HOW LUDWIG BECAME A MAN OF METAL[1]

Jonathan Harrison

The story of the preceding article continues. . .

Smythson could not rest with demonstrating among other things that the homunculus objection to the view that we saw things by means of representations was false. He now decided that it would be necessary to improve the effective but extraordinarily cumbersome visual apparatus that he had bestowed upon Ludwig. He could make this more elegant if he could manage without both with the television receiver and the eyes now directed upon it, and send messages from the camera directly to the visual centres of the brain. An advantage of doing without Ludwig's original eyes was that, partly as the result of a narrow-minded ban on the sale of human organs, it was difficult to get replacements for organic eyes; pigs' eyes, despite the similarity of their owners to people, would not do.

Smythson constructed a cable to link a camera directly to the end of the optic nerve, thus eliminating both the need for eyes and the need for anything like a television receiver. The cable would enable the camera to produce exactly the same modifications to the visual centres of the brain that were formerly produced by Ludwig's eyes, which meant that Ludwig saw things more or less as he had when he still had eyes. Ludwig's brain, all that was left of Ludwig's body, was still able to receive messages from his limbs and control his (now metal) muscles, including those extra muscles that Smythson made to enable Ludwig to focus the camera on whatever he wanted to see.

For a short while this arrangement worked wonderfully. But the regions between the inorganic brain cells at the end of the cables from the camera and the organic brain cells in the optic centres of the brain degenerated rapidly,

doi:10.1017/S147717560800033X
Think 21, Vol. 8 (Spring 2009)

as did the regions between the organic brain and the inorganic nerves leading to and from Ludwig's muscles. Smythson realised that the only way to overcome the difficulties he had at the two interfaces, especially those involved in controlling the camera which was what Ludwig used for eyes – was to undertake what was, even to a man of Smythson's brilliance, the enormously difficult task of replacing Ludwig's entire brain with an inorganic substitute. However, Smythson overcame these difficulties with an ease that surprised even a man with as much hubris as he had. He replaced the cells in Ludwig's old brain with metal counterparts. It then became relatively easy to link Ludwig's nerves to Ludwig's now inorganic brain. In case he had further use for Ludwig's old brain, Smythson, by replacing the organic brain with the inorganic one bit by bit, transferred Ludwig's organic brain to a case – indeed, to the same case in which Ludwig had started his career as a disembodied brain. Bearing in mind the ship of Theseus, from which parts had been replaced one by one and reassembled in a new ship exactly similar to the first, Smythson was much exercised by the question whether it was the organic brain or the inorganic brain that was really Ludwig.

The success of the operation I have described made Smythson flatter himself that he would be able experimentally to disprove the sentimental view that we can feel romantic love for only one woman. He did this by making two precisely similar female brains, and by putting them in two precisely similar female bodies. He felt fairly confident that the man whom he proposed to make fall in love with them would not know which of his beloveds was which, and feel a passionate attachment to both. He was also confident that if one woman fell in love with this man, the other would too.

At this point a quasi-religious revelation brought about the complete abandonment of Smythson's original Physicalism. He had always believed that there was a God, though he wisely prevented this from affecting his behaviour. A flash of insight made him to realise that, since God

https://doi.org/10.1017/S147717560800033X Published online by Cambridge University Press

must be immaterial, there could not be one unless Physicalism was false, and his deeply religious nature made him abhor this anti-religious view. One effect of this transformation was that Smythson abandoned his opinion that what we saw consisted of physical images on physical objects – usually but not necessarily retinas – resembling a television screen, even though he had shown that the homunculus objection to this view was unfounded. He now accepted that, though perception was mediated, what in fact mediated our perception of objects could never have been physical images on our retina, for Ludwig saw very well without even having a retina. And what Ludwig actually saw did not remotely resemble either the visual centres of his original brain, or his former organic retina or its inorganic replacement. Now that he had abandoned Physicalism, he thought that reality was represented by ethereal entities that his predecessors had called impressions, ideas, representations, sensa or sense-data.

The improvements Smythson had introduced to the cameras in the sockets formerly inhabited by Ludwig's eyes made the images they produced so like those produced by ordinary eyes – indeed, these images were rather better than those produced by eyes – that, as Ludwig walked round any object, he could, with the help of memory and a sense of spatial orientation, piece together the views of this object, say a table, in such a manner as to discover that they enclosed a region of space which Ludwig, as we did, instinctively supposed the table inhabited. It was in this region – in fact a region of public physical space – that ordinary people thought that scientific objects like protons and electrons were situated. (The very same process showed that the images one sees on the screen of an ordinary television were not on the surface of the object viewed by its means, but on the surface of the screen.)

By replacing Ludwig's organic brain with an inorganic one Smythson regarded himself as the first person to have brought about metempsychosis, and in an extraordinary way. He had done it by transferring what could be

https://doi.org/10.1017/S147717560800033X Published online by Cambridge University Press

described as a 'soul' from an organic brain to an inorganic one. (Having a soul, he realised, was more like having a disposition to be sensitive to religion, goodness, beauty and truth than to be the owner of an entity.) Smythson's newly acquired Dualism, according to which there were mental as well as physical events, took the direction of Epiphenomenalism, the view that all mental events were wholly dependent on physical ones, though the converse was not true, and mental events had no power to affect physical events at all. Smythson could not see why, if brain happenings produced, but were not identical with, mental ones, it would make any difference in principle to mental experiences whether the brain happenings that caused them were organic and natural or inorganic and artificial. (This made him toy with a mind/metal identity theory, according to which 'pain' and 'current passing down a copper wire' were two different descriptions of one and the same thing, but he very sensibly rejected it.) Even though Ludwig's brain was now entirely inorganic, Smythson maintained that there were nevertheless, in addition to inorganic brain activities, still things like pains intervening between the stimulus to Ludwig's metal nerve-endings and the movement made in response. And the thoughts of even a person like Ludwig were attended with the effort of concentration, the feeling of frustration when things went wrong, the agony of disappointment when the results he hoped for did not come about, and the exhilaration of success when they did. And Ludwig could grasp intuitively the truth of certain self-evident principles, and the necessity of certain consequences following from them, whereas all an object like a computer could do was to undergo certain mechanical transformations which issued in symbols on its screen, symbols which made sense to the person watching the screen, but not to the computer. Ludwig himself, who one would have supposed would have been an authority on the matter, replied when asked that it made no difference to him whether his brain was artificial and inorganic or not; he had not even noticed the change. He knew from the inside

https://doi.org/10.1017/S147717560800033X Published online by Cambridge University Press

that he himself was not a Zombie, but he did think that Smythson might very well be one.

Though Smythson did not dare publish the fact, he decided that if Ludwig's body could be changed from an organic to an inorganic one without Ludwig's even noticing, it was even conceptually possible that circumstances might arise in which Ludwig would not notice if he came to have no body at all. His disembodiment would then not be anything like Cartesian disembodiment; he would not be without extension, but stretch invisibly through a region of space, having spatially located bodily sensations, including stomach-ache and headache and a visual field which, though detached from any eyes, resembled the visual fields of those people fortunate enough to have eyes. He would not only have phantom legs, arms, a phantom stomach and a phantom head; he would also have a phantom brain. Hume's contention that whatever can be conceived as separate – for example a headache and a head – might actually be separate, was one which Professor Smythson wholeheartedly agreed with.

Eventually the second law of thermodynamics took its toll, and Ludwig went the way of all matter. After some items of his anatomy were removed to be used as spare parts for other so-called androids, who were rapidly becoming more numerous, his body was consigned to Vulcan in a simple but moving ceremony. Nitric acid was poured over his remains, and he would never be heard of again – unless, perhaps, his creator comes to have a very good reason for re-using his other brain in its case.

Jonathan Harrison is Emeritus Professor of Philosophy at the University of Nottingham. This piece can also be read on his website, www.jonathanharrison.info.

Note

[1] I am indebted to Keith Bradbury for reading this paper and making many useful comments.

https://doi.org/10.1017/S147717560800033X Published online by Cambridge University Press