

§ 10. Doctrine of Man

Lecture 11

A Challenge to Dualism-Interactionism – The Libet Experiments

Good morning, and welcome to Defenders class. As you can see, we are meeting under rather unusual circumstances this morning. Because of the coronavirus epidemic, we can no longer meet together as a class. The church where we normally film the class is also closed so we can't even record. But we are not going to be overcome by this virus. We are going to find a way around it. I am recording today in the safety of my home office. We will be broadcasting this worldwide to our Defenders audience that follows us every Sunday morning.

In our most recent lesson, we discussed philosophical arguments in support of dualism-interactionism with regard to the soul. Today I want to consider a challenge to dualism-interactionism arising from some fascinating experiments performed by a brain scientist named Benjamin Libet. He conducted a series of experiments in which people were instructed to press a button with their finger when he monitored their brain activity. What Libet discovered was that prior to a person's awareness of his decision to press the button, a brain signal had already occurred which later resulted in his finger's moving to press the button. So the sequence of events goes like this:

1. There is a brain signal about 550 milliseconds prior to the finger's moving.
2. There is an awareness of the decision in consciousness which occurs about 200 milliseconds prior to the finger's moving.
3. The finger moves and presses the button.

So the brain signal actually occurs prior to the act of consciousness in which one is aware of the decision to press the button.

There is no consensus concerning the interpretation or the significance of Libet's experiments. But as you can imagine, some people have taken this to be proof of determinism or even materialism because before the awareness to press the button even occurs, a brain signal has already been sent to make the finger move.

But such an inference would be overdrawn. In a second run of experiments, Libet discovered that even after the awareness of the decision to press the button had occurred, people still retained the ability to veto the decision and not to press the button. So they still retained the ability to refrain from the decision that had earlier been made. Some interpreters therefore take this brain signal to press the button to indicate merely a readiness potential which the patient may either then go along with or may veto. So the bottom line is the person still has control over his decision. Libet himself considered his experimental results to be fully compatible with the existence of free will.

The more fundamental point, though, to be made about these experiments, which struck me very forcefully as I reflected on these results, is that this is exactly what the dualist-interactionist should expect to happen. For the dualist-interactionist, the soul or the mind doesn't act independently of the brain. Rather, as Sir John Eccles, the Nobel Prize-winning neurologist whom I mentioned earlier in this course, has pointed out, on a dualist-interactionist view the soul uses the brain to think as an instrument for thought, just as a pianist uses a piano as an instrument to produce music. So of course the soul's decisions are not simultaneous with the soul's awareness of those decisions – how could they be? Given the brain's reliance upon finite velocity neural signals in order to think, the soul could not have a simultaneous awareness of its decisions. Rather, given the soul's reliance upon the brain and the finite velocity of neural signals, there has to be a time lag between the soul's decision and the soul's conscious awareness of that decision. In Libet's experiments, since the relevant neural signals travel at finite velocities, of course it takes a little time for the soul's decision to come to conscious awareness. This is exactly what we should expect on a dualist-interactionist view of the soul and the body.

The German philosopher Uwe Meixner, who is a dualist-interactionist, has this to say about Libet's experiments,

For making an informed decision, the self needs to be conscious of the facts relevant to the decision prior to making the decision; but . . . the self certainly does not need to be conscious of making the decision at the very same time it makes it. . . . the consciousness of a state of affairs P being (presently) the case is always somewhat later than the actual fact of P's being the case. . .¹

For example, when you are talking to another person, because of the finite velocity of light signals and the finite velocity of sound waves and the finite velocity of your nerve signals, what you are experiencing as present is always a little bit in the past. You never have an actual present awareness of what is happening around you. There is a tiny time lag due to the finite velocity of these various signals that is imperceptible to us because it is so short. So Meixner goes on to say, “it is hardly surprising that the consciousness of making a decision is no exception to this general rule, which is due to the dependence of consciousness on neurophysiology.”

I want to emphasize that on this understanding the soul's decision is not unconscious – it is conscious – but it just takes a little while for that decision to become conscious, due to the finite velocity of neural signals. Just as we never see anything that is actually presently there because of the finite velocity of light but see events as they are just

¹ Uwe Meixner, “New Perspectives for a Dualistic Conception of Mental Causation,” *Journal of Consciousness Studies* 15/1 (2008): p. 25

slightly in the past, in the same way we don't have a consciousness of our own decisions simultaneously with our making them but we have it unnoticeably afterwards.

If therefore the soul has the ability to think without being causally determined, then, as Meixner says, all it needs to do in order to make responsible, informed, free decisions is consciousness of the relevant facts prior to its making a decision. And it has that. But the soul doesn't need to be aware or conscious of the decision itself simultaneously with its making that decision in order for the decision to be responsible, informed, and free.

So in response to Libet's experiments, it seems to me that they are exactly what we ought to expect if dualism-interactionism is true. The soul uses the brain as an instrument for thinking.

We now come to our second topic of discussion which is trichotomy versus dichotomy with respect to human being.

Let me say just a brief word about the debate over whether human beings are dichotomous or trichotomous in their composition. That is to say, are we as human beings composites of body and soul or are we composites of some other entity as well, for example, body, soul, and spirit, as some verses in the New Testament seem to suggest? This question is somewhat academic, since the fundamental question is whether in contrast to anthropological monism we hold that there is an immaterial constituent in man in addition to the body.

As for dichotomy/trichotomy, it seems to me that there isn't any sort of strong and consistent distinction in Scripture or philosophy that can be drawn between the soul and the spirit. If you press this kind of language to give you a different ontological reality – a substance “the spirit” which is different from the soul –, then I think you are going to proliferate entities unnecessarily because the Scripture also talks about things like “the heart” and “the mind” and “the inner man.” If you press the language in Scripture about “spirit” then what about these other entities as well? You are going to get human beings as composites of all sorts of things.

Rather, I think it is best to see the difference between soul and spirit as a functional difference. The soul insofar as it functions in relation to God can be called “the spirit,” and the soul in its everyday functions as a rational agent in the world can be referred to as “the soul.” So we do have a spiritual dimension to our lives in which we relate to God, in which we know God, in a way that mere animals don't, but I don't think that needs to be cashed out in terms of saying there is an additional thing of which we are composed. Rather, this would represent merely a different function of that immaterial part of our being in relation to God.

So it seems to me that a basic dualism-interactionism – soul and body – is adequate both philosophically and biblically.

Thank you for being with us this morning. The next time we meet, we will move on to the topic of the origin of the soul. Meanwhile, stay safe!²