

## On the naturalising of phenomenology

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**Abstract.** In the attempt to construct a scientific approach to consciousness, it has been proposed that transcendental phenomenology or phenomenological psychology be introduced into the framework of cognitive neuroscience. In this article, the consequences of such an approach in terms of basic assumptions, methods for the collection of data, and evaluation of the collected data are discussed. Especially, the proposed notions of “mutual constraints” and “the second person” are discussed. It is concluded that even though naturalising of phenomenology might not prove impossible, the “project” has not yet found a coherent basic ground.

**Key words:** naturalisation, phenomenology, transcendental, second person, data collection

The project of “naturalising phenomenology” and the application of naturalised phenomenology in experiments (see Petitot et al. 1999; Varela 1996 for an in-depth description) has been put forward as a serious and highly needed alternative to the attempts to develop a scientific approach to consciousness with the use of a traditional neuroscientific research methodology. Contemporary consciousness research seems to be in the strange situation of not having very sophisticated descriptions of its object of research. Terms like “conscious state” or “experience” are quite imprecise and have several different meanings. For example, “being conscious” could mean anything from “knowing” or “being aware of,” to “having a phenomenal experience,” to “being awake.” For that reason alone, it seems reasonable to turn to phenomenology, which, since the writings of Husserl, has tried to give precise and coherent descriptions of events and structures in consciousness.

The basic idea of naturalising phenomenology is to introduce phenomenology in the transcendental tradition of Husserl and Merleau-Ponty, or so-called phenomenological psychology, into the naturalist framework of cognitive neuroscience (Roy et al. 1999). In this article, I will try to evaluate aspects of the current status of this project. I will do so by considering a naturalised phenomenology as a “standard scientific research programme,” so that it must include some

- basic assumptions
- methods for collecting data
- explanation and/or evaluation of data

### The basic assumptions

The basic assumptions for a naturalised phenomenology (not least in Varela's (1996) suggestion of a 'neurophenomenology') are quite unusual. They seem to be twofold: In part, they are identical to the starting point of classical phenomenology. Consciousness is considered irreducible and is taken as the starting point of any kind of analysis or statement. The fundamental approach is a bracketing of ontological questions regarding the outside world, so that all every-day beliefs about what is real and what is not are methodologically suspended. From that point, one goes forward and carefully describes how the world appears to the observing subject. For this reason, phenomenology will, as a matter of principle, not accept any theoretical account that involves an elimination of consciousness or a reducing of consciousness to anything else (e.g. to some account of physical matter). If it did so, it would immediately eliminate the need for a systematic study of consciousness (a phenomenology).

Although there are a number of variations of phenomenology, one can generally distinguish between a transcendental phenomenology and a phenomenological psychology. A transcendental phenomenology is the attempt to make claims about the nature of consciousness and objects in the world *via* a systematic description of experiences. A phenomenological psychology is basically a scientific enterprise based upon a fully-developed vocabulary of words and descriptions that refer to conscious experiences. Ideally, one would have a vocabulary with a one-to-one relationship between each description and each possible experiential state.

But, at the same time, "naturalising phenomenology" seems to endorse the background assumptions of cognitive neuroscience. Cognitive neuroscience is preoccupied with understanding the relation between information processing and brain activity. Here, one is studying one's object of research "from the outside," and the experimenter is a "generalised subject" in the sense that an observation has to be possible for *any* experimenter in order to be valid. Cognitive neuroscience treats mental phenomena as representations and functions that are caused by brain activity (e.g. Searle 1992), realised in brain activity (e.g. Putnam 1967) or are reducible to brain activity (e.g. Churchland 1986; Bickle 1998). In order to endorse one of these views, one must believe that mental phenomena (including conscious experience) depend on the activations of brains – that is, brains must constitute more fundamental ontological levels of the world than consciousness. In this understanding, consciousness is not an absolute starting point at all – indeed, it can be explained by looking at lower level phenomena. To a phenomenologist, this must seem a very reductionistic kind of explanation.

It is, at this point, possible to counter-argue that one can distinguish between ontological "starting points" and methodological "starting points" – a phenomenologist would start with consciousness, but that does not imply, one

might say, that it is ontologically basic. While this is perfectly true, it is hardly sufficient in practice. If one takes on “methodological phenomenology” (or phenomenological psychology), one will never find reason to abandon the view that consciousness is ontologically primary also. In order to do that, one must accept certain kinds of facts (about mind-brain correlations, for instance), which can only be obtained by way of third person observation. Reductionism is generally embraced, in practice at least, based upon facts that cannot be derived if one sticks to a phenomenological methodology. To embrace reductionism with a starting point of phenomenological psychology, one must make a shift of perspectives, thus eliminating the insights achieved from the phenomenological starting point. This, in fact, illustrates the disagreement in fundamental assumptions between phenomenology and cognitive science, as mentioned previously.

To the phenomenologist it must be considered an unacceptable reduction to use anything but consciousness as the starting point of a description of things and events in the world. On this basis, one might be tempted to conclude already at this point that the approaches of phenomenology and cognitive neuroscience can never be brought together.

Defending the “naturalising phenomenology project,” one may object to this conclusion that cognitive neuroscience can be looked at as a set of methods. One does not have to endorse one specific ontological position in order to do cognitive neuroscience. That is, one might claim that there is no necessary relation between the methodological assumptions and the substantive assumptions for a given science. For instance, the famous dualist John Eccles was a remarkable example of a neuroscientist who refused any attempt to explain conscious experience in terms of neuroscience. On the contrary, Eccles believed that consciousness is a non-physical substance that interacts with specific parts of the brain (see Popper and Eccles 1977 for a review of Eccles’ theoretical position).

My reply to this would be the following: It is true that the methodology of cognitive neuroscience has no strong ontological commitments in this narrow sense – one can be a dualist as well as a reductionist and still be a “good neuroscientist.” However, there are still some theoretical constraints: not all ontological positions would seem meaningful to a cognitive neuroscientist. Any theoretical position ranging from dualism to reductionism must seem equally unacceptable to the phenomenologist, since they all presuppose a split between the physical and the mental as a split between two objects in the world. This idea goes against fundamental assumptions in phenomenology, yet a splitting of physical (brain) and mental (consciousness) is a methodologically necessary presupposition for cognitive neuroscience. In order to find correlations between two things, one is forced to make this kind of split. In this sense, the methodological assumptions of a given science are not accidental. The methods of cognitive neuroscience, or any given science, are in a specific

way because they are construed to answer questions that have been posed in a specific way. Thus, even the basic methodologies of cognitive neuroscience are influenced by a theoretical split between “two objects in the world” even if one should pursue this branch of science without any explicit ontological commitments.

One theoretical position well known to cognitive neuroscience is identity theory, claiming that mind and brain are identical and not separate. Thus, with this specific theory, one seems to avoid a distinction between mental and physical. However, this understanding of identity theory is dangerously superficial. In order to arrive at identity theory, one has already to assume a distinction between mind and brain in order to gather the necessary information to complete the identification. For instance, a subject in a brain scanner is to describe conscious experiences while the researcher gathers the associated “brain data.” Then, the researcher correlates the reports and the brain activations and may claim that they are identical. However, in order to correlate, one has already presupposed that they are different to start out with.

The disagreement between approaches implicitly or explicitly treating consciousness as an object in the world on the one hand and phenomenology on the other seems fundamental. It is, as argued, reflected in the methodology of cognitive neuroscience to a degree that makes it hard to see how phenomenology could take it in. Cognitive neuroscientists speak of consciousness in terms of mental representations of the outside world – that is, something *secondary* in relation to the separate existence of things in the world. Cognitive neuroscience, seemingly, *has* to assume that consciousness can be investigated, maybe even explained, “from the outside” and thus, it is *not* fundamental for any observation as in the phenomenological tradition. Of course, the investigating scientist is as much an experiencing subject as the phenomenologist, but with regards to the object of the investigation, this would be considered to be beside the point.

One might argue that even though the basic assumptions of the two traditions are so fundamentally different, it might still be possible to create a scientific framework in which they work together.

At a naive first glance, one might say that the descriptive approach of phenomenology and the explanatory approach of cognitive neuroscience could form the relationship of *explanans* and *explanandum*: Could not the findings of cognitive neuroscience explain the very same phenomena that phenomenology holds a descriptive account of?

An objection could be the following: If cognitive neuroscience *explains* phenomenology – that is that a theory of the working of the brain and the functional systems realised in the brain *explains* the structure of conscious experience – then consciousness explains nothing by itself. That is to say, if the working of the brain explains every event in conscious experience,

consciousness would not have any causal powers. For each, say, conscious intention to act, there would be a brain state to explain it. Some authors within neuroscience and philosophy of mind seem to endorse this kind of reductionism (e.g. Dennett 1991). However, phenomenology would not, nor would most cognitive neuroscientists (Flanagan 1999). Therefore, such a suggestion does not seem to fit well into the theoretical frameworks that phenomenology and cognitive neuroscience provide.

An alternative is outlined by Varela (1996) who outlines the research programme of “neurophenomenology” within the over-all framework of naturalising phenomenology. At the very foundation of neurophenomenology we find the idea that “phenomenological accounts of the structure of experience and their counterparts in cognitive science relate to each other through reciprocal constraints” (Varela 1996, p. 343). This idea has been widely accepted in the tradition of naturalising phenomenology (e.g. Depraz, Lutz, and Comelli in press). Flanagan (1992), working in a different philosophical tradition, utters a similar idea in *Consciousness Reconsidered*, saying that phenomenology, psychology, and neuroscience should be conceived as three mutually constraining approaches to cognition. This is a different kind of relation than that of explanandum and explanans, and thus it is not challenged by the problems outlined above.

So, can phenomenology set up constraints for cognitive neuroscience? I believe that the answer here is a quite simple yes. When one creates models or looks for neural correlates to mental phenomena, a basic change or just an increased level of detail in the conceptualisation of mental phenomena would change the models and the found correlates as well. Phenomenology, especially phenomenological psychology, could potentially enrich cognitive neuroscience by adding to it a more precise description of its object of research. Take the hypothetical example of neuroscientist A and neuroscientist B. Neuroscientist A has a more simplified methodology studying mental phenomena. For instance, A creates categories with which subjects are to describe their experiences. Then, A consults the neuroscientific data from the research tools and concludes that “here we see the neural correlate of the contents of those categories of experience.”

On the contrary, neuroscientist B wants to ensure that he gets reports that are as close as possible to the actual experiences. As in a study by Lutz et al. (2001), he might choose to develop the categories together with the subjects instead of doing it beforehand. When he conducts experiments, he will get different activations with his research tools than neuroscientist A would. So, the neuroscientist who is open towards phenomenology could potentially enrich his concepts of mental phenomena, and thus get different, more precise neuroscientific data. The data will be more precise rather than just different in that the more precise verbal description of experiences will make it possible

to find neural correlates with the relevant level of precision. Our only knowledge of the functional architecture of the brain stems from the collection of reports and behavioural observations with which the measured brain activities are correlated. Looking at just the brain reveals nothing interesting to the cognitive neuroscientist. It follows logically that the level of precision that can be reached in the study of brain activity is dependent upon the level of precision of those other sources of data. In this manner, Varela's account of phenomenology as a constraining factor for cognitive neuroscience seems quite precise.

Can cognitive neuroscience set up constraints for phenomenology? I think that the answer here is 'no'. Every variety of phenomenology is based upon lived experiences. If cognitive neuroscientists believe, say, that the neural substrate of a given process of thought is brain area X and Y, and later on discover that it is actually brain area X, Y, and Z, our lived experiences of this process of thought would *not* change accordingly. Thus, of course, our descriptions of these experiences will remain unchanged as well. Say that brain area Z is a component of the visual cortex. This might inspire phenomenologists to re-examine whether the thought process in question has a perceptual component, but if the phenomenological investigation does not come up with a positive answer, nothing has changed. No result in cognitive neuroscience would ever become an active part of a phenomenological investigation. At the very best, it might inspire the phenomenologist to look for certain phenomena. In this manner, Varela's account of phenomenology and cognitive neuroscience setting *mutual constraints* seems wrong.

Shaun Gallagher (personal communication) has proposed two kinds of counterexamples. First, in studies of emotions, cognitive neuroscience may show that the activation of certain brain areas associated with anger may also be activated in association with fear. These results could motivate the phenomenologist to explore the phenomenal proximity of fear and anger. Second, certain experiments in cognitive neuroscience may reveal the limits of phenomenological claims. If a phenomenologist suggests, as Husserl did, that memory involves a reactivation of perceptual experience, cognitive neuroscience may confirm or disconfirm this idea (see Gallagher 1997). Although this particular idea has been confirmed by the discovery of activation in the sensory areas during certain memory tasks, if in fact it turned out to be the case that activation of sensory areas did not occur during memory tasks, would not the phenomenologist have to re-examine her claim?

However, these examples reflect back upon how cognitive neuroscience collects its data. The brain areas that have come to be known as "sensory areas" have only been recognised as such based on a collection of reports about experienced sensations. So, in the first case, if the brain events underlying anger and fear have been identified by use of subjects giving reports about

being in the two kinds of emotional states, how can it be considered serious evidence that a subject is not experiencing anger as he claims when his brain correlates with areas normally associated with fear? At least, some very convincing further arguments must then be given why this subject should be less likely to be introspectively aware of his experiences than the ones used to establish the correlation between the brain event and the emotion. For the second example, while it is true that the co-activation of certain brain areas normally associated with specific experiences might inspire phenomenology, the neuroscientific correlation is essentially based on subjects' reports. Furthermore, at least in the case of phenomenological psychology, the interest in the brain events underlying experiences will be modest at best. If there is a perceptual component in memory, this will or will not show up at the level of experience, and this will then be of interest to the phenomenologically oriented psychologist. But whether this is the case is not to be determined at the explanatory level of brain activity.

It is possible to make the statement that cognitive neuroscience could constrain phenomenology by showing the limits of phenomenology – showing components of experience that phenomenology simply cannot get at by itself. Phenomenologists may not be able to tell the difference between false memories and real memories – nothing that the cognitive neuroscientist says would change these experiences, but it would tell us that we might not be able to trust phenomenology in all cases. The viewpoint “not to trust phenomenology” involves, however, a dissolving of Husserl's phenomenological reduction and taking up a so-called “natural attitude” toward experiences (that they may represent the world correctly or falsely). In that case, phenomenology will not contribute to an understanding of experiences any more sophisticated than what has already been the case in cognitive science, where verbal reports are collected and taken to express a subject's representation of the outside world. Again, it seems as if the rhetoric that represents a marriage of cognitive science and phenomenology in reality involves a constant shifting between a cognitive scientist's-rhetoric and a phenomenologist's rhetoric.

To sum up, it is not obvious how one could be a phenomenologist and a cognitive neuroscientist at the same time. First of all, the understandings of “the place for consciousness” go in opposite directions. Second, the two sets of basic assumptions are fundamentally different, and it is at least unclear that they refer to identical phenomena. The question then becomes how one should relate the two approaches to each other. It does not seem satisfactory to let the one explain the other. Likewise, they do not seem to form a mutual relationship of setting constraints. In other words, we still need to see a theoretical framework in which a naturalisation of phenomenology can succeed.

However, as I have suggested, there lies a possibility of improving traditional experimental approaches to consciousness studies by appealing to phenomenology. This could potentially be of extreme importance to consciousness research as well as cognitive neuroscience in general. It is however much less ambitious to let phenomenology inspire and improve cognitive neuroscience in this way than it would be to naturalise it.

### Collection of data

Of course, the main sources of data for the naturalising phenomenology project would be results from cognitive neuroscience and classical phenomenological investigations. However, some proponents of naturalising phenomenology have introduced their own methods to reflect the combination of phenomenology and science in the collection of data as well.

Inspired by descriptive phenomenology, one might investigate and describe *first person information*. Cognitive neuroscience, like any natural science, investigates and describes *third person information*. According to many philosophers, a solution of the so-called explanatory gap implies a theoretical framework that makes information available to the first person commensurable with information available to the third person. Especially, first person information must be somehow integrated into what is publicly available in order to make phenomenology commensurable with science.

What is meant by “first” and “third person” in the first place? (See Overgaard 2001). By first person information, one means the kind of information that is accessible only to the experiencing subject. That is, my conscious thoughts, desires and emotions are conscious states of the first person. First person states are, per definition, beyond public accessibility, and hence the conscious states of others cannot be observed directly in a scientific study. At best, one can observe verbal reports or behaviour associated with the first person states. By third person information, one means the kind of information that is, in principle, accessible to any observer. One might say that we have “third person knowledge” about our exteroceptive sensory information (although this is just as “subjective” as are thoughts and other first person experiences). For instance, any so-called “normal” perceiver can observe brains, and thus, brains can be studied by objective science. In (an idealised version of) objective science, the scientist is an observer, free of any subjective bias that otherwise follows from being a person in the world, i.e. bias resulting from being this particular individual. The methods of the natural sciences are to a high degree construed to eliminate such subjective properties. In this sense, the idealised scientist is *objective* and without any specific subjective characteristics.

This notion of the two kinds of perspectives gives rise to the well-known problem that first person states are closed to scientific investigation. Some

authors (e.g. Hut and Shepard 1996; Depraz and Comelli in press) suggest that the problem of how to make first person information a part of objective science is to be solved by way of a *second* person perspective: A perspective that consists of intersubjective relations.

### *The second person*

With this understanding of the first and third person perspective, what is to be understood by a second person perspective? In some interpretations, the second person perspective is introduced on the basis of very abstract arguments, distant from experienced reality:

In the objective approach, there simply is no room for the ‘moving now’ as experienced by me, as an individual human being. In contrast, turning the hard problem upside down suggests that all knowledge starts with the subject, the first person, the ‘I’ who looks at the world standing on the ground of ‘my’ experience. If this way of turning the problem 180 degrees around seems to be too much of a good thing, how about a more modest turn, by only 90 degrees?

Turning the hard problem sideways brings us to the remaining grammatical choice: that of the second person (Hut and Shepard 1996).

It seems quite surprising that advocates of a phenomenological approach would argue for a second person perspective *not* with a reference to lived experiences, but to a “grammatical choice.” It should be a reasonable demand to a phenomenological approach that it shows how the phenomena, of which it postulates the existence, have their root in experience.

It has been argued that the second person perspective does not have the same epistemic status as the first and the third person perspective (Depraz 2001). Instead, the second person perspective is supposed to contain “I-and-you interactions” where one person learns about another person’s conscious states in a number of different ways, some of which resemble first person information, some of which resemble third person information.

But let us take a quick tour of a few cases of collecting second person data (all taken from Depraz 2001).

### *Imagining oneself being another*

When one imagines oneself being a different self, for instance one’s own future self, one is engaging in an activity of collecting so-called second person data. This activity qualifies as an “I-and-you interaction”, even though it is a matter of inner events, in that it involves two represented subjects: One’s current self and one’s, say, future or past self. This is taken to be a second person event highly similar to the first person perspective.

*Ethnomethodology*

Ethnomethodology is an approach to the study of social phenomena, which employs qualitative techniques such as participant observations or natural observations to find how people make sense of the world. Ethnomethodology emphasises that meaning is contextually determined. Through the observation methods, the researcher will study how the observed subjects create meaning in the local environment. This, of course, involves interactions with the subjects and attempts to “see the world from their perspective.” This is taken to be another case of the second person perspective, though one closer to a third person perspective.

*Empathy*

Empathy is taken as one of the primary examples of “clear-cut” second person data. In being empathetic, one person is turning his attention towards the conscious state of another person. Being empathetic involves having emotions similar to that of the other person, so that if you are empathetic in a conversation with a sad person, you will feel sadness yourself.

The second person perspective is introduced, with the use of examples as those above, as a possible solution to the problem of the gap between first person and third person knowledge. The second person perspective poses an alternative to theories that claim that empathy works through the creations of inner representations and theories about the other person’s emotional states (as in, say, Baron-Cohen 1995). This alternative is claimed to be more in accordance with our experience of communication. In our every-day communications, we do not feel that we create theories about our partners in conversation. Instead, we feel that we have an access to understanding, say, the expressed emotional state of the other that is much more direct than a theory. However, saying this does not clarify the concept of a second person perspective sufficiently to make clear exactly what is meant by it. Of course, and not unlikely, different authors may use the concept to express different views. To begin with, I will look at the second person perspective as it may be interpreted as a strong and a weak notion.

*A strong notion of the second person perspective*

Entertaining a strong notion of the second person perspective, one would think of a different *kind* of perspective than what can be expressed in first and third person terms. This interpretation of the second person perspective would claim that two people can, in fact, share the same conscious tokens. This would be a case in which one experience is had by more than one subject. Let us take the examples of being empathetic or of mass reactions as experienced

by the audiences of Adolf Hitler's speeches. Would those be instances of such sharing of experiential states?

When one looks at the discussion of the self in the phenomenological literature, it shows that the idea of a unified self for which the experiences appear is fundamental. To a phenomenologist, experiences are not free-floating objects that may or may not be had by a subject. On the contrary, the ownership of an experience is a fundamental feature. According to the Kantian and Husserlian notions of the self, the idea of one unified self, having the experiences, is logically implied: One experience implies one subject. If two subjects were to "share" an experience, they would have to somehow merge into one subject. Apart from just being *prima facie* implausible, such a claim would give rise to all sorts of new problems, e.g. how the two subjects could be separated after the merging so that they would end up being the same two subjects. According to the notion of a "transparent self", formulated in slightly different versions in modern phenomenological definitions like those of Zahavi (1998) or Metzinger (1995), one experiences oneself as part of any experience. Not in the sense of an "object" in experience, as one might experience a table or a chair, but in the sense that for each experience it is evident for the subject that the experience occurs for him and not somebody else. This does not necessarily imply that the subject is cognitively aware of his ownership, but that it is fundamental to, say, the experience of pain that the subject who is suffering necessarily experiences that *he* is suffering and, thus, not somebody else. If two subjects shared an experience, how would the transparent nature of the self be upheld? Either, the subjects involved in the sharing would be utterly confused about whether they were having the experience or not, or confused about who was who. The only way one could get around this confusion would be to claim that, in fact, the shared experiences did not involve more than one transparent self, but only one, which was somehow the result of a merging of the involved subjects. All things considered, no present account of a self within phenomenology seems to give room for an ontological foundation of a second person perspective in shared tokens.

*A weak notion of the second person perspective*

A different interpretation of the second person perspective could be the claim that subjects do not share tokens but types. The claim is that different subjects at least in principle have the possibility of entertaining identical experiences, although they will be different tokens of experience. These experiences can then be communicated intersubjectively.

I believe that this notion of the second person is the most widespread one. For instance, it is evident in the following quotation:

[...] our hypothesis is that the second person is not a formal and rigid entity but a relational dynamics of different mediating figures (Depraz and Cosmelli in press).

I will propose, however, that it is based on a misconception of the problem to think that we need a specific “second person perspective” to account for this. The introduction of the second person perspective sets out to solve the problem that first person knowledge is incommensurable with third person knowledge, and that first person experiences are private and cannot be communicated. But, this is not the case. As it has been argued, recently by Praetorius (2000), one cannot make sense of first person knowledge as private and beyond communication. Discussions of whether our descriptions of experiences refer to the same “things” as others refer to when they use the same terms rest on the presupposition that experiences are things that we may have knowledge of and that we can describe. Every description of our experiences presupposes that as users of language we know the correct applications of such descriptions. That is not to say that subjects cannot be mistaking or lying about their mental states, but that it is implied when accepting that, say, “red” names an experience that can be had by subjects that this term has a correct application and that it thus can be used to inform others about one’s experiential states. That is, the subjective character of experiences is not sufficient to claim that experiences are private or closed from descriptions that can be shared with others. What is thus sometimes promoted as a separate “entity” – the second person perspective – should be accepted as a new perspective on how we can make sense of the first person perspective. It cannot be meaningfully presented as fully distinct from the first person.

If one accepts a notion of the first person perspective that is not private in the sense that it cannot be communicated, it could then be questioned if there is a prevailing need for a notion of a second person perspective. One might question if such a concept would be anything more than a splitting of the first person perspective into two of its aspects – one, concerning the subjective character of all experiential states (that they are experienced only by the subject having them) and one, concerning the communicative aspect of the very same states. If subjects are able to communicate about their experiences, it can easily be accounted for that subjects can have different tokens of the same types of experiences without inferring a specific second person perspective. In fact, the sharing of experiential types between different subjects when undergoing the same physical/environmental conditions seems to be uncontroversial in cognitive neuroscience as well as in ordinary common sense.

To sum up, the second-person version of naturalising phenomenology project does not introduce new methods of collecting data, but relies on what can be obtained by classical phenomenology and cognitive neuroscience. The one indication of a new methodology that is being introduced, that is, a methodology based on a second person perspective, does not seem

theoretically commensurable with phenomenology at this point, although it does point out an important misunderstanding of the first person as being totally private.

### **Explanation of data**

Finally, we arrive at the question of how the project of naturalising phenomenology would analyse its data. Again, naturalised phenomenology works on the basis of classical phenomenology and cognitive neuroscience at the same time.

As mentioned earlier in this article, one could hold a number of different ontological positions and still be a cognitive neuroscientist. Yet, no matter if one is a substance monist or a substance dualist, one will in general look for a *causal* explanation when doing this kind of research. So, the dualist might say that the brain causes consciousness as some sort of non-physical property. The monist might say that all that is necessary to know are the causal relations at a physical level that give rise to a specific physical state to which consciousness is related (as being identical with it, reducible to it, etc.). In this sense, it seems to be a fundamental idea within cognitive neuroscience that the work is complete once a causal explanation of consciousness has been completed. At least, one would claim that if there were more to the explanation than this, it would not be a job for cognitive neuroscience, but for conceptual analysis or the like. So, in actual research, the cognitive neuroscientist would present data, in the form of correlations to the conscious state, so that the first explains the latter.

The phenomenologist would, on quite the contrary, attempt any such explanatory account. One may ask the person in favour of naturalising phenomenology why one should look for neural correlates of something, if one only wants to describe phenomenal experience and take this as a fundamental level of description. If one is a “pure phenomenologist,” why should this be interesting knowledge at all?

One way to proceed would be to say that naturalising phenomenology will be possible only if phenomenology takes a very wide step in deed away from Husserl and classical phenomenology. If one sticks to phenomenological psychology, then, phenomenology would contribute with a way to acquire, say, verbal reports about experiences in subjects. The research questions regarding neural correlations, guiding the phenomenologists' efforts, would however not be very phenomenological. Phenomenology would, so to say, be poised for use in a framework of cognitive neuroscience. This way to proceed might be the most plausible one if there should be any consistency in a naturalised phenomenological way of looking at data. It would however be hard to distinguish “naturalising phenomenology” from a multitude of other already

existing ideas such as the script-report model (Jack and Roepstorff 2002) or introspectionism (Overgaard 2003).

All things considered, I believe that the arguments so far show that the “naturalising phenomenology project” is very much unfinished even in regards to its most basic ground. I do not believe that my analysis has revealed that the naturalising of phenomenology is an impossible mission. Instead, I hope that I have cleared up some misunderstandings and dead-ends that would help the naturalising phenomenology project to develop a consistent set of assumptions and methods. For instance, one might argue that a naturalising of phenomenology should not be based on the idea of “throwing a group of *pure* phenomenologists into the same room with neural reductionists” (Gallagher personal communication). However, at this point, the naturalising phenomenology project has not found a basic ground that is unified. Instead, it still has its roots in the assumptions of two – seemingly – incompatible schools of thought.

### Acknowledgements

I wish to thank Yoko Arisaka, Dan Zahavi, Shaun Gallagher and Logan Trujillo for important comments and discussions underway. This research was supported by a grant from The Carlsberg Foundation.

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