

## CORRESPONDENCE BETWEEN WILLIAM LYONS AND ULLIN PLACE

Edited by Thomas Place

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11 March 1997

Professor William Lyons,  
Department of Philosophy,  
Trinity College,  
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Ireland

Dear William,

In reply to your letter of 3/3/97<sup>1</sup>, I enclose a copy of my *HPPS Newsletter* paper on Boring<sup>2</sup> as requested. This is a reconstruction of the original which incorporates one or two minor corrections; but, apart from the larger size, there are no other differences. The original format and page throws have been preserved. I also enclose a copy of an autobiographical piece, entitled 'From mystical experience to biological consciousness: a pilgrim's progress?'<sup>3</sup> which was originally prepared for a one-day conference on 'Mystical Experience' organised by Dr. Peter Fenwick at the Institute of Psychiatry in London in November last. I am repeating it at the Annual Conference of the HPPS in York later this month. Between them these two papers answer most of your questions. There are just a couple of points I might add:

One concerns a copy I received recently from Brian Farrell of a Critical Notice of Ryle's *The Concept of Mind* which he published in the *British Journal of Psychology* in 1950. On re-reading this review I came across the following passage:

"One of the ways 'mentalists' will object to this book is by picking on those idioms of discourse that he [Ryle] has ignored in his map-making. If any reader feels dissatisfied with the book, I suggest he tries his hand at this line of criticism."

It reminds me that I had those words very much in mind when I was writing "The concept of heed"<sup>4</sup> in 1952.

Brian, of course, was and, I assume, remains what we used to call "a therapeutic positivist", one who believes that philosophical problems arise from an unconscious conflict of linguistic idioms that are pulling us in opposite directions, a conflict which can only be resolved by bringing both sets of idioms out into the open in the manner of psycho-analysis (hence the belief there is another set of OL idioms leading in an opposite direction from that emphasised by Ryle). I saw philosophical problems and the mind-body problem in particular rather differently, partly as conceptual confusion to be resolved by philosophical analysis and

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<sup>1</sup> Editor: this letter is not in the archive of Ullin Place.

<sup>2</sup> Editor: see Place, U. T. (1990). [E. G. Boring and the mind-brain identity theory](#). The British Psychological Society, History and Philosophy of Psychology Newsletter, 11, 20-31.

<sup>3</sup> Editor: see Place, U. T. (2004). [From mystical experience to biological consciousness. A pilgrim's progress?](#) In G. Graham, & E.R. Valentine (Eds.), *Identifying the mind: Selected papers of U. T. Place* (pp. 14-29). Oxford University Press.

<sup>4</sup> Editor: see Place, U. T. (1954). [The concept of heed](#). *British Journal of Psychology*, 45, 243-55.

partly as a genuine empirical problem to be resolved by the relevant empirical science. I saw my job as isolating the genuinely empirical part of the mind-body problem and handing it over to the people we now call 'neuro-psychologists'. But in so doing, Brian's suggestion that one should look for features of OL that point in a different direction from the way Ryle wanted to take us was the key that opened Pandora's box.

This is to make the point that I saw myself as applying the technique of conceptual analysis as developed by the OL philosophers (it was only much later that I learned about Wittgenstein's contribution to this) in order to identify a set of idioms which occur both in OL descriptions of others and in the individual's verbal self-reports (likewise OL, if they are not to be contaminated by the psychological theories of the investigator) which can only be satisfactorily explained on the assumption that they refer to an internal process within the individual (let's call it 'consciousness') on which the individual can give some kind of running commentary as it occurs or shortly thereafter, but which another person cannot detect by the ordinary processes of sensory discrimination. Thus, although I used the same term for this process as Boring does, I rejected the basic assumption of structuralist-introspectionism that conscious experience itself is what the psychologist observes and studies. I shared, as I still do, the behaviourist view that science can only study objective data and that, in the case of consciousness, the important objective data are the verbal reports of naive human subjects. What I was able to add to the behaviourist story, thanks to OL philosophy was the idea that idioms used in descriptions of other people, idioms which need not reflect what they have told you about themselves ("You're not paying attention, boy!"), are also relevant.

As to the influence of Boring's *Physical Dimensions of Consciousness* on subsequent psychology, the measurement of the psycho-physical dimensions was continued at Harvard by S. S. Stevens, albeit within a more operationalist conceptual framework. No one in psychology, to my knowledge, took up the identity theory. When I visited Boring at Harvard in 1965, not long before he died, he told me that he intended to return the issue himself. However, when I asked Dick Herrnstein some years later if he could find out if there was anything on the topic in Boring's *Nachlaß*, nothing was found. This is hardly surprising when you consider that, had not Jack Smart introduced it to philosophers, my paper would have sunk without trace. Even today, psychologists are very reluctant to get involved in issues such as this.

I was delighted to hear that your Everyman's Library book<sup>5</sup> is already going into a second impression and that you have been able to take the opportunity to make the corrections which I suggested in your introduction. You may like to know that I shall be in Dublin between the 10th and 13th of July attending the Third European Meeting for the Experimental Analysis of Behaviour. I shall be giving a paper entitled 'Linguistic behaviourism and the correspondence theory of truth'<sup>6</sup> in a symposium on 'Truth in Behaviour Analysis' organised by Dermot Barnes of the Department of Psychology, University College, Cork. If you are going to be around at that time, I would very much appreciate the opportunity to meet. You may also be interested in what is being billed as a one-day 'Brains of Oz' Conference to be held in the Department of Philosophy, University of Leeds, on June 21st at which Jack Smart, David Armstrong and I are to be the principal speakers. The title of my paper to which Peter Simons is going to respond is 'We needed the analytic-synthetic distinction to formulate mind-brain identity then: we still do.'<sup>7</sup> When I last heard, Jack and David had not yet submitted titles for their papers.

Best wishes,

Yours,

Ullin T. Place

Willowtree Cottage,  
Boltby,

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<sup>5</sup> Editor: Lyons, W. (Ed.) (1995). *Modern Philosophy of Mind*. Everyman.

<sup>6</sup> Editor: see Place, U. T. (1997). [Linguistic behaviorism and the correspondence theory of truth](#). *Behavior and Philosophy*, 25, 83-94

<sup>7</sup> Editor: see Place, U. T. (1997). [We needed the analytic-synthetic distinction to formulate mind-brain identity then: we still do](#) [Conference presentation, presented at a Symposium on 'Forty years of Australian Materialism', June 21st 1997]. Department of Philosophy, University of Leeds

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17 March 1997

Professor William Lyons,  
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Ireland

Dear William,

In case you haven't seen it, here is the official announcement taken from the second E.S.A.P. Newsletter of what I referred to in my latter of 11 March 1997 as "a one-day 'Brains of Oz' Conference to be held in the Department of Philosophy, University of Leeds, on June 21st at which Jack Smart, David Armstrong and I are to be the principal speakers":

o FORTY YEARS OF AUSTRALIAN MATERIALISM

A Symposium

Leeds, England, 21 June 1997

The University of Leeds Department of Philosophy and the European Society for Analytic Philosophy announce that they will be holding a one-day symposium in the Department to consider the mind-brain identity thesis. The main speakers will be the three original materialists themselves: David Armstrong, Ullin Place, and Jack Smart, together in public for the first time. There will be other speakers commenting on their papers and a round table discussion. A small conference fee will be charged to cover administrative expenses: registered ESAP members will pay a reduced fee. Those wishing to receive further information about the symposium should send an e-mail message to the organizer, Peter Simons: p.m.simons@leeds.ac.uk

Best wishes,

Yours,

# UNIVERSITY OF DUBLIN

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DEPARTMENT OF PHILOSOPHY  
TRINITY COLLEGE  
DUBLIN 2

*Professor of Moral Philosophy:* William Lyons, Ph.D., F.T.C.D., M.R.I.A.,

[24 III '97]

Dear Ullin,

Many thanks for your note re the "Brains of Oz" conference at Leeds, in June of this year. Unfortunately, it's looking as if I'm not going to be able to attend. If I were able, I would be interested in the Identity Theorist's reply to the following objection:

*Identities in fact have proven elusive*

Jack Smart himself realized that the mind-brain identity theory was especially vulnerable to one particular sort of objection. He aired this objection, in his own book *Philosophy and Scientific Realism*, in the following way:

It will be remembered that I suggested that in reporting sensations we are in fact reporting likenesses and unlikenesses of brain processes. Now it may be objected (as has been done by K.E.M.Baier): 'Suppose that you had some electro-encephalograph fixed to your brain, and you observed that, according to the electro-encephalograph, you did not have the sort of brain process that normally goes on when you have a yellow sense datum (an experience of seeing a patch of yellow]. Nevertheless, if you had a yellow sense datum you would not give up the proposition that you had such a sense datum, no matter what the encephalograph said.' This part of the objection can be easily answered. I simply reply that the brain-process theory [identity theory] was put forward as a factual identification, not as a logically necessary one. I can therefore agree that it is logically possible that the electro-encephalograph experiment should turn out as envisaged in the objection, but I can still believe *that this will never in fact happen*. If it did happen I should doubtless give up the brain-process theory...(PSR, p.99.)

Unfortunately, there are good grounds for saying that it (the experiment), or something that amounts to it, has in fact happened. So there are good grounds for saying that the mind-brain identity theory should be abandoned because the predicted identities have failed to appear.

Certainly, nowadays, many neurophysiologists would suggest that our mental vocabulary "does not carve the brain at its neurophysiological joints". That is to say, it does not make neurophysiological sense even to expect that the appropriate use of a particular mental description would be an indicator of the presence of a particular sort of brain process on each and every occasion. In more technical terminology, there are good neurophysiological grounds for supposing that there is no "type-type identity" between events in our mental life as described by our ordinary psychological descriptions and events in our brain as described by a neurophysiologist.

In more detail, there are no good reasons of a neurophysiological sort for supposing that, every time someone has a particular type of belief (say, for example, a belief that it is not now raining), then, on each occasion that such a belief is attributable to that person, his brain will be discovered to be undergoing a particular type of process (say,

brain process<sup>2</sup> on the completed map of brain processing). Or, to take another example, there are not even any good reasons of a neurophysiological sort for supposing that, each time some person is experiencing momentarily a particular type of conscious state (say, a visual image of his childhood bedroom), then that person will be discovered on each occasion, at just that moment, to be undergoing a particular type of brain process (say, brain process 782c).

Certainly, in the 1950s and 1960s, it may have seemed to some to be still an open question as to whether or not such identities would be discovered. In 1952, for example, in a synoptic article entitled 'Neurology and the Mind-Brain Problem', (*American Scientist*, vol.40) Roger Sperry was pointing out that Neurological science thus far has been quite unable to furnish an adequate description of the neural processes involved in even the very simplest forms of mental activity.(p.292.) Such a conclusion probably did not worry Jack Smart or any other mind-brain identity theorist. For an identity theorist could simply reply that ignorance does not imply non-existence. You cannot argue from the failure to find any neural counterparts for our mental states to the non-existence of those counterparts. At this point, the identity theorist would usually invoke that most famous of all allies of the identity theory, "future science". Future science, with its greater sophistication and superior instrumentation, they suggested, will supply what cannot at present be supplied, namely the awaited type-type identities between our mental states and brain processes picked out by latter-day neurophysiologists.

However, in that 1952 article, Sperry was not saying that it was still an open question as to whether such identities would or would not be discovered. For, in that same article, Sperry gave details of the various attempts that had been made over the years to identify mental states with various aspects of brain processing. Scientists had tried to identify mental states (usually, specific sorts of conscious experiences) with *levels of* electrical activity in the brain, with the *distribution of* patterns of electrical activity in the brain, and through treating the electrical impulses of the brain as if they amounted *to a code or* system of representations. All these attempts failed dismally. His conclusion was to reiterate a comment of Sherrington's, namely that, "We have to regard the relation of mind to brain as still not merely unsolved, but still devoid of a basis for its very beginning."(p.296.) By this he meant, not that science has not got very far in the experimental investigation of the possibility of identifying mental states with brain processes, but that it had made exhaustive investigations and failed to obtain any positive result.

In recent years, neurophysiological knowledge has advanced. But this advance has not helped the cause of the mind-brain identity theorists. It has merely reinforced Sperry's pessimistic conclusion that, from the point of view of neurophysiology, a type-type identity between mental states and brain processes is most unlikely. Gerald Edelman, for example, has put forward a view of brain functioning which suggests that any version of a type-type identity between mind and brain is most unlikely. Edelman is an American, who has been Vincent Astor Distinguished Professor at the Rockefeller University since 1974, and Director and Scientific Chairman of the Neurosciences Research Program at the same university since 1981. He received the Nobel Prize in Physiology or Medicine in 1972 for his research in the biochemistry of the human immune system.

Edelman has argued that a type-type identity between mind and brain is most unlikely for the simple reason that brain processing, in even a single brain, is very labile and variable in regard to its incarnation of one and the same mental state. In 'Neural Darwinism: Population Thinking and Higher Brain Function', (in *How We Know*, edit. M.Shafto, Harper & Row,1985) a paper delivered at the twentieth Nobel Conference at

Gustavus Adolphus College in Minnesota, Edelman suggested that we should look upon the formation of each individual human brain as the product of two levels of evolution. First, there is the evolution of humans, and so the evolution of their brains, from such prior species as *Homo Erectus*, *Homo Habilis* and, in the far distance, *Australopithecus*. Second, there is an evolution of each individual's brain, an evolution that is part of individual development and takes place from the foetal stage to childhood. It is this second sort of evolution, Edelman argues, that makes any type-type identity between mind and brain so unlikely. Edelman puts it thus:

The network of the brain is made during development by cellular movements, extensions, and connections of increasing numbers of neurons. It is an example of a self-organizing system. An examination of such a system during its development and at its most microscopic ramifications after development indicates that precise point-to-point wiring cannot occur. Therefore, uniquely specific connections cannot, in general, exist. If one numbered the branches of a neuron and correspondingly numbered the neurons it touched, the numbers would not correspond in any two individuals of a species (even in identical twins or in genetically identical animals).(p.4.)

In effect, each human is an individual species as regards the formation of his or her brain. This is so because major factors in the development of human brains are the formation of individual neurones into groups, the selection of certain neuronal connections rather than others within a group, and finally the selection of one group rather than another for particular tasks. Each of these processes is evolutionary in nature. In each, there is selection, of neurone or of neuronal pathway or of a whole group of neurones, according to the immediate pressure of the immediate environment and so in an *ad hoc* way. The upshot is that the "wiring diagram" for any particular human is therefore unique. The clear implication is that this "constitutes a crisis for those who believe that the nervous system is precise and "hard-wired" (like a computer)."(Pp.4-5.) He might have added that it also presents a crisis for anyone who thinks that the brains of humans are sufficiently uniform and precise in their wiring such that the electrical activity, which constitutes brain processing, is the same in any two individuals, even when we might describe those same two individuals as being in the same mental state.

I'd be interested in your response. I'm sure you have met it many times in different forms, but I've not found any sort of consensus as to what the Ident. Th. response is or should be.

[Best wishes,  
hope the conference  
goes well,  
Yours  
William.]

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31 March 1997

Professor William Lyons,  
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Dear William,

Thank you for your letter of 24/3/97. I am sorry to hear that you will not be coming to the Leeds conference. Your contribution would have been extremely valuable.

In reply your 'objection' to the identity theory, it was, of course, an essential part of the thesis I was arguing for in 1956 that the type-identity of conscious experience with some as yet to be identified process in the brain is, or will be when the process in question has been identified, an empirically testable scientific hypothesis which will stand or fall on the evidence of psycho-physiological correlation. You claim that that evidence fails to confirm the identity hypothesis. I read the matter very differently. I know of no evidence which would support the view that what goes on in my cortical visual system when I report a yellow after-image is significantly different from what goes on in your visual system when you report a similar after-image. Even if it turned out, as it conceivably might, that what goes on in my visual cortex when I report a yellow after-image is more like what goes on in yours when you report a blue one than it is like what goes on when you report a yellow image, this would not falsify the hypothesis, provided both patterns of response to colour yield the same description of coloured objects and other colour stimuli and there is a consistent relation between colour judgment and physiology in both cases.

I suspect that the impression that "our mental vocabulary 'does not carve the brain at its physiological joints'" arises from a failure to allow for the complex pragmatics of our ordinary mental talk which I discuss in my 'Folk psychology from the standpoint of conceptual analysis' in O'Donohue and Kitchener *The Philosophy of Psychology*.<sup>8</sup> Once these pragmatic peculiarities are discounted, features which correspond to the physiological story begin to emerge. For example, the distinction we draw in OL between the case where attention is involuntarily 'caught' by some unexpected or motivationally significant stimulus and the voluntary focusing of attention on such a stimulus, once it has been noticed, until we can make out what it is, appears to correspond rather precisely to the attention-controlling function of the *superior colliculus* (involuntary and unconscious attraction of attention to something previously unnoticed) and that of the *superior parietal cortex* (voluntary and conscious maintenance of focus on the problematic stimulus until adequate categorization is achieved).

I agree with you that "there are no good reasons of a neurophysiological sort for supposing that, every time someone has a particular belief... his brain will be discovered to be undergoing a particular type of process" for the very good reason that a belief is not a process. It is a dispositional state, and according to me dispositional states depend causally on, but are not identical with the brain states (patterns of synaptic weights presumably) with which they will be found to correlate, if we ever get that far.

The visual image case is very different. Though I can't quote chapter and verse, I have it on very good authority (Colin Blakemore, Professor of Physiology at Oxford no less, in a talk I heard him give only last month) that a recent study, using one of the brain imaging techniques now available, has shown that when a

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<sup>8</sup> Editor: see Place, U. T. (1996). [Folk psychology from the standpoint of conceptual analysis](#). In W. O'Donohue, & R. Kitchener (Eds.) *The Philosophy of Psychology* (Chapter 17, pp. 264-270). Sage.

subject is asked to imagine a scene that he or she has just seen, a pattern of activity develops in all the cortical visual areas, including V1 (the striate cortex) which is very similar to that which occurs when looking at the scene the subject has been asked to imagine.

I am not impressed by your quotation from Sperry. It goes back to a time when techniques for the recording of brain activity were very primitive compared with those available today and when neurophysiology was heavily influenced by dualists like Sherrington and Eccles.

Nor am I impressed by Edelman's opinion on these matters. I spent three months in the Neurosciences Institute of which he was and as far as I know still is the Director in 1991 when it was still in New York. While I have very great sympathy for the view that Darwin's principle of variation and natural selection applies as much to ontogenetic development as it does to phylogenetic, I think that Edelman's psychology, littered as it is with the most ghastly collection of abstractions worthy of a phrenologist, stinks to high heaven.

Even so, I can't see why you think that his contention which I would accept that there are no hard-wired connections in the brain and that each brain develops its own pattern of connections through a process of variation and natural selection is inconsistent with type-type identity.

The processes that enter into the mental side of the equation according to the type-identity theorist are identified in terms either of their function or in terms of the function of those that they resemble. Consequently, provided each brain performs roughly the same set of functions, both on the sensory-discrimination and on the output-selection and execution sides, it would still be possible to establish type-type identities across different brains, even if it were the case that the way in which those functions are performed in terms of the brain hardware were widely different from brain to brain. In fact the surprising thing, given Edelman's principles, is how uniform are the functions of different brain areas from individual to individual. The explanation of this phenomenon is still controversial, as the course of lectures I have been following at Oxford during this last term, made abundantly clear. But the pattern of axonal connections between the sense organs and the different sub-structures of the brain, between other structures and the effector organs and between the sub-structures themselves which, unlike the synaptic connections, *are* genetically hardwired must be a major, but not the only factor.

I wonder if you think that type-identity requires that each token of the type be identical with every other token in every respect? Surely this does not have to be. Different samples of water have different proportions of different substances of other kinds dissolved in them, but this does not invalidate the claim that all water is type identical with H<sub>2</sub>O. Each token of lightning follows a differently located and differently shaped path through the atmosphere. Yet this does not prevent all such events being type identical with electric discharges.

Best wishes,

Yours,



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[Ullin T. Place, Esq.,  
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16 iv '97]

Dear Ullin,

A brief response (to your response to my objection to the Identity Theory):

## **Components versus Products**

The objection, that the identity of mental events with brain processing has proved not merely elusive but dubious, is unlikely to convince the 24-carat Identity Theorist. Smart himself, in *Philosophy and Scientific Realism*, admitted as much. He indicated that, even after being presented with experimental counter instances, he would probably be moved to reinstate the Identity Theory at a later date.

The usual moves to reinstate the theory, in the face of "the elusiveness of the identities" type objections, are of two main sorts. The first is simply to doubt that the evidence from contemporary brain science is clear enough or sophisticated enough or sufficiently damning as to overthrow the Identity Theory. But this can look to those who do not support the Identity Theory as just a case of putting off the day when the theory has to be set aside. In any event, it does not add any weight to the Identity Theory to argue in this way, it is rather a move to weaken the force of the objection.

The second move, a much more interesting and important one, is to dilute the

requirements for the identity in question. All that we need to show, argue the Identity Theorists, is that some mental event, such as a sensation or experience of some after-image, can be identified on any particular occasion with some brain process drawn from a list of possible brain processes which could be said to be "of the same type". Thus my current experience of tooth-ache may be identical with brain process<sub>234a</sub>, but last week the same pain might have been identical with brain process<sub>248b</sub>, and the week before the same pain might have been identical with brain process<sub>291c</sub>. However, as long as they are all in the same area of brain processing, or involve the same sort of brain structures and "wiring", marked, say, on some comprehensive map of brain processes, with subscript numbers from 200-299, then we can say that these brain processes are all "of the same type". After all we can say that all these trees over there are cypresses, even though some are small, some tall, some broad, some thin, some dried up, some healthy, and some dark green in colour, some light green. They are all cypresses because they are all of the same type. What makes these trees over there "all of the same type" is their being all botanically the same. They can be said to be botanically the same because they have the same shape of leaves, the same angle at which their branches grow out from their trunk, the same taste and scent to their sap, and such like.

However, at this point, we need to look more closely at the analogy. For the analogy seems to produce a problem for the Identity Theorist. The term 'cypress' can be analysed as a term which is shorthand for "tree with *x* shape of leaf, *y* type of branches, *z* type of sap,...". We learn to use the word 'cypress' by having our primary school teacher or mother or uncle show us the continuity of the particular shape of leaf, and the particular type of branch and trunk formation, and the peculiar

smell and taste of the sap, over a number of specimens of cypress tree. Or else we try and teach ourselves about the characteristics of cypress trees from the text and illustrations of *The So-and-So Book of Trees*. But the terms 'tooth-ache' or 'sensation of giddiness' are not and cannot be, under any stretch of the imagination, terms which are just shorthand for characteristics of human brain processing. We could never have come to learn such terms as 'tooth-ache' or 'feeling of giddiness' by reference to brain processes, quite simply because neither you nor I has the proper access to the full and correct account of whatever brain processes might or might not be involved in giddiness and tooth-ache. However we came to learn how to use the terms 'tooth-ache' and 'feeling of giddiness' correctly, it was not by our doing neurophysiological research.

So the Identity Theorist must now say, "Nonetheless, whenever you correctly use the terms 'tooth-ache' and 'sensation of giddiness', unwittingly, you are picking out real identifiable types of brain process". In similar fashion, whenever you correctly use the word 'lightning', whether you realise it or not, you are in fact picking out a phenomenon which a physicist will describe as "an electrical discharge in the form of a spark or flash between two charged clouds, or between a cloud and the Earth." But let us look at the analogy in some further detail as it will help us resolve the whole issue.

An ordinary person (a non-physicist) identifies lightning by seeing something, namely a flash of light which darts across the darkening sky. A physicist will account for this event by explaining how a discharge of electricity can involve light, as well as sound, and how the production of light via an electrical discharge is similar to the

production of light when an arc lamp is turned on, or some such explanation. The important point to note, however, is that, in his explanation, the physicist is not *identifying* lightning with an electrical discharge of a certain sort. He is explaining how light *is a product of an* electrical discharge of a certain sort. Indeed, when seen by an observer, lightning is really a product at second remove. For an observer sees the electrical discharge as light only because he is equipped with the appropriate visual sense organ. Any seeing of an electrical discharge as "an extremely swift flash of light darting across a darkening sky" is the result of the initial spark-product of the electrical discharge producing *a secondary product*, namely its effect on some human or animal with the requisite sense organ.

Likewise, few if any neurophysiologists will want to identify consciousness with brain processing but, rather, see it as *a product of* brain processing. As Benjamin Libet, a neurophysiologist at the University of California at San Francisco, puts it, when describing the "state of play" in neuroscience, "There is no doubt that cerebral events or processes can influence, control and presumably 'produce' mental events, including conscious ones." (In "A testable field theory of mind-brain interaction", *J. of Consciousness Studies*, Vol.I, no.I, 1994, p.92.) Indeed it is the conviction that consciousness is something other *over and above* brain processing that led neurophysiologists, such as Sherrington, to embrace Cartesian Dualism. However, there is no need to go in that direction. All that needs to be kept in mind is the bare fact that consciousness *is a product of* brain processing not a segment of it, in the way that seeing a flash of lightning is a product of a certain type of electrical discharge not a component of it. So to identify consciousness (including "toothache feeling" and "sensation of a yellow after-image") with brain processing is to make the same mistake as identifying the visual experience of a flash of lightning

across a darkening sky with the electrical discharge which caused it.

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I don't expect that either you or Jack Smart will be moved to recantation by the above, and no doubt you have heard it all before, but...

[I hope you are keeping well.

It's a brilliant Spring here -  
the best in most people's living  
memory.

With my best wishes,

Yours,

William.]

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21 April 1997

Professor William Lyons,  
Department of Philosophy,  
Trinity College,  
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Dear William,

I enclose a copy of a paper entitled 'We needed the analytic-synthetic distinction to formulate mind-brain identity then: we still do'<sup>9</sup> which I have prepared for presentation at the Symposium on 'Forty years of Australian Materialism' on June 21st. I think it answers all the points you make in your letter of 16/4/97. I draw your attention particularly to Section 8 (pp. 11-2), where I take a similar line to you on Davidson's token identity move, and Section 12 (pp. 15-6), where I argue, as I have always done, that this is a putative scientific type-identity which differs from well known cases only in that the terms between which it will ultimately be found to hold have not yet been identified.

Best wishes,

Yours,

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<sup>9</sup> Editor: see footnote 7.