

Dennett's Reduction of Brentano's Intentionality

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Since as far back as the middle ages, philosophers have been concerned with the inner representations of the mind. St Thomas Aquinas suggested that when he thinks of an object, the object of his thought has a different sort of existence in his mind.¹ Indeed, there certainly *seems* to be a difference between physical phenomena and mental phenomena but merely *seeming* like there is a difference is not enough to show that there *is* a difference. In this paper I will compare two different approaches to the supposed distinction between the mental and the physical. First I will outline Brentano's theory of 'Intentionality', which, in its early formulation, proposes a true distinction between physical objects and the objects of thought. I will then introduce Daniel Dennett's 'Intentional Systems Theory'. Dennett's theory is an attempt to naturalise the mind and to reduce mental phenomena such as beliefs and desires to simple physical systems.

1. Brentano's Intentional Inexistence

During the nineteenth century there was a division between the *realist* and *idealist* ways of thinking. The *realist's* believed that a real world exists and is independent of our thoughts while the *idealist's* held that the only objects to which we could have access are our own ideas and thoughts. We construct a representation of the world through presentations. Brentano agreed, in part, with the idealist notion of presentations and accepted that they are central to mental activity. From this starting point he developed his theories of intentional objects and the object directedness of mental acts.

Brentano makes a distinction between the mental and the physical which is based on the idea that mental states involve presentation. For Brentano, the presentation involved in mental states is directed towards an object, and furthermore, *every* mental act is directed towards such an object. Brentano also states that this object directedness is exclusive to the mind and that nothing else that exists can display this sort of object directedness. The objects of mental states are called *intentional objects*

and they *inexist* in mental acts, hence the term *intentional inexistence*.² Intentionality simply means 'to be directed on something', and in the case of mental acts, it is the object of presentation which is being directed upon. One of the features of Brentano's intentional objects is the idea that they may have vastly different properties to their counterparts in the physical world. For example, imagine seeing a Porsche on display. Mentally you attribute to it all the properties that you would expect such a car to possess. The intentional object of your mental state would be a fast, well designed German car. However, it could be possible that the real world particular that you are looking at is in fact a life size model with no engine and made of fibreglass. It is clear that in such a case, the intentional object of your mental state would be vastly different from the particular that you see on display. Even if the physical car was real, it is unlikely that the intentional object would fully resemble it. The real world car is fully determinate in its properties. This is to say that it has a complete set of properties including its colour, weight and the number of screws holding it together. It seems unlikely that the object that you mentally intend would contain such a completely defined set of properties. Intentional objects only have those properties that are mentally attributed to them and as. It is improbable that an intended car would contain the same number of screws as a real world particular.

A further feature of intentional objects is that they do not require corresponding particulars in the world. It would be possible for me to have a mental state that is directed towards a Porsche even if there were no Porsches in existence. I could not drive a Porsche if there were no physically existing Porsches for me to drive, but I could *desire* a Porsche without there being a physical Porsche for me to desire.

The fact that intentional objects need no physical counterpart may be made clearer by considering music. Brentano's theory states that *all* mental acts involve presentation and object directedness. When we think of a piece of music, it has intentional inexistence. It is the intentional object of a mental state, yet music has no existence in the real world. Granted, there are vibrations of molecules in the air which vary in wavelength and frequency, but this is vastly different to the intentional object that inexists in the mind. I can seem to hear a song playing in my mind even when there is no physical sound presented to me. In fact even when I am listening to a song, the object of my mental state does not in the slightest way resemble anything that exists in the physical world. Intentional objects have their own existence and for Brentano, they are entities in their own right.

2. A Close Look at Brentano's Central Claims

Brentano's thesis provides us with a way of thinking about mental representation and the difference between mental objects and physical

objects. The problem, as we will see, is that Brentano is making some very strong claims about the nature of minds and mental properties. These claims are primary to his thesis, but lead to trouble in characterising exactly what a mental state is - if not physical.

The first central claim of Brentano's thesis is that *all* mental phenomena exhibit intentionality and that mentality is *sufficient* for intentionality.³ To question this statement we need to think of a mental act which does not exhibit intentionality or object directedness. Let us consider pain. Pains do not feel representational like other thoughts because they are just feelings. In fact, Michael Tye has suggested that mental states such as pains and itches are not obviously representational at all.⁴ But this claim could be disputed by considering whether or not pains have object directedness. The answer to this question would seem to be yes. Pains feel as if they come from certain parts of the body and we can certainly form beliefs and desires about the pains we feel. A pain in my foot is represented as being in my foot and as such it is directed towards something. If we consider intentionality as directedness on something, it seems that pains cannot be used as an example of a mental act which do not exhibit intentionality.⁵

The second claim central to Brentano's thesis is that mentality is *necessary* for intentionality. This is to say that *only* minds can exhibit intentionality. In order to refute this statement, we must find an example of something that has intentionality but is not a mind. A possible example are written sentences. Sentences certainly represent things and therefore must have intentionality, and since sentences are not minds, they could be an example of something that has intentionality in the absence of any mental state. A possible reply to this would be to make a distinction between *original* and *derived* intentionality. The author of a sentence exhibits the original intentionality while the reader of the sentence derives the intentionality from the written words. The author of a sentence has intentionality and communicates this to the reader via ink and paper. A written sentence itself does not exhibit intentionality just as soundwaves do not exhibit intentionality when someone is vocalising a thought to another person. I would suggest that sentences, or any other form of communication, do not have intentionality or object directedness in Brentano's sense of the word. Computers, on the other hand, may be an example of a non-mind that exhibits intentionality. Computers often contain internal representations of objects in the real world. I could plug a video camera into my computer and have it display the picture on the screen. This picture can be saved on disk in order to be displayed at another time. This is accomplished by the computer constructing a symbolic representation of the picture through the combinations of a finite set of symbols. The computer's internal representation would be directed towards an intentional object, yet computers do not have minds. We could extend the example even further by considering less sophisticated artifacts such as thermostats. These devices certainly embody information *about*

room temperature and as such, could be considered to be simple intentional systems.⁶ Examples such as these point us to objects that are not minds and yet seem to exhibit representational states and object directedness. We could, however, claim that computers and thermostats are examples of systems that exhibit derived intentionality much in the same way as a written sentence contains derived intentionality, but then we must ask: where did this derived intentionality come from? The obvious answer to this question would be to suggest that the designers of these artifacts had original intentionality, but as we will see, this suggestion will also lead us into problems. We still do not know exactly what it means for something to have original intentionality.

3. Brentano's Change of Mind

Brentano's theory has been very influential in twentieth century philosophy, however, he eventually started to doubt the implications of his theory. Brentano decided to distinguish between *things* and *non-things*. He stated that a thought could only be directed towards a *thing* (a concrete real world particular). Brentano claimed that everything that exists is a *thing* or *entity* and that only *things* can be the objects of any mental activity. Furthermore, Brentano tells us that if there is a thing to which an object of thought is directed, then that thing is *identical* to the object of thought. At this stage it seems that Brentano is no longer making a distinction between the intentional objects of mental acts and the physical things which correspond to them. Does Brentano now claim that intentional objects are *things* in the same sense as particulars are *things*? I cannot see how an object of thought can be *identical* to its real world counterpart. The real world object is composed of matter and has mass. It is determinate in its properties while objects of thought do not have these qualities. They are less defined and less vivid. The mentally intended object may have as little as one of the properties of its physical counterpart. We must also consider objects of thought that do not exist in the real world such as imaginary cars, or fictional characters like Sherlock Holmes.

Brentano's original theory showed us that objects of thought have an existence which is different to real world existence. This meant that we could sensibly talk of non-existent entities. Brentano's updated theories seem to be less intuitive and hard to follow.

Daniel Dennett takes a slightly different approach to the problem of intentionality and, as we will see, his approach offers us a way to remove the distinction between the mental and the physical that Brentano grappled so hard with.

4. Dennett's Intentional Strategy

Humans spend much of their lives talking about beliefs and desires without really knowing what beliefs and desires actually are. As we have seen, Brentano claimed that beliefs and desires have an aboutness or intentionality. This is to say that they must be directed towards something. For Brentano, we can have beliefs and desires about things in the world and about things that do not exist. He qualified this claim by supposing that our internal representations of the world involve objects that inexist within our minds. This line, however, gave rise to the problem of the object directedness of non-mental phenomena such as written sentences and the representational states of artifacts such as thermostats and computers. A possible way to overcome these problems is to make a distinction between original and derived intentionality. However, this leaves us open to the question: where does the original intentionality come from? As a first step in offering us a different approach to intentionality, Dennett examines the notion of beliefs and desires. Dennett claims that we can only discern beliefs in complex systems if we adopt a certain predictive strategy. If our predictive strategy works, then we can claim to have confirmed the existence of a belief. Dennett calls this strategy the *Intentional Strategy*. To use this strategy, Dennett tells us that we must treat the system whose behaviour we want to predict as a rational agent with beliefs and desires, which exhibit Brentano's intentionality. There are, of course, other methods of predicting the behaviour of a complex system, but as we will see, the intentional strategy is the most effective. Suppose a person, say Jane, receives a phone call from a friend. Her friend tells her that she is flying to town from New York and needs to be picked up from the airport at 4pm on Thursday. There are three ways to predict Jane's subsequent actions. We could use what Dennett calls the *physical stance*, which would involve analysing the laws of physics. To do this effectively, we would need to have a complete knowledge of the present state of the universe, and then apply a complete knowledge of physics to this knowledge in order to discover future states of the universe. If our knowledge was complete, we would be in a position to make an extremely accurate prediction of Jane's behaviour. Now, in principle, this strategy would work but it is obvious that in practice this task would not be successful.⁷ The computational work involved in making such predictions would be astronomical. The physical strategy may work for predicting the activity of extremely small systems but making a prediction about Jane's movements would involve too much work.

As systems increase in complexity, it is necessary to adopt higher levels of predictive strategy. For example: if we wish to predict the behaviour of an alarm clock, we could adopt the *design stance* by which we determine exactly what the system is designed to do. We do not need to appeal to the laws of physics to understand the behaviour of an alarm clock because we know that it has been designed to perform certain functions. This

approach can be used to predict the behaviour of computers, plants, small animals and individual human organs such as kidneys and hearts. Of course, this strategy would probably not help us to understand Jane's behaviour because we do not have a complete understanding of what the brain's sub-systems have been designed to do.

The physical and design strategies are useful tools for predicting the behaviour of some systems and in principle it is even possible to use these strategies to predict human behaviour. But it seems that if we were to use these methods, we would be left with an un-answered question: What are beliefs and desires, and how do these mental states exhibit 'aboutness'? Dennett believes that in order to predict the behaviour of humans, there is higher level strategy that we can adopt. This is what Dennett calls the *Intentional Stance*.⁸ To use this strategy, we must treat the system whose behaviour we want to predict *as if* it were a rational agent with beliefs and desires. For example: in order to predict Jane's behaviour, we consider her beliefs that:

- 1) Her friend arrives in town at 4pm
- 2) In traffic it takes 15 minutes to get to the airport.

We also consider Jane's desire to pick up her friend on time. Armed with the knowledge of these beliefs and desires we can predict that Jane will be at the airport at 4pm on the designated day. It is important to note that for Dennett, we are treating Jane *as if* she has these beliefs and desires. Dennett suggests that by attributing beliefs and desires to an agent we can accurately predict that agent's behaviour but this is not to say that these beliefs and desires actually exist. Beliefs and desires are nothing more than a useful predictive tool. In fact, one of the ways Dennett wishes to naturalise the mind is to somehow remove the distinction between the mental and the physical by attempting to undermine the notion of beliefs, desires, pains, and the self; and by refuting the idea that entities can *really* have intentionality rather than merely behaving *as if* they have intentionality.⁹ For Dennett, there are major problems with the idea that entities can really have intentionality. These problems stem from the supposed distinction between *original* and *derived* intentionality. As I described earlier, the distinction between *original* and *derived* intentionality can be discovered when we think about written sentences. When we consider written sentences, we find it obvious to assume that the intentionality or 'aboutness' of those sentences is derived from the author of the sentence and it was the author who had the original intentionality. How else could we derive intentionality unless some intentionality was original and underived? For Dennett, this thought leads us to an infinite regress. It would seem that to explain the intentionality of the sentence's author, we must discover where her intentions came from. Once we discover the source of these intentions, we must search for the source for the source of those intentions. Dennett describes the problem by suggesting a useful analogy:

*"... every mammal has a mammal for a mother - but this implies an infinite genealogy of mammals, which cannot be the case. The solution is not to search for an essence of mammalhood that would permit us ... to identify the Prime Mammal, but rather to tolerate a finite regress that connects mammals to their nonmammalian ancestors ..."*¹⁰

Dennett believes that a solution to the problem of intentionality is straightforward. To explain the intentionality of a system, we simply have to decompose the system into many, slightly less intelligent, subsystems. These subsystems can also be broken down into many more less intelligent subsystems. We can continue to break up these larger systems until eventually we find ourselves looking at individual neurons.¹¹ The point is that the intentionality that we seem to have has been derived from the collective intentions of many smaller elements, which in turn derive their intentionality from even smaller elements. Consider once again a written sentence that gets its derived intentionality from the agent who wrote it down. According to Dennett, this sentence would have the same derived intentionality if it were not written and simply held in the memory of the agent who created the sentence. The intentionality of such a sentence is exactly as derived as it would be if it had been written down.¹² The same claim can be made for mental images. My mental image of a Porsche is 'about' a Porsche in the same derived way as a picture that I could draw of such an object. I think that Dennett has made a good move by considering the brain to be a system comprised of many separate subsystems. It offers us a way of naturalising the mind and removing some of the mystery of intentionality. Rather than having this property called original intentionality, we have a physicalist account of the brain, which as a whole contains the derived intentionality from the collection of less sophisticated derived intentionalities of the many separate systems that comprise it.

Despite this move, however, we still have an unanswered question. How do we explain the intentionality of the individual neurons? Simple objects such as thermostats can have their derived intentionality described in terms of the intentions of their designers, but neurons were not *designed*. Does this mean that neurons have original intentionality? I think Dennett would say 'no!' When we wish to discover where the intentionality of a thermostat comes from, we look for its creator. The same is true of individual neurons. We have to look to the creator of the brain. In other words, the intentionality of our brain states is derived from the intentionality of evolution by natural selection.¹³ Dennett suggests that we are composed of many simple automated systems which have evolved from a very simple ancestry. These simple automated devices only exhibit very simple intentionality, but they have given rise to the very complex derived intentionality that we, as complete systems, exhibit.

"We are descended from robots, and composed of robots, and all the

intentionality we enjoy is derived from the more fundamental intentionality of these billions of crude intentional systems." ¹⁴

This type of reduction has been a very common theme in much of Dennett's work and I think that his ideas are sound. Dennett has taken a problematic, high level phenomenon and has decomposed it into simpler subsets of the whole. These less sophisticated systems have in turn been decomposed into more simple systems. He continues this process until he finds himself left with something that is so simple, it is hardly mysterious at all. The simplicity of intentionality at the most basic level of design is analogous to the intentionality of a key fitting a lock, which for Dennett is hardly mysterious.

5. Conclusion

Brentano's attempt to explain the object directedness of mental states such as beliefs and desires was intended to account for the supposed difference between physical phenomena and mental phenomena. He wanted to show that mental states alone exhibit intentionality and object directedness. The problem is that we found examples of non-mental things that seem to exhibit intentionality. A way around this was to make a distinction between original and derived intentionality - humans exhibit original intentionality, which artifacts exhibit derived intentionality. But, as Dennett pointed out, it is not clear that humans actually *have* original intentionality. Dennett qualified this point by showing us how to deconstruct the human brain into many simple subsystems, which all exhibit a more basic and fundamental type of intentionality. Dennett's method gave rise to a regress of increasingly less sophisticated systems until the problem of intentionality became almost trivial. By doing this, Dennett has given us a physical account of the intentionality that we seem to have, and has given us one possible way to remove the distinction between the mental and the physical.

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