5th edition). Thousand Oaks, CA: Sage.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), 231–259.
- Parnas, J., et al. (2005). EASE: Examination of Anomalous Self-Experience. *Psychopathology*, 38(5), 236–258.
- Petitmengin, C. (2006). Describing one's subjective experience in the second person: an interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, 5(3–4), 229–269.
- Petitmengin, C. (2017). Enaction as a Lived Experience Towards a Radical Neurophenomenology. *Constructivist Foundations*, 11(2), 138–147.
- Petitmengin, C., Navarro, V., & Le Van Quyen, M. (2007). Anticipating seizure: pre-reflective experience at the center of neuro-phenomenology. *Consciousness and Cognition*, 16(3), 746–764.
- Printz, J. (2016). Against Illusionism. *Journal of Consciousness Studies*, 23(11–12), 186–196.
- Ravn, S. (2016). Phenomenological Analyses. In B. Smith & A. Sparkes (Eds.), *International Handbook of Qualitative Methods in Sport and Exercise*. (pp. 206–218). Routledge.
- Ravn, S. (2021). Integrating qualitative research methodologies and phenomenology—using dancers' and athletes' experiences for phenomenological analysis. *Phenomenology and the Cognitive Sciences*. <https://doi.org/10.1007/s11097-021-09735-0>
- Ravn, S., & Hansen, H. P. (2013). How to Explore Dancers' Sense Experiences? A Study of How Multi-sited Fieldwork and Phenomenology Can Be Combined. *Qualitative Research in Sport, Exercise and Health*, 5(2), 196–213.
- Schwitzgebel, E. (2002). How well do we know our own conscious experience? The case of visual imagery. *Journal of Consciousness Studies*, 9(5–6), 35–53.
- Schwitzgebel, E. (2004). Introspective Training Apprehensively Defended: Reflections on Titchener's Lab Manual. *Journal of Consciousness Studies*, 11(7–8), 58–76.
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. SAGE.
- Thompson, E. (2017). Enaction Without Hagiography. *Constructivist Foundations*, 13(1), 41–44.
- Thorpe, H. (2012). The Ethnographic interview in the Sports Field: Towards a Postmodern Sensibility. In *Qualitative Research Methods in Sport, Exercise and Health: From Process to Product*, by Andrew C. Sparkes and Brett Smith, 51–78. Bingley: Emerald Group Publishing Limited.
- Tighe, M., Molassiotis, A., Morris, J., & Richardson, J. (2011). Coping, meaning and symptom experience: A narrative approach to the overwhelming impacts of breast cancer in the first year following diagnosis. *European Journal of Oncology Nursing*, 15(3), 226–232.
- van Manen, M. (1990). *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. Althouse Press.
- Varela F. J. (1996). Neurophenomenology: A methodological remedy for the hard problem. *Journal of Consciousness Studies*, 3(4), 330–349.
- Varela, F. J., & Shear, J. (1999). First-person methodologies: what, why, how? *Journal of Consciousness Studies*, 6(2–3), 1–14.
- Varela, F. J., Rosch, E., & Thompson, E. (1991). *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press.
- Zahavi, D. (1999). *Self-awareness and alterity: A phenomenological investigation*. Northwestern University Press.
- Zahavi, D. (2005). *Subjectivity and selfhood: Investigating the first-person perspective*. MIT Press.
- Zahavi, D. (2011). Varieties of reflection. *Journal of Consciousness Studies*, 18(2), 9–19.
- Zahavi, D. (2017). *Husserl's Legacy*. Oxford University Press.
- Zahavi, D. (2019). *Phenomenology: The Basics*. London and New York: Routledge.
- Zahavi, D., & Martiny, K. M. (2019). Phenomenology in nursing studies: New perspectives. *International Journal of Nursing Studies*, 93, 155–162.