

# Minds and Medical Professionalism: Using Epiphenomenalism to Aid Decision Making in End of Life Care

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## Abstract

The decision made by an incapacitated patient's surrogate regarding whether or not to continue care on that patient can be very difficult. To find a basis on which such decisions can be ethically justified requires looking into the philosophy of medicine, specifically the mind-body problem. Epiphenomenalism is the position that the mind and the body are separate entities and that communication between the two occurs only unilaterally from the body to the mind. Through epiphenomenalism I suggest that treating illnesses of the body can have effects on the mind. If certain parts of the brain that communicate with the mind cease to function, then mental properties cease to exist. This gives medicine the very important job of preventing this level of destruction in bodies, however it also places a fixed boundary on medicine. If a patient has lost the parts of the brain that communicate with the mind and therefore no longer has a functioning mind, then the duties of medicine no longer apply. In this group of patients it can be ethically justified to withhold medical care from the point of view of the physician and the surrogate.

The decisions involved with end of life care are notoriously and inherently difficult. As long as there are living people with memories, love, and the capacity for hope there will not be many lives that are ended both easily and willingly in a hospital bed. Often this decision is made regarding a patient who is mentally incapacitated and it is therefore left to the patient's surrogate. The choice that is made between the patient's surrogate and the medical team may oppugn the conscience of one or both of these parties, it can be made without a morsel of regret, or perhaps, more likely, it will lie somewhere in between. The certainty of the matter is that such decisions are made quite frequently and are usually not the concern of society. However there are certain circumstances where the ethics of the situation are called into question, and the problem becomes how to develop a standard that guides medical decision making.

In this paper I will explore the ethical responsibilities of physicians and surrogates in regard to incapacitated patients, especially those who no longer have a functioning mind. I will suggest that any solution regarding a philosophical problem in medicine must take into account mind-body dualism. Specifically, I will explore the reasons why epiphenomenalism fits well with our current understanding of the mind and how by using epiphenomenalist reasoning there is a firm boundary on the duties of medicine. That is, medical responsibilities end when the parts of the body that are necessary for the mind to function are irreversibly damaged. Finally, I will explore how using these principles can be applied to ethically justify withholding or withdrawing care on a patient and perhaps be used as a clinical decision making tool in end of life decisions.

It is widely accepted that patient autonomy includes the right to refuse medical treatment, and in the event that the patient does not have the mental capacity to make such a decision, the choice is made by whomever the health care surrogate is<sup>1</sup>. From the perspective of the patient and her right to autonomy there may be nothing ethically perplexing about allowing the husband of a woman in a persistent vegetative state to let her die with treatment withdrawn. But, from a philosophical basis, how can medicine substantiate this switch in position? When mental capacity is lost permanently it seems that there is a great shift in the way that families and medical professionals handle the situation, but why does this occur?

The question is whether there can be a philosophical grounding behind the ethics of end of life health care decisions. The tricky part is to find a basis which would conclude in such decisions to withhold or withdraw medical care and is consistent with the rest of medicine as a whole. I think the most common belief among physicians is that the guiding principles of medicine; autonomy, beneficence, non-maleficence, and justice (or whatever else); remain the guiding principles in all situations, and when it comes to end of life care the only difference is over how these are balanced. I agree with this position, but I am hoping to provide a basis for why it is acceptable that this balance should be shifted from life-saving care to end of life care, and I will do so by examining the mind-body problem.

Medicine has not and cannot act solely as a pure science. It is crucial to the idea of medicine that a patient is seen not only as an object, but as a subject as well. Human values, self-determination, and individualism must be considered at least as much as white blood cell count, temperature, and

glomerular filtration rate<sup>2</sup>. Therefore, a philosophy of medicine cannot be one of pure science, yet neither can it consist solely of phenomenology. Since the philosophy of medicine must account for both the physical animal and the subjective human, inescapably the mind-body problem becomes a major issue.

The mind-body problem is a classic problem in philosophy that concerns the relationship between the mind and the body. From experience it seems as if humans have both physical properties (properties of the body) and mental properties (properties of the mind). Physical properties are things like size and shape, while mental properties are things like consciousness and intentionality. We tend to attribute physical properties to all sorts of the things, however mental properties are reserved for a select few things in our world, like humans and possibly other animals. In addition physical properties are open to the world and equally available for all to observe, but mental properties are private and only available to one consciousness in a way that physical properties are not. This leads to two important questions: what are minds, and what is their relationship to bodies?<sup>3</sup>

One could hold the position that mental properties are specific types of physical properties, but not truly distinct from them. Therefore the mind is a part of the body, in a similar fashion to how one's leg is a part of the body. On the other hand one could hold a position that mental properties are so different that they are distinct from physical properties, and therefore the mind and the body are individual entities. The latter position is called dualism. In some aspects it seems like the mind and body are different things, since they involve radically different types of properties, however in other aspects it seems like they cannot be divided from each other, for instance one mind stays with one body for an entire life. This is why this problem has existed for so long and why there are so many ways that one can try to answer these questions.

If they are distinct, then what is the relationship between the mind and the body? It is possible that the mind and the body communicate freely back-and-forth in a way that is not entirely clear to us. It is also possible that the communication is more restrictive. Perhaps only the mind can communicate with the body but not the other way around. Maybe only the body can communicate with the mind. This last position is called epiphenomenalism.

The debate between these competing ideas is dense and complex and I will make no effort to try and convince anyone over which is philosophically correct. However, a physician's view on the mind-body problem carries consequences for how she will address her patients, so it is reasonable that a position either way has profound effects upon medicine as a whole. The way a physician approaches treating a patient must incorporate some understanding between the objective and subjective aspects of a person, and how illness, or potential illness, fits in.

Of the positions on the mind-body problem listed above, and the many more not covered, epiphenomenalism, in particular, can help explain why we address patients who have permanently lost their mental capacity the way that we do. Epiphenomenalism is the dualistic view that physical events can cause changes in mental properties, but mental events cannot cause changes in physical properties. The modern view on this stems from Thomas Henry Huxley who noticed that animals can perform very

complex and well-coordinated operations purely by reflex without any possible interaction from the mind. If a mind was added to such an animal it would make no change in any of its actions in the physical world, it would just become an automaton that happens to also have a mind. There seems no obvious reason to restrict humans from this description. All of the physical properties in the world occur without intervention from mental events, and while the mind does exist, all mental properties are epiphenomena of physical events<sup>4</sup>.

One of the appeals of this theory is that it is a dualist position that still accounts for the closure of the physical world. Laws of physics, such as the conservation of mass, may seem in jeopardy for a dualist. In a closed system, meaning no mass or energy enters or leaves the system, the total mass of that system must remain constant. Imagine a system with two objects. If the first object causes an increase in mass in the second object, then the first object must have had an equal decrease in mass, which implies that the first object has mass. The idea of the closure of physics suggests that this can be extended to all physical properties, since the universe is a closed system, so that only an object with physical properties can cause changes to the physical properties of another. This argument has been used against dualism, for if the mind which contains only mental properties were to cause changes to the body's physical properties it would be a violation of the closure of physics<sup>5</sup>. Epiphenomenalism, however, does not allow for the mind to cause changes to physical properties, so therefore it is a dualistic view that still holds true the closure of physics.

This means that in epiphenomenalism there is a unilateral communication between the mind and the body. Physical properties in the environment can alter physical properties in the body which can alter mental properties in the mind. There may be a long chain of physical events that leads up to the effect on mental properties. At some point in this chain there is a node that produces a new branch of mental changes in addition to the physical ones.

Recent studies with functional magnetic resonance imaging (fMRI) have revealed a lot of information on the relationship between the brain and the mind. By measuring variations in oxygenation, glucose consumption, and regional blood flow, researchers can find exactly what parts of the brain are more active in different situations. Studies have shown that mental properties such as the memory of an experience playing tennis correlate with the physical properties of specific neurons in the brain<sup>6</sup>. In epiphenomenalism, which holds that the mind and the body are distinct entities, this correlation does not lead to the conclusion that these neurons are the same thing as the mind. Since the neurons work by physical properties they cannot be. However, the fMRI studies do show that specific neurons in the brain are strongly correlated with specific mental properties. This suggests that there are specific parts in the brain that may be causing mental properties. These neurons that are active at the same time as the mental properties could be the nodes mentioned above. These are places where the physical events take place that can communicate with the mind.

What would happen if these nodes stopped working? If the physical events that occur in the neurons ceased to function there would not be any downstream mental events that occur. If this failure took place in every node then there would be no source for any mental events to occur. The total lack of mental events means the lack of mental properties, and the end of subjective experience for the

patient. The mind is something special and distinct from the body, yet it is inescapably tied to the fate of the body. It is precisely this irony that has a great implication for medicine. The body could exist, in all its complexities, if the mind was somehow eliminated, but the converse is not true. This puts minds in a fragile position, a pane of glass waiting to be shattered whenever its delicate support gives way. The mind relies on specific parts of the brain for its existence.

Preservation of the mind can be a difficult business. It requires that the body function well enough to keep the neurons that produce the mind alive. It is the purpose of many jobs in our society, either directly or indirectly, to maintain the existence of minds. Through various means we work together to promote well-being and sustain life, and this all has a downhill effect of preserving minds. There is one profession in particular that allows minds to exist by preventing and treating injuries to bodies. This job is medicine.

Medicine involves an understanding of human physiology to the extent that when things are abnormal the pathophysiology can be elucidated and at least alleviated. In other words, medicine aims to treat or prevent the illnesses of the body. This also has the effect of keeping minds healthy. Doctors and medical professionals have the specific training required to tackle the difficult problems of human pathophysiology, however they are still working towards the same goal as most of society, namely to maintain bodies in order to preserve minds.

There is much more to medicine than just the preservation of minds. Reducing unpleasant mental properties like pain is one such thing. At a minimum, all of the things that medicine can work towards require the mind to be functioning, therefore medicine also requires the parts of the brain that produce the mind to be functioning as well.

In any case where the mind no longer exists, it would not be medicine to treat the physical illnesses of the body, no matter how damaged. Since the mind depends on certain parts of the body for its existence, there are two scenarios in which the mind can lose its function. Either the mind is absent for some reason even though the biology is functioning normally, or else the parts of a patient's biology that are crucial for the mind to exist cease to function. The former scenario is strange, more theoretical, and could be referring to a 'zombie'<sup>7</sup> for which there is no good reason to assume exists. The latter scenario, on the other hand, arises frequently and reveals the most interesting conclusion that epiphenomenalism has on medical ethics.

There are probably specific parts of the brain that are required to be functioning in order for the human mind to be functioning. If there are patients in whom it can be determined that these parts of their body no longer work, then it can be concluded that their minds no longer exist. In this tragic type of patient, it would not be considered medicine to treat the illnesses of the body.

What I mean when I say *it is not considered medicine* is that it is not part of the duties required by the medical profession. Medicine, like anything else, must have its boundaries. Before this line is crossed, the day to day bedside care, the physical exams, the treatment strategies, and all those things we relate to medicine are medicine, however once the patient has crossed that line then all these same things are completed for a different intention and can no longer be considered medicine.

That is not to say that to continue such care after a patient has tragically lost her mind is always unethical. Whether it comes from a living will directly from the patient, from the surviving family, or any recognized proxy, if it is the patient's will to receive care in this state then patient autonomy can be respected. It should be understood, however, that when doctors are acting in this manner with such a patient that they are not working as physicians, since this is not medicine. Rather, they are just being people, trying to respect others in society.

On the other hand, if a patient reaches that state and it is her surrogate's desire to restrict care, then at least there is a philosophical grounding, consistent with the intention of the rest of medicine, that promotes such a decision. It should be understood by the medical provider that if a patient has been injured in a way that she has lost the capabilities of the mind, then the care of this patient falls outside the realm of medicine and there is no obligation to continue this care.

This conclusion creates at least two solutions that can be applied to real world problems. The first is that it provides a sound philosophical grounding for making decisions to hold or withdraw care. When a patient has lost the capability of having a mind then a decision to allow that patient to pass can be made with confidence and is based off of concrete reasoning.

The second conclusion aids in the decision making process for these patients. From the perspective of the physicians and the hospital, it can be difficult to draw a specific line where medical futility begins and the duty to treat that patient ends. I suggest that an important aspect of this demarcation should be whether or not a patient has a functioning mind. Additionally, the absence of a mind can be suggested from physical pathology to the human body due to the epiphenomenalist description of mind-body dualism mentioned above. For instance, if we can figure out exactly what parts of the brain are responsible for creating the mind and can measure whether they are irreparably damaged or not, we could use this information to decide if medical treatment can continue. This position can be adopted by law, professional guidelines, hospital policy, or personal discretion of the physicians taking care of a patient.

The real world applications of this rule may only apply to certain esoteric situations in which specific areas of the brain are known to be irreparably damaged. Consider a patient that has lost all cortical function and maintains only some brainstem function such that she can breathe but cannot react to the environment in any way. In addition to the cessation of cortical function which is likely responsible for the mind, there is evidence of irreversible ischemic damage to the parts of the brainstem that could reasonably be associated with the mind. The family, while dealing with the grieving process, has decided to withhold care and allow the rest of her body to die with her mind. The difficulty does not arise in whether or not to agree that this is the correct course of action when it is the family's will. The difficulty arises in trying to reconcile, from the medical perspective, the arduous attempts to keep this patient alive and the sudden decision to stop. What has changed from a philosophical position? What is the crucial difference in this patient that has allowed the ethical position to change so drastically? Using epiphenomenalism in the way I have described leads to understanding that crucial difference. She has lost the ability to have a mind, and since medical care must be defined as the attempt to cure the body for the sake of the mind, without a mind there can be no medical care for this patient.

This conclusion should not lead to any sweeping generalizations about any specific group of patients. It is important to consider every individual case by case without biasing the decision based on common nomenclature such as 'persistent vegetative state'. The appropriate medical decision making pathway should entail an evaluation as to whether this patient has a functioning mind or if there is a possibility of regaining a functioning mind. Once this tragedy has been diagnosed, there is a philosophical grounding if it is decided to remove life support from this patient. Additionally, with this understanding of medicine through epiphenomenalism, the physician can have a sense of self-understanding that can make coping with the decision to let a patient go more bearable.

Epiphenomenalism, like all forms of dualism, is not a very popular philosophy in the 21<sup>st</sup> century, but as I have shown it turns out to have an unexpected application in medicine. This should not be completely surprising because the philosophy of mind-body dualism mirrors the complications of subjective and objective patients that make medicine so complex and wonderful. If minds are understood as distinct from, but a consequence of, the physical world, then changes in the world can damage them. The mind, being the aspect of the person that is trying to be saved, once lost, represents a boundary that demarcates where true medicine cannot go. Tragedy strikes us all, at some time or another, but for some it is reassuring to enter such events with a mindset based on philosophical reasoning.

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