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Author's Response Meaningful Bridges

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> Abstract • While there are many efforts in the literature to bridge first- and third-person research methodologies, attempts to bridge phenomenology and constructivism are rarer. However, the meaningfulness of this connection, at least on the topic of (non-cancer) chronic pain, seems to be recognized by my commentators even though it remains unclear how this can be done. Also, the question of how to combine the elements of the 5E approach has not been solved yet. Some commentators provide additional support for the 5E theory of pain by emphasizing important elements for understanding pain in the context of 5E, such as communication, the relational aspect, emotional pain, and possibly related bodily experiences.

«1» The importance of the (micro) phenomenological approach and the phenomenological and constructivist theoretical background in complex human conditions, such as chronic pain, has already been recognized by many researchers, in particular also by my commentators. This is an important step in changing the prevalent biopsychosocial perspective (which is characterized by the imbalance between its constitutive biological, psychological and social components) to a more holistic understanding of pain experiences and, consequentially, also functioning. On the one hand, even if we have some agreement, our ideas sometimes diverge, especially when it comes to data analysis or alternative research methods (David Martínez-Pernía), or when we emphasize different elements of the 5E theory, “just” enactivism (Juan Diego Bogotá & Giovanna Colombetti) or perhaps another element, e.g., relational dynamics (Jesús Ilundáin-Agurruza). On the other hand, the features of the (extended) 5E theory can be expanded to other types of pain, e.g., mental pain (Philipp Schmidt), or its understanding can be integrated with other embedded ex-

periences, e.g., the performative body (Mog Stapleton). In the following sections, I will try to reflect upon these aspects.

«2» Martínez-Pernía (§3) argues that the only element from which I draw conclusions is concrete experience and suggests an experimental phenomenology as a method instead, while Bogotá & Colombetti propose neurophenomenology (§6). By contrast, Schmidt (§3) emphasizes the importance of the *experience* of pain and how the experience changes the functioning (e.g., quality) of life, which provides additional support for the use of pure phenomenology. I submit, however, that experimental phenomenology and neurophenomenology are probably the most rapidly developing research methods today, especially in cognitive psychology, but this is not necessarily the best research method for all human conditions, including chronic pain. Experimental phenomenology has been applied to a number of studies, for example, on perception, working memory, inner speech, decision making, and cognitive processing, as well as to broader areas such as meditation and psychedelics, while neurophenomenology has been used, in particular, for the latter two areas. What all these experimental phenomenological studies have in common is that they examine “provoked states” (to borrow a term from Claire Petitmengin, referring to an experience triggered by the researcher by a particular stimulus or exercise). This raises many concerns about ethics (e.g., the well-being of patients with chronic pain when additional pain is intentionally triggered by altering experimental variables), and the ecological validity of (chronic) pain research. In particular, how can inducing a narrow part of an external situation generalize to a complex, multifaceted condition like chronic pain in the patient's life? This is different from observing only one “dimension,” such as in inner thinking. These ethical concerns can be better addressed with (micro) phenomenological interviews. Neurophenomenology is a better solution than experimental phenomenology for exploring the kinds of complex states of pain if we want to focus more on its biological aspects, as it can also be used for “evoked states” (referring to an autobiographical experience, when the researcher helps a participant to find a particular occurrence of this experience,

in the past, and try to relive it). However, neurophenomenology as a research method supports the same perspective as the biopsychosocial model (since all neurological studies per se focus on the “biological” part of a person’s functioning, again emphasizing the same division: a biological component compared to one’s experience), which would be detrimental to my goal of turning around the perspective of how we think about pain in general and looking at it more from the constructivist perspective.

« 3 » The constructivist 5E perspective addresses bodily sensations (through various Es and structural elements), including physiological ones. In order to understand how they are related to natural experience, we can turn to phenomenology for help, as it discards the distinction between inner and outer and between subjective and objective (Husserl 1970; Mascolo & Kallio 2020). I agree with **Bogotá & Colombetti** (§6) that (neuro)physiological factors are important, but in the end we only have experience, whether we choose to measure it with language, verbalizations, quantitative measures, Likert scales, EEG, fMRI, or whatever. Moreover, this kind of reasoning, which is a premise for neurological (and neurophenomenological) methods, as I said in the previous paragraph, reinforces the common understanding of pain as componential. It also implies a rather one-directional understanding of our experience and functioning, whereas the basic understanding of how the brain works suggests that this may not be the case. Moshe Bar (2021: 129) emphasizes that the functioning of our brain relies on “interactions in multiple directions and on simultaneous propagations.”

« 4 » Perhaps a different method of analysis would facilitate our understanding of what first-person methods such as microphenomenology incorporate and what can be investigated through third-person methods. Just as the cognitive system can work with either top-down or bottom-up processing, so too can the analysis of qualitative data. We can analyse interviews deductively or inductively. For the target article, I chose deductive coding because the aim was to examine whether the data gathered in the interviews support the constructivist paradigm of 5E. Had the research question been different, other analysis procedures could

have been used, such as micro-phenomenological analysis (e.g., Valenzuela-Moguillansky & Vásquez-Rosati 2019), analysis congruent with constructivist grounded theory (e.g., Charmaz 2006), or interpretative phenomenological analysis (e.g., Smith, Flowers & Larkin 2009). Each of these methods of analysis examines experiences with different aspects of one’s situation such as cultural, environmental, and biological aspects. Qualitatively gathered and analysed data may provide a better insight into the factors that influence a particular condition, as it can go beyond hypothetical factors and beyond linear perception, which equates correlation with causation. While it is always important to strive for as many sources of knowledge and as much knowledge about a particular state as possible, it is the first-person approach that enables us to understand the interaction between these different sources of knowledge.

« 5 » The first-person (micro-phenomenological) approach is also a method to uncover or better differentiate the link among different 5E elements (**Bogotá & Colombetti** ¶1), all the more so because its main characteristic is to get to pre-reflective levels of experience. Since considering discrepancies between all five Es is beyond the scope of this response, I will focus on the enactivism and extended-mind hypothesis, on which **Bogotá & Colombetti** (§4) put most emphasis. Authors such as Alva Noë (2004), Shaun Gallagher (2013), Daniel Hutto and Erik Myin (2013), Colombetti (2017), and Qiantong Wu (2018) have convincingly argued that enactivism is externalized rather than internalized, and thus does not diverge from the extended mind. Much has been presented in support of the relational consciousness between subject and environment through predictive processing (e.g., Noë 2004). As for another possible contradiction between enactivism and the extended-mind hypothesis, i.e., localization, I agree with Gallagher, who argues against the existence of this discrepancy and concludes that “[c]ognition is constituted in the dynamic coupling of neural and non-neural processes” (Gallagher 2013: 9). Even taking into account predictive processing (in its basic version: Barrett & Bar 2009, or in the enactivist version: Clark 2016), one cannot rule out the possibility that consciousness and cogni-

tion reside in the brain or body, respectively. The importance of integrating predictive processing into our understanding of pain experience, not only for the 5E, but even in the context of a horizon of attending to experience (HAE), is described by **Vincent Kenny** (§§12–15), who also offers valid practical considerations for dealing with some aspects of HAE in chronic pain conditions. He provides additional constructivist considerations about how communication of the experience between patients and physicians may affect the experience of pain. In my target article I have already addressed part of the problem (§35), but **Kenny** rises an important perspective on medical language, pointing out that it can further obscure understanding of one’s experience.

« 6 » The relational aspect of enactivism is also important in regard to what **Ilundáin-Agurruza** (§8) convincingly emphasizes and associates with Buddhism – the experience of pain being dependent on relations and sociocultural background. The latter is well explained by Hutto et. al. (2020), but more studies comparing how people from different cultures experience pain would be needed. In my target article, the relationship aspect was associated with several 5E components, but not stressed in the context of enactivism. Rather, since I emphasized the importance of identity to sense-making (§§47f), the relational perspective is implicit. In a study I conducted together with Camila Valenzuela-Moguillansky and Laura Jereb (Smrdu, Jereb & Valenzuela-Moguillansky 2022) in patients with fibromyalgia syndrome, the relational aspect emerged as one of the most important aspects in the continuous experience of pain, and is thus in line with Buddhist *dukkha* (**Ilundáin-Agurruza** §10), the continuation of suffering. This aspect can also be recognized in pain experiences related to various mental disorders (e.g., **Schmidt** 2022) and thus needs to be emphasized, as it can connect different types of pain.

« 7 » According to the Buddhist tradition (**Ilundáin-Agurruza** ¶1), one step on the way out of suffering is to recognize *anicca* – the belief that everything is impermanent and constantly changing – and this recognition is also something that some psychotherapies advocate, most notably acceptance and commitment psychotherapy (ACT). Its

main feature is exactly what **Ilundáin-Agurruza** highlights, using examples from Buddhism: surrender and acceptance of pain. Interestingly, participants in the study in my target article reflected that phenomenological interviewing (which in itself conveys acceptance) about their experiences, even of the most severe pain, actually reduced it.

“At the beginning I was afraid that I would end up with more pain, and although I felt it more during the interview, it's better now than before we started. I actually feel more relaxed and somehow 'liberated.'” (C1-83-2, my translation)

« 8 » However, while the Buddhist view (and also stoicism, from which ACT draws much) has common ground with my thoughts on chronic pain, the attitude toward pain in sports has far less. The important difference from chronic pain is that pain in sports usually ends when the athlete decides to end it (especially in the examples **Ilundáin-Agurruza** §17 provides). For research purposes, these perspectives (Buddhism, Stoicism, radical constructivism) and sport attitudes can be understood as personal perspectives on the world and oneself, and therefore can be explored within the horizon of attending to experience. Furthermore, in our study (Smrdu, Jereb & Valenzuela-Moguillansky 2022) we found that an important element that permeates the relational aspect is the narrative self, which **Ilundáin-Agurruza** (§15) also underlines. From this perspective, it would be interesting to investigate whether radical enactivism, which holds that there is no sense of self as self, can contribute anything in addition to the constructivist understanding of pain, in part because they are consistent with the second Buddhist step in coping with or resolving pain: *anatta* – the notion that there is no self.

« 9 » In my understanding, **Stapleton's** (§9) distinction of the experience of the body as performative and transparent sheds light on another possible connection between the five Es, perhaps especially integrating HAE with the enacted and embodied perspective. **Schmidt** (§2) also emphasizes the embodied characteristic of the co-constitutive role of pain, providing additional support for the 5E theory. In addition, in §9, he highlights mental or emotional pain as another type of pain that needs to be investigated in light

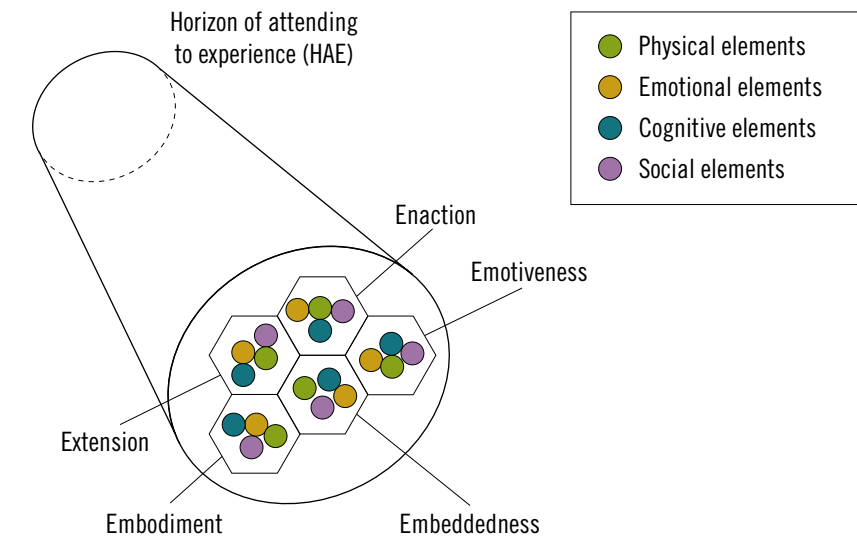


Figure 1 • Kaleidoscopic presentation of extended 5E theory of non-cancer chronic pain.

of the (extended) 5E theory of pain in order to verify the adequacy of the theory. In my target article, emotions were recognized as an important element of this theory (most clearly in §58, see also Figure 1 here), since they are the only element that constitutes two levels of experience – as a structural (as one of five Es) and as an organizational element. Despite this, none of the pain experiences in which emotions are the prime trigger of pain was investigated in the target article. They were omitted deliberately, to focus first on formally diagnosed non-cancer chronic pain. However, if the (extended) 5E theory proves useful, it should be able to integrate (and explain) all types of pain.

« 10 » In order to address **Schmidt's Q1**, in §2 he says that the experience of pain affects a person's entire quality of life, so it seems only reasonable, if something affects one's entire life, that it be examined holistically. He also notes, in §2, that even acute pain can significantly affect a person's emotional, social, and cognitive functioning. Furthermore, a change in one of these components, in turn, affects all others, which means that we cannot separate one component from another because they are too intertwined.

« 11 » From the target article, and even more so from the commentaries, we can observe the importance of building meaningful bridges between various aspects and characteristics that are visible in the study of non-cancer chronic pain. Building a new bridge for something that has such a long research tradition, with a perspective integrated into Western culture, can be a challenging job. So, maybe we should move away from the bridge that has been forming for so long between the biological, psychological and social aspect, because it has still not led to a satisfactory understanding of pain experience and, consequently, of treatment. Perhaps we should focus on building a bridge between phenomenology and constructivism, between the different elements of 5E, and possibly extend this bridge to include the additional perspective of horizons of attending to experience and radical constructivism. Its relevance can be supported by the inclusion of different types of pain (e.g., emotional pain), additional relational aspects, and other experiences that can illuminate our general experience of the body (e.g., the performative body). At least from the first perspective of the research method, we can identify (micro)phenomenology as

one of the building blocks for investigating pain experience. And other building blocks are certainly needed to integrate first- and third-person methods. However, we should be aware that this bridge we are trying to build together is probably not single-layered, so we cannot simply add first-person and third-person methods without changing the underlying theoretical perspective, from the biopsychosocial one to that of extended 5E.

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