Commentary

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Brain, mind and consciousness

Overgaard´s article is a well-structured and well composed argument in favour of a science of consciousness. He examines various counterarguments, and deals with these challenges in many profound details. In all, he suggests a kind of philosophical, theoretical platform for a science of consciousness in order to affirm its rightful place amongst respectable sciences.

I have no problem as to Overgaard´s affirmative conclusion in itself, but I certainly have a hard time when reading the discussions and arguments that lead to his conclusion, including the conceptualization that carries it. I have an objection as to the way the mind-brain problem is handled.

In the article consciousness is defined as an advanced kind of minding. In order to carry through my argument, I shall define *mind* as the basic kind of psychic activity, while *consciousness* is an advanced kind of minding, where the mind is minding itself.

As an opening question one could ask: ”What is the relation between mind and brain?”.

In all literature to be found in Overgaard`s article as well as in Overgaard´s own considerations the question is answered in this way: ”The brain is a necessary and sufficient condition for mind.”

This answer is not questioned by Overgaard but is nevertheless very disputable. Overgaard is busy bringing science of brain and science of mind in tune, but is refraining from the question: ”What makes the brain so exclusively important to a science of mind?”

My basic objection to Overgaard´s article will attack the notion, that brain is a necessary and sufficient condition for mind and consciousness.

The mind-brain problem

Bergson (1911) was considered somewhat of a maverick in the scientific parlour of his days. That was due to his flirtation with a notion that turned much traditional biological thinking upside down. Traditionally it was in line with good tune to say that we breath because we have lungs. Bergson´s provocation can be paraphrased by saying: No, we have lungs because we breath.

Bergson tried to get fellow biologists to understand that an organ in an organism is a Darwinist consequence of an endeavour, not the other way round. We have developed arms because we have reached out for something, we don’t reach out because we have arms, but the arms have made it easy for us. We have developed digestive organs such as stomach and intestine because we have metabolised, we don’t metabolise because we have stomach and intestine, but these organs have made it easy for us.

I think Bergson is right, and his line of thinking is in various ways kept or rediscovered in the works of Merleau-Ponty (1945), Leontjev (1967), the late Popper (1972), Mammen (1963), Engelsted (1997), Mogensen (2003) and myself (Schultz, 1998) just to mention a few I know about.

If we want to be in line with this, to my opinion, right way of thinking about living creatures, we have to confront the mind-brain problem like this: We have developed a brain because we mind the world. We don’t mind the world because we have a brain, but the brain makes it easy for us. The brain is in other words an organ developing in our bodies, in order to make our minding more effective. When such an evolution is taking place, the actual, constantly changing, brain not only makes minding more effective, it also results in higher forms of minding, such as conscious minding. Nevertheless the brain can never be conceived of as the material cause (in Aristotle’s sense) for minding. Rather one should conceive of minding as the original material cause for brain-development, but the brain will of course in developed forms be one of the essential material necessities in higher forms of minding, such as conscious minding. As such it is correct to say that the brain is one of the material constituents in consciousness, but it is only one of them. The other is minding in itself. We can say, that consciousness is constituted by to material parts: 1) Minding and 2) Brain.

In Overgaard´s discussion with McGinn (pp 8-10) an example with water, hydrogen and oxygen is presented. According to Overgaard one cannot compare the mind-brain problem with the problem of connecting water with its constituting material, hydrogen and oxygen. Why is that so? Because ”there is an absolute ”relationship” between H2O and the qualities of water”. (p.9). I think that Overgaard is very right here, and at the same time he totally misses the point this example teaches us concerning consciousness and its constituting material. Let me expand on this.

There is no hard problem in connecting water with oxygen and hydrogen, because these two materials are the necessary and sufficient materials to constitute water. It takes nothing else to create water. But if some scientist in the history of natural science had tried to gain knowledge of the relation between water and its material constituent(s) by only comparing water and oxygen or water and hydrogen he had ended up with a very hard problem indeed. He could not do

the job by looking at hydrogen (or oxygen) alone and compare qualities in this material with the qualities of water. There is no water hidden somewhere in hydrogen, and if this imagined scientist only had eyes for hydrogen and water in his attempt to create a "science of water", he should never had succeeded in finding the material cause (still in Aristotle's´ sense) for water.

What are we to learn from this example that Overgaard himself makes use of? I think we can learn two things.

First of all it is obvious, that a science of water is not depending on knowledge of constituting material of water. There is lot of knowledge of water in ancient times where people believed water to be in itself one of four constituents of the world at large or in any case had no genuine idea of what in reality constituted water. Water is to be found in the world, and there is no problem in starting a science of something that indisputably "is there" based on empirical knowledge at hand. It is nevertheless right that a science of water will improve immensely, if we succeed in finding its constituting material, and when we have managed to do so, there is no hard problem in connecting the science of chemistry with the science of oceanography.

Second, and more important in this context, when we look for the constituents of water, it is very important that we look for both of them. It turned out that water is made of oxygen and hydrogen. In times where we only knew about one of these, say hydrogen, we had a hard problem. We would be quite sure that water had something to do with hydrogen, that hydrogen was an important matter in water so to speak, but we would at the same time have a problem with a ghost that occasionally turned hydrogen into water.

Let us now use this lesson from the science of water when we consider science of consciousness.

First of all the lesson teaches us that a science of consciousness is not depending on knowledge of constituting material for consciousness. There is lot of knowledge of consciousness amongst people, who believe that consciousness in itself is a basic constituting substance in the world (as did Descartes) or in any case have no genuine idea of what in reality constitutes consciousness. Conscious experiences are to be found in the world, and there is no problem in starting a science of something that indisputably "is there", based on empirical knowledge at hand. That is precisely what any soft minded psychologist has always done. It is nevertheless right that a science of consciousness will improve immensely, if we succeed in finding its constituting material, and when we have managed to do so, there is no hard problem in connecting the science of the matter of consciousness with the science of consciousness.

Second, and more important in this context, when we look for the constituents of consciousness, it is very important that we look for both of them. I for one will make the claim that we have managed to discover that consciousness is made of brain processes and minding. As long as somebody believes that the sole material constituent of consciousness is brain there is a hard problem. In this position we are quite certain that the brain has something to do with consciousness, that the brain is an important matter in consciousness so to speak, but we have at the same time a problem with a ghost that occasionally turns brain processes into consciousness.

It was minding that in the fist place created brain processes, and it is still minding that constantly changes brain processes. My brain now is not the same as my brain a moment ago. (Mogensen, 2003). In saying so, we do not forget that an organism equipped with an advanced brain is capable of doing more advanced form of minding, e.g. being conscious, than organisms equipped with more modest developed brains can. Still, the brain cannot do the work alone. Just as hydrogen cannot make water alone but has to be in relation to oxygen to do the trick, brain processes alone cannot make consciousness. They have to be related to minding.

What is mind?

Most people prune trees in their garden without anaesthetization of the threes, because people do not think that trees can mind anything. If a pet animal on the other hand has to have an operation on the vet's clinic, people very much want the animal to be doped.

Is this superstition? It is as if people at large think that vegetables do not mind while animals do.

According to Engelsted (1997) it is not a superstition. To him it points to a kind of practical knowledge that has a very profound reason. Minding is a quality in life that emerged at some point in evolution and it sets the stage for animal evolution. Life forms that never got this quality, and that is the vegetable kingdom, kept on evolving without ever getting the tiniest spot of a mind. Even the most developed organisms amongst vegetables, the orchids, shall never qualify as patients with mental problems.

An obvious difference between developed forms of vegetables and developed forms of animals is indisputably the brain, but this appearance must not cheat us into an argument in favour of the brain as the material cause in minding. There were no brains in the most primitive creatures in animal kingdom, but they could improve their already present minding, if they got one, so nerves, nervous systems and later central nervous systems could profitably start their evolutionary path. But only so, because the primitive brainless animals had started to mind the world.

According to Engelsted (1997) the main difference between a very simple, one-celled plant and a very simple, one-celled animal is this: The plant is connected to its life cycle, the animal has got lost. Both creatures have metabolism that needs sugar and the plant is a connected part in such a metabolic system, because the plants own organism makes sugar out of things that hit its surface. The plant is in interface contact with the world as Engelsted puts it. The animal on the other hand cannot produce sugar, and is in that sense lost from its life-cycle. The animal has to find plants that already have made the sugar needed for metabolism and eat these plants. (Or, of course, eat other animals who have already eaten the plants). The animal has interspace contact with the world, it

has constantly to move around to connect itself as a part of a life-cycle.

To move around to reconnect disconnected parts of the life cycle is *minding*. The metabolic life cycle was probably the starting point, but in time disconnected parts in procreation and other parts of the life cycle also became minded endeavours in interspace.

A science of consciousness?

It is now time for two conclusions. The first is to point out that there is no special problem in making a science of consciousness. The second is to point out that if you see a special problem, you are wrong. Let me finish by qualifying these two conclusions.

There is no special problem in an empirical science of consciousness, because consciousness is an empirical fact. Therefore you can start a science, and this has in fact already been done in the late nineteen century. The science is called psychology, and it deals with consciousness as well as less advanced forms of experienced minding.

When you start a science of something and little by little get knowledge of constituent material, there is a general state of affairs to be acknowledged. You cannot geographically place your focus of interest in the constituting matter. In science of water it is impossible to place water geographically in oxygen or hydrogen or in between. In a way you can say that water is nowhere to be found in the relation between oxygen and hydrogen, because water is a certain relation made of these matters. If you try to place it somewhere in the material anyway, you create a water-ghost. In the science of consciousness it is impossible to place consciousness geographically in mind or brain or in between. In a way you can say that consciousness is nowhere to be found in the relation between mind and brain, because consciousness is a certain relation made of these matters. If you anyway try to place it somewhere in the material, you create a consciousness-ghost.

People with science fictional fantasies may object here. They could claim that if we sometime could succeed in separating a living brain from its minding organism, and place this brain in a sufficient nutrious environment, it might in its then majestic separation still be conscious. This possibility nevertheless is no objection, because the fantasy demands that the sufficient nutrious environment should consist of an artificial minding endeavour. A brain not related to a minding endeavour has no consciousness.

We all know that it is popular to talk about conscious experiences as something that takes place in the brain. The question ”what is going on in your head?” usually means ”what are you conscious about?”. But there is no water going on in hydrogen, and there is no conscious experience going on in a brain. What really is going on in a brain is a lot of nerve activity without the slightest trace of a conscious experience. Still there is lot of water in the world and there are lot of conscious experiences.

If we remove hydrogen from water, water will vanish. If we remove the brain from an organism with a conscious experience, the conscious experience will vanish. We can of course enhance our knowledge of the exact parts of the brain that has to be present in the relation between the brain and the minding organism to maintain consciousness, but this or these exact described parts still cannot make consciousness on its (their) own.

This takes me to my second conclusion. When the problems in investigating the relation between consciousness and the two material parts of consciousness are of the same nature as the problems in investigating the relation between water and hydrogen/oxygen, why then advocate for a special science of consciousness? We already have psychology that has the investigation of the relation between consciousness and its constituting parts as one of its central issues. In Overgaard´s concluding model (p 22) a ”desired correlation” between ”conscious state” and ”brain state” is lined up. Is a special science of consciousness meant as an objection to traditional psychology with its state of the art? Or is this special science defined as an endeavour that will persist in a futile idea of finding a special secret of consciousness in only one of the material parts of consciousness? Or what is the agenda?

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