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Authors' Response

Whatever Works instead of All or Nothing

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> Abstract • This response confronts some crucial questions raised by the reviewers: (a) Can the phenomenological approach be applied to the study of trauma? (b) What is the exact meaning of the term "traumatic event"? (c) Is our phenomenological approach too thin? (d) What is the nature of the proposed cognitive bridge – what else is needed? (e) Is the shared world indeed lacking? (f) Is it possible to control patients with posttraumatic stress disorder in the lab? (g) How is our proposal innovative?

« 1 » We thank the reviewers for their insightful comments. Instead of addressing the comments separately, we decided to focus on some of the key points raised by them. We hope that in so doing we will

be able to refine some issues that did not receive appropriate attention in the target article.

Can the phenomenological approach be applied to the study of trauma?

« 2 » Jean-Luc Petit worries that "in contrast to normal experience, pathological experience does not contain the resources necessary for *self-understanding*" (§5, our emphasis). Indeed, this is a concern that ought to be considered. Yet, one should note that we do not ask the interviewee to understand herself but rather, simply, to describe her own subjective experience. Thus, we agree with Jean-Daniel Thumser, who stresses that the sole purpose of phenomenology is to serve as a *descriptive science* (§1). Leav-

ing aside the philosophical debate, as we stressed in our target article, our experience indicates that the phenomenological approach can be applied quite successfully to the case of trauma in general, and posttraumatic stress disorder (PTSD) in particular.

Event versus situation

« 3 » When dealing with traumatic experiences or traumatic events, or more accurately events that can potentially become traumatic experiences, we consider a “situated individual” (Dreyfus 2017). Such an individual acts as an active agent that is “thrown” into the world. We thank **Ellert Nijenhuis** for the opportunity to clarify this notion. Fundamentally, we embrace the enactive approach; when using the word “event,” we are thinking about a *situated individual* and not about some kind of passive brain-in-a-vat Cartesian entity that receives stimulus from the outside and simply reacts to it. In other words, it goes without saying that PTSD should be understood in terms of being a whole subject, a bodily agent, who is immersed within the world. With this in mind, treatments that treat the subject qua subject, completely ignoring our coupling with the world, will offer partial solutions at best. For this reason, our working plan (Box 2) ends (J) with the notion that any cognitive approach should be applied in the context of “more holistic treatments.” By that we mean that the subject always acts within a context; hence, in order to help the patient, one must understand this whole context and operate within it.

« 4 » To add another thought to the brain-in-a-vat scenario, predictive coding (PC) says nothing new. Indeed, in simple terms, according to the PC theory of cognition,

“the brain is constantly involved in prediction-error minimization, that is, in minimizing the mismatch between internally-generated, top-down sensory signals and bottom-up sensory signals caused by the external environment.” (Gładziejewski 2015: 560)

« 5 » Yet by reading carefully the agenda of the PC approach one discovers that “the core flow of information is top-down, not bottom-up, and the forward flow of sensory information is replaced by the forward flow

of prediction error” (Clark 2015: 1). Thus, in a way it is the same old representative approach. Indeed, according to the PC theory of cognition, the brain “is thought to owe its ability to minimize prediction error to its being equipped with a rich internal representation of the causal structure of the external world” (ibid). Thus, it “isn’t simply that our access to the external world is mediated by neural representations, but rather that the world of experience is itself a representational construct” (Zahavi 2018: 48), or as Chris Frith (2007: 132) put it, “My Perception Is Not of the World, But of My Brain’s Model of the World.” That being said we find it hard to accept **Anna Ciaunica’s** presumptions about the structure of the self:

“It has been proposed that the basic pre-reflective experience of being a self is the result of an ongoing and dynamic predictive coding process within a generative model that is centered on the organism.” (§4)

Micro/cardio-phenomenology

« 6 » We agree with **Thumser’s** comment in §5 that the micro-phenomenological tool (MPT) seems promising. Yet,

a as was said in our target article (Footnote 2), we cannot recommend a tool that we have not used;

b given that our article’s goal is to help novices, we deem the MPT too complex in this instance.

« 7 » Essentially, however, the quest for MPT masks a much deeper problem. In a way, some of the reviewers (in particular, **Petit** and **Thumser** in his Q1) are worried that we do not take the phenomenological approach seriously enough, i.e., we are not sufficiently Husserlian. This may indeed be the case, yet the article’s goal is not to explore Husserl’s phenomenology but rather to apply it. This comes at a price, yet it is one that we are willing to pay, especially because our own experience (Ataria, Dor-Ziderman & Berkovich-Ohana 2015; Dor-Ziderman et al. 2016) has revealed that it is worthwhile. It indicates that going deeper into the phenomenology will not further our dialogue with neuroscientists – rather the opposite. Note that Francisco Varela’s well-known study (Lutz et al. 2002) is quite slender in terms of phenomenology (Ataria 2017). So, to reply to **Thumser’s** Q2, our article at-

tempts to create a place for dialogue and bridges *between* fields rather than *within* a field. In order to achieve this, one must be ready to compromise; indeed our pragmatic approach is replete with compromises. Considering this line of thought, we are fully aware of the difficulties in forming the definition of PTSD. Hence, as we note in Box 2, A.2, our phenomenology is independent of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). Yet, once again, if the goal is to create a dialogue, one must find the way to enable it; the DSM is simply a tool that allows us to develop a shared language, nothing more.

The cognitive bridge

« 8 » Some of the reviewers (in particular **Nijenhuis** in his Q1) raise concerns regarding the nature of the cognitive bridge that we proposed. Let us address these concerns in the following three points.

- We cannot ignore that, at least on certain levels, brain activity is localized, meaning that specific functions are associated with certain brain areas (Celeghein et al. 2017; Zielasek & Gaebel 2008). No doubt, this so-called localized activity should be examined not only in terms of the whole brain (Goldstein 1939) but rather as an active agent that is absorbed within the world (Varela, Thompson & Rosch 1991). The debate regarding whether psychic phenomena rely solely on “localized” brain regions or instead result from an integrated functional network connectivity in the brain as a whole is not novel. The progress in developing newer and more sophisticated research methods to study the brain enabled the recognition of both perspectives. Consequently, some studies dealing with brain localization led to a progress in our understanding of brain functions in certain cases (Frisch 2016; Mahon & Cantlon 2011). In this regard, the localization of a specific brain region to a certain subjective aspect of behavior might assist clinicians in determining its nature, whether, for example, it is a more cognitive-/executive-based, memory-related, purely emotional one or a mix of several regions.
- Even if cognitive activity is not the most promising direction, as criticized

by Nijenhuis (§11), in the current situation this is what is available. In order for philosophers, therapists and neuroscientists to develop fruitful dialogue, they must possess a shared language. In the current situation, cognition enables such a dialogue.

- Neurophenomenology is not a doctrine and we are not uncritical believers. Our goal is to help those who suffer, and in that sense our motto is a pragmatic “whatever works.” Incidentally, this motto fits Varela’s own words perfectly. He defined neurophenomenology as a “new pragmatic tool” (Varela 1996: 330); in this sense we are in perfect agreement with Varela. That being said, we are fine with physiophenomenology. Moreover, if longing (as proposed by Nijenhuis §11) turns out to be a better bridge between the subjective experience and brain activity, so much the better.

The tradeoff model: SBO vs. SA

« 9 » With regard to Andreas Kalckert’s commentary, we could not agree more. The interaction between sense of body ownership (SBO) and the sense of agency (SA) is yet to be fully understood, and hence the trade-off model should be approached with caution and requires empirical examination. This applies in particular to pathological conditions such as trauma and PTSD. Likewise, we agree with Nijenhuis’s comment (as it echoes from Q2, §§13–17) that more studies in this field are indeed required; these studies should take into account a more complex structures of the SA and the SBO.

The second person comes first

« 10 » As beautifully put by Ciaunica in §3, the second person comes first, since the world is first of all a shared world:

“[...] Dasein is with equal originality being-with others and being-amidst intraworldly beings. The world, within which these latter beings are encountered, is [...] *always already world which one shares with the others.*” (Heidegger 1988: 297, our emphasis)

However, more specifically, it is through our body that we become familiar not only with the world of objects but also with the social world: “The body works as a tacitly

‘felt mirror’ of the other” (Fuchs 2005: 98). In this process, the body schema extends to embody the other. In turn, we can naturally deduce that “we use the operative intentionality of our body as an instrument for understanding the other’s intentions” (ibid: 99). Continuing this line of thought, note that the slogan “the second comes first” takes us back to the Descartes–Heidegger debate on the question of other minds: *How can we know other minds?* Hubert Dreyfus describes this debate as follows:

“Among the various possible modes of the world, Heidegger [1988] includes ‘the ‘public’ we-world, or one’s ‘own’ closest (domestic) environment’ (93). It is important to note that all such ‘special worlds,’ as he also calls them, are public. There is no such thing as *my* world, if this is taken as some private sphere of experience and meaning, which is self sufficient and intelligible in itself, and so more fundamental than the shared public world and its local modes. Both *Husserl and Sartre follow Descartes in beginning with my world and then trying to account for how an isolated subject can give meaning to other minds and to the shared intersubjective world.* Heidegger [ibid], on the contrary, thinks that *it belongs to the very idea of a world that it be shared, so the world is always prior to my world.*” (Dreyfus 1991: 90 our emphasis)

« 11 » Dreyfus further stresses that “other minds,” according to Martin Heidegger,

“are directly accessible to us in our shared transparent activity of coping with equipment (concern) and coping with people (solicitude) in *just the same way we are accessible to ourselves through our daily activity.*” (Dreyfus 1991: 150, our emphasis)

With this in mind, Heidegger’s approach clearly redefines the very notion of empathy altogether:

“Philosophers come up with explanations such as the theory of empathy (a variation of which was held by Scheler and by Husserl), which tries to account for how we get to know another person’s conscious experiences ‘behind’ his behavior.” (ibid)

Yet, “Heidegger argues that such problems, based on reflection and on private experi-

ences, *always presuppose the public world as background*” (ibid, our emphasis). Using Heidegger’s own words: “Empathy’ does not first constitute being-with; but is first possible on its basis, and is motivated by the prevailing modes of being-with in their inevitability” (Heidegger 1996: 117). Note that, in this sense, Heidegger does not exactly solve the problem of other minds: “[T]he question of other minds, rather than remaining a basic philosophical problem, as it is for Descartes, Husserl, and Sartre, *is ‘dissolved’ by Heidegger*” (Dreyfus 1991: 151, our emphasis). Considering this, it should be clear that when we think about therapy we think about shared space. That said, if one returns to our original target article, one can note that our guide for applying the phenomenological approach in the study of trauma (Box 1) begins by creating such an empathic shared environment (section A).

Controlled activation of PTSD-related traits in the lab

« 12 » As stressed by Nijenhuis (§16), “it is hard to activate the different parts of the personality in PTSD in the lab in a controlled way.” Keeping this in mind, as practitioners working with patients suffering from PTSD, well informed of the state of affairs in PTSD treatment, we suggest addressing at least three aspects of human demeanors activated and affected by an extreme traumatic incident:

- the physiology (arousal, hypervigilance, etc.);
- the mind, calling it cognition (mainly negative cognitions); and
- the imaginal, the intruding, disturbing images that freeze the ability to be playful.

« 13 » The patterns of brain activation in individuals suffering PTSD may serve as an important marker for the severity of PTSD and serve as a physiological indicator of the treatment outcome, thus helping clinicians.

So, what is new?

« 14 » Addressing Nijenhuis’s Q4, our protocol differs from state-of-the-art psychotherapy in various respects:

- a psychotherapy does not exactly (clearly, not always) begin with the subjective experience, thus in many cases, the so-called *subjective experience* turns out to

be a naïve kind of introspection and for us this kind of tool does not expose the bodily subjective experience;

b we use the subjective experience not only to learn about the brain but to return, once more, to the subjective experience in order to help the survivor deal with her everyday life she is struggling with; and

c our phenomenological approach treats the subject not as some kind of brain-in-a-vat but rather as a situated agent.

As such, it redefines the very notions of “problem” and “solution.” In that sense, even if the protocol looks familiar, it is situated in an entirely different philosophical environment: indeed, the context is of the utmost importance.

« 15 » To summarize, we do hope that by embracing a phenomenological approach, we may improve our understudying of the pathological world, and maybe, to be even more (some would say *too*) optimistic, by re-defining the philosophical context to change the way we think about pathologies.

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