Editorial

On Mind-Brain Identity

and the Amazing Life-Expectation of Fallacies

Mind-Brain Identity has been with us for quite a while. One of the ancestors of this magazine first paid attention to it in 1971. In its pure form mind-brain identity theory states that events in the mind and in the brain are the same.

In this pure form the theory is relatively harmless, though one not-minor objection has to be made. The assumption underlying the whole discussion, that all human thinking goes on in the brain and nowhere else, is unscientific in the most basic sense that it contradicts the evidence of our senses. The exhausted runner trying to put on a final spurt as the finishing line comes in sight perhaps co-ordinates his impressions using his brain, but quite obviously thinks with his heart, lungs and legs. A pianist thinks with the fingers. What we make of shocking news has much to do with the solar plexus. Odysseus, in a very tight spot with the Cyclops, needs to think intensely—think in the sense of solving a problem. He therefore uses his thumos. This word often means something like fierce anger, but originally Movement, as of the limbs or the blood. Odysseus is thinking with the whole man in motion. When Shakespeare’s Richard III calls his former associate “the deep-revolving, witty Buckingham”, “deep-revolving” gives almost the same notion of thinking as the one attributed to Odysseus. Wit itself is originally the senses: as in the five wits. We need our wits about us when we think. Human beings, that is, think (or not) as whole persons, in a world, and the notion that a brain could be thinking if disconnected either from the rest of the body or from the world, is science fiction of the fantasy kind.

If we let that pass for the sake of the present argument, mind-brain identity is unobjectionable, though with a far narrower spread of interest than it is now taken to have. I am quite willing to believe the neurologists when they tell me that as I think, electrical / neuron activity goes on in my brain, and that the two are the same thing. If so we are, as so often, noticing two aspects. In one aspect, that of the neurologist doing his stuff, thought is brain activity.

There have been genuine scientific advances in the area of mind-brain identity. Phrenology was taken seriously by some of the Victorians who should have known better. Mr Rochester and Jane Eyre converse phrenologically as if to do so is commonplace. He tells her that she must have “a good deal of the organ of Adhesiveness”. The snag with this is that there is no experimental proof of the identities claimed. Mr Rochester might have had the
bump of benevolence without being benevolent or Jane Eyre might still have adhered without the organ of Adhesiveness. Here he just means that she has grown attached to Thornfield, and he is saying so in pseudo-scientific jargon. We shall see a modern descendant of the style. Modern neurology has certainly improved on this, and appears to have achieved the first target of identity at least in some cases. Different parts of the brain can be identified with increasingly accuracy, we are told, with different feelings, sensations or mental operations.

This is a refinement of what at its simplest everybody knows. Nobody would dispute that a person who has had a stroke, indisputably an event in the brain, may suffer speech impairment. Personality traits can notoriously be changed by brain tumours, or by the effects upon the brain of drink and drugs. It is equally uncontroversial to say that our heredity places limits as well as giving opportunities. Human beings cannot fly, for instance, having no wings. On the other hand horses are unable to do differential calculus, not having the right sort of brains. So far there is no problem.

The intriguing thing about the mind/brain is that the connection between the two aspects, between for instance some brain activity and some thinking, is absolutely obscure. It is possible to say that they are two aspects of the same thing without having any clue about the relation of the aspects. In this way mind-brain identity is unlike, for instance, the identity of certain movements of the legs and arms with the activity of cycling. If you are interested in muscular movement you might concentrate on the legs, seeing cycling in that aspect. The relation of the two aspects is not here problematic though it is worth noticing that the movement of the legs does not cause cycling, though it does cause the bike to move: it is another aspect of (part of) the activity. What the mind-brain identity theorists take as a challenge is that with mind-brain identity there is no such straightforward understanding. The driving force behind what might otherwise seem not very important is the ambition to provide one by way of explanation, and since most of the mind-brain identity theorists are materialists (that is, people who manage to say they believe that only the material is real, though belief is not itself material) they want to make the material aspect, the electricity or whatever, the basis of the explanation. (Anyone who can’t be bothered with the demonstration that mind-brain identity theorists want to explain the mind by studying the brain may skip the next few paragraphs.) Even the more philosophically sophisticated mind-brain-identity writers are unwilling to stop at identity. Without the impetus to get the brain somehow to be seen as explaining the mind the flow of publications would cease.

In a recent book Nicholas Humphrey is seeking explanatory understanding.[5] What Humphrey wants to understand by way of explanation is “phantasm, p = brain state, b”. By phantasm he means things like “the subjective sensation of redness”. This explanatory understanding will, it is hoped, be achieved by “bringing the dimensions into line”. [7] He gives the example of “visible shafts
of lightning and … corresponding electrical discharge”. [8] (The example is at least thirty years old. In the brasher days of the 1970s J. J. C. Smart boldly asserted: “When I say that a sensation is a brain process or that lightning is an electric discharge, I am using ‘is’ in the sense of strict identity. (Just as in the—in this case necessary—proposition ‘7 is identical with the smallest prime number greater than 5.’)[9] The lightning and the electrical discharge, Humphrey rightly says, are aspects of one and the same thing. We see the lightning and if we are well-enough equipped can also record it as an electrical discharge. In this case the account of the electrical discharge can give a physical explanation of the sight of the lightning. Notice that the lightning neither causes nor follows the electrical discharge nor vice versa: they are the same, in two aspects. The hope that mind-brain identity can similarly be explained leads to the determination to “set to work to brow-beat the terms on one side or other of the identity equation in such a way as to make them line up” so as to satisfy the demand for understanding of “the causal or logical principles involved”. [10] Humphrey thinks that the only way he can progress along his chosen path is to find “concepts that really do have dual currency—being equally applicable to the mental and the material.”[11] This is probably true; the problem is the apparent incommensurability of the mind and the brain which we recognise in the first place in the two aspects. But to the extent that the two aspects are intelligible I have to show that Humphrey’s path is not promising. The interesting thing about aspects is that they usually arise because we need them, and that when they do arise it is because the different ways of looking are not interchangeable. Identity is (with the important reservation we began with) true but from the scientist’s point of view trivial because not explanatory. So something has to be done to make an explanatory connection between the two aspects. In practice the kind of demand for explanation Humphreys makes always leads to efforts to provide a physical account of the brain so refined that it will explain the mind. Humphrey’s attempts to suggest what an explanatory theory of mind-brain identity might be drift, accordingly, between identity, succession in time, and cause-and-effect.

Now … when the proposal is that a certain mental state is identical to a certain brain state, mental state, m = brain state, b, the question is: do the dimensions of the two sides match?

The answer surely is, Yes, sometimes they do, or at any rate they can be made to.

Provided cognitive science delivers on its promise, it should soon be possible to characterize many mental states in computational or functional terms, i.e. in terms of rules connecting inputs to outputs. But brain states too can relatively easily be described in these same terms. So it should then be quite straightforward, in principle, to get the two sides of the equation to line up.[12]
In his next paragraph, however, in the hope of suggesting that Mind–Brain identity is like lightning-electrical-discharge identity, Humphrey brings in the word *supervene* after an initial *likewise*:

Likewise, we might one day have collected so much detailed information about Mind–Brain correlations that we can predict which mental state will supervene on any specific brain state.

Humphrey introduces this idea in order to declare it insufficient: “we might still have no idea as to the reasons why this brain state yields this mental state ….” But is is already decisively fallacious by confusing identity with sequence. Anything that supervenes is temporally later. If one term *yields* another we have not identity but a train of events. Any possible interest there may be in mind–brain identity theory depends on our keeping a good firm grasp on *identity*. The electrical discharge does not yield the lightning nor supervene upon it nor *vice versa*. They are the same.

The explanatory ambition can only be satisfied when one point of view gives a particular kind of illumination of another which will render one of the aspects unnecessary to the understanding provided by the aspect which permits the explanation. So: common salt is the same as sodium chloride, and the latter name belongs to the kind of explanation possible to chemistry, and which is not called for at the dining table or in the kitchen. Both aspects are useful in their different contexts. What the scientists cannot resist, however, is the yearning for a sort of aspect to embrace all aspects. And that invariably lapses into physical cause of metaphysical effect.

“Our sorrow, pain, grief and tears arise from the brain, and the brain alone.”[13] Well, if you have pain and tears for no reason it is possible they may arise from a brain tumour. But this isn’t quite what is intended. If they *arise from* brain activity rather than being *the same as* brain activity we are not dealing with identity. But if they are the same as, the brain activity will not explain the tears—which outside Tennyson usually need a cause or a context to be understood, not an account of brain activity.

Ages ago, “way back in” 1971, Dr H. J. Campbell offered a physiological definition of pleasure.[14] Pleasure is “what you feel when certain parts of the brain are electrically active”. The proof was experimental. Animals and schizophrenics experimented on became addicted to “inter-cranial self-stimulation”, a sort of mental self-abuse by way of the electrical stimulation of the parts that caused the feeling of pleasure. The pleasures of life are therefore pleasures because they achieve this stimulation, and the artificial stimulation is pure pleasure. Music, for instance, is seen as an instance of “peripheral self-stimulation”. It follows that whatever music stimulates best and most reliably is the best music. (At about the same period it was proposed by a Conservative “think tank” that public honours should be replaced by ecstasy pills.) The next move, so natural as to be almost inevitable, is to slip into supposing that the
brain activity induced by the electrical apparatus causes pleasure.
No: it *is* pleasure—if we so judge it. A better candidate for *cause*
would be: switching on.

Somehow during the thirty following years the cerebral-self-
stimulation apparatus has not been a best seller, and people seem to
prefer, for instance, music, or dildoes, or virtue.

Even if they didn’t, if the experiments are foolproof, there is no
way of knowing whether the patients are suffering pleasure except
by asking them. Perhaps with animals the physical symptoms of
pleasure will do instead. Perhaps the wired-up cat automatically
purr. But it is quite possible that she is purring against her will and
hating it. Human beings can report pleasureable sensations, though
that raises difficulties. Do we have a pleasureable sensation in itself,
without regard to circumstances or causes of the pleasure? and is the
sensation of pleasure brought on by a good meal or an orgasm the
same as the pleasureable sensation of seeing one’s foe outstretched
beneath the tree or enjoying the anthem at Evensong? Does the
concept of *pleasure* make any sense as a pure objective quantitative
thing? Even if it does, that is a judgement that we make. The
exploration/causation fallacy remains the same. If the inter-cranial
self-stimulation is pleasure it is on exactly the same level as the
opium pipe, which for all I know may have similar effects on the
brain. A moderate quantity of wine, I find, is a very reliable means
of giving pleasure, perhaps as reliable as this experimental wiring
up. The effects of alcohol on the brain are something found in
experience not in the brain, though this may well be a case where the
relation of brain and mind is easier to understand. For instance if the
alcohol slows up some firing of neurons, that may be the same as my
feeling relaxed. It is my feeling relaxed that is the test, however, and
which tells me what the brain is doing, not *vice versa*. If the brain
did the same things but I did not feel relaxed the neurologist would
not be able to tell me I was mistaken. And if in consequence of this
experience the wine shops renamed themselves pleasure shops they
would be liable to prosecution under the Trades Descriptions Act.
Wine will not be guaranteed to give pleasure—for instance to people
who know they shouldn’t be drinking. The physical sensation will be
fighting remorse and remorse may win.

I blush for some of the people whose arguments I am refuting but
the activities of brain and blood that constitute the blush are not as
good an explanation of the blush as the arguments.

If you prick me do I not have electrical activity in the brain? By
the mind-brain identity argument, to which only the first objection
above is being made that I also need a finger and you a hand and a
pin, my brain activity is the same as the pain I feel. It is still true that
I, not my brain, feel the pain, and you and I, not our brains, conduct
these mind-boggling discussions of the matter. And as usual Dr
Campbell’s definition will only work in reverse. When we feel
pleasure (let’s accept for the sake of argument) certain parts of the
brain are active. But the activity is only discussible as pleasure in the
ordinary contexts of human experience, not in neurology. As regards
the latter, it is only brain activity.
At this point the fallacy into which the scientists fall is so obvious and elementary that there is something shameful in having to devote attention to it and I can’t help turning over in my mind the possible explanation that there may be something wrong with their brains.

At the popular level (as it now always is) of BBC television, they think that it is somehow inherently superior to talk about the brain than about the mind. The BBC shows a picture of Professor Robert Winston, aka Branestawm, with a waving hairnet of wires and electrodes making him look like an Edward Lear drawing or a terrestrial sea-anemone, staring at a screen on which the electrical activity of his own brain is claimed to be shown in the form of squiggly lines.[15] He twiddles the knobs to pick out one wave and declares it to be an original idea. This is the screen-representation of a brainwave that occurs when the professor picks out a dalmatian from a screen of black-and-white dots; which gives us an example of what he takes an original idea to be. Well, of course it isn’t. It is a squiggle. It may be a representation of the brain-activity aspect of an original idea, but the interesting thing about aspects is that though they may be aspects of the same thing we cannot swap the ways of talking given by the different aspects. Neither the brain-impulse nor the screen nor the pop-beat accompanying the picture can declare the squiggle to be an idea, or can judge that the idea is original. Different aspects come from different contexts. In the aspect of idea we are treating the event as something to do with mind, granting it so much; in the context of wires and squiggles we are talking about the aspect of the brain, and the absence of explanation remains exactly where it was.

Though it must sound far-fetched to anyone who has not travelled in these realms of gold, some scientists do slip into thinking that a detailed account of brain activity is a somehow superior way of talking about thinking, and may explain thinking. They also are rash enough to suppose that in the not too distant future neurologists will therefore replace psychologists and philosophers. In turn that triggers one of the most haunting temptations for any human thinker: to become a prophet. It is a sure sign when a scientist takes off into prophecy, whatever the quality of the prophecy, that he has ceased to be a scientist.

A decade ago the renowned biologist Sir Francis Crick, “who was awarded a Nobel Prize for his work on DNA,” argued that “if we could explain just one aspect of consciousness, we would have gone a long way toward understanding them all.” [16] So it, but this would depend upon our understanding of what we mean by “explain”. In this case it just meant “understand the mechanisms associated with”:

So let us assume that, in the fullness of time, we do discover the neural correlate of consciousness (now referred to as NCC) … and that we also understand the mechanisms of attention, and of very short-term memory … and of how our perceptions are linked to the various levels of the motor system that plan and guide our
movements. This should allow us to understand “thinking” and other aspects of the “soul” in the metaphorical sense of the word.

Apart from the need to “unpack” understand, and a little slide with “plan and guide” (for we do the planning and guiding by means of whatever systems; the systems themselves cannot plan) the only thing wrong here is the word metaphorical. It must mean that the observed mechanisms are real, and talk of thinking, feeling, the soul and so on a roundabout and figurative way of referring to the reality, which is the event in its biological aspect. Any metaphor is the other way round. The brain can only be said to think, feel &c. by a kind of metaphor, and not in my view an illuminating one. Crick’s interestingly accurate word is correlate. Without the working brain, no speech. But the correlation is of speech with brain activity, with no causation either way. Professor Crick can observe brain activity, but that observation will not allow him to identify it as thinking, feeling and so on unless he already knows quite unmetaphorically what thinking and feeling are. And to try to do this the other way round, to begin with the brain activity and work out from that what thinking and feeling are, is unimaginable. For instance there is in principle no way of knowing what activity of the brain is the correlate of fallacious thinking. It is not conceivable that a fallacy could be proved by the observation of a brain pattern. If it could, the editor of The Times could (en principe) have spared his readers some philosophically bogus phrases by means of a brain-scan of Professor Crick or of himself. As a Times reviewer put it a fortnight later, “Crick believes in the most down-to-earth hypothesis of all: that consciousness is at any one time just a particular bunch of neurons ‘firing’.” [17] It all depends on what you mean by “just”. If you mean that the behaviour of these neurons is another aspect of consciousness you may well be right; if you expect this identity to explain consciousness you are in a conceptual quagmire from which no understanding could ever possibly emerge.

The immediate question is why distinguished work in biology should be thought to give a man authority when he writes about the mind. He submitted his argument, anyway, to the readers of The Times, who I hope for the most part judged it fairly silly. They did that (or not), quite likely making use of their grey matter, but their grey matter didn’t make the judgement any more than Crick’s grey matter initiated his silly idea. He did that and is responsible for it.

In 2003 there is a great revival, strictly akin to religious revivals, of this kind of neurology as a form of prophecy. For the second time in thirty years the Reith Lectures have been devoted to the subject. Publishers’ lists (and remainder-sellers’ lists) have many titles in the area. It seems as much a growth industry as feminism twenty years ago.

Professor V. S. Ramachandran in this year’s Reith lectures gave the example of a girl who says “Is that all?” when her man’s being in
love with her is explained as his brain doing so-and-so. (Not even his arms round her!) Ramachandran’s retort was “But that’s real: he really is in love if his brain does these things!” So it’s the brain activity that tells us the love is real, and if she wants to make sure he has to undergo a brain-scan? A little screen should accompany the couple to the altar rail for the marriage vows to make sure they love each other? “Will you love her” to be answered by a squiggle on the screen? I am in sympathy with the disappointed girl, but if I were the man I would tell the professor he doesn’t know what he is talking about.

Another team of professors has recently “found out why it ‘hurts’ to lose someone we love,”[18] the explanation being that in the cases both of pain and of bereavement there is “activity in the anterior cingulate cortex, the area that becomes active when the body experiences physical pain”. This why is entirely bogus. The possible interest is that in our experience we do make connections between physical and emotional/moral hurt. This, of course, everybody knows already. The brain behaviour does not prove what we already know. It simply gives another bit of curious information about mind-brain identity. From the brain’s “point of view”, if this experiment is accurate, the feeling of loss and the feeling of pain are actually the same. Well, we know that there are connections and similarities, but if the scientists try to tell us that the brain tells us that the two are just the same, what we learn is that either the brain or the scientists or both are stupid. The test of the “explanation” remains in what we already know, not in brain behaviour. In this case the loss which experimentally “triggered” the pain was being “excluded from a computer game by other players”. If the subjects were foolish enough to think of that as a “stunning” loss, and if their brains concurred, it only goes to show what fools these mortals be.

Explanations come in with malfunction. Perhaps if we don’t feel obvious pain something is wrong with the brain. Perhaps also if we are oversensitive. But if we do not feel emotionally shocked (by being excluded from a computer game or whatever) when we “should”, the judgement that we should cannot come from the brain. Some people can be cured of odd behaviour by drugs that affect the brain. This does point to identity (not cause and effect) but the remedy is only applied because of a judgement about behaviour not, for instance, because of pain in the brain. “I can’t remember”. The explanation may be that a bit of my brain isn’t working. But that is an explanation of not remembering. There is no analogous explanation, by way of appeal to the brain, of what memory is, for memory belongs to the mind not the brain. (The talk of the “memory” of computers, with no inverted commas, has much to answer for.)

In the last of his Reith lectures Professor Ramachandran mentioned religion and freedom of the will, both as caused by certain developments of the brain which are in turn explained by evolution. Would neuroscience replace aesthetics and theology? Professor Ramachandran was asked. Yes: because it will explain their subjects as brain activity. Nobody from the ranks of picked and
famous questioners asked: “Professor R, have you been giving us this lecture or was it your brain?” or made the elementary point that if you have a question in aesthetics or theology you may, if so inclined, and if a neuroscientist, have a look at what is going on in the brain as you ask the questions—but that the latter throws no light on the former. There is no sense in saying that the brain raises questions in theology, and less than no sense in expecting a neurologist qua neurologist to have anything to contribute to theology.

If there is a question in aesthetics and—somehow—the exact brain activity is identified that is the brain aspect of the thinking, for instance the brain “lighting up” strongly for Shakespeare and less strongly for soap (or vice versa), the understanding of what has happened will only be found in aesthetics. The question you started with remains an aesthetic question, not a brain question. What if your brain lights up aesthetically for the Spice Girls? Will the brain be thought to have proved that their music is really not rubbish after all? Only if (in the mind) you make the self-contradictory judgement that only the brain is real.

Literary criticism consists of disputes. Is there then a part or function of the brain for disputes? But they only make sense within the discussion, not within the brain qua brain. It makes no sense to say that the brain makes sense. You could do encephalographs of bird-brain activity without any insight whatever into the consciousness of birds.

If explanation could apply at all it would have to be the other way round. Causation in either direction denies identity, but the idea of brain activity being directed and controlled by the mind might at least make sense. It could intelligibly be argued that our thinking is making the brain do so-and-so, whereas the idea of brain activity’s causing mental activity makes no sense at all. (The locus of the no sense is the mind: sense and nonsense are both concepts to do with the mind not the brain.)

Humphrey hopes “that there is a prism awaiting discovery that will do for the Mind–Brain identity what Newton’s prism did for light—a prism that will again send the philosophical doubters packing”.[19] He overlooks a difference between light and the mind. In the case of the prism the scientific discovery allowed an analysis of light which developed the scientific understanding of light. All the aspects and understandings however are found in the mind. An effort to produce a “prism”, a third way which unites and explains two aspects one of which is the mind, runs into the difficulty that it itself could only be understood in the mind. And so ad infinitum. This prism would not be explanation, it would be infinite regression. It is always assumed that the “computational account”[20] will explain the mind. But outside the mind there is no explanation of anything. The computational account itself would have to be understood in the mind.

To go back to Jane Eyre for a moment: she is quite intelligible when she orders her brain to find a reply to an urgent question.[21] Some people do literally beat their brains. But it makes no sense to
try to imagine one part of the brain suddenly taking upon itself to order another. (Who is imagining here, the brain?)

And what if it’s someone else’s brain?—the products of which come to you by way of language or other communication and which after all are another necessary condition for thinking, like the existence of living human beings. What you understand is the communication not the brain activity and it adds nothing to say that your brain understands it.

Or is it all that different with “electronic brains”, as computers used to be called? You type in some complicated arithmetical question and the computer instantly supplies the answer—to you. There is no sense in saying that the computer answers itself. The computer has only the brain-like activity. The human being supplies the understanding of the upshot. (Or perhaps the computer is conscious but, poor thing, has no way of either expressing itself or exercising freewill. If it is conscious there is no way of knowing. But perhaps this is the explanation of the unpredictable behaviour of computers: they are really alive?)

Talk of the brain when the mind is meant is at best very roundabout. In Professor Branestawm’s series, still in progress, people constantly use long phrases about their brains when they really just mean thinking or feeling. The first programme followed the progress of a middle-aged woman training to be a midwife (an illustration chosen, presumably, to allow the obligatory scene of a live birth). The question was “Has her learning reshaped her brain enough for her to make it as a midwife?” That is just a pompous and long-winded way of asking whether she has learned enough. (Identity is still lost. Her learning—if they are right—is the same as the reshaping of her brain, not the cause of it.) Learn goes straight to what happens, the neurological phraseology gets there if at all by way of an aspect not here relevant. It is the thinking or feeling that is real and which raises any questions there may be about brains.

“Millions of new pathways will have to be created between neurons in her brain” just means “she will have to learn a lot.”

H. G. Wells, the prophet of modern scientism, does write about his brain as if that is a good way of writing about himself. “The brain upon which my experiences have been written . . .” the narrative begins and he goes on to give some physiological details about his brain, to suggest that after his death an autopsy could be performed on it, and to mention with some envy “the full and subtly simple brain of Einstein . . . the abundant and rich grey matter of G. B. Shaw . . . or my own eldest son’s fine and precise instrument.” But then “instrument” implies a player. Wells talks about his and other brains like this: brains don’t have friends and relations. On the title page appears, as usual, “H. G. Wells” not “H. G. Wells’s brain”.

And so, persuaded that brain activity explains thinking, or will do soon, and taking the will for the deed, the next step is into prophecy, one that Wells himself took many a time.

There is actually (unless the FT was hoaxed, 19.07.2003) a thing called the Mind Brain Behaviour Initiative at Harvard, the Director
of whose Resilient Responses to Social Crisis Working Group [sic] had a long letter published. This was presumably a premonition of the future when politics etc. will have been superseded by neurology. The letter did not base itself point by point on the report of brain activity, which would have been the only way it could have had any more authority than yours or mine; in fact it seemed not much different, though perhaps towards the silly end of the spectrum, from the letters emanating from more old-fashioned learned institutes that don’t mention the brain in their titles. “There must be unity of principle, agreement around the common desire for human liberty of all people in every culture and religion.” (Many cultures and religions deny human liberty.) “Promoting the skills that allow for free and open debate and problem-solving in pluralistic societies …” Well, it does sound as if it was written by somebody’s brain, and not coincidentally brings in the skills jargon. If there were such skills they could perhaps somehow or other be neurologically engineered.

I wonder whether people as stupid as this are any good at neurology.

This is not my brain asking, but my judgement.

Swept away by the great march of science people (especially if they are not scientists) can get overweening. What limits can there be to scientific advance? Humphrey quotes Diderot, hopefully: “Experimental philosophy knows neither what will come nor what will not come out of its labours”[24] There is no limit to scientific advance—but as scientific advance. If we are not considering a scientific question no amount of scientific advance will get us anywhere. Conceptual confusion will always guarantee a dead stop to intellectual progress. Professor Ramachandran may well impede understanding. And this, by the way, gives a hint that there may remain a place for philosophy in the world for some years yet.

On the soul: Ramachandran mentioned the old experiments to check the weight of newly deceased persons to see whether the soul weighed anything, which were an early form of the confusions we are glancing at, for they abandoned identity. (The soul is the same as the body, but in another aspect. Christians believe in the resurrection of the body.) Actually Ramachandran thinks the soul is the same as the brain, which is a grosser mistake. The soul is not an organ or a part, not the pituitary gland for instance, but the whole man alive.

Professor Ramachandran’s confusion about aspects may quite unwittingly be lending support to the idealism whose most classic English expression is in the work of Collingwood. There are plenty of other possible aspects of brains. Some animals’ brains are regarded by human beings in the aspect of meat, and quite possibly that is the aspect of human brains that might be of interest to cannibals. Or for instance the brain can be chemically analysed, or weighed. It would then be taken in the aspect of its chemical constituents, or of grammes. There may be the same thing, whatever one means by same and thing, in different aspects; but ex hypothesi the aspects are what differ and therefore cannot be interchanged. The cannibal neurologist whose mouth watered at the sight of the brain would have ceased to be a neurologist because of aspect-slippage. So
even if the brain is the same as the mind it does not follow that the way we can talk about the brain can be transferred to the mind or vice versa.

There are, however, demonstrably, levels of understanding that sometimes correspond to different aspects. Thinking is the aspect of brain activity (or of whatever other activity) that gives the other aspects their telos. Even if we think of brains as meat we can concede that they were created as the instrument of thought.

With a customary caveat that analogy is not identity, let me offer an analogy. The mind is the same as the body: music is the same as sound. The sound of a piece of music is not something other than the music. There are times when it is worth saying that the two are the same thing. But though there is no music without sound, it is quite possible to hear the sound without the music.

A Marxist might (following Marx’s delightful remark that the reality of piano music is in the production and exchange of pianos) argue that, since only the material really exists, piano music itself is physical, vibrations on the air taken into human heads as activity of the brain. The relevant vibrations and brain activities, however, are no more in themselves piano music than the piano factory is. For the sake of argument imagine that our experiences of piano music are manifested in electrical activity in the brain, and that this activity can be observed. But if so that’s what we are observing, not piano music. Perhaps a very expert and musical neurologist could then perform a sonata by reading an electro-encephalograph instead of a score; but the music would still have to be made, not confused with the print-out. Nor would the making just be of sound; music is certain sounds understood in the right way.

The man who makes a cello needs to know all about wood, gut for the strings etc., but no amount or intensity of attention to the wood will explain the cello. Musicians are of course intensely interested in sound, but no amount of acoustics will explain music. The same physical phenomena, exactly the same, may be taken in the aspect of acoustic events or music. Piano tuners have to get the sound as near perfect as our capacities allow. But if a sound the tuner makes when tuning the piano is exactly repeated during a piece of music, the latter may reasonably be thought (if explanation is demanded) to explain the former, not vice versa: “explain” in the sense of giving the context for which the sound is intended, not in any sense of causality or sequence. The higher level always “explains” the lower not vice versa. “Explains” needs its inverted commas to make sure we don’t confuse it with scientific analysis or causation.

The mind may “explain” the brain activity in the sense of giving it its end. But in the discussion of mind, the status of neurological investigation is: idle curiosity.

Professor Crick’s article quoted above argued “against the existence of the soul”—as the Times caption put it. The question raised was, “Is the soul simply grey matter?” and the answer in the affirmative, though why a man who believes so firmly in grey matter
thought that that disproved the existence of the soul is a question that must be asked. He did not disprove the existence of the soul, he merely made the bizarre mistake taking the soul to be explicable if treated as the brain. The argument was the old, old one: if we understand the mechanisms of the brain “Such discoveries will almost certainly modify our view of ourselves, our beliefs, our customs, our legal systems, to say nothing of our religious conviction.” If brain study tells us anything it suggests rather the existence of the soul, for it makes no sense to talk of grey matter’s discoveries modifying its view of itself. Our thinking is the telos of the brain activity. Only individual human beings think. Whether you call the man an individual or a soul makes little difference, but if you call him a brain you contradict yourself by denying thinking along with the soul.

The correction of the explanatory fallacies we have been glancing at may indeed suggest something of some importance, about the human soul. Not, perhaps, her immortality, and not quite her immateriality—if we agree that the soul and the body are one. But that the soul is irreducible is strongly suggested.

If editorials are usually confined to the political at least in the broad Aristotelian sense of the life of the polis, the present subject may be thought to be beyond the scope of an editorial. Mind-brain identity comes within the scope of the political because it tries to politicise, of all things, neurology. What is more, this happens grossly and obviously. It requires no great effort to see what has gone wrong. This editorial has been made quickly out of a file called “Mind-brain Working”. That’s all you need. In other words we are asking our usual political question: why has the third realm gone so stupid?

Notes & References

1 The Human World 4
2 Cf. D. H. Lawrence’s two books Psychoanalysis and the Unconscious and Fantasia of the Unconscious which can be argued about in detail but as a whole are irrefutable.
3 Odyssey IX
4 Jane Eyre, fifth edn, 1855, p. 254
5 Nicholas Humphrey, How to Solve the Mind-Body Problem, 2000, p. 9. Actually 16 pages by Humphrey followed by 82 pages of comment before a reply by Humphrey.
6 Ibid. 7 Ibid., p. 10 8 Ibid., p. 6
10 Humphrey, pp. 10, 6 11 Ibid., p. 10
12 Humphrey, p. 8 Beware, by the way, of scientists who discuss what will soon be possible. Real scientists limit predictions to hypotheses that can be subjected to experimental test, and wait for the upshot.
13 1976 Reith Lecture
14 BBC Radio 3, 17 February, 1971
15 BBC1, 1 October 2003, 9.00 p.m. Words cannot do justice to this picture of the archetypical mad profesor but the technology of this maga is not into illustrations.
16 The Times, 4 May, 1994, p. 17
17 16 May, 1994, p. 35
18 Naomi Eisenberger, reported in The Week, 25 October 2003, p15
19 Humphrey, p. 9
20 Ibid., p. 8.
21 Ed. cit., p. 84
22 Experiment in Autobiography, 1934, i, p. 29
23 Ibid.
24 Humphrey, p. 7