

# Excavating Belief About Past Experience: Experiential Dynamics of the Reflective Act

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**> Context** • Philosophical and – more recently – empirical approaches to the study of mind have recognized the research into lived experience as crucial for the understanding of their subject matter. Such research is faced with self-referentiality: every attempt at examining the experience seems to change the experience in question. This so-called “excavation fallacy” has been taken by many to undermine the possibility of first-person inquiry as a form of scientific practice. **> Problem** • What is the epistemic character and value of reflectively acquired phenomenological data? Can the study of experience, despite the excavation fallacy, rely on the act of reflection on lived experience and make sense and use of its results? **> Method** • Through a philosophical discourse, informed by empirical first-person inquiry, we explore the experiential structure of the act of reflection and the formation of the corresponding belief about past experience. **> Results** • We present a provisional first-person model of the experiential dynamics of retrospective reflection, in which the reflective act is characterized as enaction of belief about past experience that co-determines – rather than distorts – its results. From a constructivist perspective on the inevitable interdependence between the act of observing and the observed, the excavation “fallacy” is recognized as an intrinsic characteristic of reflection. Reflection is described as an iterative, self-referential process, guided by a context- and subject-specific horizon of expectations. **> Implications** • Knowing the characteristics of the formation of beliefs about experience is essential for understanding first-person data and for the possibility of their acquisition and use in scientific practice, particularly in the context of second-person approaches to the study of experience. **> Constructivist content** • We relate the proposed understanding of reflection to constructivist epistemology and argue that constructivism provides an epistemological foundation for the empirical study of experience more suitable than the traditional epistemological objectivism of cognitive science. We suggest that the constructive nature of the process of reflection calls for a collaboration between the fields of constructivism, phenomenology, and first-person research, and points towards the potential for their mutual enrichment. **> Key words** • Reflection, enaction, constructivism, past experience, excavation fallacy, second-person methodology.

## Introduction

*It feels like going into a space, slightly blurred and delimited from another space – like an enclosed mist – this is the memory. I have found it ...*

*As I move closer towards the memory, I am going deeper and more narrowly into this space.*

(From a report by a co-researcher)

« 1 » The history of philosophy and the more recent history of western science have witnessed many diverse conceptualizations of reflection on lived experience and held a spectrum of different judgments of its importance, scope, and validity. Ranging from the conviction of the absolute primacy of re-

fectively gained first-person knowledge to its complete dismissal, the epistemic value assigned to the results of reflection has incited various philosophical and scientific debates. However, much less – and not enough – attention has been dedicated to the experiential dynamics of the reflective process. In this article, we would like to encourage a consideration of first-person aspects of the act of reflection and point out their importance for the understanding of reflectively acquired beliefs.

« 2 » The central aim of our investigation is to explore the experiential structure of the act of reflection and the formation of the corresponding belief about past experience. As there are more ways to reflectively turn towards lived experience, the expres-

sion “reflection” has been employed to describe a family of acts rather than one exact process, sometimes being used synonymously with – or replaced by – terms like introspection, retrospection, self-observation, contemplation, becoming aware, etc. Accordingly, there have been a number of discussions about the terminology related to first-person methods in the science of consciousness (e.g., Zahavi 2011; Vermerisch 2011a; Bitbol & Petitmengin 2011). In this article, we use the terms “reflection,” “reflective process” and “reflective act” to designate the inquiry into lived experience in adoption of the so-called *phenomenological attitude* (cf. Husserl 1982). Contrasted with the *natural attitude* of everyday life, the phenomenological attitude is characterized

by the reflecting subject's active attempt to suspend or bracket assumptions and theories that she would commonly apply in her everyday understanding of the world, attending instead to her lived experience as it is directly given in consciousness. Furthermore, we focus on a specific subtype of reflection: the retrospective reflective inquiry into a particular episode of one's experiential past, in which the subject attempts to arrive at knowledge of her past lived experience (of thinking, feeling, remembering, perceiving, acting, imagining, etc.).

« 3 » Although researchers of experience often emphasize that phenomenological reflection is a skillful endeavor that requires training and guidance (cf. Varela 1996; Depraz, Varela & Vermersch 2003), our aim is to describe the general structure of the phenomenology of reflection that, in our view, applies to reflective processes performed with the purpose of first-person research as well as to casual everyday acts of retrieving past experience. The kind of reflective act that we are concerned with can be carried out by the reflecting subject alone or in cooperation with others, with or without the consequent verbal articulation, and in or out of the context of scientific inquiry.

« 4 » Whilst reflection may or may not result in the subject's sense of knowledge of her past experience, we will focus on those instances in which it does. We will therefore describe the process of reflection in relation to the subject's reflection-based formation of belief about her past experience. Here, we use the notion "belief about past experience" to specifically refer to what the reflecting subject experiences as knowledge of her past experience. We are aware that it is problematic to separate the term "belief" from its standard use in the context of contemporary analytic philosophy of mind. However, we ask the reader to keep in mind that – putting aside this prevalent, but nevertheless particular theoretical perspective – the meaning of the term "belief" refers to experience. In this sense, the notion "belief" is here used as a technical term referring specifically to what is experienced as knowledge by the reflecting subject. Articulated and expressed, usually in the form of verbal reports, beliefs about past experience amount to what the study of mind terms

"first-person," "experiential," "phenomenological," or sometimes "introspective" data.

« 5 » The process of the generation of first-person data has become a topic of considerable attention in the context of the development of second-person methods for the study of experience. However, the experiential structure of the reflective process through which the first-person data are formed is far from understood (cf. Vermersch 2009). Considering the importance of reflection for mind sciences and the unresolved disagreements about the validity and use of reflectively gained beliefs, the relationship between the process of reflection and its results is in need of serious empirical as well as theoretical investigation. Our study of reflection is motivated by a wish to contribute to the ongoing debate on epistemological and methodological issues in first-person research. Stemming from the peculiar self-referentiality of the reflective act, many such issues appear to call for an overall rethinking of the mainstream epistemological background of studying the mind. By relating our examination of the experiential dynamics of reflection to the constructivist approach to knowledge, the second, more wide-ranging aim of our investigation is to demonstrate that constructivism provides an epistemological foundation for the empirical study of experience more suitable than the standard objectivist framework of cognitive science.

« 6 » The theoretical model of the reflective process presented in this article has been developed on the basis of findings gained through our ongoing first-person research on the phenomenology of belief formation. The research, the methodological approach and first results of which are reported in Kordeš & Klauser (2016), aims at exploring subjects' experience of the formation of beliefs through second-person in-depth phenomenological inquiry. Although the project is currently not focusing specifically on the formation of beliefs about past experience through the process of reflection, it has brought about interesting insights into the constructive dynamics of the process of belief formation that suggest certain general characteristics of the experiential dynamics, applicable to the experience of reflection. Furthermore, the training of participants led to extensive me-

ta-awareness of the process of retrospective reflection, illustrated by the example report presented in Box 1.

« 7 » On the basis of our empirical insights into the constructive nature of the reflective act, our model describes retrospective reflection as a process of the *enaction of belief about past experience*. The constructivist concept of "enaction" was introduced into cognitive science with the development of the enactive approach, put forward in *The Embodied Mind* (Varela, Thompson & Rosch 1991). With the notion of enaction, the proponents of this approach stress the inseparability of action and perception and point toward the mutual specification of the subject and the world. The core idea of the enactive approach is the description of cognition as embodied action: "A living organism enacts the world it lives in; its effective, embodied action in the world actually constitutes its perception and thereby grounds its cognition" (Stewart, Gapenne & Di Paolo 2010: vii). With its attempt to overcome the traditional rigid separation of perception and action in the study of mind, enactive cognitive science presents an alternative to realist representationalist research frameworks that have long dominated cognitive science. It has recently gained wide popularity and developed into different lines of thought and investigation in various domains of cognitive science (cf. Vörös, Froese & Riegler 2016).

« 8 » As its proponents explain, the enactive approach intends to "negotiate a middle path between the Scylla of cognition as the recovery of a pregiven outer world (realism) and the Charybdis of cognition as the projection of a pregiven inner world (idealism)" (Varela, Thompson & Rosch 1991: 172). Our aim in the present article is to identify a similar middle path in the particular process of reflection. We adopt the notion of enaction in order to indicate the active and therefore constructive nature of "perceiving" one's past experience and forming a belief about it. By viewing the belief about past experience as forged in the process of enaction, we wish to offer an alternative to the dilemma of whether the result of reflection is a "recovery" of a pre-existing past experience or a "projection" of the reflecting mind. We will argue for the mutual specification of the reflect-

ing and the reflected-upon, suggesting that in grasping past experience, the reflective act actively co-determines the enacted belief about it. We will describe the process of reflection as a dialectical path between the emergence and construction of the aspects of past experience. The iterative unfolding of the belief, we will suggest, is guided by the subject's feeling of veracity and continuously steered by a number of factors, including the subject's implicit expectations about her own experiential life, her perception of the social context, and the ongoing dynamics of the reflective process.

« 9 » In researching experience, we appear to be caught in a vicious circle: knowledge about first-person aspects of the formation of belief about past experience is considered to be essential for the validation of any first-person research – including the validation of the type of research necessary to acquire this very knowledge. The areas of phenomenology, first-person research, and neurophenomenology are brimming with similar feedback loops that cannot be disentangled by the application of a single theoretical or empirical intervention. In order to resolve these loops, we suggest a gradual approach in which empirical and theoretical parts mutually complement one another step by step. The present article is an attempt at a small theoretical step along this path. What we present is an empirically informed philosophical discourse: a theoretical model developed in order to instruct and possibly guide future empirical research on experience, but which can at the same time be employed and put to the test by first-person and second-person methods for the study of consciousness.

« 10 » In describing reflection as a process of enaction in which the subject turns towards her past experience in an articulation of its pre-reflective aspects, we are talking about three different “species” of experience:

- *The past experience (A)*, whose felt correspondence with the enacted belief will be described as “the feeling of veracity.” This sense of correspondence of the enacted belief with the experience as it was pre-reflectively lived through guides the subject in the reflective act. Unlike B and C, experience A is a theoretical concept: whilst in the reflective act, it

### Box 1: An example of a phenomenological report on the experience of reflection

This segment is taken from an interview conducted in the context of our research on the enaction of beliefs. A co-researcher is reflecting on her past experience of being woken up at midnight by the ringing of her phone (original past experience A). The report continuously intertwines the description of the past experience (A) as it is brought forward in reflection (B) and the description of the experience of the reflective act itself (C). Note that the report on past experience (in italics) is embedded in describing the experience of the process of enaction of this report (in normal writing).

1. I try to look at what was going on in that moment, I search for this memory...
2. It feels like going into a space, slightly blurred and delimited from another space – like an enclosed mist – this is the memory. I have found it. In fact, it all comes to me very quickly, I don't really need to search.
3. As I move closer towards the memory, I am going deeper and more narrowly into this space.
4. The first thing I remember is *feeling shocked by the ringing of the phone and the feeling of confusion*.
5. I am interested in what this confusion was like. I first remember the *feeling of the absence of composure* – but at the same time I immediately feel that this is not the only aspect to it.
6. *I was somehow still half asleep, as if not all of me was participating in the conversation on the phone*. I remember this *feeling* – *it's half automatic and somehow floating*.
7. Since I have instantly felt that what I said so far doesn't describe the entire feeling of confusion, I search for the other aspect of that feeling. I do this by returning to the broader feeling of my memory and then it feels like diving into another part of this area.
8. Now I remember that *a part of the confusion was confusion about the time: I thought that I had been sleeping for considerably longer, that the time was closer to 4 AM and not midnight*.
9. This “mistake” somehow attracts me – I look at this part of the memory more in detail, I somehow sharpen the appropriate part, which was before hidden in the mist.
10. I now see that *my sense of the time was not accurate. A part of me felt that it was around 4 AM, while another part noticed that this feeling was somehow mistaken...* I think that *I felt that it was around 4 AM considering my feeling of how sleepy I was, but something else was opposing this feeling*.

The report continues and ends with the co-researcher noting: “In the process of reflecting, there was a constant intertwining of the content of my past experience (B) and the experience of remembering it (C).”

might be *posited as* having existed, we remain agnostic about its actuality and ontological status.

- *The experience as it is thematized in the reflective act (B)*, which amounts to the content of the subject's enacted belief and, when aptly expressed, presents the reflectively acquired “first-person data.” Although the thematized experience

is given in the “now” of reflection, it is given exactly *as* past, imbuing the reflective act with the feeling of evocation of and correspondence to the past experience A.

- *The experience of the reflective act (C)*, which we attempt to characterize in the present article. Reflection is itself a new, fully-fledged act of consciousness.

## Dissolution of excavation fallacy and reflection as measurement

« 11 » In the course of the history of consciousness research, reflection has been associated with many problems, ranging from the issue of its irreproducibility and the difficulty of separating the reflecting subject from the object of reflection to worries about the verification of its results and the general possibility of objective knowledge of subjectivity (cf. Bitbol & Petitmengin 2013b). Perhaps none of the problems of reflection appears as troublesome as the fact that every attempt at observing experience changes the very experience that is being observed. Many philosophers and psychologists perceive this self-referential characteristic as a death sentence to first-person inquiry as a form of scientific research. In the words of John Searle:

“The very fact of subjectivity, which we were trying to observe, makes such an observation impossible. Why? Because where conscious subjectivity is concerned, there is no distinction between the observer and the thing observed [...] Any introspection I have of my own conscious state is itself that conscious state.” (Searle 1992: 97)

« 12 » Even defenders of first-person research do not deny the importance of this issue. Natalie Depraz, Francisco Varela & Pierre Vermersch (2003), who dub this self-referential characteristic an “excavation fallacy” (probably referring to similar problems encountered in anthropology and archaeology), describe the situation as follows:

“How do you know that by exploring experience with a method you are not, in fact, deforming or even creating what you claim to ‘experience’? Experience being what it is, what is the possible meaning of your so-called ‘examination’ of it?” (ibid: 8)

« 13 » As opposed to Searle, most proponents of first-person research maintain that the excavation fallacy should not stop us from attempting to study experience. They accordingly try to design their research techniques so that the problem is bypassed and the researched experi-

ence is caught as undisturbed as possible. A number of strategies have been offered that would enable a clear view of “pristine” experience. For instance, Franz Brentano (2015) and later introspectionists such as Wilhelm Wundt (1897) proposed that investigating experience requires a training of a passive form of inner perception. Some newer empirical first-person approaches, e.g., the think-aloud protocol of Anders Ericsson and Herbert Simon (1993), try to “catch” the here-and-now of the researched experience by allocating only minimal, particular cognitive resources to observing and reporting.

« 14 » Another, more frequently used attempt at surmounting the excavation fallacy is the observation of an experience from the past. This approach is unavoidable for all so-called second-person methods for the study of experience (cf. Froese, Gould & Barrett 2011) that rely on the use of interviews for an interactive acquisition of first-person data. Most other first-person researchers also agree that it is most sensible – or, as claimed by William James (1890), only possible – to conduct research on past experience. This retrospective observation seems methodologically safer, i.e., less vulnerable to the observer’s influence, because the experience in question is already formed (and therefore seems to be a more suitable object of observation).

« 15 » Much like other attempts at capturing the undisturbed lived experience, the observation of past experience does not, however, evade the inevitable interdependence of the result of reflection and the reflective act. For one, psychology has long acknowledged the constructive nature of memory (Bartlett 1932) and conceded that remembering is no passive reproduction of memory traces stored in the mind, but rather an active and creative (re)construction of the past (e.g., Neisser & Winograd 1995). Various investigations of the scope and validity of first-person knowledge in the scientific context (e.g., Nisbett & Wilson 1977; Johansson et al. 2005) have further demonstrated that people are often unable to reliably report on their mental processes and that, failing to account for the motives and reasons for their actions, they even tend to engage in self-deceptive, confabulatory theorizing when asked about them.

These findings have led many researchers to condemn the possibility of reliable first-person knowledge of consciousness. Such condemnation, however, stems from a misunderstanding of the reflective act as it is performed in adoption of the phenomenological attitude. In the phenomenological reflection that we consider in the present article, the subject does not aim at *theorizing* about her experience (for instance providing motives for particular actions, explaining reasons for particular choices or in any way accounting for her mental and experiential states). On the contrary: the phenomenological method requires precisely the *suspension* of causal and explanatory theories and the (re)turn to lived experience in its directness and concreteness. The shift from the natural to the phenomenological attitude involves a bracketing of everyday assumptions and convictions about the experienced world and a turn from the “what” (i.e., the content) of the experienced phenomena to their “how” (i.e., their mode of givenness). Given the profundity of this change – which Edmund Husserl (1970) even compared to a religious conversion – it is not surprising that simply asking an untrained subject about the contents of their mental states or the reasons for their actions might often lead to unviable answers.

« 16 » However, even in disregard of the standard objections concerned with the limitations, fallibility, and the possible confabulatory nature of introspective insight, the reflective act is still marked by the problem of the *horizon of reflection*. Even when performed in the phenomenological attitude, every enaction of belief about past experience is still an outcome of a particular perspective determined by particular circumstances. Enaction is not an event, but a process, the result of which (a belief) is being formed through a series of gestures. As will be shown in the following section, these gestures are guided by motives and expectations, demands of the perceived social context, the previously performed steps of the reflective process and various other factors, each of them actively contributing to the resulting belief. Even if one could absolutely trust the reliability of one’s memory, the inevitable adoption of perspective alone imbues the reflective act with a constructive character.

### Reflection as quantum measurement

« 17 » It has been suggested that the interdependence of the enacted belief and the reflective act can be elucidated with an analogy from the field of quantum mechanics (Bitbol & Petitmengin 2013b; Kordeš 2015a). In the early stages of the development of quantum mechanics, physicists were faced with an epistemological dilemma much similar to the one encountered in gathering phenomenological data: it became clear that when dealing with quantum phenomena, the act of measuring unavoidably affects the measurement outcome. One possible response to this situation has been to claim that it is pointless to speculate about what goes on at the quantum level when we are not observing – a view summarized by David Mermin's famous directive: "Shut up and calculate!" (cf. Mermin 2004). At first glance, the call to refrain from contemplating the ontological nature of entities involved in the physical formalism might appear as the physicists' attempt at running away from essential philosophical questions arising from their research. However, the "shut up" directive can also be understood as a statement of a sound epistemological position that acknowledges the interdependence of the measured phenomenon and the act of measurement.

« 18 » This position can be traced back to Niels Bohr, one of the founders of quantum theory.<sup>1</sup> Bohr insisted on recognizing the inseparability of the result of quantum measurement from the experimental context of the measuring act. He argued that it made no sense to speak of a "quantum world" underlying the abstract physical description (cf. Petersen 1963). Rather than referring to observer-independent quantum

1 | Here, the example of quantum mechanics is *not* being used as a mere additional illustration. While the co-determination of observation (measurement) and the observed (measured) has been given extensive theoretical attention in constructivist philosophy, we are turning towards quantum mechanics as the first empirical discipline that has not only noticed the excavation fallacy, but also offered a viable methodological solution. Even more: we suggest that the solution in question is not a mere methodological workaround but a sound alternative epistemic attitude.

events, Bohr suggested, quantum mechanics deals with holistic *phenomena* that are necessarily specified by the conditions of their manifestation. Accordingly, he replaced his early metaphor of the *disturbance* of quantum properties by the measuring apparatus, proposing instead to understand the measurement as an act that *co-defines* the measured phenomenon (cf. Teller 1980; Bitbol & Petitmengin 2013b).

« 19 » Why should we not treat reflection on past experience the same way? Along the lines of Bohr's approach to the measurement problem in quantum mechanics, we reject the *a priori* objection that the reflective act *distorts* the supposedly pre-existing past experience. Instead, we propose to regard reflection as a kind of measurement that *co-determines* the resulting belief about the experience in question. The belief about past experience is necessarily actively forged through an experiential process of enaction. Such a view dissolves the excavation fallacy by recognizing it as an intrinsic *characteristic* of the reflective process. Once understood as an essential ingredient of the reflective process, the excavation characteristic is no longer construed as an unfortunate limitation or impediment to researching experience. Objections that reflection deforms experiential data therefore no longer apply: the act of reflection simply co-determines experience as it appears to us.

### Experiential dynamics of excavation

« 20 » Acknowledging the unavoidable interdependence between observing and the observed points towards the importance of knowing the characteristics of the act of reflection for understanding its results. This section is aimed at exploring the experiential dynamics of the reflective act. We present a first-person model of the enaction of past experience: an attempt towards a generalized description of the experience of reflection in which the subject tries to remember and thematize a particular experience from the past.

« 21 » Let us first explain what this model is not. Firstly, it does not have quite the same ambition as philosophical phe-

nomenology, i.e., it does not attempt to speculate on fundamental (transcendental) conditions for consciousness that enable the experience of the enaction of belief. Despite its being a theoretical model, its goal is to identify experiential processes that could be subjected to empirical observation. As described in the introduction, the basic contours of the proposed model have manifested during the (still ongoing) research on the experience of enaction of beliefs, the methodology and partial results of which are presented in Kordeš & Klausner (2016). We see our proposal as a first approximation in the line of back-and-forth dialogue between theoretical modeling and first-person empirical inquiry. We hope that such a means of investigation might be able to produce a model that would try to capture deep structures of experience, but nevertheless remain within the grasp of what is observable.

« 22 » Considering that reflection is simultaneously a process that we observe and a process with which we observe, it is important to stress that, secondly, the presented model is *descriptive* and not instructional. It has to be distinguished from a number of existing procedures or techniques for the acquisition of phenomenological data in research on experience, such as the three-step procedure for the performance of epoché suggested by Depraz, Varela & Vermersch (2003), or guidelines for different interview techniques (e.g., Vermersch 2009; Petitmengin 2006; Hurlburt 2009). That is not our goal. We are attempting to describe the dynamics of reflection in the situation where conditions for the enaction of belief were given: the subjects adopted the phenomenological attitude of the enaction of belief, being aware of this gesture or not.

« 23 » Our model sets out from the point at which the subject knows that the past experience is available and that she is able to answer the question "what was it like (to be me)" at the selected moment. We are therefore not interested in experiential processes where – for instance during an interview – the answer to the question about past experience starts with "I don't know" (Vermersch 2009; Depraz, Varela & Vermersch 2003). Here, we rather focus on the case in which (1) the motive for the

“observation” of past experience has arisen and (2) the subject has the feeling that she is able to recall that experience.

« 24 » As we have discussed above, the process of reflection – like the measuring in quantum mechanics – co-determines the answer. Vermersch points out that any description can

“always be carried out from different perspectives, there is never a single description, and this means that the same moment of lived experience can form the subject of a multiplicity of complementary and successive descriptions.” (Vermersch 2009: 31)

The perspective adopted in the reflective inquiry will be determined by the horizon of reflection, which is formed by the subject’s implicit, to an extent culturally shaped (cf. Cohen, Hoshino-Browne & Leung 2007) expectations about her own experiential life as well as her perception of the current social context and the ongoing development of the reflective act. We thus propose not only that the enacted belief about experience depends on the initial perspective, but that in the process of enaction, the perspective is constantly being chosen in the subject’s continuous punctuation of her experiential field. The term *punctuation of experience* is here used to designate the subject’s current choice about which aspect of the field of experience should be focused on. As in quantum mechanics where measurement “selects” a given state of the particle (the result of the measurement), punctuation leads from a probability cloud to a single determined step in the formation of belief about experience. It is precisely this constant punctuation that forms the basis of the procedure of reflection: the continuous act of choosing the path, which is being laid down under the horizon of expectations.

« 25 » The *probing*, understood as asking about the “what was it like” of past experience, is intertwined with the attempts at answering the question by *articulating* certain experiential aspects.<sup>2</sup> These two acts

2| Although the present article does not further explore the significance of verbalization, language is certainly one of the important factors that shape the horizon of reflection. The reflective process is clearly not always connected to or

– which can amount to minimal experiential moments and are not necessarily linked to linguistic concepts and expression – are connected through a relationship of mutual dependence: the enaction of belief about experience is an iterative process that constantly interweaves punctuation and observation of experience on the one hand and its articulation on the other. Punctuation and articulation of experience are circularly connected to anticipation, through which the articulation of the current aspect of experience (combined with other factors in the horizon of expectations) determines which aspect the subject will focus on in the next moment and articulate in the following step.

« 26 » The horizons of expectations that guide the gradual formation of belief about past experience through continuous punctuation form “channels” in which each ongoing step in the act of answering significantly determines the next one. The idea of anticipation-canalized cognitive processing, which plays a crucial role in our understanding of the process of reflection, can be found in more general discussions about the role of anticipation in cognition (e.g., Riegler 2001b). The central importance of expectation and prediction is being increasingly recognized in cognitive science, especially in the broad field of research of perception and consciousness encompassed under the title of predictive processing (e.g., Clark 2013; Friston 2010; Hohwy 2013).

followed by an act of overt verbal articulation. Nonetheless, beliefs about past experience or the process of their enaction are often communicated. In such cases (e.g., in reporting on experience in a scientific setting), verbal articulation may play a substantial role in guiding the process of reflective probing and answering, potentially adding to, changing or losing several aspects of experience (cf. Schooler 2002), or selectively choosing its more communicable features. More broadly, linguistic concepts might generally – even in the absence of expression – influence the reflective process by serving as cues for the considered aspects of experience.

### Experiential moments of the enaction of belief: Intent, gist, and excavation

« 27 » We will now delineate some of the experiential modalities involved in the phenomenology of reflection with emphasis on those that are rarely mentioned or even entirely neglected. We describe three important experiential moments on the path towards the enaction of belief: (1) the intent to probe into the past experience, (2) the feeling of confidence of being able to access the experience and answer “what it was like,” and (3) the articulation, or as we call it, excavation of the answer.

#### 1 | Intent to probe: Asking the question “what was it like?”

« 28 » By *intent to probe* we do not mean the circumstances or motives that lead to inner probing. These can vary to a great extent: from the phenomenological interview to self-exploration, from a simple association chain to serious, systematic reflection. If we are to investigate the process of the experience of reflection, we must first point out the introductory gesture – the emergence of intent to attend, i.e., a gesture experienced as the intent to “survey” a (selected) part of experience (“I am interested in what this confusion was like,” 5/Box 1).

« 29 » In many aspects, the experience of intent manifests itself as essentially different from all other experiential modalities. The term “intent” is used here to distinguish this experience from a belief that something was decided, which we can – for the purpose of this article – call “intention.” The two are experientially considerably different – the first is a gesture (cf. Depraz, Varela & Vermersch 2003), a directedness towards an undertaking, whilst the second is a mental construct. For instance: if we rationally decide to move our finger (intention), this does not yet suffice to actually trigger the activity of moving the finger. But the feeling of intent cannot emerge alone – without the experienced activity of moving the finger. The case of experiential acts is similar. It appears that the intent to probe is identical to probing itself – once the gesture of intent to “survey” a certain part of experience happens, reflection is already taking place (“This ‘mistake’ somehow attracts me – I look at this part of the memory more in detail,” 9/Box 1).

The conscious retrospection starts with an act or rather a gesture that is not rational and the essence of which is similar to that of any other intent. The gesture in question appears not to be directly accessible; nevertheless, there is a distinct feeling that such a gesture is a (very special) kind of experience. It also seems that this almost infinitesimal phenomenon somehow contains condensed information about the above-mentioned complex plethora of factors, constituting the horizon of the probe.

« 30 » The pre-reflective nature of the gesture of intent is equally veiled in all cases: the intent to carry out a physical activity no less than the intent to probe what is where in our visual field or – as in our case – to explore what it was like to experience at a selected moment in the past. It seems typical of the gesture of intent that it exists at the fringe of reflected experience, as if it could only reside right there, far from the focus of attention and consequently far from any clear description.

## 2 | Confidence that I can answer the question “what was it like”

« 31 » As already mentioned, this model focuses only on cases in which probing actually leads to positive results. Experientially, reports on this point can be summarized as “the feeling of confidence that I can answer” the question of what the selected experience was like. It feels like the “gist” of the answer has been located and its essence felt, even though it has not yet been precisely formulated. It is like finding the right book at the library – once located, it endows us with confidence that we can answer the question even though a concrete answer has not yet been formed. (“It feels like going into a space, slightly blurred and delimited from another space – like an enclosed mist – this is the memory. I have found it. In fact, it all comes to me very quickly, I don’t really need to search,” 2/Box 1.)

« 32 » The experience of gist might be compared to the descriptions of Edward Titchener’s analyses connected to his research into the existence of imageless thoughts: “Vague and elusive processes, which carry as if in a nutshell the entire meaning of a situation” (in Bitbol & Petitmengin 2013b: 188). In our research, the participants often compared the experience

of the feeling of knowing the gist of the answer to a cloud or a foggy area hiding the answer (“I look at this part of the memory more in detail, I somehow sharpen the appropriate part, which was before hidden in the mist,” 9/Box 1; see also 3 and 7/Box 1 for a representative description).

« 33 » Such knowledge is not yet revealed. The subject, however, experiences the reference of the process of enaction to the original past experience, which is felt to correspond to what is being enacted. This kind of experience, which we call the *feeling of veracity*, seems to coincide with the feeling that Michel Bitbol and Claire Petitmengin (2013a), in their work on performative evaluative criteria of first-person inquiry and reports, designate as “recognition,” but also – very appropriately – the “feeling of obviousness.” (“I now see that *my sense of the time was not accurate*,” 10/Box 1; the feeling of veracity can also take the form of the lack of sensed correspondence: “[A]t the same time I immediately feel that this is not the only aspect to it,” 5/Box 1.) The feeling of veracity of what is being enacted is the most significant guide through the reflective act and, as we will discuss below, plays an important role in ensuring the coherence and viability of the process of the enaction of belief. In its limitation to the experiential sphere of the reflecting subject, however, the feeling of veracity by no means bears on the ontological value of past experience examined in reflection or implies anything about its correspondence with the enacted belief about it beyond the first-person domain.

« 34 » The experience of confidence that one can answer “what it was like” and the beginning of proper enaction of belief might be separated by an infinitesimally small step, sometimes so fleeting it goes by unnoticed. However, the clarification of the fog and the outlining of the answer may not occur at all and we settle for the experience of the gist of having access to the answer.

## 3 | Answering: The excavation of the belief about past experience

« 35 » Delineating the structure of past experience out of the unarticulated gist is similar to excavating an archeological site – each further step additionally clarifies the picture and at the same time defines (narrows down) the array of possibilities of the

final image. Is this excavation mere passive observation or an active process of construction? Some of the reports (e.g., Depraz, Varela & Vermersch 2003) mention the effort exerted in the process of enaction of belief about past experience, the effort connected to browsing through one’s memory. This would suggest the active (and therefore constructive) nature of the process of excavation. On the other hand, Bitbol and Petitmengin assure us that – provided the preparations for retrospection have been carried out properly – enaction happens involuntarily, describing the “spontaneity of the emergence of elements of the evoked experience” (Bitbol & Petitmengin 2013a: 275). Vermersch seems to corroborate this “passive” perspective, claiming that “[s]econdary remembrance does not consist in an effort of memory, but in letting something emerge during the evocation of a singular past lived experience” (Vermersch 2009: 19f).

« 36 » It appears that such excavation may include different experiential modalities. The attitude towards experience as adopted by the subject probably plays an important role in this. The adoption of the position of phenomenological reduction would probably be related to the feeling of acceptance of the emerging experience such as it is, i.e., the absence of inner endeavoring. This is confirmed by the above-mentioned research by Bitbol and Petitmengin (2013a: 275), where spontaneous emergence is associated with “adopting a specific attentional disposition.” When Depraz, Varela & Vermersch (2003) write that the gesture of becoming aware is “not a construction,” this seems to be exactly what they mean – that it is an attempt at bracketing active interpretation. However, it is important to emphasize that the absence of the sense of construction does not determine the epistemological status of the constructed belief. Furthermore, the adoption of the specific (non-constructing) attentional disposition does not imply the absence of a horizon. Understanding reflection as a type of continuous punctuation of the experiential field that involves a repeated adoption of a certain perspective, it would probably not be wrong to characterize the process of enaction of belief about past lived experience as an act of construction.

## Twenty (or more) questions

« 37 » Using the terminology presented in the above model, the iterative and self-referential dynamics of the reflective process can be described as a dialectic of probing (asking) and answering. Determined by a horizon of expectations, the act of probing will direct the reflecting subject's attention towards a particular area of the not-yet-articulated "gist cloud." Once she attempts to articulate her experience, the process of articulation will play a further critical role in the narrowing down and orienting of the field of punctuation. Throughout the different steps of the reflective process, answering the question "what was it like" will thus affect the following step of the probing, with that which has been excavated determining the spectrum of possibilities for further questioning.

« 38 » The well-known physicist John Archibald Wheeler once attempted to describe the quantum process of the wave function collapse by using the game of twenty questions as a metaphor (in Davies & Brown 1986). We suggest that this metaphor is also most appropriate for describing the iterative, self-referential process of creating belief about (past) experience. The game of twenty questions begins when one of the players (let us call her the inquirer) leaves the room. The others then select an object, a person, an animal, etc. The aim of the inquirer is to discover what it is that the other players have selected. She, in the course of twenty questions, tries to pinpoint the object in question. Wheeler thought that this might be a good description of the collapse of the wave function – provided a little twist be added to the game: in Wheeler's version, when the inquirer leaves the room, the other players do not select an object. All other rules apply. The inquirer, believing that somewhere in the minds of the other players there exists the selected object, starts asking questions and thus narrows down the space for the potential conclusions of the game. The participants are bound to take account of all previous answers – every new answer has to be consistent with all the previous ones. The final answer is thus enacted through an interchange of questions and answers. Every question co-determines the answer, every answer narrows down the set of possible questions. This process might

in the end bring us to a point in which only one entity appears possible – or in which the answer seems to be convincing or exhaustive enough for the players to decide to end the game. But it just as well might not, in which case the answer is left hanging.

« 39 » It would appear that the question-answer feedback loop involved in our characterization of reflection might be fractally experienced at several levels and traced back to infinitesimal experiential moments in which both opposites merge. Vermersch (2009: 32) describes such potentially infinite iteration as "granularity of the description and fragmentation/expansion." Here, the question emerges whether it is still phenomenologically viable to distinguish between them. Perhaps the perception of oscillation between the position of observer of one's own experience and the position of being thrown into experience such as it is merely a consequence of what Husserl calls the natural attitude. A persistent training in phenomenological reduction might eventually lead to a bracketing of such perspectives. Just like physicists were forced to coin the new entity of wave-particle, phenomenological praxis may need to start seeing its "building parts" as (something along the lines of) probing-observing.

## Towards constructivist epistemology for the study of experience

« 40 » We have described reflection as a constructive process that co-determines the resulting belief. This co-determination makes it inappropriate to evaluate the results of reflection against standard objectivist frameworks of cognitive science, which are at their core marked by the demand for separation between the observer and the observed. Instead, we suggest that reflection and reflectively gained knowledge can be better understood through the lens of (radical) constructivism. Constructivist epistemology argues that knowledge, rather than being passively acquired, is actively constructed by the cognizing subject, and that the function of cognition, rather than to discover an objective ontological reality, is to organize the cognizing subject's experiential world (Glaserfeld 1988).

« 41 » Recognizing that knowledge cannot transcend the domain of experience, radical constructivism refrains from making any ontological claims about the structure and existence of a mind-independent reality (Riegler 2001a). We suggest adopting an equally agnostic stance towards the ontological status of the supposedly pre-existing original experience examined in reflection and its correspondence with the enacted belief about it. We see little sense in evaluating reflection in terms of its capacity to represent the "pure," "unspoiled," or "pristine" original experience. Since it is impossible to reach a past experience in any other way than by means of reflection, there exists no external, third-person reference point against which such objective assessment could even in principle be made. We therefore conclude that in studying experience, constructivist epistemology presents a more suitable and much needed alternative to the epistemological objectivism of scientific realist cognitive science.

« 42 » Our position seems vulnerable to an intuitive objection: if our beliefs about past experience are the results of construction, how come we can nevertheless so often rely on what is gained in reflection? After all, the "factual" contents of our past experience brought forward in reflection (e.g., the external circumstances in which the past experience took place) seem, for the most part, to ensure viability in correspondence with other sources of knowledge.

« 43 » This objection, here aimed at reflection in particular, can be considered an instance of a more general objection to the constructivist view of knowledge: if the world is constructed, how come we can nevertheless successfully navigate through it – without, for instance, bumping into closed doors (Riegler 2001a)?

« 44 » However intuitively plausible, this criticism is based on a misunderstanding of the construction as *arbitrary* construction. As Alexander Riegler (2001a: 7) points out in what he calls the "Limitations of Construction Postulate," experiences are, even in the obvious absence of a subject-independent external reference point, not constructed independently of one another. Rather, they are made subsequently and thus related to one another in a non-arbitrary construction network of historical interdependencies. Recognizing



nizing the mutual constraints and the interdependency among experiences, one should understand construction not as a matter of free arbitrariness, but instead as a historically constrained and thoroughly non-arbitrary activity of the mind.

« 45 » In the particular case of reflection, the constructivist perspective makes it clear that giving up the idea of an external reference point does not lead to an “anything goes” understanding of reflectively acquired beliefs, just as giving up the reference to a mind-independent reality does not lead to an arbitrary experienced world in which one could walk through closed doors. Quite on the contrary: as described in our model, enaction is an iterative process in which each step narrows down the field of possible next steps – while being at the same time itself shaped by the reflecting subject’s implicit understanding of her experiential life and the social context of the reflective process as well as the previous steps of the reflective process.

« 46 » The non-arbitrary character of enaction, we suggest, can be linked to certain experiential aspects of the act of reflection, which makes possible a turn from the unattainable third-person correspondence criteria for the validity of reflection and its results towards a more appropriate first-person evaluative basis. As suggested by Bitbol and Petitmengin (2013a), the evaluation of reflection and first-person reports can be grounded in the experienced and self-assessed *performative coherence* of the process of reflection. On the basis of a preliminary empirical study of first-person reports, they point to various experiential criteria for self-assessed reliability and validity of the act and results of reflection, e.g., the “spontaneity of the emergence of constitutive elements of the re-enacted experience,” the “incremental nature of the fulfillment of evocation of experience,” the “recognition of the elements brought out by the re-enactment,” and the “feeling of obviousness” (ibid: 275f). Crucially, the idea of evaluation (as well as Bitbol and Petitmengin’s notions of “reliability” and “validity”) is here not construed on an objectivist premise. When situated in a constructivist framework, experiential criteria need not be concerned with the *correspondence* of the results of reflection with the supposed (and ultimately unattainable)

“original experience,” but with ensuring that the reflective process is *viably constructed* within the historically interdependent network of experiences.

« 47 » The shift to the first-person evaluative criteria draws attention to the often-forgotten consideration that the mere capacity to reflect does not automatically ensure the viability of the reflective process (Varela 1996; Depraz, Varela & Vermersch 2003; Vermersch 2009). As any kind of “measurement,” reflection can be performed in a better or worse way, depending on the subject’s capacity to follow the experiential guidelines on the path towards the enaction of belief. In the model put forward in this article, the most prominent experiential guide tending to the non-arbitrariness of reflection has been described as the feeling of veracity, i.e., the experience of correspondence of the process of enaction of belief to the original past experience. This feeling, which could serve as an experiential criterion of the viability of the reflective process and its results, steers – when present – the subject through the reflective act towards the resulting belief about past experience. The experiential criteria are thus not important only for the *a posteriori* assessment of phenomenological data, but are also incessantly operant in guiding each act of reflection.

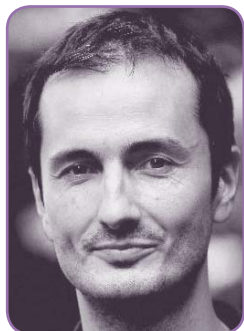
## Second-person methods in the science of consciousness

« 48 » Despite their limitation to the experiential sphere of the reflecting subject, first-person guides and evaluative criteria of the reflective process can nevertheless be intersubjectively shared. One of the purposes of the proposed model is to facilitate such sharing by providing potential conceptual anchors for the establishment of “descriptive categories” of lived experience (see Vermersch 2009). According to Vermersch, such anchors are needed for the possibility of intersubjective guidance of the process of reflection that lies at the heart of second-person methods for the study of experience. Two such most widely established and used methods are the *elicitation interview technique* originally developed by Vermersch (2009) and elaborated and extensively

characterized by Petitmengin (2006), and the *descriptive experience sampling method* developed by Russell Hurlburt (2009). Both approaches, while they involve distinct epistemological and methodological views and commitments, rely on the interactive acquisition of first-person data in which the collaborating “subject” and “interviewer” are perhaps better described as “co-researchers” of the past experience.

« 49 » Far more than being a mere passive listener to the subject’s verbal descriptions of experience, the interviewer in second-person methods actively helps the subject examine a concrete past experience as it was primarily given, for instance, by leading the subject away from interpreting, explaining and justifying; providing guidance in the articulation of the fuzzy, perhaps only bodily felt aspects of the recalled experience; assessing the viability of the ongoing reflective process and steering it in an optimal direction; etc. Whereas the past experience might be given in the first person only to the subject, the enaction of belief about it via second-person methods is therefore essentially *interactive* and *social*.<sup>3</sup> The patterns of interaction involved in the second-person methods constitute significant factors of the subject’s horizon of expectations and importantly co-determine the structure of the reflective process. The iterative punctuation

3| More generally, a similar social dimension – while perhaps less apparent – might be identified in *any* scientific acquisition of experiential data. As pointed out by Martin Orne (1962), any psychological experiment involves a set of so-called *demand characteristics* – explicit or implicit cues that co-form a subject’s performance in the experiment *in addition* to measured variables and selected conditions. Individually formed expectations inevitably lead participants to ascribe meaning and intention to the experimental situation and perform accordingly (attempting, for instance, to please or contradict the experimenter, or to go along with or against what they believe to be the hypothesis of the experiment). Recognizing that demand characteristics form an unavoidable part of all (not only explicitly interactive) experimental settings, it has been suggested that psychological experiments should be understood as a particular type of social interaction (Orne 1962), and reports on experience as products of such interaction (Wooffitt & Holt 2011).



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of the subject's past experience is performed in an overt cooperation of the two co-researchers, who – depending on the previous steps of the reflective act and the horizon of expectations – jointly lay down the path towards the enaction of belief.

« 50 » We suggest that the acquisition of phenomenological data with second-person techniques can be understood as a typical instance of *participatory sense-making*. As its proponents Hanne De Jaegher and Ezequiel Di Paolo (2007) explain, the notion of participatory sense-making refers to the frequent phenomenon in which the process of social interaction takes on a form of autonomy that reaches beyond the individual autonomy of involved participants. In such instances, the patterns of coordinated behavior and meaning emerge as an entity with its own guiding force over the ongoing interaction. The meaning jointly generated in such interaction is irreducible to individual acts of any one of the involved participants, but is instead shared through and through. Describing the reflective act carried out by means of second-person methods as an example of participatory sense-making, the

enacted belief about past experience can be considered a joint product of the two interacting co-researchers.

« 51 » In our first-person research praxis, we have observed substantial interpersonal differences in the implicit perception of the social situation in which the enaction takes place. In the participatory setting, a communicational situation that appears the same on the outside can be perceived as distinct by two different participants, who might focus on entirely different aspects of their experience and ascribe different meanings to the act of reporting despite the identical patterns of interaction with their co-researcher. For instance, while one might be completely content-oriented and explore her experience with less regard for the presupposed intent of the person leading the interview, the other might implicitly perceive reporting to be mainly a way of establishing social relations with the co-researcher. We have empirically demonstrated that this “feeling of relationship” (Kordeš & Klausner 2016: 375) importantly contributes to the performance of the reflective act in second-person settings.

« 52 » Given the unavoidable influence of the researchers of experience on the results of reflection, it is all the more important that researchers themselves have a deep understanding of the experiential dynamics of the reflective process. We hope that the present investigation, together with future empirical testing of our model, can serve as a step on the path towards this understanding.

## Conclusion

« 53 » In philosophy, the phenomenological tradition has developed theoretical models of consciousness by describing fundamental structures of experience. These models, however, lack an empirical context. In the last few decades, this gap has been increasingly filled in by the field of first-person research, developing more and more thought-out methods for accessing phenomenological data. The problem with both fields, phenomenology and first-person research, is that they mostly still linger within the constraints of standard epistemologi-

cal frameworks, viewing self-referentiality and circular causality – two fundamental companions of experience research – as problematic. Based on its ability to reframe the vicious cycle of self-referentiality into a constructive loop, constructivism could provide useful epistemological solutions. The unavoidable effect of observation on the examined experience, which Depraz, Varela & Vermersch (2003) have labeled the excavation fallacy, is incorporated into the very essence of the constructivist framework. By adopting such a framework, the fallacy becomes an excavation characteristic.

« 54 » Not unlike in the epistemology of quantum mechanics, the endorsement of the constructivist perspective on the inevitable interdependence between observing and the observed brings us to the imperative of knowing the characteristics of “measurement” in order to understand the results. If we are to understand reflectively formed beliefs about experience, we must know the characteristics of their formation. This article has offered a model of experiential dynamics of the enaction of belief about past experience. We have deliberately spoken of the “excavation of experience” in order to

stress self-referentiality as a necessary part of a constructive (as opposed to a vicious) cycle. As pointed out in Kordeš (2016), the constructivist framework can cope with the self-referential characteristics present in investigating experience and withstand the situation in which the same phenomenon – in our case, first-person aspects of the enaction of belief – presents at the same time a field of research as well as conditions for research. We see the proposed model of enaction as a starting point, an approximation that in the future needs to be enriched with philosophically critical phenomenological analysis on one side, and with first-person empirical research (based on reflection) on the other.

« 55 » Whereas the purpose of the present article has been to examine the experiential structure of the reflective act and relate the findings to certain ideas from constructivist epistemology, our study of reflection is motivated by a more wide-ranging aim to contribute to the ongoing debate on epistemological and methodological issues in first-person research. In particular, we wish to support the research program of *empirical phenomenology* (Kordeš 2016), a developing transdisciplinary line of research that con-

nects the fields of constructivism, phenomenology, and first-person inquiry. Empirical phenomenology suggests that collaboration between constructivism and phenomenology could result in the establishment of an improved framework for the empirical study of experience.

« 56 » The findings put forward in this article call for a firmer theoretical grounding of the experiential structure of the enaction of belief. In our future work, we would like to relate the presented understanding of the reflective act to the rich field of theoretical work on reflection in philosophical phenomenology, and demonstrate the potential for mutual enrichment between the phenomenological and constructivist take on the practice and epistemology of reflection.

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