NATURALIZING HUSSERLIAN PHENOMENOLOGY: 
AN INTRODUCTION

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Introduction: the participants in the naturalizing project

The aim of this article is to give an account of what the "naturalization" of phenomenology involves. First, we need to ask what phenomenology is, and second, what we mean by "naturalizing". This should enable us to outline precisely what is at stake for both parties, the one naturalizing and the one being naturalized.

Broadly, to "naturalize" can be defined as to "integrate into an explanatory framework where every acceptable property is made continuous with the properties admitted by the natural sciences" (Petitot, 1999: 1-2). From the outset, however, a specific problem arises: the project of naturalizing phenomenology is mainly addressed as a naturalization of Husserl's phenomenology. In this respect, it is important to know that Husserl developed his phenomenological philosophy in a sustained reaction against naturalist interpretations, i.e., interpretations in the frame of the natural sciences, psychology in particular. His mature phenomenology can be considered a counterpart of any naturalist theory. To talk about the possibility of a naturalized phenomenology will turn out to be, from Husserl's point of view, a paradox. Therefore, one cannot treat phenomenology first, and enter the naturalizing debate later. From the beginning, the issue of naturalization is central.

The first part of this paper deals with Husserlian phenomenology. Husserl's writings are abundant, complex and make subtle and less subtle shifts throughout his life. We will restrict ourselves to The Idea of Phenomenology, a small collection of lectures from the beginning of his mature period (1907), and some themes from his "Philosophy as a Rigorous Science" (1910-1911). The second part introduces the contemporary

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cognitive sciences. It is explained how the cognitive sciences adopt a naturalist viewpoint toward mental phenomena and how this viewpoint is connected to the problem of experience. The third and final part deals with the adoption of phenomenology by the cognitive sciences: the naturalization of Husserl's phenomenology.

Phenomenology as a science of "pure" phenomena

In *The Idea of Phenomenology* Husserl makes his first clear statement concerning the specific methods of phenomenology. He makes a distinction between phenomenology as a specific method and everyday, "natural" and scientific thinking. Everyday, natural thinking and scientific thinking have in common that they do not question the possibility of knowledge. Philosophy, by which Husserl understands phenomenology, does question that possibility. The basic question, discussed throughout his work, is how knowledge can "hit" things *in se*, how knowledge can be in accordance with these things.

For natural and scientific thinking not to ask that question, on the contrary to *assume* the possibility of knowledge, does not mean that they could not try to answer that question. Yet, Husserl shows that when that question is tackled from within a framework of natural and scientific thinking it is destined to end in contradictions. But then is any method, other than the natural-scientific method, capable of answering that question? Can there be any form of science about the possibility of knowledge, if the very possibility of whatever knowledge we might use to answer the question is itself being questioned? In other words, are not all data we could use subject to at least some form of doubt, since those data presume an answer to the question of possibility?

According to Husserl, there is one domain in which we can be sure that our acts of knowledge do "hit" their objects. In this context he refers to the result of Descartes' procedure of doubt: once I've begun to doubt everything I can doubt, do not at least my own *cogitations* or acts of thinking remain indubitable? My *cogitations*, in other words, are indisputable and the first absolute facts. But why should this be so?

To clarify this, Husserl uses the following pair of concepts: "immanence" and "transcendence". Immanence refers to the idea that whatever is given to consciousness stays within the borders of consciousness. Transcendence means that the object exceeds the borders of consciousness. To have knowledge of a *cognition* is therefore immanent, whereas the knowledge of the objective natural sciences and humanities is transcen-
dent. Why this is also the case for the humanities, psychology in particular, will be explained further in the text.

Whereas for science in general we can ask the question how thinking can relate to a being which does not stay within the borders of consciousness, which is, in other words, transcendent, that problem does not arise if one discusses knowledge of cogitations. These are inherent in consciousness and there is nothing transcendent about them. However, this latter statement may arouse our suspicion (see further).

But we must beware of making the following mistake, as to avoid that mistake is crucial for the construction of Husserl's phenomenology. The mistake in question would be to think that "immanence" means "within myself". In that sense "immanence" would mean: "real immanence" or "psychologically real", i.e., belonging to the (my) psychic reality. By correlation, "transcendent" would thus mean "outside myself". But is such a distinction between "inner real" and "outer real" indeed a good basis for distinguishing cogitations from the disputable, because uncertain, knowledge of natural sciences and humanities?

According to Husserl the true difference between immanent and transcendent is as follows: the immanent is that which is absolutely beyond all doubt. Immanent thus means absolutely indubitable, whereas the transcendent remains susceptible to doubt. However, so far we do not have any reason to assume that there is a difference between the two types of immanence – "within myself" and "indubitable" – and "indubitable" is still read as "inner-real-psychological". Yet, it is clear that in order to answer the question of the conditions for knowledge, the transcendent, and therefore not indubitable, must not be used.

But what follows from the above? One direct conclusion is that the results of the sciences that study such transcendent beings must not be used either. In this context Husserl refers to the science of psychology: it would be a big mistake and a shift of the problem to try and answer the question of the conditions of the possibility of knowledge through psychology. For between the psychological-scientific explanation of knowledge as a natural fact and a clarification of knowledge in terms of its essential possibilities, there is a gap, in terms of both method and object. The object of phenomenology concerns the indubitable or immanent, whereas the object of science concerns the questionable (at least from a phenomenological point of view) or transcendent. But in what sense could the object of psychology be transcendent? Let us delay answering this question and first take a closer look at the method.

Precisely in order not to shift the problem from phenomenology to science, all that is transcendent or studies the transcendent, should be put
into brackets. This is a first methodical step: the phenomenological reduc-
ition which reduces all that is transcedent.

But is it merely the transcedent objects of the acts of consciousness which need such a reduction, or does the other pole, the one of the acts, need a reduction also? In other words, shouldn't the domain of psychology too be reduced? Wasn't Descartes a little too hasty when he concluded that "I think" implied "I am"? Wouldn't it have been more logical to assume only that the act of thinking is indisputable, without deducing a being that thinks? The I which has experiences, the object "man" in space and time, as a thing among things, is no absolute fact or datum. To advance the transcedent being "man", or "I as man", drawn from the indisputability of the act, is too hasty a step. Therefore the question is not: "How can I, this man, this human being, in my experiences (of knowing) relate to a being?" but rather: "How can the pure phenomenon of knowing hit something which is not immanent in it?" We can see here that the human being, as a psychological being, should also be subject to a reduction. In the natural attitude, I think of my experiences as related to myself, as experiences of this living person, as a state or condition of myself. In that sense, the cogitation is a psychological fact. However, after a phenomenological reduction the I is no longer considered as a person, as a thing of the world, and the experience is no longer regarded as an experience belonging to that person. So Descartes did not carry out the purification of mental phenomena considered necessary by Husserl. Therefore, Husserl says that for Descartes to discover the mental phenomenon and to drop it is one and the same.

Psychology, which examines real psychic phenomena of real, existing people, therefore also examines transcedent objects, just like the other sciences. Psychology regards knowledge as an experience of an organic being, and thus as a psychological fact. However, that approach will not lead to an answer if we want to be certain about the relationship between thinking and being.

Based on the above, Husserl can make a distinction between two types of immanence: on the one hand real immanence, in the sense of immanent in the real consciousness of man and his real psychic phenomena, on the other hand immanence in the sense of what is beyond doubt as a pure, non-psychic phenomenon.

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2. This also means that the method of phenomenology is not psychological inner observation.
3. In order to say something general about such purified psychic phenomena, we need an "ideating" (from eidos or essence) abstraction. Such an abstraction results in knowledge of "essences", a knowledge of "beings" which do not stay within the borders of our consciousness (immanence in the first sense), but yet they are immanent in the second sense (we cannot doubt them, they are evident). The immanent or absolutely given is thus broader than the really immanent (immanence
The problem of knowing and the constitution of objects

We have said that cogitations are inherent in consciousness and that there is nothing transcendent about them. But we have also said that this statement may arouse our suspicion. Let us have another look at the cogitations. Don't they after all contain some aspects of transcendence? Don't experiences, for example, hearing a tone, contain more, in casu not only the act of hearing, but also that which is heard, namely the tone? Husserl speaks of appearing (the act of hearing) and, opposed to that, the appearance, the tone. Doesn't the object of appearance penetrate the immanence and therefore the purity? Can the immanence be guaranteed? The need for absolute purity has led us to one absolute datum: the act of thinking. But what about that which appears? Isn't that a form of transcendence which disturbs the purity? Husserl's solution to this problem is contained in the concept of constitution. Within the phenomenological reduction, which guarantees purity, there's no room for transcendent things existing "on their own", which send their "representatives" into consciousness. Husserl does not regard consciousness as a form of passively receiving, but as a form of actively constituting the objects in the act. The objects that appear, are products of the act. Hence there is a very remarkable correlation between the phenomenon of knowing and the object of knowing. The problem which phenomenology ought to investigate is precisely this constitution of objects in the various types of knowledge. On the one hand it should study the acts of knowing, on the other hand it should study the objects that appear, and thus the correlation between the act of appearing and that which appears. Because of that, the epistemological question has undergone a serious modification. It is no longer the question of how consciousness can hit things in se, but how consciousness relates to its constituted objects, which do not exist any longer independent from the acts of consciousness.

Phenomenology and the sciences

Phenomenology cannot use scientific data to answer the question of the possibility of knowledge. To do so would mean that we base epistemology in the first sense). Therefore, we also have indubitable knowledge of something transcendent, namely, essences. The eidetic analysis is indispensable for phenomenology. However, we leave this abstraction out of consideration, because it is not necessary for our purpose.

4. This does not necessarily lead to a kind of subjective idealism. In fact, Husserl's idealism is transcendental and can be reconciled with an empirical realism.
on psychology and biology, which would come down to a psychologization and biologization of epistemology, and would render epistemology relative. Phenomenological philosophy is situated in a completely different dimension to science. It needs completely new starting points and methods which means a fundamental distinction from any "natural" science. Phenomenology will not explain knowing and experiencing as psychological facts and will not study the natural conditions and laws of it. That is a task for psychology which examines the experiences of living, psychological beings. Phenomenology wants to examine the essence or the nature (cf. footnote 3) of knowing and experiencing, i.e., of the acts and their correlates. The psychic phenomenon as an object of natural sciences and the pure phenomenon in the sense of phenomenology must not be confused.

What phenomenology questions, namely the possibility of knowledge, cannot be taken as a foundation. Husserl says that anything borrowed from the field of transcendence, thus any foundation of phenomenology on psychology or any other natural science which assumes the possibility of knowledge, is nonsense and that the only point of departure is the sphere of immanent knowledge. "It now remains to be shown in more detail that the immanence of this knowledge means that it can serve as an appropriate point of departure for the critique of knowledge; furthermore, that because of such immanence, this form of knowledge is free of that enigmatic character which is the source of all sceptical predicaments; and, finally, that immanence is the necessary mark of all knowledge that comprises the critique of knowledge, and that any borrowing from the sphere of the transcendent, any attempt to ground epistemology on psychology, or any positive science, is nonsense not only at the start but at any point along the way" (Husserl, 1999: 26).

The original problem was the relation between the subjective-psychological and reality. Phenomenology modifies this problem. According to Husserl the radical problem is rather the relation between experiencing and knowing on the one hand and the object in its reduced sense, on the other hand which no longer concerns human knowledge but knowledge as such, without any existential postulation concerning the empirical I or the real world.

Let us take a brief look at the other participant in the naturalizing project: the cognitive sciences. From their naturalist perspective, the cognitive sciences aim at integrating phenomenological results in their explanatory
framework, i.e., naturalizing phenomenology. The reasons for this move are given below.

The beginning of the cognitive sciences dates back to the nineteen-seventies. Rather than the beginning of a new discipline in itself, it was the start of an interdisciplinary cooperation of already existing disciplines such as cognitive psychology, artificial intelligence, neuroscience, linguistics, and other sciences. This cooperation cleared the way for the first really scientific theory of the mind. Although far from complete, the cognitive sciences framework would have put research into mental life on the right track, and today the only question left would be one of scientific progress. Nevertheless the cognitive sciences have to contend with a set of specific problems which have given rise to vehement discussions and a specific jargon. On the one hand those problems have inspired a critical attitude towards the cognitive sciences project itself, whereas on the other hand they have led to a proliferation of publications within the cognitive-scientific framework. Besides, this set of problems is said to be the very field where a "naturalized phenomenology" could make a decisive contribution.

We will first look at the traditional approach, the orthodox view of the cognitive sciences on mental life (cf. Van de Vijver, 1995), and then discuss the problems.

According to the orthodox point of view, cognitive processes are considered to be computational processes. In this view, contents or representations are internal states of symbol manipulation, i.e., the elements which are computed are symbols. These symbols have both a formal-syntactical (a form) and a semantic (a content) aspect. Mental processes only take into account the formal-syntactical aspect of the symbols, i.e., their non-semantic aspect. In other words, mental processes consist of operations on the formal aspect of the symbols. This means that mental processes neither have access to the semantic aspect of mental representations, nor to the way in which these representations are related to the external world. The object of which the mental content is a representation and the semantic content of the representation are of no importance for the information-processing capacities of the mind.

Furthermore, the structure of the representations is taken to correspond to real structures in the brain. In that way, there is a parallel between the formal-syntactical (in contrast to the symbolic-semantic) structure of a representation and the structural relation between the physical properties of the brain. On the one hand, this leads to a separation of the symbolic and the physical, because the physical instantiates the formal aspects of the representation, not the semantic ones. On the other hand, the causal
efficacy of a mental representation is explained by means of the fact that its formal aspect is physically realized and because there is a causal relation between physical structures. This is how representations can be causally efficacious and how the mind-body (or mind-brain) problem is solved.

However, neither the origin of the meaning aspect, nor the meaningful relation that the subject has with the external world, is explained in this theory. The identification between the formal-syntactical and the semantic remains an unexplained postulate. The formal approach of the traditional cognitive-scientific theory faces a serious problem here. It is, amongst others, this idea of representation that is particularly under attack in the broader criticism of the cognitive sciences.

However, the cognitive sciences face additional problems. They give an account of the mind as the mind is modelled within their framework. But they do not give an account or an explanation of our experience as beings having a mind. Cognitive sciences have a problem here, because it can be argued that this problem is not solvable within their framework. It is referred to as the problem of subjectivity, or consciousness, or qualia, or experience for short, and can be summarized as the problem of "what it is like to be". What is it like to be, for example, a human being, or what is it like to be a bat? This is a question for the experience of the human, from the viewpoint of the human, or of the bat, as a bat. The same problem can be formulated in terms of the "in itself" and the "for itself". Cognitive sciences aim in the first place to give an explanation of how the mind works in itself. But how the mind works for itself is left aside.

This problem of experience has several aspects. First, the most obvious aspect is the relation between subjectivity and objectivity. Can an objective method or theory—the cognitive sciences in this case—assess the subjective in an adequate way? In other words, is it possible to objectively examine the subjective, or can there be a science of the subjective? Second, cognitive sciences assume that subjective experience does not alter the nature of cognitive processes. Cognitive sciences do not consider experience as a fundamental characteristic of human cognition, in the same way they think the material realization is not essential for characterizing cognitive processes. Experience is a non-essential by-product of cognitive processing. Third, cognitive sciences reject the method of introspection, which is the source for studying our own experience. Introspec-

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5. For a more elaborate introduction, see Petiot et al. (1999).
6. In the eighties and the nineties, systematic analyses of the problem have appeared, e.g., Dennett (1991) and Chalmers (1995), famous for his stipulation of this "hard problem" concerning experience.
7. Of course, this expression refers to Nagel's (1974) seminal article.
tion is too unreliable. Fourth, and related to the first and the third point, objectivity requires intersubjectivity: in order to be an object of scientific investigation, the same data should be accessible from different points of view. The method of introspection necessarily involves only one point of view, i.e., the point of view of the system in which the cognitive processes and experiences occur.

Thus, the relation between cognitive sciences and the problem of experience, is not just a problem, it is rather an open problem. It is not known whether the cognitive sciences are able or unable to solve the problem, or even whether the problem is appropriately formulated. There remains an explanatory gap between the objectivity of cognitive sciences and the subjectivity of experience.\(^8\) The point is that Husserl's phenomenology would be able to contribute to narrowing this explanatory gap, on the condition that his phenomenology is naturalized.

\[\text{Naturalizing Husserl's phenomenology}\]

The naturalizing project gives serious consideration to experience. In spite of Husserl's resistance against naturalization, it would be possible to take a naturalist perspective on experience that is derived from his phenomenology. We won't go into detail on the contents of Husserl's phenomenology, such as his analysis of intentional consciousness and his distinction between objective body and living body, but we shall restrict ourselves to the following problem. How is a naturalization of phenomenology possible, in view of Husserl's antinaturalist position and, consequently, in view of the characterization of phenomenology as a non-natural science?

To conceive of this possibility comes down to a paradox. First of all, Husserl presents the phenomenological project explicitly as a project of denaturalization. According to him, a study of the mental as pure experience is required. Natural sciences cannot conduct such a study because of their naturalist starting point. Second, phenomenology is a descriptive science, not an explanatory one like the natural sciences. Whereas phenomenology describes phenomena as they are found, the sciences try to explain phenomena in terms of causality. As a consequence, the requirement of naturalization comes down to a separation between the motives of phenomenology and its results. "Linking Husserlian descriptions of cognitive phenomena and the contemporary sciences of cognition thus seems to require cutting Husserlian phenomenology from its antinaturalist..."

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\(^8\) This term was introduced by Joseph Levine in 1983.
roots, that is to say, naturalizing it" (Petitot, 1999: 43). A naturalized phenomenology should be explanatory and naturalist. Given the characterization of phenomenology this requirement is paradoxical. Moreover, doesn't this "cutting from" involve a straightforward abandonment of phenomenology?

In order to answer that question, some more detailed issues should be considered. In spite of differences in method and object, it may be possible to preserve the descriptive results of Husserl's phenomenology. In other words, it might be possible to implement Husserl's descriptive results in the natural realm. People defending this option often refer to Husserl himself who says that it is only a small step to shift from the phenomenological to the natural (including psychological) attitude and vice versa. Husserl, however, immediately adds the crucial remark that this small step has enormous philosophical implications. This "additional" remark is cited but seldom discussed. Besides, Husserl's division of different types of psychology is very often forgotten. According to Husserl, there is indeed a close relationship between transcendental phenomenology and psychology with respect to content, but the type of psychology about which he speaks is descriptive, not empirical. So yes, it is possible to apply descriptive-psychological analyses in transcendental phenomenology and vice versa, but, for Husserl, there is no such relationship between phenomenology and empirical-experimental psychology. Descriptive psychology abstracts from the intertwinement of consciousness, body and world in order to concentrate on the mental. However, the presumption of materiality is implicitly maintained and the domain of the mental is considered as a part (or a region) of the world. Herein lies the crucial difference with transcendental phenomenology, which considers consciousness not as a part of the world, but rather as the source (the primal region) of it. Explanatory or empirical-experimental psychology again relates the consciousness of descriptive psychology explicitly to material causality. Thus, if someone seriously wants to start from Husserl's remark, it is necessary to trace the relation between transcendental phenomenology, descriptive psychology and empirical psychology and to explain very clearly the shifts that occur. Only then it will be possible to see the consequences of a naturalization.

Let us turn to one aspect of naturalizing phenomenology. According to Husserl, pure consciousness is constitutive of experience (as an act of consciousness) and of the content of experience (an object, in the broadest

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9. Descriptive psychology is actually descriptive-eidetic, \textit{i.e.}, it is an analysis of the essence of consciousness. Compare to footnote 3.
sense). This is Husserl's idealism. The whole world, including myself as a psychophysical organism, has its source in transcendental consciousness. The analyses of the correlative intentional relation between act and object are framed within this idealistic-transcendental theory. Is it then possible to naturalize this intentional relation, produced by pure consciousness? In other words, is it possible to alter the intentional relation, to explain it and to show its natural roots? To answer "yes" means that it is not necessary to preserve the phenomenological character of act and object, and vice versa that it is possible to explain the constituting aspects of the intentional relation in natural terms. It is clear that the status of the object of investigation has changed: experience as a natural datum is rooted in the human body and is related to a material world. This rootedness unavoidably changes the characteristics of the intentional relation. A major consequence is that intentionality now becomes embodied. The relations of dependence are altered. In the phenomenological attitude, the body is an intentional object, i.e., constituted by pure consciousness, while in the natural attitude it is co-constitutive of the intentional relation. The same can be said of the surrounding world. However, this does not imply that experience or consciousness is to be viewed as passive. There are no principled objections against preserving the active characteristics of the intentional relation in adopting a naturalistic view. Thus, the answer to the first question actually has a positive aspect: it is possible to naturalize phenomenology and to preserve certain phenomenological characteristics of the object of investigation, such as the actively directed nature of consciousness.

There is, however, a second question. Can the object of investigation, stemming from phenomenological descriptions, be equated with the issue of consciousness which the cognitive sciences try to account for? There are important conceptual and theoretical differences between phenomenology and cognitive sciences. The terms "experience" or "subjectivity" or "consciousness" in the cognitive sciences do not carry any phenomenological content. Moreover, a number of authors misleadingly use the term "phenomenology" without properly referring to phenomenological work. We briefly indicate some major differences between the conception of the cognitive sciences and phenomenology, both Husserl's and Merleau-Ponty's. The reason for including Merleau-Ponty will become clear pres-

11. It must be added that Husserl has given detailed descriptions of the living body that show how important the body is in bringing about the intentional relation (cf. his Ideas II). Precisely these descriptions have inspired Merleau-Ponty's phenomenology.
12. Dennett's 1991 is a nice example of such an attitude.
ently. First, from a phenomenological point of view, experience is inseparable from intentionality and intentionality is the main characteristic of consciousness. Second, intentionality is inherently active and constituting. Third, in Husserl's work, intentionality has a difficult and ambiguous relation to the living body. When we compare this to the conception of intentionality in cognitive sciences, we clearly see some decisive differences. First, the cognitive sciences consider intentionality and experience as at least conceptually dissociable issues. Intentionality does not play a role in the "hard" problem of experience. In the phenomenological tradition, intentionality and experience are intrinsically related. Second, cognitive sciences have focussed on the concept of representation in order to give an account of intentionality. The phenomenological tradition, both Husserl and Merleau-Ponty, fiercely protests against a representation based intentionality. Third, intentionality, for both Husserl and Merleau-Ponty, is intrinsically related to meaning, while representations are merely syntactically efficacious. This divergence is due to a fundamentally different conception of the mental and the bodily in phenomenology and the cognitive sciences. In order to progress the naturalizing project, it seems not only phenomenology that should be naturalized, but that there is a preliminary job to be done establishing clearly the way in which the two directions differ, instead of simply assuming that both cover more or less the same domain, i.e., the mental. Yet, this job can be done and again there is no principled objection to it.

So far, so good. It seems that the cognitive sciences have a legitimate and interesting project in naturalizing Husserlian phenomenology. However, we have two further remarks.

**Conclusion: can we do without a transcendental theory?**

The first remark highlights the positive aspect: it seems possible and valuable to continue the naturalizing project. From the naturalizing point of view, the phenomenological tradition even exhibits further development in this direction. We have mentioned Merleau-Ponty for two reasons. First, Merleau-Ponty has taken the living body as a constitutive element in his phenomenology. He has seen very well the tensions in Husserl's work between a transcendental analysis of consciousness and the descriptions of the living body (the *Leib*). We won't enter this discussion here, but the point may be summarized as follows. The living body is an element which disturbs the transcendental analysis of intentionality. Merleau-Ponty has taken this disturbing (and impure) element as a constitutive factor in his analysis of intentionality. Second, Merleau-Ponty's early writings (1942;
1945) seem to contain direct suggestions for naturalizing phenomenology. His work represents a development in phenomenology which fundamentally changes Husserl's transcendental conception and shifts the focus from the transcendental ego to the body. To ground phenomenological analyses in the body can easily be linked with more recent developments in the cognitive sciences which articulate the body as a decisive instance in bringing about behavioural and mental capacities. This general tendency departs to some extent from the classical cognitive sciences and ranges from enactivism (Varela), interactivism (Bickhard, Christensen, Hooker) to research in autonomy and autonomous systems and artificial life. From our point of view, the naturalizing project should incorporate Merleau-Ponty's contribution as he has tried to break through Husserl's transcendental-idealistic construction. This he does primarily by showing that phenomenological reduction can never be complete and that consciousness does not have a position as absolute as Husserl thought. However, one must remain critical here, because it is not at all certain that Merleau-Ponty actually has left, or wanted to leave, behind that aspect of Husserlian phenomenology. In general, this points to the question as to whether it is possible at all to definitely leave the transcendental side of phenomenology.

The second remark concerns this transcendental aspect. A naturalized phenomenology is no longer phenomenology. One way to express this is that naturalization is an epistemological reversal which alters the status of consciousness from primal region (source) to region in the world. But who is bothered about leaving such an old-fashioned and cumbersome idealistic view behind? Those who aren't, however, miss the crucial point, i.e., that it is an epistemological reversal, not just an abandonment of an "idealistic" theory. "Cutting phenomenology from its antinaturalist roots" is at the same time an abandonment of phenomenology's primal occupation: to give a transcendental-epistemological theory of experience and knowledge. From our point of view, the really problematic point in the relation between phenomenology and cognitive sciences concerns precisely the relation between a transcendental analysis and a cognitive-scientific one. Let us recall Husserl's aim. Empirical-experimental psychology should take the criticism of phenomenology into account. This means that psychology itself cannot provide its own epistemology. Only if psychology and philosophy accept the – mainly epistemological – results of phenomenology, can they have a close connection again. In short, according to Husserl, the sciences as well as philosophy are always dependent on a preceding transcendental analysis of the possibility of experience and knowledge.
But if a preceding epistemological-transcendental investigation is indispensable in order to know what makes the sciences and human cognition possible, what, then, is the use of occupying oneself with the cognitive sciences? Or, to put it the other way round, if the cognitive sciences are legitimate in their undertaking, including the project of naturalizing phenomenology, then a transcendental undertaking is superfluous and we can be more than satisfied with the contemporary sciences.\textsuperscript{13} On the other hand, even if the mental is naturalized, we need an epistemology for the naturalizing undertaking itself. This new transcendental philosophy would no longer be concerned with the cognitive, and eventually naturalized, subject.\textsuperscript{14} The remaining question is what is left to build an epistemology upon. It is not certain that a new separation between a transcendental ego and an empirical I is worthwhile. But it is even less certain that a naturalization of the mental involves a naturalization of the transcendental itself.

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Summary

\textit{Naturalizing Husserlian Phenomenology: an Introduction}

This article gives an introductory account of what a "naturalization" of (Husserlian) phenomenology involves. The first part deals with Husserlian phenomenology and Husserl's view on psychology and epistemology. The second part introduces the cognitive sciences and a number of problems concerning subjective experience. The final part presents the naturalization of Husserl's phenomenology using cognitive sciences framework.

Bibliography

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\textsuperscript{13} J. Proust puts the question this way in Petitot (1991: 54).  
\textsuperscript{14} According to Petitot, there is a disjunction between a cognitive and an objective epistemology. The first one should and can be naturalized, the second one cannot and must not be naturalized (Petitot, 1991: 120).

T. Nagel (1974), "What is it like to be a bat?", *Philosophical Review*, vol. 83, no. 4, pp. 435-450.


**Key words**

Husserl, Naturalizing Phenomenology, Cognitive Sciences, Intentionality.