Lecture no. 5:
The many senses of the term 'experience', the dangers of expecting too much from the sciences, and the role of philosophy.

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Abstract: It was an important and convincing postulate of the period of Enlightenment that one should trust one's own experience instead of exclusively leaning on the authority of classical books, be they of religious or of worldly character. With the development of modern science and its impressive effects in technology, however, we face the danger to forget that in our own experiences we have a stock of resources that is much richer and more varied than the empirical results of scientific inquiry.

The lecture will examine important differences between kinds of experience (from skills and cases of 'knowing how' to historical, aesthetic, and religious experience) and aims at encouraging people not educated in one of the sciences to trust their own experience. It takes such encouragement as one of the ongoing tasks of philosophy and illustrates this claim with reference to current mind/brain debates.

There can be no doubt that the European Enlightenment of the 17th and 18th centuries brought great progress to human thinking and to human skills. With help of Immanuel Kant's famous formulation of 1784, we can also today without hesitation say that all humans should strive to free themselves of their 'self-imposed immaturity' ("selbst verschuldete Unmündigkeit"), i.e. use their own powers of thought and judgment to form their opinions and act accordingly. In Kant's days, for many people it was the control that the *Christian Church* tried to hold on their minds, that was standing in the way to maturity, but in the meantime we have seen a number of new ideologies that have been and are again trying to control our minds. In many places it is no longer Religion that stands in the way to maturity.

But also things have become more *complicated*: Not only is it easier for us today to acknowledge also the *negative* sides of secularism, the losses it has brought, as, for example, we find them portrayed in Charles Taylor's great book about our 'secular age', and as they are indirectly acknowledged in the fact that Jürgen Habermas', a Philosopher in the Marxist tradition, now thinks that it is important to attempt to save what he thinks is valuable in Religion, as I have discussed in my last lecture. But also we have learned from thinkers like Erich Fromm that there is an urge in the human being to '*escape* from freedom'. Again and again we are tempted to cling to our *immaturity*, we seem to *want* it, which is part of the reason for Kant to call it 'self-imposed'. A modern expression of this tendency, in the West and in China alike, I think, is the nearly full-scale endorsement of the values of Consumerism by what seem to be majorities of the populations.

In the last of my five lectures, today I do not want to treat these broad sociological aspects, but rather concentrate on some important details concerning our understanding of the process of enlightenment. These are concerned with the concept of *experience*. A part of the maxim, that we should make use of our own powers of thought and judgment, seems to be the recommendation to *trust experience,* in contradistinction to the authority of *books* (be it the Bible or the writings of Aristotle) or the authority of *social institutions* like the church. But what does it mean to rely on experience? In the first part of this lecture I will investigate different kinds of what we call experience, and my aim will be to show that it is a broad field that we subsume under this concept, so that we should be careful that nothing important of what originally belonged to it, gets lost. So my question will be: What kind of experience is it that an enlightened person should trust? My claim will be that with the growth of Science (in

the sense of *natural* science) we tend to forget that scientific knowledge is a wonderful but an extremely specialized domain. It is the result of abstractions, i.e. of leaving out aspects (for example in Medicine: aspects of the human being) that might very well be relevant when it comes to evaluating the results of research and to justifying plans for further inquiry or (in respect to my example) for a specific therapeutic action. Science is not only a means to eradicate superstition (this has certainly been a very important role in the past), but it has its own dangers insofar as it necessarily is specialized and has to leave out certain aspects of the objects it investigates.

In the second part of my paper I will take a look at the Humanities and at Social Studies. Here we have a field that was either neglected or simply did not exist when for example Kant wrote on experience and thereby set the field for modern epistemology. Consequently, there have been a number of modern debates about the question whether it is possible to conduct Social Studies in a 'scientific' way. This includes the field of Psychology: Can there be a science of the human mind, or is the type of inquiry that is necessary here, like in the field of Social Studies, of a completely different kind from the inquiry we know from Physics and Chemistry?

For those of you who have heard my other lectures, it will not come as a surprise that at this point I will take a look at some writings of Ludwig Wittgenstein, and also of the British philosopher Peter Winch, who developed some of Wittgenstein's ideas in very fruitful ways in order to apply them to the field of Social Studies. We can learn from these writings that investigating the objects of Social Studies and Psychology involves kinds of experience that are quite different from the ones created in Science laboratories, so that it would be an unhelpful and unnecessary camouflage to try to emulate pronouncements in these fields in such a way that they look like scientific ones, in the sense we know from the *natural* sciences. Especially, they involve the self-understandings of the members of the society under investigation. This is expressed by Winch in his claim that Social Studies cannot be separated from Philosophy. In my context I can say: Social Studies (again including Psychology) cannot be separated from the common sense experience we ourselves have of our lives; it cannot be separated from the ways in which we ourselves describe what we are doing.

This brings me to the third part of my lecture, which is devoted to some aspects of the current mind-brain-debates. There is a tendency today to think that inquiring into the human mind is more or less the same as doing research about the human brain. This sometimes shows in the helpless expression 'mind/brain': It is typically used to avoid a discussion of the *relation* of these two 'things' or 'ontological domains', and it shows the tendency of the respective author to claim that knowledge of the brain is all an enlightened person really needs; the mind or 'soul' seems to be something old fashioned that we do not need to speak about any more. But if the considerations brought forward by people like Wittgenstein and Winch have any substance, we can see that it is impossible to find out something about the mental life of a person exclusively in terms of empirical research in the Biology of a human organ, the brain. Mental life is to a large extent (and especially in respect to its origin) a *social* phenomenon, and Wittgenstein and Winch have shown that social phenomena cannot be described without reference to the self-understanding of the social group in question. Also, it is hard to see how two completely different methodologies can treat the same scientific object, helplessly called a 'mind/brain'.

So in this part of my lecture I will defend the experience we have of ourselves as persons in social situations against claims that in a really serious way only the brain scientist can say what in the domains of Social Studies, of the Humanities, and in the domain of Psychology

people so far have tried to express in immature, un-enlightened ways (as it is suggested by the term 'folk psychology'). Here the claim *against* which I will argue says that it is only the *scientific* experience of so-called 'Neuro-Economics', 'Neuro-Education-theory', or even 'Neuro-Theology' that can make these fields respectable. I will question this, but as I hope you will see, without thereby being forced to plead for the existence of ghosts.

In the very short fourth and last part of my lecture I will stand back and say something about what I think Philosophy can and should do in our current situation. I think it should, outside the domain of superstition, *encourage* common sense, i.e. it should encourage us to take those domains of our experience seriously that are not scientific ones. We should work on the articulations we ourselves, and the cultural tradition that we belong to, can offer for them in such a way that we can discuss them with each other in rational debates (here again I follow Habermas). As I said in my last lecture, this includes the critical discussion of different religious articulations. So I think that we should also today stick to the Enlightenment maxim 'trust your own experience', but it is important so see that what we here mean by 'experience' is not restricted to scientific experience, although, of course, it has to include it.

    1.   Kinds of experience and the abstractive character of Science

The Greek term for experience, 'empeiria', originally meant something like 'being at home' in a certain area of human activities, like for example steering a ship, playing a musical instrument, or teaching children. So the term designated an as yet undifferentiated whole of ability, acquaintance, and knowledge; it is not a matter of knowledge *only*. As I had reason to mention in my Habermas-lecture, it is an extra question how much of a field of 'knowing how' can be transformed into or 'captured by' a 'knowing that'. As you remember, here I am much more skeptical that Habermas is, in that I respect and value (as not substitutable) ways of articulation which are not expressions of *knowledge*.

Typically, in the old times this 'experience' was thought of as acquired by engaging in practical, bodily activities (a kind of 'learning by doing'), often accompanied (especially in the arts and in Religion) by a teacher or 'master' whom the apprentice tried to follow, often even to copy. In this way, *knowing something from experience* could be distinguished by knowing something from 'hearsay'. One can know something about brush painting or meditation, for example, just because one has *read* about the respective field, without the 'personal experience' one acquires in *being oneself* a painter or meditator. And it seems clear that in the mentioned cases 'knowledge from hearsay' is less valuable that practically acquired knowledge.

The activities necessary to acquire the practical knowledge in the respective field are often mixtures of actively doing something on the one side, and passively experiencing what happens, on the other. These happenings are often unforeseen and unintended, and so the apprentice learns by making mistakes and by trying to change his activities accordingly. So what is in this way experienced (and there will be moments of failure *and* moments of success) will shape the future activities of the person concerned. In this way, in the lucky cases, the apprentice is getting better step-by-step. For example, after some time he will be a *better* helmsman, a *better* violinist, or a *better* teacher. (And, let me add, a better philosopher.) Looking back to Religion we might say (or: we might hope) that a person taking the correct lessons from the episodes of his or her life will in the end be *wiser* person than in the beginning. Perhaps even his or her ability to be content with life (you might say: his or her ability to be happy) has improved over the years.

It should be clear that this kind of holistic and practical experience is earlier that *scientific* experience, in the personal history as well as in the history of mankind. Also it has a broader scope than scientific experience has, in the sense that the scope of what we 'know' in this practical way will always be larger that what we can express verbally. Even for us grown-ups, our 'knowing how' in many cases is ahead of our 'knowing that'. Therefore, in my Habermas-lecture I gave reasons for doubting the plausibility of the expectation that something like a 'complete transformation' must be possible in all cases. I recognize that art for him is an exception, but I myself would claim that also Religion is. As I had indicated in my first lecture about religion, I do think that on the basis of William James' writings we can form a respectable understanding of 'religious experience'. But I do not see what it would mean to put such an experience into words in such a way that the description could render the experience superfluous. It is like in eating and in hearing music: A verbal description cannot be a substitute for the experience itself.

The history of the German word for experience, 'erfahren', can give us a clue for seeing that in the centuries that followed the Greek beginnings of thinking about experience we can witness a narrowing in perspective. From the original meaning of 'getting to know by travelling' (the German word 'fahren' means 'to ride'), it now can mean 'getting to know by being told' or '…by having read'. 'Ich habe erfahren' can now mean 'somebody told me'. So there is the tendency to reduce the organ of experience that in former times was the whole person that, for example, was traveling to a distant continent, - there is a tendency to reduce the person to one of his or her sense organs, to the ear that hears or to the eye that sees or only reads. The modern endpoint of this development is the smallest input of 'information', as it is envisaged, for example by the logical atomists in their idea of 'sense data', like in some writings of Bertrand Russell, or in Rudolf Carnap's example of a physicist who writes down a 'protocol sentence' of the form 'the measuring instrument shows 4.7'. So the tendency is to reduce the complex happening of a person engaging in some activity in the world that surrounds her, to the activity of correctly picking up a very small but indubitable piece of information. Since (among other things) this reduction is what made Science and Technology possible, we should be careful not just detest such a step. But I think we should be *aware* of it, and in certain contexts we should draw the correct conclusions from it. It might, for example, be advisable or necessary to bring back for consideration certain aspects that at some earlier point have deliberately been left out. An example I have mentioned already is the necessity to bring in the mental aspects of illness in trying to cure a patient.

As the names of Russell and Carnap signal, it was the development of Science and later the philosophical *Theory of Science* that has lead to this process of narrowing our understanding of the term 'experience'. Already Francis Bacon had proclaimed that serious research should do more than to collect interesting specimens of products of nature, like plants and shells, and exhibit them, as was customary in his time, in special chambers displaying rare objects. Instead, we should formulate strict and simple yes/no questions and force 'nature' to answer them, like in a trial. And Bacon surely anticipated something important here, although it took quite some time in the development of Science to reach this stage.

In the context of this lecture I am forced to make a big jump now to our own time, to the work of a contemporary Philosopher. I think it is fair to see Georg Henrik von Wright's model for discussing the concept of causality (in his book 'Explanation and Understanding') as a fair portrait of what is happening in classical Physics. It is indeed a narrowing down of highly complicated processes to an investigation of the behavior of isolated components in such a

way that we can pose yes/no questions. Let me illustrate this with von Wright's exemplary picture, which he takes from Mechanics (as a part of Physics). It is the following:

The scientist is producing a model of possible developments of a strictly regimented state of affairs of some experimental setup in his laboratory. Von Wright calls such a model a 'system'. You might think here of a collection of perfectly round billiards-balls on an absolutely plain table. The scientist then influences one single chosen component (for example he rolls an additional ball in a fixed angle and with a certain velocity into the field) and observes what happens when the new ball bumps into another ball; how it moves other balls, how each of them is reflected, etc. His goal is to get a complete understanding of the restricted and regimented setup in his laboratory. And he has reached this complete understanding, von Wright says, when he has reached a complete practical control of it.

There has been a long and difficult discussion in the Theory of Science about the difference between a law of nature, on the one hand, and a general but universal coincidence, on the other. Think of a case in which all persons living in a certain house are shortsighted. If we would ask why a particular person is shortsighted and were given the answer that this is because the person lives in this house, and it is the case that *all* persons living there are shortsighted, we would not accept this as an explanation, regardless of the truth of the universal sentence. But *why* wouldn't we?

Von Wright's proposal here is to *define* the concept of a 'law of nature' (in contradistinction to a universality that is just a matter of coincidence) in terms of *practical control*. (Looking back to my Frege-lecture I can say: The concept of a law of nature is no *formal*, but a *pragmatic* concept.) One can see this proposal as a variation of Kant's famous and astonishing statement that laws of nature are something that human beings 'dictate'. Von Wright's variation of it could be formulated thus: Without our carefully planned and successful interference, both practical and theoretical, we could not say what the term 'law of nature' means. I cannot go into the details of von Wright's account here, but I think it can (like a flashlight) make visible a number of points that we should consider when we try to understand the meaning of 'experience' as it has been worked out in the process of developing modern science and as it is prototypically realized in scientific experiments:

- Scientific experience is not something that is just happening, by surprise, as for example the experience of a tornado. Instead, scientific experience is *produced*. It takes great skill and a lot of money to set up a Physics Laboratory.
- Scientific experience occurs in the context of a theory. It needs the theory to interpret the experiment. Often, for an observer of an experiment, it even needs a theory to *see* anything relevant at all.
- Also, scientific experience occurs in the wider historical context of the development of scientific disciplines and traditions. This includes the 'material' side of this development, for example, the history of our capacity to build reliable clocks and other instruments of measurement. Von Wright's pragmatic understanding of causality has an open eye for the things that are necessary *to produce* and *to do* in order to get an experiment going. The Philosopher and the Historian of Science has to be aware of these practical aspects.
- But discussing and evaluating the decisions that have been taken during this historical development of a particular science is something that does itself not belong to this science. The history of Physics is not a subject of one of the theories that together constitute the science of Physics. The history of Chemistry is not a chemical process that could be a part of what is described in a chemistry textbook.

- If the necessity arises to discuss the relevance of a particular scientific finding (for example the relevance of a microbiological finding in an attempt to heal a case of cancer) it is often necessary to assess the wider contexts of this finding and the history of research, and research in related fields. The same is true for situations in which a field goes through a foundational crisis or in which inter-disciplinary work is necessary. 'Assessing the wider context' here includes, among other things, bringing in some of our experience in the wider sense that I have discussed in the beginning of this part of my paper. So here we can see why and in which sense it is necessary to insist that in the Enlightenment maxim 'do not trust the authorities, trust experience', the term 'experience' must not be reduced to experimental findings: such a reduction would cut us off from the resources we need for forming a judgment about the relevance of the particular findings for the case at hand. Also, it would make us dependent on authorities in a new way: on the authority of the experts. We do depend on them, but not totally; it must be possible to criticize them.

2. *The Humanities and Social Studies: Can and should they become 'scientific'? Wittgenstein's Philosophy of Psychology and Peter Winch's understanding of Social Studies*

I now come to the second part of my lecture. As I have indicated in my introduction, in this part I will discuss what has been called Wittgenstein's 'Philosophy of Psychology'. I will use his insights to explain and underline Peter Winch's claim that the knowledge and the experience we have of ourselves as mental and social beings is of such a sort that it cannot be substituted by kinds of experience as they are produced in the realm of (natural) Science. And also, our understanding of social developments cannot be an understanding of some 'laws' of such development; such laws (if the term is understood in the sense it has in science) cannot exist. This is also true (as I will discuss in my next section) when the substitute offered is a scientific account of the brain.

Wittgenstein's most interesting claim in this context is the thesis that a considerable number of important and perfectly meaningful terms in the realm of our mental life just do not stand for 'mental states and processes' in the sense of elements in a 'stream of consciousness' that we can watch by introspection. I would like to stress that we are concerned here with a special but very important class of expressions. Wittgenstein does not deny, for example, that we have dreams; that melodies can go through our minds, or that we suddenly remember forgotten names or phone numbers. But of interest for my lecture today are those expressions for which a closer look reveals that there are no 'mental entities' in this sense correlated to them. These can teach us something very important for our understanding of the realm of 'the mental'.

You can think here of examples like the following: 'To *interpret* a noise as her coming home', 'to *expect* that she will come', or 'to *weigh the evidence* that person x, not person y, committed the crime'. Such expressions, according to Wittgenstein, do not designate or classify sensations or inner events. Still he does not think they are meaningless. They belong to those expressions of our language the meaning of which does not consist in their standing for or classifying an *independent* object. An object is 'independent' in the sense intended here, if its existence does not depend on the existence of a language game.

If Wittgenstein is right about this, it follows that (for want of an object) there can be no empirical investigation of such alleged, putative sensations and that our ordinary talk about and understanding of our *interpretations*, *expectations*, *inner activities*, etc. cannot be improved by an investigation the method of which is inspired by science. This is true regardless of whether the method chosen is designed for directly observable entities like billiard balls or pendulums, or

for entities that can be studied only indirectly like subatomic particles. So what some people envisage as a process of cleansing the so-called 'folk theories' of mythological residues in order to isolate a core of hard facts is not the road to a *science* of psychology. Such a core simply does not exist in this special realm to which Wittgenstein directs our attention.

It has been said that Wittgenstein denied the existence of mental states, that he believed them to be fictions. With respect to the particular range of terms here under discussion, this is a provocative and questionable formulation, but it is not altogether inapt. Wittgenstein *does* indeed use the word 'fiction', but as a part of the complex expression "grammatical fiction", which does not lend itself to an easy and ready understanding (Wittgenstein 1953, I § 307). So we have to ask: Of what kind are the objects that result from 'grammatical fictions'? How can referring to them be a meaningful speech act that allows the difference between true and false? Is to make a 'grammatical fiction' the same as to introduce a 'theoretical term' in Physics? I will now give a short account of what I take to be Wittgenstein's point here. This will also help us to get an idea about what psychology could be, *instead* of being a ('natural') science.

Wittgenstein's basic claim is that an understanding of the language games one engages in with the help of mental terms like 'to mean', 'to interpret as', etc. is *primary*, and that this understanding is a practical and social ability relating to the use of metaphors and analogies, as I had explained in my Wittgenstein-lecture. And it is then a further step to isolate 'objects referred to' by constituent expressions present in these ways of talking, a step that is internal to language. To play the language game with the help of complex expressions is primary; to talk about 'referring' to 'entities' is secondary (remember the prime number between five and seven). To give a simple analogy: It is possible (for example for a speaker for whom English is not her first language) to correctly use the expression 'to know by heart' without having any knowledge as to what bodily organ the expression 'heart' refers to. The same can be claimed for the expression 'he left her in the lurch' in cases where it is used by a speaker without special etymological information; she will be unable to answer the question about what object the constituent expression 'lurch' refers to, but she can still use the complex expression meaningfully and with 'real life' consequences. It should be noted, however, that the 'lurch' case is different from the case of mental terms in so far as the latter appear in clusters (cf. 'mindless', 'in mind', 'to remind', etc.) and can for that reason not be dismissed as idiomatic singularities without systematic interest.

Correspondingly, Wittgenstein's claim is that in understanding the functioning of expressions like 'to weigh the evidence', the metaphorical step from physical to mental use of the term 'to weigh' can be made independently of the existence or nonexistence of a special sensation of mental-weights-comparison, which the language user would have to recognize as the referent of the expression. Such a sensation, Wittgenstein tries to convince us, does not exist, and whatever sensation one may have in conjunction with a particular use of the expression, this sensation is not what the phrase means or refers to. So the expression 'weighing the evidence' does not refer to a sensation in a manner comparable to the way in which the expression 'itching of my nose' refers to a sensation, or in the sense that the expression 'now I remember her name' refers to the introspectively accessible event of being able, suddenly, to say the name.

As the examples 'to know by heart' and 'to leave somebody in the lurch' were meant to show, this understanding does not imply that our mental talk of this type consists in fabulations, without connection to the 'real world'. One can speak about one's motives, convictions, and intentions truthfully or untruthfully; one can lie about knowing a poem by heart or about having left a friend in the lurch. Accordingly, Wittgenstein does not use the word 'fiction' with the intention of rejecting or devaluating this kind of mental talk; he acknowledges that it is meaningful and has consequences 'in real life'. So his view is at right angles to the alternative that mental objects must be either normal objects of science (directly or only indirectly observable) or mythical

fictions, separated from reality. They are real and fully respectable, although they are not objects of science.

After having seen and comprehended the special semantic character of the kind of expressions Wittgenstein discusses, one can very well go on talking about 'mental entities', in the way a nominalist can go on talking about numbers or a religious believer can go on talking about God, as I have tried to show in my first and in my Habermas-lecture. In all these cases only an uncritical or naive way of understanding these kinds of 'talking about' is to be eschewed. As we have seen, it would be wrong in Wittgenstein's eyes to say that mental entities are like other entities, with the sole difference that they pose special difficulties for observation or that they can be observed only indirectly, i.e., by taking note of their causal effects. But it would also be misleading to say that the mental act or state of expecting somebody 'does not exist', because this can be understood to mean that nobody ever expected anything or anybody, that the language game involved has no application. This is not at all what Wittgenstein wants to say. Instead, his claim is that mental entities are constituted by the process of acquisition of the particular language games involved, in a cultural-linguistic context, and that they are constituted in such a way that it is meaningless to ask what they are outside this cultural context. We can express this by saying that the special semantic process Wittgenstein discusses generates 'objects of discourse' or, more broadly speaking, 'cultural objects'.

What is at issue here can perhaps be clarified by relating it to Rudolf Carnap's well-known distinction between internal questions ('is there a prime number between 5 and 9?' You remember my first lecture) and external questions like 'are there numbers?' Carnap contends that external questions are practical: They are important questions, he admits, but correctly formulated they are not concerned with the existence of entities (like numbers) but with the usefulness of certain linguistic frameworks. In parallel fashion, the question 'Did P act according to intention i_1 or i_2?' should be thought of as an internal question, while a discussion of the 'language of intentions' (as conducted in the present lecture) is concerned with an external question. The objective of this discussion, then, can be described as an attempt to clarify what is involved in different modes of adding expressions (or new uses of old ones) to an existing linguistic framework. My claim is that, with respect to the mental terms discussed here, an enlargement of a given language through the introduction of novel metaphorical uses of its expressions differs in kind from other types of enlargements, for example as they are effected in the Science of Physics by the introduction of theoretical terms.

Returning to Wittgenstein we can say that at the extreme end of the spectrum of constitutions of the kind he is discussing are cases in which the expression by which the speaker seems to refer to her mental state has no non-linguistic correlate *at all* that could be isolated as an object independent of the ongoing dialogue. In these cases there is no 'natural' object like a sensation to which the speaker refers. So here the point is not just the acknowledgement that a given form of reference to a given object carries with it a particular 'coloring' (as might be seen in the different grammatical gender of the masculine German form 'der Mond' as compared to the feminine Italian 'la luna'). Instead, it is the acknowledgement that there is no 'given object' at all, if it is natural science that decides about the existence or non-existence of objects.

Wittgenstein discusses the 'act of meaning somebody' as a case in point. Imagine you were beckoning to a person in order to call her to you, and you find you are misunderstood. Then in a second move you say 'I meant x, not y'; you say what you had meant; you describe the intention you had in the act of beckoning. Wittgenstein wants to make us see that in such a case we are not referring back in time to a 'state of mind' of 'meaning x' or 'having the intention to make x come to us'. The intention is no additional thing or event, i.e., additional to the physical gesture of beckoning. But still the 'move in the language game', i.e. the second step of commenting on the past act of beckoning, is meaningful and normally understood without problems.

Here is the place at which Wittgenstein's expression 'grammatical fiction' has its clearest meaning. It designates the linguistic process that issues in expressions like 'my intention', and it does not mean that these expressions are pointless. This way of talking makes it appear as if there were mental objects on a par with apples and pears, and as if our way of referring to these mental objects is like reaching out for them or pointing to them. But Wittgenstein proposes to see matters the other way round:

> "Look on the language-game as the *primary* thing. And look on the feelings, etc., as you look on a way of regarding the language-game, as interpretation."[1]

And generalizing he says:

> "The paradox" (i.e. that he seems at the same time to deny and not to deny the existence of mental states; H.J.S.) "disappears only if we make a radical break with the idea that language always functions in one way, always serves the same purpose: to convey thoughts - which may be about houses, pains, good and evil, or anything else you please."[2]

That our way of expressing ourselves, our 'form of representation', suggests one uniform way of 'referring to something' is responsible for the fictional character of some of the contents we express with this form. The word 'fiction' here does not mean that we can take for granted the usual way of 'referring to something' and treat as the only peculiarity of the mental case under discussion that the act of reference miscarries, -does not hit its target-, because such a target (like in 'Little Red Riding Hood') does not exist. Mental states are not fictions in the fairy tale sense, but they are *grammatical* fictions, fictions produced by our grammar, not by a fabulist. To quote Wittgenstein once more:

> ">Are you not really a behaviourist in disguise? Aren't you at bottom really saying that everything except human behaviour is a fiction?< - If I do speak of a fiction, then it is of a *grammatical* fiction."[3]

I will now turn to some of the consequences of Wittgenstein's thoughts that the British philosopher Peter Winch has spelled out in his still valuable and important book about 'The idea of a social science and its relation to Philosophy'. They are quite straightforward: If important parts of our talk about our motives and our self-understandings do not refer to extra-linguistic entities but to 'objects' that can only be identified by taking the perspective of someone who takes part in the language games used to articulate these motives, etc., then Social Studies cannot be 'objective' in the same sense as a natural science like Physics aspires to be. When a researcher in a field of Social Studies tries to step back and describe his subjects 'objectively', he would, to a large extent, destroy the 'objects' of his investigation, because these are only accessible by way of engaging in language games. In order to get know, for example, the *motive* somebody had for one of his actions, you have to be able to talk to him, in a quite skillful way.

If for example an anthropologist wants to describe the religious outlook and the corresponding rituals and habits of an isolated group of people in South America, he cannot just record the 'noises' they make, but he has to learn their language and he has to take part in their language

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[1] "Sieh auf das Sprachspiel als das *Primäre*! Und auf die Gefühle, etc. als auf eine Betrachtungsweise, eine Deutung, des Sprachspiels!" (Wittgenstein 1953, I § 656)

[2] "Das Paradox verschwindet nur dann, wenn wir radikal mit der Idee brechen, die Sprache funktioniere immer auf *eine* Weise, diene immer dem gleichen Zweck: Gedanken zu übertragen - seien diese nun Gedanken über Häuser, Schmerzen, Gut und Böse, oder was immer." (Wittgenstein 1953, I § 304)

[3] ">Bist du nicht doch ein verkappter Behaviourist? Sagst du nicht doch, im Grunde, daß alles Fiktion ist, außer dem menschlichen Benehmen?< -Wenn ich von einer Fiktion rede, dann von einer grammatischen Fiktion." (Wittgenstein 1953, I § 307)

games in order to make sure that he understands what they say. Regardless of what he thinks about the truth or adequacy of their view of the world, he has to *understand* their descriptions, their myths, and the way they talk about their rituals, and in his reports he has to be able to explain these things to his colleagues. As I remarked in my Habermas-lecture, when the anthropologist meets foreign concepts, he might in some cases be unable to translate them in a literal sense into his own language. Then he might keep the word (like in the case of ancient Chinese thinking, one may just keep the word 'dao'), but the historian of ideas or the anthropologist must certainly be able to explain how these words are used, how they enter into stories that express the views of the culture that is studied.

In is one of Winch's important points that such an explanation cannot be accomplished without setting these alien things in a relation to the views that the researcher himself holds about matters that for him are related to the things he is investigating. This is why Winch says that Social Studies have a particular closeness to Philosophy: The person studying an alien culture cannot help but ask herself, for example: How do I see 'the world as a whole'? How do I interpret death? As Charles Taylor later commented: What we need here is not to uncritically identify with the people under investigation; we do not have to become Indians ourselves when we do research about the Indians. Instead, he says, we have to develop a 'language of perspicuous contrast' with the help of which we can understand what has been alien to us by seeing in which way it is *similar* to, but also in which way it is *different* from what we know from our own personal and social experience. It is easy to see that this kind of a critical sharing of social practices is something quite different than the attempt to establish a complete control of the behavior of billiards balls in a Physics-laboratory. Therefore Winch can say that in the realm of Social Studies it is nonsense to speak of 'laws of nature'.

Before in the next part of my paper I will address the mind/brain problem, I would like to return to Psychology. In particular I want to sketch and contrast two positions the first of which comes quite close to endorsing what I have discussed as Wittgenstein's position (this will be very short), and the second of which comes close to being the perfect opposite. In this way, to look at it will be a good preparation for my next topic, the brain, which I can then treat quite briefly, because all of the important *philosophical* aspects of our problem have by then been mentioned.

The first position is that of the psychologist Jerome Bruner. He is one of the fathers of the so-called 'cognitive turn'. This initiative had tried to overcome behaviorism and to re-introduce the mental into psychology. But the way, in which such a re-institution was put into practice, was by adopting a computer-model of the mind. In this way, again a *reductionist* model was installed, even if 'the mental', in some sense of the term, was no longer excluded. This is why Bruner then insisted that for the psychologist 'cognition' must mean more than 'information processing'. So he has proposed in some detail a further step towards an enrichment of his field of study, which he has called 'cultural psychology'. I cannot give a detailed portrait of this project here, but one short passage from Bruner will show just how close he comes to the ideas of Wittgenstein: "The fact of the matter is that we do not have much of an idea of what thought *is*, either as a 'state of mind' or as a process. ... It may be simply one of those 'oeuvres' that we create after the fact." (Bruner 1996, 108) This, as you will recognize, is very close to what Wittgenstein has called a 'grammatical fiction'.

In order to do justice to these cultural acts of creation, Bruner tries to sketch the outlines of what he also calls a 'hermeneutic psychology'. Hermeneutic psychology would not be modeled after science, i.e., it would not try to develop theories about hidden objects that can be studied only indirectly by building models and by formulating hypotheses about the 'laws' that the objects in the field obey, so that one could see whether the derived observable consequences do in fact materialize as predicted. So Bruner does not treat mental entities in the same way as physicists treat subatomic particles and other objects that can be studied only by examining their causal

effects. Instead, the objects of cultural psychology would be (in the area discussed here) mental states *as constituted by a specific culture*, among other things by its ways of talking about intentions, attitudes, and 'inner actions'. So much then as a reminder that certain developments in psychology itself today point in the direction advocated in this lecture.

You will easily see that the next position that I would like to bring to your attention is quite the opposite of what Wittgenstein, Winch, and Bruner are advocating. It is a clearly naturalistic, science-oriented understanding of psychology and has been formulated by a philosopher. His name is Martin Carrier, and the paper I am referring to has the title 'In defense of psychological laws'. It has the great advantage of being brilliantly clear, and this I can acknowledge although I totally disagree with its contents.

According to Carrier, a psychological theory like for example motivation theory has as its subject matter human behavior and the largely unknown causes or influences that bring it about. For example, it talks about 'stimulating' and 'activating' motives, and about 'measuring their relative strength'. That these influences are 'largely unknown' means that they are not directly observable, and since we know of the possibility of self-deception their general nature as well as (very often) their presence in particular cases seem to be unknown.

The ideal of reliable knowledge for Carrier is modern physics, and since the physics of subatomic particles shows that we can construct theories about non-directly observable entities he finds here both a reason for hope, and a goal the psychologist can strive for. So physics is taken as the model for investigating the mental lives of other people (i.e. of people other than the investigator). These mental states or events are treated as un-observables, as entities about which the psychologist can obtain knowledge only indirectly.

The resulting psychological theory traffics in hidden 'inner' forces and their overt consequences. The terms used in the theory refer to items, which have their primary existence as elements of a theoretical model, but a secondary existence by virtue of the success of the model, notably in predicting certain aspects of the behavior of experimental subjects. Carrier deems it unnecessary to make any claims about the exact nature of the 'forces' under investigation. In this respect the theory is 'functional' or 'instrumentalist': As long as input/output relations can be stated with some success, the question of what might be hidden in the 'black box' of the mind is taken to have no point: Hidden entities are hidden, and that is it. And even if it would turn out one day that some of them (or even all of them) do not exist at all (or not nearly in the way the theory represents them), this would not really matter for our investigations today. We must take the best explanation we can get in order to cope with the world, to handle things successfully, even if this explanation cannot answer *all* our questions.

But, there also is a less agnostic version of such a conception of psychology. It seems to be in the backs of the minds of many proponents (and Carrier explicitly confesses to it in his paper). It claims that the 'real' entities that the model is a model of are neurophysiological processes and states. Carrier explains that we have to refer to such entities, for example, when we try to formulate psychological ceteris-paribus laws. He says:

> "Since it is difficult to imagine how such intentional states could produce other mental states and behavior, they are thought to be realized at some more basic (probably neurophysiological) level, and their transition is supposed to be governed by laws applying to these realizations." (Carrier 1998, p. 220)

Under such an interpretation the mental states mentioned in the psychological model are indeed less mysterious in their character: They are neurophysiological states. On the other hand a huge gap opens between assertions and conclusions in the model on the one hand and current knowledge in neurophysiology on the other. It is clear that to say of a person that she is in a state of 'learned helplessness' (Carrier's example) cannot be taken as even a rough approximation for

characterizing a neurophysiological state of a particular nature, one differentiated from other forms of depression. When we follow Wittgenstein here, we must say that the gap is not one between real knowledge and some knowledge we hope to have in the future. But the gap is much deeper in that it is categorical. It is between Neurophysiology on the one hand, and hermeneutic talk about the activities of social human beings on the other; it is not a matter of knowing a little and knowing much.

We are on the *hermeneutic* side of our common sense experience when we acknowledge that the expression 'learned helplessness' can be used to (hermeneutically) explain somebody's chronic failures. It can even be introduced as a technical term in psychotherapy by relating episodes from the lives of real people that we understand in our familiar way of understanding biography. And only after the successful introduction of a technical term in this *hermeneutic* fashion can we investigate whether there are physiological processes *correlated* with the mental phenomenon, so that we might even find, in severe cases, a medication to control it, for example, we may find a drug to prevent suicide. The availability of the hermeneutic understanding (and all the considerations brought forward by Wittgenstein and winch) contradict the claim that what we are 'really' talking about in psychology are processes about which we have hardly any knowledge.

In my view, then, Carrier's scientific construal of psychology has the following serious disadvantages:

- It makes hardly any use of the knowledge of the mental which every one of us has about himself or herself and which has been set forth in world literature (or better: in the literatures of the different cultures of the world), not to speak of art and other cultural products. It neglects our ordinary, non-scientific experience.
- It does not bridge the gap between first-person knowledge of my own motives, etc., and the third-person knowledge one can have of other people's inner lives. Indeed it misrepresents (or makes unintelligible) the way in which in the realm of the mental, 'learning about oneself' and 'learning about others' go hand in hand.
- It misrepresents the knowledge a culture has accumulated about its own mental life: 'Folk-psychology' did not *arise* as a type of scientific model-building, nor does it have the shape that one would expect of such a model. Seeming local similarities (between folk psychology and scientific psychology) have to be accounted for in reverse fashion: scientific and technical thinking has entered as a source of metaphors into our self-descriptions.
- The talk of 'hidden entities' evades the question about the special character of the terms concerned; it misses all the semantic points I have tried to make here, following Wittgenstein and Winch.
- The application of the notion of 'the best explanation' and the functionalist interpretation of psychological theory restricts the meaning of mental terms to the context of their application to others. It favors the objective of influencing other people over and against the goal of coming to terms with one's own mental life.
- The non-agnostic version (that we 'really' mean neurophysiological states by mental terms) is simply false, because it makes a category-mistake. (I cannot mean what I do not know) Even if correctly formulated as a claim about correlations between the mental and the physical, it is useless at the present stage of inquiry because we are unable to bridge the gap in precision between the richness of our mental terms and the crude character of our current attempts to describe their putative 'neurophysiological counterparts'.

3. *The mind/brain problem*

I will now take a further look at the 'mind/brain' problem, and especially at the meaning of terms for 'mental processes and events' that seem to have a more clearly body-related existence than the important, but quite special cases I have discussed so far ('to interpret as', 'to weigh the evidence,' etc.) Does their closeness to the body mean that for them it is easier to relate them to processes in the brain? Or do we have to respect the divide between the scientific (brain) perspective and the perspective of Social Studies that we have worked out following Wittgenstein and Winch also for these kinds of 'mental events'?

In his paper 'On Mind and Matter'[4] Georg Henrik von Wright discusses the problem with help of a simple example: A sound is heard, and we see how the bodily posture of a person changes in such a way that the body is directed towards the source of the sound. Depending on the circumstances obtaining, we may be confronted (to mention just two clear-cut possibilities) either with a causal relation, for instance with a reflex: The sound *caused* the bodily movement. Or we may be confronted with an action, not just the behavior of a body. In this second case our description of what has happened will include the understanding the person has of her own activity: She was *interpreting* the noise in a certain way, for example, as an indication that somebody had arrived whom she was *expecting*. The turning of her body toward the source of the sound in this case (and under this description) is an intentional action, not just a bodily reflex. 'To interpret' and 'to expect' were our examples of 'mental activities' for which it seemed implausible to suppose that they designate something in the person's body or even something that could be localized as specific items in his or her 'stream of consciousness'. So here talk about 'actions' seems to be clearly separated from talk about causally produced happenings.

The legitimacy of calling something an *action* is normally established by giving a convincing explanation for its occurrence in terms of reasons and goals, i.e. with reference to the mental realm. If this kind of explanation of a candidate for an action succeeds, we say that what has been observed was *not* a reflex, the sequence was not a *purely* causal chain of events. In doubtful cases, unsuccessful attempts to show by manipulative experiments that what appeared to be an action was 'really' just a causal chain can secure the original interpretation as an action. Surely a person might voice the metaphysical belief that any given failure or failures at such an attempt do not disprove that ultimately all phenomena of action *must* yield to a causal description. This might be what Martin Carrier ultimately thinks. But such a belief to me seems to be unjustified, or even philosophically empty. But fortunately it is not required to make causal science rational: From a purely theoretical point of view (i.e. excluding ethical considerations) it is perfectly reasonable to try to extend the scope of successful causal manipulation to more and more events on the micro-level. And this is what science is doing, without being committed to any metaphysical claim.

Concerning introspection, as an alternative method of inquiry, there are certainly cases in which it makes sense: I have not the least doubt that we sometimes dream and can try to remember our dreams; or that solutions to problems come to our minds, and that we can refer to dreams and ideas with the help of words. So one might say that *some* mental terms do refer to happenings in the 'stream of consciousness'.

But the quite special terms discussed by Wittgenstein are not of this nature. I propose that we view them as object-constituting *metaphors*. The expression 'object-constituting' is meant to

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[4] von Wright 1994

indicate that the function of the metaphorical expression is not to add poetic ornamentation to a text which could also be formulated by using a non-metaphorical expression in such a way that it would refer to the intended object directly and simply. Instead, the function of the metaphor is to open up new realms of objects, as I have explained in my Wittgenstein-lecture.[5]

In the history of research on neurophysiological processes we find (like we do in other scientific fields) speculations and models, some of which have turned out in later times to be fictions. These are then called 'mere' speculations, mere models; they are false pictures of the physiological realities. As an example of such a case, von Wright mentions that Descartes wrongly believed that nerves are a kind of blood vessel.[6] - But contemporary ideas might also turn out to involve fictions. For example, when a neurophysiological theory postulates certain modules or departments of the brain as the places at which certain processes take place that make possible specific achievements, it may turn out that these achievements have to be explained in a quite different way, without recourse to the postulated modules or processes. Something like this might have happened recently when representationalist models of the brain were criticized and supplemented by connectionist models; a postulated 'representation-module' of a certain kind might turn out to have been a fiction, to correspond to no empirical reality.

This type of unsuccessful linguistic transfer is what von Wright has in mind: He imagines that on the basis of certain expressions we use for *mental* activities somebody advances the hypothesis that on the level of neurophysiology there are processes that could be called 'sieving' (for example: the sieving of good from bad reasons), or could be described as 'something passing through a screen',[7] or (to repeat an example of my own) as 'weighing the evidence' (for instance, for arriving at a conclusion about the desirability of competing goals of action). Hypotheses of this kind are by no means absurd in principle. In advancing them, we take a familiar mental term and try to make a linguistic transfer from the mental to the neurophysiological realm; we attempt to formulate an empirically testable model of those *bodily* processes we suspect to *underlie* the mental activities or to accompany them in a characteristic way. This, however, does not mean that the physiological side (in a successful case) is what the original expressions had meant even before they had inspired the physiological model.

In spite of the acceptability in principle of such a transfer from the mental meaning of a term to a hypothesized physical meaning of a corresponding term (i.e. in the context of a model for supposed *physical* processes), it is clear that such attempts can go wrong. It can turn out that a particular model (or one of its constituents) has no empirical basis. In such a case, the physiological interpretation of (or, to be more precise: the postulating of physiological processes strictly correlative to) words like 'sieving' or 'weighing the evidence', for example, would turn out to be impossible because there are no entities that they refer to. The processes they were meant to describe would have been shown to be 'nothing but fictions'. Von Wright (1994, 104) uses the word "inventions" for what I have here called 'fictions': A model of bodily processes that was based on the ordinary *mental* terms we use for explaining actions turned out to be vacuous; it involved inventions with no corresponding reality behind them.

After our preceding discussion it seems clear to me that this does not mean that our original *mental* uses of the terms were in any way flawed. We are still fully entitled to speak of the 'sieving' of good from bad reasons or of 'weighing' the evidence in favor or against the desirability of one or another course of action, in spite of the failure of the attempt at a

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[5] Cf. Schneider 1997b for a more detailed discussion.

[6] von Wright 1994, 103

[7] von Wright 1994, 104

physiological interpretation of these terms. So the ordinary mental use of the terms is not at all undermined by the negative outcome of the attempt to interpret them physiologically. This becomes quite plausible when we consider a simple if somewhat different example: There is no reason to correct or blame a user of the expression '*to know by heart*' for the reason that from a physiological perspective she referred to the wrong organ, one that, as far as we know, plays no role in the process of memorizing. In its *mental* use, at least nowadays, the expression 'to know by heart' does not refer to a physiological entity at all. Therefore, it is not possible to make a mistake in the choice of organ.

It follows from these elucidations for mental expressions *of all kinds*, that the question of whether make good sense or not, has to be decided independently of the success or failure of attempts to interpret it physiologically. It is indeed possible to be critical about the value of a given mental expression in the context of mental talk about actions, and there might be good reasons for such a criticism. For example, one could maintain that the expression 'to weigh the evidence' suggests a common scale for evaluating totally different things, and that this suggestion is wrong, so that in this respect it is inappropriate to some situations in which we apply this expression. But this internal criticism of an expression, which stays inside the realm of action talk, is independent of the success or failure of giving it a neurophysiological interpretation.

From the point of view of the philosophy and history of language, this is a quite complex case: In a first step, an expression for a physical activity (namely: comparing the weights of two material things) is used metaphorically to enter into the mental sphere of deciding between items that do not have any weight in the literal sense. In court, for example, the judge has to weigh the evidence that has been put forward. And then the mental term, which at that point has no neuro-physiological connotations, becomes a candidate for a second 'metaphorical' step: An attempt is made to transfer the expression to the physical level of neurophysiological processes, and it can turn out (as we had supposed with von Wright) that this attempt fails. It is the failure of this second step that made me speak of the 'fictional' character of the term in its neurophysiological interpretation and that had led von Wright to call what is purports to designate an 'invention'. So an expression that on the mental level is unproblematic and respectable can turn out to stand for a neurophysiological fiction without thereby losing its mental legitimacy and significance. In the mental realm what it designates can be called (with Wittgenstein) a 'grammatical fiction', but this is no derogative term.

As I have already indicated, the situation can be even more complicated, because from an expression alone one often cannot tell whether it is meant to have a physiological significance or not. Many ordinary language expressions are part of a network of metaphorical expressions for a 'mental apparatus', and this is enough to make them possible candidates for being interpreted physiologically.[8] The reason is that in principle any apparatus can be proposed as a model for physiological processes. For example, a simple expression like 'to keep in mind' has (like 'to weigh the evidence') on the one hand a clear relation to a bodily action (to keep in one's hands, not to let go of something); secondly it has an obvious mental use ('to remember'); but thirdly it can express the idea that a part of the brain is like a container into which things can be put in such a way that they do not 'fall out'. Whether this last interpretation is intended or whether the expression is meant in a purely mental sense (like our normal use of 'to know by heart') has to be decided in the particular context in which it is used.

As I have illustrated with reference to my colleague Martin Carrier, for many philosophers and scientists there seems to be a strong temptation to say that 'at bottom' or 'ultimately' our mental terms *must* refer to something physical. And the traditional idea of a stream of consciousness

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[8] For a rich fund of examples see Johnson 1987; for a critical discussion of Johnson's conclusions cf. Schneider 1995a.

seems to support this: the chain of neurophysiological happenings that seemingly 'must' be what we ultimately refer to with our mental terms is envisaged as running parallel to this mental stream. As a mediating step to this claim it is sometimes said that mental events are the 'inner view' of the physical events in the body of the person whose mental events they are, and that she alone has this privileged 'view from inside'. But from my considerations in this lecture you can see that I myself would reject the metaphor of the two views as misleading. Speaking about my mental life is not really speaking about my nervous system as seen from inside, but it involves considering my position in a social field of fellow human beings.

Summing up, we can formulate the following propositions:

- When we adopt Wittgenstein's view that not even an introspectively observable 'mental state' has to exist in order that a mental term is meaningful, we are able to agree with von Wright that a negative result of an attempt to interpret a mental term neurophysiologically does not militate against the mental use of the term. When even the alleged 'inside view' of a neurophysiological state is unnecessary to give a meaning to such a term, *a fortiori* the 'outside view' is not necessary either.
- Instead, mental terms have their place in meaningful language games, even if (in the extreme cases discussed by Wittgenstein) they do not denote entities that exist apart from or outside of these particular language games, either 'in introspection' or 'in the brain'.
- One can use the phrase 'grammatical fiction' in a positive sense: It points to the constitutive character and at the same time to the meaningful use of the expressions concerned. They in a way 'create' mental entities, and their use is not arbitrary; they are inside the realm of truth and deception.

4. *Philosophy and the defense of common sense*

So as the last and shortest part let me summarize what this means for Philosophy. I think one of the important services that Philosophy has to supply for the academic community is to make possible interdisciplinary exchange in order to help understand the relationship between the different fields of study that are practiced at a university. My examples here have been the kind of knowledge that Social Sciences can gain, in contradistinction to the kind of knowledge obtained by the natural sciences. The more specialized question was: How does what we know of (or: have experienced in) our mental life relate to what scientific experiments with the brain can bring. These are important questions for the academic community, but also for the broader public, because decisions have to be made as to where invest money, and where to invest hopes: What kinds of answers can we expect from what kind of research?

In order to be able to make such judgments about the peculiar limits of a scientific approach and result, we have to recognize that not all experience is scientific experience. We have to take our own non-scientific experience seriously. In a particular case, such an item of experience might be *corrected* by science, but this must not be a reason for us to mistrust our experience in a general, encompassing way. As I had mentioned above, such a step would be to give away our critical abilities to an authority, the authority of science, we would again opt for a 'self-imposed immaturity'. We could also say: We would agree to be dispossessed or robbed by science. And I think that for the various reasons I have hinted at, among the fields of learning practiced at a university, Philosophy is the one that is equipped best to formulate convincing reasons in a protest against such a robbery.

In a recent controversy in the *New York Review of books* the philosopher Colin McGinn criticizes the well-known French Neuroscientist Jean-Pierre Changeux for making grave philosophical mistakes in his latest book. In it, the Frenchman endeavors "to place the Good, the True, and the Beautiful within the characteristic features of the human brain's neuronal organization". Much in the spirit of my own lecture here, McGinn imagines a parallel case; he writes: "Suppose an overeager brain scientist were to announce the new field of 'neuromathematics,' in which old-fashioned mathematics was to be replaced by studies of the brains of mathematicians. Instead of talking about numbers and geometrical forms, we are to talk only of neurons – this being the *scientific* way to do mathematics." McGinn rightly calls such a case of Psychologism a fallacy. It is the failure to distinguish the subject matter of a thought from the thought itself, as a psychological phenomenon. And he writes about the Neuroscientist's chapter about The True: "… it can hardly be said that he is replacing, or improving upon, traditional discussions of truth; he is simply changing the subject, while making it sound as if neuroscience can displace philosophical questions."

In his reply, Changeux shows that he has not understood the critique, and I am afraid that he is not the only scientist who fails to understand philosophical reasoning. He declares that he is shocked by the "overall arrogant style" of the philosopher who dares to use expressions like 'fallacy'. He says: "There is no reason today for philosophers to give 'lessons' to anybody, scientists in particular." But this can hardly be read as a counterargument, it is just an expression of his feeling offended. Instead of showing where exactly he thinks McGinn goes wrong, Changeux threatens that sooner or later Philosophy might be done away with: "One has to be aware that the categories that McGinn utilizes in his judgments might no longer be up to date in the present context of developing neuroscience. On the contrary, they need to be deconstructed and reformulated to avoid the solipsism of judging with a given set of values another set of values from a different discipline. Notwithstanding his opinion, there are no more 'essential' values coming from his own philosophy." Here he speaks as if general methodological discussions would be impossible, as if every intellectual field would be isolated from every other, that each has its own criteria distinguishing the reasonable from the unreasonable, and that these criteria cannot be debated. But he seems to anticipate that Neuroscience will win in the end. I hope that I have shown in my lecture that we as philosophers should try hard to overcome this self-isolation, this new form of 'self-imposed immaturity' by studying the different *kinds* of experience in the different disciplines in an attempt to understand how they are related.