Psychological concepts in neurophenomenology

stimulus, top-down processing, etc. A “dysynchronisation between memories, inferences from the emotions require at least some cognitive process...can almost merge or at least shift from one to the other” (§41). This is common to both accounts.

namic circular processuality of mechanisms” (§44) is common to both accounts.

Shocks involving physical reflex actions which, though not all, might be alike. Such shocks may lead to a series of instances of surprise, some of which, though not all, might be alike. Sudden shocks involving physical reflex actions such as recoiling from a hot surface, blinking to protect the eyes, and so on, would involve minimal delay, whereas enigma resolution would be preceded by an interactive process involving both cognition and emotion. It might result in further moments of cognitive surprise within one individuated instance of feeling surprised in response to a single initial stimulus. The micro-processual nature of these experiences would differ in line with their differing components and structures.

Modifications and further work

I have made some suggestions, above, relating to category selection and sub-division and to the process of generative analysis: to consider reconfiguring the structure more drastically; to attempt to set aside theoretical commitments and so construct categories directly from the data collected; and to embrace flexibility along multiple scales. My comments about alternative ways of constructing a set of categories, based on the notion of consciousness as an interface, admittedly revealed my own (different) theoretical commitments, but I would be interested to see whether a novel structure might emerge if the two sets of data (first- and third-person) were the primary stimulus for the process of categorisation.

The additional suggestions I wish to make concern some speculative ideas I have about how the project might develop. To achieve a reconfigured structure, as proposed above, I would recommend the recruitment of subjects with extensive training in the micro-phenomenological interview process. (I do not know how much training, if any, was provided.) Alternatively, you could consider recruiting subjects with training in introspection-related practices, such as mindfulness. Eugene Gendlin’s “focusing” (1982) or Russell Hurlburt’s “descriptive experience sampling” (Hurlburt & Schwitzgebel 2007). One final thought is that it would be interesting (a) to test whether subjects with superior interoception could give verbal reports corresponding any more closely to the structures found in the third-person data collected, and (b) if so, to ask them directly about what physiological changes they had experienced. Would the authors be interested, in principle, in working with subjects with superior interoception? (Q2) This could potentially improve the validation process, as well as providing an opportunity to investigate further the relation between superior interoception and anxiety/depression.

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On Mutual Enrichment between First- and Third-Person Sciences and Phenomenological Methodology

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> Upshot. In the first part of the commentary, I argue that the some of the main objectives of Depraz et al.’s target article (i.e., introducing a novel method of analysing first-person data using third-person physiological data and showing how first- and third-person data enrich and delimitate each other) remain somewhat unfulfilled. In the second part, I touch upon and briefly discuss the issue of what constitutes a valid method of researching experience.

Two of the main objectives of Natalie Depraz, Maria Gyemant and Thomas Desmidt’s target article seem to lie in (a) presenting a novel method of analysing first-person data (gathered through micro-phenomenological interviews) using third-person physiological data (abstract, §2), and (b) showing – in line with Francisco Varela’s (1996) project of neurophenomenology – how first- and third-person data interact, enrich (co-validate) and delimitate (mutually constrain) each other (e.g., §§15, 66, 68).

CONSTRUCTIVIST FOUNDATIONS VOL. 12, N°2
In the first part of the commentary, I will argue that the article fulfills these objectives only to a certain and unsatisfactory degree.

«2» The authors show how heart-rate data can be used productively to “define” the temporal framework (phases) of experience that can be used to guide and interact with the analysis of first-person data. They furthermore show in great detail – and this is what the bulk of the article is about (from §23 to §63) – how a rigorous analysis of first-person data can lead to the emergence of unforeseen experiential categories, novel mechanisms and processes of surprise and mental phenomena, in general. Nevertheless, I think the article does not quite succeed in fulfilling the two objectives mentioned above.

«3» To start with, besides using heart-rate data to set the “temporal stage” for first-person data analysis, it is not clear how the rich expose of emerging experiential categories, mechanisms and processes of surprise is guided, enriched and delimited by third-person data. The first objective of the article is thus only partially fulfilled.

«4» Furthermore, it is not entirely clear how using heart-rate variations to “define” the temporal phases of experience represents a “mutual interaction.” It seems the interaction (in the case of heart-rate variation data) is (mostly) a form of one-way constraint of first-person data analysis by third-person data (as I understand §15 and §64). In §15 the authors claim that “third-person data provides the temporal framework for the unfolding of the experience, based on HR variations” and that “the lived experience allows interpretation of the third-person data.” What is missing here is an explanation of how the interaction unfolds from first- to third-person heart rate and other types of physiological data gathered by the researchers, if the target article is to fulfill its promise of providing an example of the purported mutual enrichment (or co-validation) and productive delimitation (or mutual constraining) of first- and third-person data (sciences). As succinctly stated by Varela, this is one of the main goals of neurophenomenology: third-person accounts of the mind “should be validated also on the basis of its ability to provide insight into first-person accounts of mental contents” (Varela 1996: 344) and “disciplined first-person accounts should be an integral element of the validation of a neurobiological proposal” (ibid).

«5» Since, in my view, Varela’s 1996 article is more of a general proposal (a programme) of how to “properly” conduct research into the mind, and since the authors claim their article to be an extension of Varela’s neurophenomenology, the authors should make an additional step and provide a more detailed account of co-validation and mutual constraining of their first- and third-person data (as one of the main objectives of the article). Presenting in detail an example of how the gathered data “mutually enrich and delimitate each other might clarify and enlighten the attainment of this objective of the article.

«6» A further problem is that some of the reasons behind using heart-rate data to guide first-person data analysis could be considered problematic. In §65, the authors state that they chose to look at heart-rate variations because they “are associated with changes in lived experience,” the amplitude of the variation because different magnitudes of change may indicate different strengths of reactions and the duration of change because “it may correlate with the duration of a specific experience.” These justifications are intuitively all seem reasonable, but lack “proper” support from the phenomenological (first-person) side of neurophenomenology – the support pointed out in the article is mainly intuitive or third-person.

«7» One could imagine that in some cases and for some people, the duration of heart-rate change does not correlate with the duration of a specific experience, that classical “emotional” tasks and stimuli do not elicit what one would deem an emotional response and/or experience, etc. Regarding the latter, Russell Hurlburt et al’s (2016) study similarly, although in a different context, combines descriptive experience sampling and fMRI data to point to the falsity of the classical presupposition that experiences elicited by standardised tasks of psychology and neuroscience are similar to spontaneously occurring experiences. Presuppositions are made that are usually taken for granted by third-person sciences, but which should, in the context of endeavors such as neurophenomenology, be subjected to rigorous first-person research (see Strle 2016a for similar claims in the context of decision-making research), using appropriate first-person research techniques such as the interview technique the authors are using. For, if we are to take first-person research and its interaction with third-person sciences (data) seriously, we should, before making claims about the experiential aspects of third-person parameters, have an idea of how physiological response dynamics “look” from the first-person perspective.

«8» With what I have said so far, I do not wish to criticise the target article as a whole, since it does provide an interesting “path” to extending the neurophenomenological programme. However, and in light of the article’s objectives, it would be necessary that the authors delve “deeper” into the interaction between the dynamics of the experience of surprise and the measured physiological responses. The authors might have looked into these matters in more detail in the Emphiline-ANR project, but the article, as it stands, in my opinion falls short of providing a satisfactory account of these matters.

«9» In the second part of the commentary, I would like to briefly touch upon and discuss another matter: the question of what constitutes a valid method of research experience, i.e., what is valid first-person data, especially in the context of (neuro)phenomenology (Strle 2016b) as understood by Varela (1996). By no means do I wish to criticize the target article or neurophenomenology in general, but I would like to pose a few “provocative questions.”

«10» What most first-person researchers, especially those drawing from the philosophical tradition of phenomenology (e.g., Korděš 2016; Petitmengin 2006; Vermersch 2009; the authors of the target article; but also see Heavey, Hurlburt & Lefforge 2012), seem to agree upon is that the “new” first-person approaches should not fall prey to the mistakes and problems of so-called naive introspection(ism) or the “just-ask” approaches to researching experience. According to many (see sources above), the “method” of naive introspection (mostly unknowingly to researchers who avail themselves of such “just-ask” approaches) leads to gathering data on subjects’ opinions, explanations and implicit beliefs instead of ob-
of the first-person (phenomenal) data. As such, it does not constitute a valid method of studying lived experience and is, in part, rightfully accused of being of little value.

11 One of the main “phenomenological improvements” of the recent new ways of researching experience, compared with naïve introspection, is aptly expressed by Varela: “Phenomenology grounds its movement towards a fresh look at experience in a specific gesture of reflection or phenomenological reduction […]” (Varela 1996: 336; footnote omitted by the author).

The necessary starting point of this gesture is a transformation of our attitude towards experience – Varela terms this attitude of reduction – which can be, similarly to doubt, characterised as…

12 A sudden, transient suspension of beliefs about what is being examined, a putting in abeyance our habitual discourse about something, a bracketing of the pre-set structuring that constitutes the ubiquitous background of everyday life. (ibid: 336f)

In this regard, the essential purpose of this “first step” of phenomenological reduction is to seek…

13 Precisely the opposite effect of an uncritical introspection: it cuts short our quick and fast elaborations and beliefs, in particular locating and putting in abeyance what we think we ‘should’ find, or some ‘expected’ description. (ibid: 338f)

What is required is nothing short of an altogether different (radically different, one should say) attitude towards the experiential realm that is not of a theoretical but of a pragmatic (methodological) nature. Research into experience requires persons observing and reporting on their experience to be carrying out (while conducting research) a “shift” in their awareness, a transformation of their attitude towards their experience that is quite foreign and unnatural to most.

14 However, this raises several questions. How do we know whether subjects (or, more precisely, co-researchers) indeed report on their experience from such a phenomenological attitude and not from the habitual, natural attitude that people (and researchers) usually grasp onto and which potentially leads to reporting on their beliefs instead of lived experience? Varela (1996) proposes sustained and disciplined training as the solution to this problem and, in my opinion, rightfully claims that this aspect of his proposed methodological solution to the hard problem of consciousness perhaps represents the greatest challenge (if not obstacle) to his research programme. If we agree with such a strategy, we should by implication know approximately how such training should look, how long it should last and who (and by which criteria) is to judge whether a person has received enough of the “right kind” of training, etc. If, by contrast, we espouse the view that the solution to obtaining valid first-person data is rather that researchers (interviewers) be skilled enough in eliciting such a (or a similar) type of attitude in interviewees, similar questions to the stated above can be asked such as: How should the training of researchers look in detail? What are the criteria according to which one can state that a researcher is skilled enough to be able to reliably elicit such a “shift” in awareness and attitude towards experience?

15 Additionally, one should clarify (decide?) which methods for gathering first-person data are the ones that yield valid first-person data. For example, is data on the experiential aspects of emotion collected by the descriptive experience sampling method (e.g., Heavey, Hurlburt & Lefforge 2012) “as valid” as data collected by micro-phenomenological interviews? And, are results of these different first-person approaches even comparable?

16 Although I am aware that a lengthy comment on questions raised in this second part of the commentary surpasses the scope of the target article (and, admittedly, in the literature many attempts at answering the questions posed have been made), it would be interesting to see what the authors think about some of these issues in light of the presented research.

17 Overall and notwithstanding some of the problems of the target article, as noted in the first part of the commentary, and the challenges for first-person research pointed out in the second part, the target article importantly contributes to our understanding of the experiential dynamics of surprise (and emotions in general) and its interaction with third-person data (sciences).