

**The Plausibility of Substance Dualism as an Approach to the Mind-Body Problem:
A Philosophical and Theological Inquiry**

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ABSTRACT

The Plausibility of Substance Dualism as an Approach to the Mind-Body Problem

Richard J. Bernier

This thesis presents an argument that would posit a substantial non-physical principle of cognition and consciousness, *i.e.* a mind or soul, ontologically distinct from the physical brain and its properties. The case consists of, first, a series of arguments that seek to establish the rational foundation for this *Cartesian* or *substance dualism* and, second, an attempt to reply to some of the major objections to it. The second component includes a survey of *physicalism*, the chief alternative to dualism as a solution to the classic mind-body problem. The theological significance of the debate, and particularly of the status one accords to dualism in the debate, is the concern of the final chapter. The latter concludes that the implications of accepting or rejecting substance dualism are far-reaching for theological and ethical affirmations about human immortality and the worth of human beings. Some areas needing further discussion and inquiry, such as the possible relevance of Chalcedonian Christology and the need for further reflection on the precise mechanism of brain-mind interaction, are highlighted in the course of the presentation of the issue.

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*This thesis is dedicated, with affection and respect, to the students of the Newman Centre
of McGill University.*

*“Τοιγαρουν και ημεις, τοςουτον εχοντες περικειμενον ημιν νεφος μαρτυρων, ογκον αποθεμενοι
παντα και την ευπεριστατον αμαρτιαν, δι υπομονησ τρεχωμεν τον προκειμενον ημιν αγωνα...”*

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INTRODUCTION

In this thesis I shall be attempting to state a plausible case for mind-body substance dualism, from the point of view of a philosophical theology.

A survey of opinions expressed in English on mind-body dualism reveals that many theologians and philosophers consider it to be an unreasonable position. The present study seeks to inquire whether it is as indefensible as many claim it to be.

In this Introduction, I shall specify what I mean by the expression *substance dualism* in this connection and clarify a few preliminary points. In Chapter I, I shall attempt to outline a case to be made in favour of a dualist solution of the mind-body problem by presenting eight arguments that can be marshalled in support of it. (I shall use the expressions ‘mind-brain dualism’ and ‘mind-body dualism’ interchangeably throughout). In Chapter II, I shall present four of the most important expressions of the *physicalist* view of the mind-body relation, the principal (some would argue the only) alternative to dualism, which holds that mind and brain alike are essentially physical realities. Chapter II will address some forms of physicalism qualified as ‘nonreductive’, *i.e.* some that claim to avoid ‘reducing’ the mind to being identical with the brain. Chapter III will attempt to reply to the eight major specific objections that can be made to mind-body dualism. Chapter IV is devoted to drawing out theological and religious implications of mind-body dualism, with particular reference to the problems of personal immortality, free will, providence, and ethical problems related to the fundamental nature of human beings.

a) What is meant by the term 'substance dualism'?

Substance dualism as an approach to the mind-body problem holds that mind and brain (or mind and body, or soul and body), are two distinct realities, respectively nonphysical and physical. Both are essential components of human existence as we know it, but they are distinct, and each one can exist at least in theory without the other.

The expression 'dualism' has a range of meanings in popular and scholarly usage, many of them not pertinent to the present discussion. Dualism in the sense intended here does not imply any conflict or disharmony between the posited principles; on the contrary, it assumes significant co-operation and interaction. Postulating interaction does not render the dualism for which I am arguing hopelessly idiosyncratic; it is the assumption or conclusion of most authors who are sympathetic to dualism. For this reason, Eccles and Popper describe their dualism as 'dualist interactionism'¹. On the other hand, this thesis will not engage Manichean dualism, as though it were my intention to argue for deprecation of the body, or to dismiss the brain or physical existence as, at best, dispensable or burdensome. Similarly, I disavow any implication in the term 'dualism' that the posited duality of mind and body is tantamount (as Leibniz proposed) to two monadic substances existing in some "pre-established harmony" but without real interdependence or interaction. Dualism is often described as a belief in "the ghost in the machine"², a description that owes its rhetorical force to precisely such a suggestion that

¹ Cf John ECCLES and Karl POPPER, *The Self and its Brain*, (New York: Springer-Verlag, 1977), *passim*.

² This expression is usually traced to Gilbert Ryle in his *The Concept of Mind*, where the author writes: "I shall often speak of [Cartesian dualism], with deliberate abusiveness, as 'the dogma of the Ghost in the Machine'." (*The Concept of Mind*, (London: Hutchinson & Co., 1949), pp. 15-16). In this connection John Beloff's spirited rejoinder is most apropos: "[...] one would have to be either a natural simpleton, or

body and mind co-operate only accidentally while retaining each one its full autonomy from the other. Needless to say, the alleged positing of a “ghost” in the first place appears so plainly irrational that it too discredits dualism so described. Whether the notion of ghosts is in fact itself quite so irrational is precisely the question in dispute. To posit dualism in either of these senses would imply that human existence as we know it could conceivably be predicated of the putative monadic mind or ‘thinking substance’ even in the absence of the body, and thus that human cognition as we know it owes nothing to the body. This is not what I intend to suggest, as will become clear.

The position being defended in this thesis corresponds with what is sometimes referred to as ‘Cartesian dualism’. However, I am not necessarily arguing as a Cartesian of the Strict Observance³; the details of the position I am defending are different from those of Descartes. As John Smythies points out in his preface to *The Case for Dualism*,

Not all dualists, of course, [...] would make the distinction between mind and body in the same way as Descartes did, but all would agree that mind, however we may choose to define it, cannot be analysed in purely physical terms or somehow reduced to the behaviour of purely physical objects⁴.

else have been hopelessly besotted with verbal sophistries, to see nothing mysterious whatever in the mind-body relationship. [...] Those who take seriously the existence of Mind are often taunted with being worried by a ‘ghost in the machine’; I suggest it is high time we refused to let our critical faculties be paralysed any longer by this pert gibe.” (John BELOFF, *The Existence of Mind*, (London: MacGibbon & Kee, 1962), pp. 12-13).

³ This felicitous expression is Etienne Gilson’s, found for instance in his *Modern Philosophy: Descartes to Kant*.

⁴ John SMYTHIES, “Preface”, *The Case for Dualism*, edited by J Smythies and J Beloff, (Charlottesville VA: University Press of Virginia, 1989), p. vi.

Moreover, it is inaccurate to describe dualism as a position originating with or peculiar to Descartes. Zeno Vendler, alluding to Ryle's description of Cartesian dualism as the "official doctrine"⁵, remarks:

[...] the "official doctrine" is nothing but the commonsense view, and is Cartesian only inasmuch as it has found its clearest philosophical expression in Descartes' works.⁶

St Thomas Aquinas is only one important example of a much earlier dualist (according to the definition of the term employed here) in an emphatically non-Cartesian philosophical tradition. St Thomas describes the 'intellectual soul' (that is, the mind, the soul, of a *human being*, as opposed to the strictly 'vegetative' and 'animal' souls of living but nonthinking being) in these terms:

Intellectus autem habet operationem in qua non communicat sibi corpus, ut ostensum est, ex quo patet quod est operans per seipsum. Ergo est substantia subsistens in suo esse.⁷

In another place, St Thomas affirms the substantial character of the soul just as clearly:

Natura ergo mentis humanae non solum est incorporea, sed etiam est substantia scilicet aliquid subsistens [...] Relinquitur igitur animam humanam, quae dicitur intellectus vel mens, esse aliquid incorporeum et subsistens.⁸

⁵ Cf. Gilbert RYLE, *The Concept of Mind*, p. 11.

⁶ Zeno VENDLER, *Res Cogitans*, (Ithaca NY: Cornell University Press, 1972), p. 144.

⁷ St Thomas AQUINAS, *Compendium Theologiae*, lib. 1, cap. 84.

⁸ St Thomas AQUINAS, *Summa Theologiae*, Ia, q. 75, art. 2.

When I propose *ex hypothesi* that mind-body dualism accurately describes the nature of things, I mean that human existence is most aptly explained as consisting of two distinct and interacting principles, physical and non-physical. These principles can be called ‘substances’ inasmuch they are posited as capable of independent existence even if they never in fact exist isolated from one another. Where ‘substance’ is used in these pages, it is used in this latter sense, as employed, for instance, by Richard Swinburne⁹.

W D Hart’s definition of ‘substance’ in connection with dualism is similar:

Mind-body dualism is the thesis that there are at least two basic or fundamental sorts of things: one including you and other minds, selves, or persons, and the other including bodies of you and other people [...] Things that are basic or fundamental are sometimes called substances [...] The central idea is that a basic thing exists independently, that is, that it is not dependent for its existence on the existence of anything else¹⁰.

Finally, Jaegwon Kim describes dualism in these terms:

Cartesian substance dualism pictures the world as consisting of two independent domains, the mental and the material, each with its own distinctive defining properties (consciousness and spatial extendedness, respectively). There are causal interactions across the domains, but entities in each domain, being “substances”, are ontologically independent of those of the other, and it is metaphysically possible for one domain to exist in the total absence of the other¹¹.

⁹ Cf. Richard SWINBURNE, “Body and Soul”, in *The Mind-Body Problem*, edited by Richard Warner and Tadeusz Szubka (Oxford: Blackwell, 1994), p. 311, where he says “I understand by a substance a thing, a component of the world which interacts causally with other components of the world and which has a history through time”.

¹⁰ W D HART, *The Engines of the Soul*, (Cambridge: Cambridge University Press, 1988), p. 1.

¹¹ Jaegwon KIM, *Mind in a Physical World*, (Cambridge MA: Bradford Books/MIT Press, 1998), p. 15.

These will do as adequate definitions of the dualism being investigated in the following pages.

b) Why ‘defend’ dualism?

My case for positing dualism will be that it provides the most plausible account of the data of human existence. That is, in order reasonably to account for the phenomena associated with human consciousness, we must posit both a physical and a non-physical principle of mind, and therefore both a physical and a non-physical principle of human nature. (By describing a principle as non-physical, I mean among other things that it is not governed by the laws of physics and chemistry, is not spatially extended, and cannot meaningfully be described in terms of molecules or atoms. This negative definition will be supplemented as we go on by the positive attributes that will be seen to characterise non-physical beings: consciousness, intellect and will, for example).

One aspect of dualism that will not be discussed here is the question of whether the hypothetical substantial immaterial soul is a properly human characteristic not shared by any other species. St Thomas, for instance, states clearly his position that this is the case;¹² Descartes notoriously held that animals do not have the attribute of consciousness; Richard Swinburne is clearly inclined to the opposite view,¹³ while John Foster is ambivalent but cautiously suggests the possibility of the opposite view.¹⁴ If it is in fact the

¹² Cf. St Thomas AQUINAS, *Summa Theologiae*, Ia, q. 75, art. 3: “Ex quo relinquitur quod cum animae brutorum animalium per se non operentur, non sint subsistentes [...]”.

¹³ Richard SWINBURNE, *The Evolution of Soul*, revised edition, (Oxford: Clarendon Press, 1997), p. 199.

¹⁴ John FOSTER, *The Immaterial Self*, (London: Routledge, 1991), pp. 236-237.

case, it does not seem unreasonable to ask, Why should the human species be marked by this odd and unprecedented aberration, alone (as far as we can see) in all the cosmos? However, we have no idea what animal consciousness is like and should hesitate to guess what it ‘must’ be like. In no sense am I attempting to prove that dualism *is* or is *not* true of animal existence; our strictly ‘exterior’ experience of animal awareness prevents us from generalising what it is or must be like, and seems to force us into a cautious agnosticism on the question, at least for the purpose of this discussion.

c) Another sort of dualism

The expression ‘dualism’ is also used in the phrase ‘property dualism’; a subtle and sophisticated position concerning the mind-body relationship that is defined by those who hold it in sharp contradistinction from *substance* dualism. According to David Chalmers, property dualism maintains that

[...] conscious experience involves properties of an individual that are not entailed by the physical properties of that individual, although they may depend lawfully on those properties. Consciousness is a *feature* of the world over and above the physical features of the world. This is not to say it is a separate “substance”; the issue of what it would take to constitute a dualism of substances seems quite unclear to me. All we know is that there are properties of individuals in this world – the phenomenal properties – that are ontologically independent of physical properties¹⁵.

We shall examine property dualism more thoroughly in Chapter II. For the moment, let me simply distinguish between it and *substance* dualism (the position

¹⁵ David CHALMERS, *The Conscious Mind*, (Oxford: Oxford University Press, 1996), p. 125.

endorsed in these pages). Substance dualism, it would seem, can accept all of the affirmations made in the above definition of property dualism except for its explicit denial of the existence of a ‘thinking substance’.

When we come to the eight arguments that support the dualist hypothesis, it will be seen that some of them do not obviously establish *substance* dualism as opposed to some broader dualism of *principles*, such as the property dualism just mentioned. I shall acknowledge this fact in those instances where it obtains. Despite this occasional equivocality, the arguments to be presented in Chapter I together do constitute a case for the plausibility specifically of substance dualism.

This raises the problem of what to call this putative non-physical principle of consciousness and cognition. With respect to the physical principle, there is no question about the legitimacy of employing the specific term ‘brain’ or the broader but equally acceptable ‘body’; for the non-physical principle, common English usage suggests such diverse names as ‘soul’, ‘spirit’, ‘psyche’, or even ‘mind’. ‘Soul’ is a familiar enough term and bears often enough the connotation of non-physicality that it can be used without incoherence to name the putative non-physical principle of cognition, and indeed of personality. Of course it is clear that not all those who speak of ‘soul’ intend by it a non-physical entity at all. Where it appears in these pages without further qualification, *soul* denotes the (putative) *non-physical* principle of cognition and personality. Moreover, this discussion is intended as an essay in philosophical theology, and will not avoid the religious and theological implications of positing a substantial soul distinct from the body. On the contrary, I shall venture to discuss these issues directly in Chapter IV.

d) Is dualism ultimately a religious affirmation?

While there will be a discussion of theological issues in Chapter IV, the first chapter does not concern properly theological notions of soul at all. In theory, an orthodox Christian, for instance, could hold the physicalist position that all cognitive functions are reducible to, supervene on or correspond dependently with the operations or properties of the brain and still affirm by virtue of his or her religious faith that there is a non-physical component of the personality that survives bodily death and awaits the Resurrection anticipated by Christian eschatology. By contrast, Chapter I's discussion postulates something quite distinct; that cognitive functions can only be explained if one posits a substantial soul, not necessarily a soul that can survive bodily death. (Swinburne calls this position 'soft dualism'¹⁶). In short, there will be no attempt here to show that immortality is a necessary feature of the soul. On the other hand, it is clear that, while postulating a soul does not necessarily commit one to affirming immortality, nonetheless evidence, - if such exists, - for personal survival after bodily death would be strong evidence for an immaterial soul and thus for dualism. The reason for this is clear: if a person can be said to survive bodily death and to retain in a meaningful way some degree of his or her identity and even some degree of his or her faculties, it seems it would be because there is a substantial non-physical principle of his or her nature. As C D Broad affirmed in his classic study of mind, "if there be reason to believe that a human mind can *ever* exist and function apart from a human body, it will be almost impossible to accept the

¹⁶ Cf. Richard SWINBURNE, *The Evolution of Soul*, revised edition, (Oxford: Clarendon Press, 1997), p. 10.

epiphenomenalist theory of the mind and its relations to the body.”¹⁷ This observation will be important in a later chapter, but in the first chapter I shall not be discussing the problem of immortality. One of the surprising discoveries of this investigation has been the *theological* significance of the issue for writers on quite different sides of the debate.

In summary, the first chapter will investigate the plausibility of mind-body dualism on the basis of the most manifest phenomena of consciousness and cognition so as to establish whether it is meaningful and reasonable to posit a substantial immaterial *soul*. Whether other qualities, such as immortality or individual creation by God, may be attributed to this soul, is a separate discussion.

e) The problem of artificial intelligence

I shall not be addressing, except peripherally, the issue of artificial intelligence (AI). If the position that I am arguing here is true, then genuine ‘strong’ AI is impossible, since while human industry can manufacture ever more sophisticated *physical* artefacts, manufacturing an immaterial soul as I have defined it seems beyond human capabilities. However, if genuine AI is in fact shown to be impossible on other grounds, whether in principle or merely in terms of practical feasibility, it does not necessarily follow that the dualist position is true. For example, Sir Roger Penrose and John Searle both appear to doubt that genuine AI will ever be possible; they maintain that human cognition cannot be duplicated, but their models of the mind-body relationship remain within the pale of

¹⁷ Charlie Dunbar BROAD, *The Mind and its Place in Nature*, (London: Routledge & Kegan Paul, 1925), p. 481, emphasis in original.

physicalism¹⁸. If soul exists, then strong AI cannot exist; but if strong AI cannot exist, it does not follow that soul exists, since the ‘unduplicatable’ principle of cognition could hypothetically be (ultimately) physical in nature. The latter is close to the affirmation made by some non-reductive physicalists, a position that will be examined more closely in Chapter II.

f) The gratuity of mind-brain dualism?

As we shall see, critics of mind-brain dualism insist how difficult it is for scientific minds to deal seriously with the suggestion that there is an immaterial entity, not subject to immediate empirical verification, operative at the very centre of human cognition. The impressive consensus with which substance dualism is disdained by most scholars interested in neuroscience raises the question of why it should be investigated seriously, still less be granted any kind of provisional possession of the field pending such an investigation. Is the *onus probandi* not squarely on the shoulders of those who posit such a nebulous, even spooky, substance? If dualism were proposed as a scientific hypothesis to account for manifestly neuromechanical activities that remain as yet unexplained, then dualism would indeed appear to be a gratuitous and unscientific hypothesis, and its explanatory and predictive value *for neuroscience* could well be insignificant. This may be granted; we see that objections to dualism’s ‘unscientific’ character, far from being fatal to the dualist position, in fact clarify the fact that dualism is not a scientific hypothesis (not

¹⁸ Cf Sir Roger PENROSE, *Shadows of the Mind*, (Oxford: Oxford University Press, 1994), p. 393ff. and *passim*. Cf John SEARLE, “Minds, brains and programs”, in *The Mind’s I*, edited by Daniel Dennett and Douglas Hofstadter, (New York: Basic Books, 2000), p. 353ff.

even, like Descartes' infamous pineal gland, a particularly poor one) but a philosophical position. (The reality that to different domains of phenomena different modes of inquiry are suitable is too axiomatic to require demonstration. An ethicist, a legal scholar, an archaeologist, a historian, a religious scholar and a clinician would all have very different approaches and preoccupations in their professional attitude to, let us say, the same preserved body dredged up from some Irish peat bog, for instance). If one grants that dualism is a hypothesis not in neuroscience but in philosophical and theological inquiry – germane, indeed, to neuroscience, and profoundly interested in and respectful of its findings and speculations – then dualism is worthy of investigation. It is not necessarily even an implicit criticism of the *methodological* naturalism of the natural sciences. In the words of Charles Hartshorne, “I recognise that the material mode of description is that part of the complete mode which is capable of scientific precision, and that, accordingly, ‘methodological materialism,’ or the restriction of attention to this mode, is a natural bias among scientists”¹⁹. We shall examine some of the positive rational support for substance dualism as we advance through the arguments. Suffice it to note here that *as a philosophical position*, dualism has none of the presumptuous strangeness it would have if it were proposed *as a hypothesis in neuroscience*. As John Beloff says,

The thesis of this [work], if it can be stated in two words, is that Mind *exists*, or, to be more explicit, that minds, mental entities and mental phenomena exist as ultimate constituents of the world in which we live. There was a time when such a proposition would have been regarded as a truism, scarcely worth a paragraph, certainly not worth a

¹⁹ Charles HARTSHORNE, *The Logic of Perfection*, (Lasalle, IL: Open Court Publishing Co., 1962), p. 217.

book, but today it can be defended only by those who are not afraid to be considered outmoded in their thinking²⁰.

Sir Karl Popper makes perhaps too strong a claim when he affirms that “all thinkers of whom we know enough to say anything definite on their position, up to and including Descartes, were dualist interactionists.”²¹ Presumably, for instance, the Epicureans would be an exception to this claim²². Certainly, nonetheless, a significant array of philosophers (and even modern neuroscientists, notably Sir Charles Sherrington²³, Wilder Penfield²⁴ and Sir John Eccles) were dualists. Thus, the position merits at least some attention, if only for the sake of historical curiosity.

²⁰ John BELOFF, *op. cit.*, p. 11.

²¹ Karl POPPER, *The Self and its Brain*, (New York: Springer-Verlag, 1977), p. 152.

²² Cf Frederick COPLESTON, *A History of Philosophy*, vol. I: *Greece and Rome*, (Westminster, MD: Newman Bookshop, 1946), p.401ff.

²³ Consider, for instance: “The physico-chemical [...] produced a unified machine from what without it would be merely a collocation of commensal organs. The psychical creates from psychical data a percipient, thinking and endeavouring mental individual. Though our exposition kept these two systems and their integrations apart, they are largely complementary and life brings them co-operatively together at innumerable points. Not that the physical is ever anything but physical, or the psychical anything but psychical.” (C S SHERRINGTON, *The Integrative Action of the Nervous System* (new edition), (New York: Cambridge University Press, 1947), from the “Foreword to 1947 Edition”).

²⁴ Cf. Wilder PENFIELD, *The Mystery of Mind*, (Princeton NJ: Princeton University Press, 1975), p. 4 and p. 80.

CHAPTER I: A Case for Substance Dualism

The basis for this chapter is a phenomenological investigation of human consciousness. By ‘phenomenological’ I mean simply that this inquiry will strive to pay heed to the phenomena of cognition, to the appearances of consciousness; to the way cognition discloses itself to the interested beholder. In keeping with phenomenological realism, I am proceeding as though with the assumption that

[t]he mind is essentially intentional. There is no “problem of knowledge” or “problem of the external world,” there is no problem about how we get to “extramental” reality, because the mind should never be separated from reality from the beginning. Mind and being are moments to each other; they are not pieces that can be segmented out of the whole to which they belong²⁵.

Though this is a controversial assumption to make, one must consider that if the assumption is not made, - if one speculates that our minds may *not* be able to know the world, - then this inquiry and every other inquiry is simply pointless until the more fundamental epistemological question is resolved.

Some arguments for mind-brain dualism

The principal arguments for dualism appear to be of eight kinds. Six are positive arguments from (respectively) *understanding, self-reflectivity, continuity of consciousness, irreducibility of consciousness, logical necessity, and free will*. The

²⁵ Robert SOKOLOWSKI, *Introduction to Phenomenology* (Cambridge: Cambridge University Press, 2000), p. 25.

seventh and eighth kinds of argument are not positive arguments for dualism but negative arguments that the alternative, physicalism, is implausible. There are three additional lines of argument that I shall not consider in this chapter; first, from *parapsychological phenomena*²⁶, since the alleged phenomena in question are highly controversial; the second, from *arguments for idealism*²⁷, for though idealism affirms with dualism the non-physicality of mind, it goes far beyond dualism in affirming the non-physicality of everything else as well, at least so far as our ability to know it is concerned; and the third, Sir John Eccles' claim that dualism is *contrary to biological evolution and the known laws of physics*²⁸, because examining dualism in this perspective would deviate from the strictly philosophical approach I am attempting to employ.

1) An argument from understanding: "The intentionality of consciousness"

The expression 'intentionality of consciousness' is a familiar one in the lexicon of phenomenology and philosophy of mind. 'Intentionality of consciousness', or 'intentionality' *tout court*, refers to the fact that mental events are always *about* something; consciousness is always consciousness *of* something; awareness always has an

²⁶ Cf. John BELOFF, *The Existence of Mind*, (London: MacGibbon & Kee, 1962). Also his *The Relentless Question*, (Jefferson NC: McFarland & Co., 1990). Cf. also Bruce GREYSON and Charles FLYNN, *The Near Death Experience: Problems, prospects, perspectives*, (Springfield IL: Charles C Thomas Publishers, 1984). Also Stephen E. BRAUDE, *The Limits of Influence*, (Lanham MD: University Press of America, 1997). For a sceptical appraisal of alleged parapsychological phenomena, cf. Antony FLEW, "Parapsychology: Science or Pseudoscience?" in Paul Kurtz (ed.), *A Skeptic's Handbook of Parapsychology*, (Buffalo NY: Prometheus, 1985).

²⁷ Cf. John FOSTER, "The succinct case for idealism", in *Objections to Physicalism*, edited by Howard Robinson, (Oxford: Clarendon Press, 1993), pp. 293-313. Cf. also his *The Case for Idealism* (London: Routledge & Kegan Paul, 1982).

²⁸ Cf. Sir John ECCLES, *The Human Psyche*, (New York: Routledge, 1992), pp. 19-20.

object. Not only is consciousness difficult to imagine without reference to a content of some kind, but it is meaningless without such a reference. Human cognition is essentially and intrinsically thematic, intentional, inseparable from ‘aboutness’. It is the very identity of the mind to be aware of an object, whether that object is presented through the five senses, through imagination or reminiscence, through intuitive understanding, insight or a process of reasoning. This reality has important consequences, among them the conclusion that there is no ‘external’ world that the mind must labour mightily to attain; there is simply the world, of which the intentional subject is one part. Even before the intentionality of consciousness is reflective and self-aware, it is operative. A three-year-old child, though she never questions the general reliability of her perceptions (nor, therefore, affirms it, for that matter), lives an *intentional* existence of ceaseless attentiveness to the world and indeed has already begun formulating discursively the problems and dilemmas this attentiveness harvests²⁹.

Roland Puccetti offers a description of intentionality that usefully relates it to its phenomenological roots:

Intentionality I take to be Brentano’s thesis that mental acts always have directedness upon objects, whereas the correct description of a physical entity never points beyond itself to anything else.³⁰

²⁹ Of course states of sleep and other forms of unconsciousness appear to be exceptions to this observation. Eccles suggests (in *The Self and its Brain*, Springer-Verlag 1977, p. 371ff.) that dreaming or oblivion are what result when the mind goes looking for data (so to speak) and finds that there is no signal coming in from outside.

³⁰ Roland PUC CETTI, “The heart of the mind: intentionality vs. intelligence”, in *The Case for Dualism*, edited by John Smythies and John Beloff, (Charlottesville VA: University Press of Virginia, 1989), p. 255.

Now, intentionality grasps the world under its several aspects (colour, shape, quantity, etc. in the case of sensory perceptions, imaginations and imaginative reminiscences) but above all under its aspect of *intelligibility*. Intelligibility is the handle by which, above all, the mind holds onto the world to which its attention is directed. I look to the left; my senses are flooded with light and colours, with a clear object close by and a more dimly perceived jumble of objects forming a back- and foreground. My mind does not simply passively receive these stimuli, but spontaneously and at first unreflectively ‘reaches into’ this object and its surroundings to perceive its intelligible content: It is a lamp. I know other things about the meaning of this object: It is turned on. It is useful for reading. Previous experiences give me common labels for the object (‘lamp’, ‘une lampe’) as well as a vast array of meanings-about-the-lamp: It has been in the family for years. It uses a fluorescent bulb, which remains cool, unlike an incandescent bulb. It is powered, through hundreds of kilometres of copper wire, by magnetised turbines spun around by the dammed waters of one of the rivers of northern Québec, and so forth. Now, all of these ‘intentions’ of my mind going out to meet the lamp are quite beyond the bald sensory experience of light and colour (or of cold metal if I touched it). My mind grasps the lamp *as intelligible*. Intelligibility, the presence of meaning, is what my mind seeks and finds, often without my deliberately directing it, often without clear self-reflective awareness of what I am doing³¹.

³¹ The scholastic tradition in epistemology describes this process of ‘distilling’ non-physical meaning from the objects (even physical) it which it inheres as ‘abstrahere’, ‘abstraction’, a word whose implicit concrete imagery is aptly expressed by the image of distillation - cf. Jacques MARITAIN, *Introduction to Philosophy*, (Westminster MD: Christian Classics, 1991), p. 113.

Understanding is not such that we either enjoy it or lack it altogether. To be human and to be aware is to encounter only what is in some manner understood. Thus, it may be said that understanding is an unsought condition; we inexorably inhabit a world of intelligibles. But understanding as an engagement is an exertion; it is the resolve to inhabit an ever more intelligible, or an ever less mysterious world³².

One may be able to imagine or conceive what sensory perception could “look like” at the neural or cellular level; there is no absurdity in positing light-sensitive rods and colour-sensitive cones, pressure-sensitive nerve endings in fingertips, stimulated by contact with the lamp and transmitting electrical impulses through the nerves to one’s brain. Yet, what nerve ending does ‘lampness’ stimulate? What kind of cell is sensitive not to light or touch but to meaning? What neural chemicals constituted understanding when Faraday understood why electricity behaves the way it does? What do one’s brain cells look like when they detect logical necessity (as in “colour requires spatial extension”), or moral excellence (“the fire-fighters ran up the stairs of the burning building to save those trapped inside”), or aesthetic splendour (Brandenburg Concerto no. 6, to most hearers) or a notion of quantity (Archimedes’ intuitive approximation of the value of π)? Such questions seem ludicrous. However, meaning is at the centre of human cognitive existence, defining the human mind which essentially intends-the-intelligible. Intelligibility is irreducible; it cannot consist ultimately (the way stimulation of the visual cortex can realistically be said to consist ultimately) of a certain array of molecules, atoms and electrons. Therefore the mind must consist (among other constituents) of a non-physical principle of understanding, which I call soul. (For the purposes of this discussion,

³² Michael OAKESHOTT, *On Human Conduct*, (Oxford: Clarendon Press, 1975), p. 1.

I am considering what may be called the moral sense as a form of understanding; this has the advantage of being compatible with most ethical models, whether they derive their force from pragmatic, deontological, religious and/or other considerations, thus prescinding from the problem of the ground of moral reasoning).

As Puccetti remarks,

[...] letters on paper or raised Braille bumps have no meaning in and of themselves; their propositional content, if any arises in the mind of a beholder already possessing a relevant semantic scheme. For that matter, the same dissociation must hold for patterns of neural activity in the human brain. Suppose you come into the room and say to me, “It’s raining.” On current knowledge of brain function, it is not until nerve impulses triggered by your acoustic speech signals reach Wernicke’s area in my left cerebral hemisphere that a mental act of understanding takes place. I understand you to be giving me a weather report. But it is surely not the case that a correct description of neuronal activity going on at the cortical juncture of parietal, occipital, and temporal lobes in my left hemisphere is itself about the state of the weather outside.³³

The *irreducible* character of understanding as a major operation of human cognition can be seen in several ways. *Insight*, for instance, when a person arrives at an important, perhaps epochal understanding in a sudden instant of clarity, is an example of the irreducibility of understanding to a mechanistic operation. Even if it were granted that computation is a ‘mechanistic’ process of reasoning, crucial insights are strikingly non-computational in character. Consider a few watershed discoveries by figures in the history of ideas, such as Archimedes’ *method for approximating π* , Darwin’s grasp of the

³³ Roland PUCCETTI, “The heart of the mind: intentionality vs. intelligence”, in *The Case for Dualism*, edited by John Smythies and John Beloff, (Charlottesville VA: University Press of Virginia, 1989), pp. 260-261.

immense explanatory power of *natural selection*, Husserl's *return to things themselves*, Buber's *I-Thou* and *I-It* dichotomy, Marx's insight into the crucial role of *labour and economic forces* in the shaping of history; these are not conclusions coming at the end of series of algorithms, but bursts of insight that grasp in a moment some intrinsic truth about the nature of things. John Horgan reports that, by his own account, Sir Roger Penrose's "best work arose not from any deductive, logical process but from sudden intuitions and insights into an indescribably beautiful Platonic realm"³⁴. From these heuristic insights patient algorithmic reasoning can and usually does follow, but the foundational insights cannot be seen as simply the logical, predictable conclusion of prior lines of reasoning. They are insights dense with truth, supposing keen and alert understanding that can perceive meaning:

[...]insight comes suddenly and unexpectedly [...] it is reached, in the last analysis, not by learning rules, not by following precepts, not by studying any methodology. Discovery is a new beginning. It is the origin of new rules that supplement or even supplant the old. Genius is creative. It is genius precisely because it disregards established routines, because it originates the novelties that will be the routines of the future. Were there rules for discovery, then discoveries would be mere conclusions. Were there precepts for genius, then men of genius would be hacks³⁵

Another apparently irreducible manifestation of understanding is the phenomenon of humour and laughter. Even more clearly than is the case with sadness (which has more obviously emotional and physiological causes), laughter involves not only a sweeping

³⁴ John HORGAN, *The Undiscovered Mind*, (New York: Touchstone, 1999), p. 240.

³⁵ Bernard LONERGAN, *Insight: A Study of Human Understanding*, (Toronto: University of Toronto Press, 1992), p. 29.

grasp of meaning (as when the significance of a punch line hits us) but the capacity to perceive incongruity or absurdity. Not all absurdity or incongruity is humorous; $2 + 2 = 5$ is absurd but if it is funny, it is so only in a very mild way. On the other hand, the humour of many forms of satire that identify and emphasise human foibles seem able even to cross otherwise impermeable cultural barriers; e.g., the broad appeal of Cervantes' *Don Quixote*.

Howard Robinson addresses an important physicalist account of intentionality in the following way:

In general Churchland creates the impression that so long as the mode of representation employed is non-verbal, the traditional problems of intentionality and physicalism do not arise. But this cannot be the heart of the matter, for 'aboutness' is the problem and that is a property of anything that can be called a 'representation', whether or not it is linguistic. The magic notion which is supposed to bridge the gap between the mental and the physical is *information*. Information is held to be naturally present in the physical world, *passim*, and to possess intentionality because it is *about* something. [...] The obvious problem with any attempt to treat information physicalistically is that a signal is only information *to* someone, rather in the way that the marks that constitute the writing in a book would have no sense and convey nothing *in themselves*, if there were no readers.³⁶

2) An argument from self-reflective consciousness or subjectivity

This line of argument is closely related to but distinct from the first. In the last argument, I emphasised the fact that consciousness is always intentional, is always 'consciousness-of' something, and that the aspect of consciousness we call mind is

³⁶ Howard ROBINSON, "Introduction", in *Objections to Physicalism*, edited by Howard Robinson, (Oxford: Clarendon Press, 1993), p. 16.

conscious-of-meaning. In this argument the point is that mind is also conscious-of-*itself*—of itself *as mind*. It is self-reflective or subjective. Not only is the human mind conscious of meaning, not only does it know meaning, but also human consciousness knows that it knows. It is a *self-reflective* consciousness; it is a subject that is conscious of being a subject. It is both language and metalanguage (and indeed, meta-metalanguage, as the progression of this self-awareness is unbounded); it is a set capable of calling into question and examining its own coherence within a larger set, and so on *ad infinitum*.³⁷ It seems to be this capacity for self-criticism that allows us to distinguish confidently between dreaming and waking. When I am dreaming, I have no control over the questions I ask in the dream, and if the sentence “I am awake” occurs to me, it does not occur to me to subject the sentence to verification. When, however, I am awake, I can instantly ask myself if I am awake, how I know I am awake; and the fact that I can deliberately subject my consciousness to critique persuades me that I am in fact in possession of my senses. Now, this capacity for self-transcendence is a remarkable thing and bespeaks a principle of consciousness capable of standing outside the conscious individual (as it were) and evaluating itself. This principle cannot meaningfully be reduced to a physical entity. Self-transcendence seems simply meaningless when predicated of a physical entity, wherefore one must posit a non-physical principle of consciousness. It would not be enough to propose that an entity with the capacity for self-transcendence might arise or emerge from

³⁷ These references to *metalanguage* and *set* allude, of course, to the work of Kripke and Gödel respectively. Gödel’s incompleteness theorem has a striking application to the problem of consciousness, as Roger Penrose discusses at length (cf PENROSE, *Shadows of the Mind*).

a wholly physical entity, since this fails to explain how the crucial capacity could in fact arise from a matrix which cannot meaningfully possess that capacity.

3) An argument from the continuity of consciousness

This argument points out that the human mind is conscious of being a single entity across significant stretches of time and across the multiplicity of events that define neuromechanical activity. To this we may add the fact that not all cerebral events, though one may be conscious of them, are directly present to one's consciousness, but these are clearly distinct from the multitude of conscious events occurring throughout our waking hours.

This can be illustrated in the following way. At any moment of one's waking life, one can advert to the massive range and number of events of which one is conscious, dimly or clearly; this becomes clearest when one considers a situation especially rich in stimuli (for instance, bicycling down a busy road to an anxiety-fraught meeting while carrying on a conversation with a friend). However, even in an excessively tranquil situation (e.g., lying down in an empty, darkened, soundproof room) one is simultaneously conscious of a range of things. Now, at any waking moment, one can advert to a number things that are occurring in oneself, regulated by one's brain and nervous system, of which one is normally unconscious; breathing, pulse, digestion, involuntary nervous events (such as the classic knee-jerk reaction, or the distinctly unpleasant burning sensation when the ulnar nerve is bumped) and so forth. Then, one can advert to a range of stimuli of which one is continually but dimly aware: familiar sounds in the distance, light flooding one's

eyes from familiar objects in the room, vague recollections of a future engagement that will affect one's schedule. Finally, one can advert to the things that are quite explicitly occupying one's thoughts and senses: sudden, unfamiliar noises, objects found in unaccustomed places, a piece of music one is concentrating on learning, the faces in a crowd when one is energetically scanning for a friend, and so on. Now, these stimuli and preoccupations can occur simultaneously; whatever their precise nature, during our waking hours we are simultaneously conscious to varying degrees of several things, while a host of other things are going on inconspicuously in our brains³⁸. However, across the range of discrete conscious (and unconscious but still neural) events, we retain a vivid awareness of being a single percipient, a single consciousness, a single subject. Part of the stress of over-stimulation is precisely that one is only a single mind, and a single mind “can only take so much”. Though distinct and unrelated events are occurring in one’s consciousness through the senses, the imagination, the emotions and the intellect, one does not have as many consciousnesses as one has discrete stimuli, nor even as many consciousnesses as one has distinct faculties. In other words, human cognition displays the phenomenon of radical unity, of radical singularity, despite the diversity and indeed dissipation of its several functions. The problem of reconciling this unity of consciousness with the multiplicity of the neural functions that are held to subtend it is often called ‘the binding problem’ in the philosophy of mind³⁹. The human mind, therefore, must involve a

³⁸ The fact that consciousness is inconceivable without a shifting set of perceptions that “animate” it that inspired Hume to equate mind with those perceptions while denying that there is any substantial entity to ground them. This is the critical difference between Cartesian and Humean dualism; cf. John FOSTER, *The Immaterial Self: A defence of the Cartesian dualist conception of mind*, (London: Routledge, 1991).

³⁹ Cf John HORGAN, *The Undiscovered Mind: How the human brain defies replication, medication and explanation*, (New York: Touchstone Books, 1999), p. 236.

principle that is a ground of unity and organisation, standing sufficiently apart from the observable functions of the mind to advert to them as distinct events but also underlying their unity so as to remain aware that these distinct events involve the same single subject. This principle, therefore, must transcend the several discrete functions that are the observable manifestation of mind. It must transcend them, moreover, not only across *simultaneous* diversity but across stretches of time: the same mind that experiences simultaneous discrete events as a single whole also experiences the passage of time as a progression *affecting a single subject*. It is a most common experience to be conscious of what is occurring right now to oneself, and *at the same time* to be able to evoke, to recall events from an hour ago - from yesterday - from last year - from twenty years ago - from distant infancy. All of these are recalled as experiences that occurred in the life of the selfsame single subject. Thus human cognition involves a principle of unity and continuity that coexists with, but that must transcend, the physical reality of subjective experience.

What is the locus of this unity and continuity of consciousness? What is the seat of this single 'ego'? The sense of being a single being unified across a little bit of space and a lot of time requires a 'ground' of consciousness that is not wholly physical, not wholly subject to the body's changefulness and multiplicity.

Geoffrey Madell argues a very similar case based on what he calls "personal identity". He too argues that the unicity of experiences in and across time cannot satisfactorily be explained in physicalist terms:

In order to claim any [simultaneous] group of experiences as mine, I must first establish that they satisfy the suggested criteria [of being related to the single same body]. But I can

only do this if I first identify the experiences in question, and just doing this is to identify them as mine. Nor can it be supposed that this difficulty is confined to the case of simultaneous experiences. The same absurdity confronts us if it is claimed that what unites a set of experiences over time is their being all related to the same body. This must be so, since on the criterion of bodily continuity the fact that I have the clearest possible memory of a past experience as an experience of mine and that no one else has such a memory or ever will still leaves us with the question, did that experience happen to me?⁴⁰

Madell concludes that the nature of personal identity is such as to support a dualism, if only of properties, but that this particular argument shows that property dualism cannot avoid becoming substance dualism:

These considerations show conclusively that the conception of personal identity, which I have argued for, is totally incompatible with physicalism. What we must now look at is the double aspect view of the mind-body relationship [or what will be referred to in these pages as property dualism]. [...] It has never been clear to me what is to prevent the double aspect position from collapsing into Cartesian dualism, and I think a consideration of the way the issue of personal identity impinges on it shows that it does in fact so collapse.⁴¹

Madell explains that one can attribute “the property of subjectivity” to both the “mental and physical aspects”, or “restrict” it “to the mental”. The second certainly appears to be the case, virtually by definition. “But,” if this is the case,

this leads immediately to Cartesian dualism, rather than a double aspect position. For we have in effect committed ourselves to saying that only the mental side is really me, and that in so far as a body is mine it is so only because it is related to that which has subjectivity

⁴⁰ Geoffrey MADELL, “Personal identity and the mind-body problem”, in *The Case for Dualism*, edited by John Beloff and John Smythies, (Charlottesville VA: University Press of Virginia, 1989), p. 26.

⁴¹ *Ibid.*, p. 39.

in its own right: my mind, or self. Moreover, if only the mental side has the property of subjectivity, only the mental side has what must go with this, an identity through time which is strict and unanalysable. This commits us even more clearly to dualism.⁴²

This is so, in Madell's view, because of what he calls "McTaggart's basic insight, that no objective description can entail or imply a first-person ascription"⁴³.

Madell seems to be saying that the identification (even under putative "double aspects") of mental with physical violates the completely different approach of "objective descriptions" and "first-person ascriptions". For instance, no account of any set of facts can ever convey the state of (say) "being aware of the immensity of the sky"; nor can the content of a first-person experience ever convey the facts about the physical state of the observer. Physicalism attributes to the physical world a burden it is incapable of supporting and a "methodology" totally foreign to what is esteemed as scientific objectivity: the burden of feeling "what it is like to be" a human being⁴⁴. No objective description can capture or convey these *qualia* to an observer.

4) An argument from the irreducibility of consciousness

At the heart of John Foster's work *The Immaterial Self*, in which the author defends "the Cartesian dualist conception of the mind", is an intricate discussion of many

⁴² *Ibid.*, pp. 39-40.

⁴³ *Ibid.*, p. 36.

⁴⁴ With apologies to Thomas Nagel for paraphrasing the title of his memorable article, on behalf of a position with which he cannot be supposed to sympathise. (Cf Thomas NAGEL, "What is it like to be a bat?", in Douglas HOFSTADTER *et al.* (eds.), *The Mind's I*, (New York: Basic Books, 2000).).

issues arising from the dualist thesis. Concluding at one point, for instance, that “I shall assume that the corporealist position has been refuted and that the dualist claim is correct,”⁴⁵ Foster devotes the other sections of his book to such topics as clarifying whether the Cartesian model of dualism is more reasonable than Hume’s, addressing the alleged lack of positive attributes in the self as postulated by Cartesian dualism, and discussing many details of the various models of the brain-mind relationship. For our present purposes, the most important question is, On what basis does Foster consider that the “corporealist” claim has been refuted and the dualist claim established?

His central argument seems to be that while a mental event (such as pain) may be correlated with observable physiological events (such as the firing of C-fibres in the brain), mental events *as such* are not reducible to anything else. (In Foster’s terminology, they are “fundamental” realities). For all the physical correlates, pain *itself* (or any other *qualia* or consciousness-event, taken as the state of experiencing or being-in-pain) is *just pain* and cannot be decomposed into anything more fundamental. “Thus it just seems obvious that someone’s being in pain, or someone’s having a visual experience, involves something genuinely additional to all the non-mental factors to which the theorist might seek to reduce it.”⁴⁶

There is no absurdity in decomposing any physical reality into some array of more fundamental entities; indeed, a complete knowledge of the properties of more fundamental entities (such as atoms and molecules) would allow us confidently to predict properties of

⁴⁵ John FOSTER, *The Immaterial Self*, p. 212.

⁴⁶ *Ibid.*, p. 150.

those same entities when they co-exist in a certain disposition (such as water when molecules of H₂O co-exist at a certain temperature). This is not the case, however, with consciousness:

The upshot of this is that the forms of constitution postulated by the mental reductionist are simply not comprehensible: given their *sui generis* character, we have no way of understanding how mental facts could be non-mentalistically constituted.⁴⁷

Foster further clarifies the nature of the incomprehensibility of physicalist claims:

It is not that the constitutional claims are semantically defective or involve some implicit contradiction. It is just that we can never achieve a perspective in which we can grasp how such constitutional relationships are possible – a perspective in which we can understand how such facts as Smith's being in pain and Mary's believing that dodos are extinct could be derived from facts of a non-mental kind.⁴⁸

The human mind, in this account of things, is thus what Foster terms a *basic mental subject*:

An entity qualifies as a mental subject if and only if it is something which has mental states or engages in mental activities [...] It qualifies as a basic (mental) subject if and only if it is represented as a mental subject in the *conceptually fundamental account* (i.e. in terms not amenable to further conceptual analysis) of the *metaphysically fundamental reality* (i.e. the reality of metaphysically basic facts).⁴⁹

⁴⁷ *Ibid.*, p. 156.

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*, p. 203.

An objection to which this perspective appears to be susceptible is that, while it is all very well to describe pain and other mental states as non-physical, they are states which can sometimes be predicated truly of manifestly corporeal beings (namely, human persons).

Thus suppose Jones [...] is in pain. Our natural inclination is to accept the following three propositions. First, the pain belongs to a basic subject; in other words, whatever the possibilities for conceptual and metaphysical reduction, there being something which is *in* pain is an irreducible feature of the situation and requires recognition in the philosophically fundamental account. Second, the basic subject who suffers the pain is Jones himself [...] Third, as a *human* individual, Jones has a corporeal nature: he is not a purely spiritual entity, like an angel or a disembodied soul [...]⁵⁰

This appears to present a problem. Since Jones, the basic subject who is in pain, is manifestly a corporeal being, how can the dualist claim, that all basic subjects are wholly non-physical, be sustained? “[...H]ow is it possible for something both to be a physical object and to have, in a way which is not amenable to conceptual or metaphysical reduction, additional intrinsic attributes which are extraneous to its physical character [...]”⁵¹

But this is only a problem for the property dualist (whom we shall examine in greater detail later) who describes mental properties as “intrinsic attributes” of physical entities, attributes “extraneous to its physical character”. The substance dualist by definition claims that the person is a “basic mental subject” (thus accounting for consciousness that cannot be reduced to non-mental terms) but does not extend the scope

⁵⁰ *Ibid.*, p. 207.

⁵¹ *Ibid.*, p. 208.

of this to include the person's corporeity. The latter is a genuine aspect of the person's existence, but is not described in terms that attempt to make corporeity bear the weight of being a basic mental subject in Foster's sense.

5) Arguments from logical necessity

An example of this kind of argument figures prominently in David Chalmers' *The Conscious Mind*. (Chalmers does not accept substance dualism but he does describe his position as *property* dualism, in contrast to an eliminative or reductive materialism that interprets consciousness as a *physical* property of physical entities). Chalmers writes:

- 1) In our world, there are conscious experiences.
- 2) There is a logically possible world physically identical to ours, in which the positive facts about consciousness in our world do not hold.
- 3) Therefore, facts about consciousness are further facts about our world, over and above the material facts.
- 4) So materialism is false.

Chalmers goes on to explain:

If a physically identical zombie world is logically possible, it follows that the presence of consciousness is an extra fact about our world, not guaranteed by the physical facts alone. The character of our world is not exhausted by the character supplied by the physical facts; there is an extra character due to the presence of consciousness [...]

We can use Kripke's image here. When God created the world, after ensuring that the physical facts held, *he had more work to do*. He had to ensure that the facts about consciousness held. The possibility of zombie worlds or inverted worlds showed that he had a choice. The world might have lacked experience, or it might have contained different experiences, *even if all the physical facts had been the same*. To ensure that the facts about consciousness are as they

are, further features had to be included in the world [...] This failure of materialism leads to a kind of *dualism*: there are both physical and non-physical features of the world⁵².

This argument is essentially Descartes' own argument, taken up in more recent times by W D Hart, that *since we can imagine disembodied minds*, the existence of minds is *not necessarily dependent* on bodies⁵³. Chalmers insists that this does not prove substance dualism but only property dualism. This objection will be addressed in Chapter II.

A very similar argument is Richard Swinburne's principal argument for substance dualism in his Gifford Lectures, *The Evolution of Soul*. Swinburne's argument is in two stages. First, he wishes to show that "knowledge of what happens to bodies or their parts will not show you for certain what happens to persons".⁵⁴ Then, he undertakes to show that "the most natural way of making sense of this fact is talking of persons as consisting of two parts, body and soul"⁵⁵.

Swinburne argues the first point in several ways. He argues, for instance, that transplanting each half of a given brain into a separate individual's head would produce two instantiations (in terms of memories and so forth) of what was previously a single person. Now, they cannot both be the same person at the same time, so we must assume that one or neither of them is in fact the original person; whence he concludes "however

⁵² David CHALMERS, *op. cit.*, pp. 123-124, emphases in original, except "*even if...the same*", where emphasis is mine.

⁵³ Cf W D HART, *op. cit.*

⁵⁴ Richard SWINBURNE, *The Evolution of Soul*, (Oxford: Clarendon Press, 1997), p. 9.

⁵⁵ *Ibid.*, p. 147.

much we knew in such a situation about what happens to the parts of a person's body, we would not know for certain what happens to the person."⁵⁶ He proposes other thought-experiments to drive this point home: A man threatened with the double transplant of his brain into two separate persons would have no basis on which to choose a happy destiny for one and a miserable one for the other.⁵⁷ The possibility of living and functioning consciously as a disembodied being is not incoherent or logically impossible - for instance, "serious religious affirmations" of immortality, though possibly false, are not unintelligible.⁵⁸ The non-necessity of my consisting of *this particular* array of matter "shows that none of the matter of which my body is presently made is essential to my being the person that I am."⁵⁹

The second part of Swinburne's argument involves what he calls the "quasi-Aristotelian assumption: that a substance S_2 at t_2 is the same substance as an earlier substance S_1 at t_1 only if S_2 is made of some of the same stuff as S_1 (or stuff obtained therefrom by gradual replacement)."⁶⁰ This assumption, in other words, simply sets the criteria by which continuity can be established, in what seem to be uncontroversial terms: There can only be continuity in a meaningful sense if material from one thing persists in

⁵⁶ *Ibid.*, pp. 148-149. This argument seems limited by the possibility that a brain transplant may not in fact be possible, or if possible would not involve a transmission of memories. In such a case, I would suggest, the evidence for some principle of personal identity *other than* the brain/body is strengthened rather than otherwise.

⁵⁷ *Ibid.*, p. 149.

⁵⁸ Cf. *ibid.*, p. 152-153.

⁵⁹ *Ibid.*, p. 153.

⁶⁰ *Ibid.*, p. 154.

another. With this assumption and his earlier distinction between bodies and persons in hand, Swinburne concludes:

Given the quasi-Aristotelian assumption, and given, that for any present person who is currently conscious, there is no logical impossibility, whatever else may be true now of that person, that the person continue to exist without his body, it follows that that person must now actually have a part other than a bodily part which can continue, and which we may call his soul - and so that his possession of it is entailed by his being a conscious being. For there is not even a logical possibility that if I now consist of nothing but matter and the matter is destroyed, that I should nevertheless continue to exist. From the mere logical possibility of my continued existence there follows the actual fact that there is now more to me than my body; and that more is the essential part of myself.⁶¹

6) An argument from free will

This argument is based on a very controversial premise - that human agents are, at least some of the time, genuinely free and not determined. With John Beloff, I do not embark upon this argument without hesitation:

The free-will controversy is notoriously one of the most treacherous quicksands in all philosophy and I would have been much happier if I could have steered clear of it altogether. Where so many great philosophies have faltered I certainly have no ready answer and still less can I prove to the reader that free will is a reality. But the controversy is so central for the whole philosophy of mind that there is no escaping from it.⁶²

⁶¹ *Ibid.*, p. 154.

⁶² John BELOFF, *The Existence of Mind*, (London: MacGibbon & Kee, 1962), p. 141.

Like Beloff, too, “I am not so much concerned to solve this age-old puzzle as to show that the libertarian solution is a tenable one and to examine its implications for the mind-body problem.”⁶³

The impression that human agents are able freely to choose in many circumstances between several options, even if it is illusory, is one that afflicts every conscious human being. On physicalist terms, it is perfectly understandable why this massive and vivid impression should be deemed illusory, since how *can* an organ purely physical in nature, and thus reducible to atoms and molecules, transcend the determinacy of its constituents and so flagrantly defy the ironclad determinacy of nature to choose ‘freely’? On the other hand, if we bracket the physicalist explanatory model, why should such an illusion be so ubiquitous and absolute? How could the human species evolve such a completely invalid and false naive conviction? The situation is really without parallel. I feel hungry; well, there is such a thing as food⁶⁴. I feel tired; well, there is such a thing as rest. I feel sickness or pain; well, there are steps I can take to remove myself from harm's way or to retire and recuperate. I feel utterly free to (say) pick up this ‘phone to my left or not, to lean back in this chair or not, to leap up from this keyboard and go fly a kite, and so on - ah, *this* is an illusion. I am not free at all. What I *end up* doing will be what I am inexorably *bound* to do by the ineluctable progress of chemical and physical processes in my brain. Why should I entertain this absolutely vivid illusion, along with every other man and woman? It is more reasonable to conclude that the impression and appearance of

⁶³ *Ibid.*

⁶⁴ I am conscious as I write this last sentence of the influence of C S Lewis; if memory serves, this very statement “I feel hungry...” etc. can be found verbatim somewhere in his writings.

significant freedom ('freedom' and not 'indeterminacy' is the right word here, since the point is that I seem to have the power *freely* to determine a whole range of events) is a valid and accurate impression. There is, moreover, a far more pressing need for this conclusion than simply the unreasonableness of positing a universal illusion. *If every event in my life is determined physically, then the operation of what feels like my reason is not an exception. If what feels like my reason is determined, then it cannot be trusted to distinguish between true and false, between logical and illogical, for it does not have the freedom to be thematic, to be governed by detected truth or falsehood; it is purely an illusion of free inquiry and deliberation attached to what is really the inexorable movement of my neural machinery. But then, if this is the case, my grounds for having concluded the existence of neural machinery in the first place are undermined - in which case I have no grounds for believing any more in determinacy (or anything else, for that matter, including this very line of reasoning). This, then, is our dilemma: either to posit physicalism and consequently chalk not only 'freedom' but 'reason' up to illusory epiphenomenal by-product; or else to accept the validity of reason and of the impression of freedom, and consequently posit a non-physical principle of cognition (which we call soul) to ground this transcendence. If we choose the first option, the discussion has not only to end, but really should not even have begun. Physicalism as an intellectual position is ultimately self-refuting⁶⁵. As Popper observes,*

According to determinism, any theory such as say determinism is held because of a certain physical structure of the holder – perhaps of his brain. Accordingly, we are deceiving

⁶⁵ The first and most elegant presentation I ever encountered of this *reductio ad absurdum* was in C S Lewis, *Miracles* (London: Macmillan, 1960), *passim*.

ourselves and are physically so determined as to deceive ourselves whenever we believe that there are such things as arguments or reasons which make us accept determinism.⁶⁶

The dilemma is similar to that which arises from the commonplace observation that we do not perceive things but rather the effects of things on our nerve endings. Taken to its logical extreme, this implicit denial of the objectivity of sense-perception also undermines the only reason we have for believing that such is the nature of sense-perception in the first place – namely, our (sensory) observation of perception in ourselves and others.

7) An argument against the physicalist alternative

We shall examine the varieties of physicalism in Chapter II; the fundamental affirmation that all physicalist positions share and that constitutes their principal objection to dualism is the premise that ‘the physical domain is causally closed’. Physicalists do not necessarily deny outright (some do) that non-physical entities exist or that the very expression ‘non-physical entity’ can be construed as meaningful; but all physicalists by definition maintain that no non-physical entity, if such exists, can exert a causal influence on the world of our experience. In other words, the world is physical, explainable in physical terms, and if any entities exist that are not physical, they are not involved with this world in any significant sense.

The reasons for this basic position are numerous; the most important are, first, Occam’s razor, and second, the sheer success of the physicalist worldview. Occam’s

⁶⁶ Sir Karl POPPER, *Objective Knowledge: An evolutionary approach* (Oxford: Clarendon Press, 1972),

razor exhorts us to avoid postulating any more causes than are necessary to account for the phenomena at hand; to many thoughtful students of the mind-body problem, postulating a non-physical principle of cognition not accessible to empirical inquiry is gratuitous in the extreme. It is all the more unimpressive in the light of the astounding successes of the physicalist worldview in offering a coherent and rational explanation of phenomena in all other domains, and even in the realm of the human person in all respects other than human consciousness and cognition.

Some physicalist authors concede that, strictly speaking, no disproof of dualism on empirical grounds is possible, if only because no universal negation can be proved on empirical grounds, only logical grounds. They suggest that no such disproof is necessary, as the case for physicalism can be framed much more plausibly. The seventh kind of argument for dualism consists in a variation on this type of argumentation, except that it is offered from the opposing viewpoint.

From this perspective, I point out that, strictly speaking, no empirical proof of physicalism is possible – and this, for the same reason that physicalists themselves concede, namely that no empirical disproof of dualism is conceivable. Why is this so? It is so because *by definition* physicalism is not an empirical claim but a metaphysical one about the nature of things; and it is a metaphysical claim that consists at least implicitly in the denial that non-physical entities exist or, if they do, that they are causally relevant in the world. In other words, precisely because physicalism consists in a negation of any relevant reality outside that which is empirically accessible, it can be reduced to the

affirmation that “the metaphysical claims made by dualism are false” – a universal negation, and not on logical grounds.

Stated more positively, this seventh argument for dualism could be presented as follows: The world can to a great extent be successfully explained in physicalist terms. There are, however, important phenomena (such as those listed in this chapter) that make much more sense if we postulate non-physical substances. This can be done without jeopardising the many ways in which physicalism provides a sensible and successful framework for interpreting the cosmos. Therefore dualism saves the appearances of *all* phenomena and concedes as far as possible the (prodigious) usefulness of the scientific method. However, as soon as the latter is no longer quite adequate to account for the phenomena, dualism does not elevate the scientific method into an imperative so inviolable that we must falsify the data of consciousness to accommodate its claims. On this account, physicalism is an arbitrary metaphysical claim – a denial – while dualism is the model of explanation that requires the fewest sweeping generalisations. Dualism can ask with interest (with what is usually called ‘an open mind’) whether there is evidence for survival of bodily death; physicalism must apparently rule the question out of court before the inquiry even begins.

8) Another argument against the physicalist alternative

This argument, briefly, is a riposte to the common objection that dualism cannot account for the interaction it posits between two quite different substances. It consists in the observation that physicalism cannot account for the “downward” causation of the

mental, whereas this causation is what dualism would expect. Like free will, the alleged downward causation of the mental is a controversial premise, but it is (like free will) buttressed by everything we are able to know about the phenomenon from within (from the first-person perspective).

For instance, it is a common experience to know that one has, say, a stressful meeting scheduled, and to forget it under the pressure or consolation of some other preoccupation. The knowledge of the meeting remains present though not present *to* consciousness; yet once it is restored to being present to consciousness by reminiscence, it can (and usually does) have a mild to significant effect on our brains and bodies: the newly-remembered meeting causes physical symptoms of stress and anxiety. Another example might be the physical exhilaration caused by a moment of insight or understanding, sometimes at a fairly abstract level. (I recall experiencing such exhilaration when I grasped the rationale behind the standard formula in calculus for approximating the area under a curve). Another example would be the very physical symptoms of fear one can suddenly experience when a realisation of peril dawns upon one - say, if a pharmacist realises that he or she has given an elderly patient the wrong medicine.

Dualist interactionism would expect such a reciprocal relationship between brain and mind since it perceives each one as a substance capable of acting and being acted upon: Brain injury can make focused concentration difficult, and mental events like remembering or realising can cause vigorous emotional and physical reactions. In contrast, physicalism, which conceives (in the form of physicalism that most strongly concedes the reality of the mental realm) of mental events as *properties* of physical

realities, cannot explain how a *property* can causally affect that on which it depends. It is always possible to claim (as property dualism does) that mental properties are a new kind of property that does not follow the same laws as physical properties; but in this case the physicalist position is compromised (as discussed above) by the idiosyncratically unique character of consciousness in the physical world. If it possible to describe mental events as properties of the physical world while they display none of the qualities one associates with any other part of the physical world, the identification of those properties *as* properties of the physical world is not an empirical observation but the logical expression of an *a priori* materialist premise.

To put this point another way: Property dualism acknowledges the unique character of the human mind, and is willing to describe mental qualities as a kind of property quite different from any properties observed anywhere in the physical world. However, in order to remain within a naturalistic framework, property dualism classifies these mental properties as properties of the physical world. Note the reasoning at work in this classification: Mental properties are classed *a priori* as properties of the physical world because failing to do so would undermine the all-important methodological materialism (in Hartshorne's phrase) of the natural sciences. They are not classified as properties of the physical world because they have been observed empirically to be so. In fact, such a classification requires one to categorise mental and physical properties together *even though they do not manifest any common features to justify such a classification*. Thus property dualism does not present any argument to warrant the

classification of mental properties as properties of the physical world; it *assumes* the classification for a clear and specific *a priori* reason.

Conclusion

In summary, in this chapter I have defined a plausible dualism as the hypothesis that human nature and consciousness - notably cognition - can only be adequately and reasonably accounted for if we posit a non-physical principle called 'soul' that interacts with the physical principle of human cognition, called 'brain' or 'body'. In particular I have focused on five features of cognition that appear to require the dualist hypothesis.

I shall now address the case for physicalist models of the brain-mind relationship and engage physicalists' principal objections to dualism, particularly those that have emerged from positions broadly identified as property dualism.

CHAPTER II: Physicalist Approaches to the Mind-Body Problem

In this chapter I shall present four important versions of *physicalist* alternatives to dualism.

The chief authors sympathetic to physicalism who will be presented here are Daniel Dennett, Jaegwon Kim, John Searle and David Chalmers. (A number of others will be seen when we come to examine physicalist objections in Chapter III).

a) Daniel Dennett and the crux of the issue

Daniel Dennett's important work on consciousness, *Consciousness Explained*, sets out clearly and cogently the author's objections to dualism, which he considers to be "deservedly in disrepute today"⁶⁷. His principal objection is one he situates in the broader perspective of ongoing debates about the mind-body problem:

The standard objection to dualism was all too familiar to Descartes himself in the seventeenth century, and it is fair to say that neither he nor any subsequent dualist has ever overcome it convincingly. If mind and body are distinct things or substances, they nevertheless must interact [...] Hence the view is often called Cartesian interactionism or interactionist dualism. [...] the directives from mind to brain [...] *ex hypothesi*, are not physical; they are not light waves or sound waves or cosmic rays or streams of subatomic particles. No physical energy or mass is associated with them. How, then, do they get to make a difference to what happens in the brain cells they must affect, if the mind is to have any influence over the body? A fundamental principle of physics is that any change in the trajectory of any physical entity is an acceleration requiring the expenditure of energy, and where is this energy to come from? It is this principle of the conservation of energy that accounts for the physical impossibility of "perpetual motion machines", and the same

⁶⁷ Daniel DENNETT, *Consciousness Explained*, (Toronto: Little, Brown & Co., 1991), p. 33.

principle is apparently violated by dualism. This confrontation between quite standard physics and dualism has been endlessly discussed since Descartes's own day, and is widely regarded as the inescapable and fatal flaw of dualism⁶⁸.

Here Dennett is affirming vigorously the challenge to dualism of accounting for the *interaction* between physical brain or body and the putative non-physical soul or mind, and also of accounting for the apparent violation of the law of conservation of energy. Dennett goes on candidly to acknowledge the deeply held convictions that make dualism so odious to him:

[The] fundamentally antiscientific stance of dualism [he is referring to the empirical inaccessibility that dualism seems to predicate of the mind] is, to my mind, its most disqualifying feature, and is the reason why in this book I adopt the apparently dogmatic rule that dualism is to be avoided *at all costs*. It is not that I think I can give a knockdown proof that dualism, in all its forms, is false or incoherent, but that, given the way dualism wallows in mystery, *accepting dualism is giving up*⁶⁹.

It appears that Dennett's careful and heartfelt presentation of the problem clarifies a very significant factor in the mind-body debate: it is not so much that physicalists have disproved dualism on empirical grounds or even offered a more plausible account than dualism can offer of the mind-brain relationship, nor (for that matter) that dualists have dealt satisfactorily with all the difficulties in the dualist position. Rather, it appears that the real debate involves, on the one hand, the principle that intellectual honesty in all fields of inquiry requires scientifically valid argumentation, such that any theory, however useful,

⁶⁸ Daniel DENNETT, *op. cit.*, pp. 33-35.

⁶⁹ *Ibid.*, p. 37.

that requires some kind of *deus ex machina* like soul or a divine creator, is ruled out of court. On the other hand, there is the principle that invoking metaphysical arguments not subject to empirical but only to philosophical verification is perfectly valid if it accounts more fairly for the phenomena. Dualists are dualists not because they are intellectually debauched, but because they consider that the soul postulated by dualism can meet respectable philosophical criteria; physicalists are physicalists not because they cannot see the huge problem posed by consciousness, but because the high and successful standard set by the scientific method makes it incumbent upon us not to accept any postulate that does not satisfy its criteria.

b) Non-reductive physicalism

Physicalist positions that strongly identify mental events with physical events are often labelled “materialist”. “Materialism” generally signifies either *reductive* physicalism, which explicitly holds that mental events are reducible entirely to physical events and physical events alone, or *eliminativism*, which holds that “there are no positive facts about conscious experience. Nobody is conscious in the phenomenal sense.”⁷⁰ Dennett describes his position as materialist.⁷¹ A significant number of those who have devoted attention to the mind-body problem have wished to avoid both the materialist and the various dualist positions, and so have proposed a solution that would plot a course between Scylla and

⁷⁰ David CHALMERS, *The Conscious Mind*, (Oxford: Oxford University Press, 1996), p. 161.

⁷¹ Cf. Daniel DENNETT, *op. cit.*, pp. 2-42.

Charybdis⁷². This third way is sometimes dubbed ‘supervenience’, ‘non-reductive physicalism’ or ‘non-reductive materialism’. It consists in the affirmation that mental events supervene on physical events without being reducible to those physical events. The expression ‘supervenience’ is usually traced to philosopher Donald Davidson:

Davidson [...] describes the relation as follows: “mental characteristics are in some sense dependent, or supervenient, on physical characteristics. Such supervenience might be taken to mean that there cannot be two events alike in all physical respects but differing in some mental respect, or that an object cannot alter in some mental respect without altering in some physical respect. Dependence or supervenience of this kind does not entail reducibility through law or definition...” David Lewis characterises the intuition that definitions of “supervenience” are meant to capture: “The idea is simple and easy: we have supervenience when [and only when] there could be no difference of one sort without difference of another sort”⁷³.

Nancey Murphy, Ian Barbour and Stephen Post are among those who identify their own positions as examples of non-reductive physicalism.⁷⁴ It would seem that, in the abstract at least, *non-reductive* physicalism may be collapsed into physicalism of various kinds, depending on the different emphases given to several aspects of the problem. Non-reductive physicalists tend to repudiate materialism by declining to reduce mental events

⁷² This very image is also used by Howard Robinson in his introduction to *Objections to Physicalism*.

⁷³ Nancey MURPHY, “Supervenience and the efficacy of the mental”, in Russell *et al.* (eds.), *Neuroscience and the Person* (Vatican City: Vatican Observatory Press, 1999), pp. 148-149. The remark in square brackets appears to be Murphy’s. In a separate citing of the same passage, Jaegwon Kim notes: “the passage just cited signalled the introduction of the supervenience idiom into the contemporary debate on the mind-body problem” (*Mind in a Physical World*, Cambridge MA: Bradford Books/MIT Press, 1998, p. 6).

⁷⁴ Cf. Nancey MURPHY, *op. cit.*, p. 147; Ian Barbour, “Neuroscience, artificial intelligence, and human nature” in Russell *et al.* (eds.), *op. cit.*, p. 249; Stephen G POST, “A moral case for nonreductive physicalism”, in *Whatever Happened to the Soul?*, edited by Warren Brown *et al.* (Minneapolis MN: Augsburg Fortress Press, 1998), pp. 195-212.

such as consciousness and cognition to the operation of a ‘mere’ physical mechanism; but if pushed to clarify just how consciousness manages to surpass or transcend the matter alone from which mental events emerge, non-reductive physicalists explicitly disavow any non-material principle of mind. Thus in the end, non-reductive physicalism in this sense at least is indeed a form of physicalism, differing from other sorts only (perhaps) by the degree of (material) sophistication or complexity it is willing to predicate of human consciousness. I propose the following thought experiment to illustrate the incapacity of physicalism properly so-called to be genuinely nonreductive: Let us imagine a group of scientists who have been abducted by benevolent extraterrestrials and given the enviable privilege of having unlimited laboratory facilities and unlimited time to conduct their researches. There is no limit to the kind or quantity of materials at their disposal; the extraterrestrials have perfected analgesics and resuscitants to the point that death will never stop the scientists’ pursuit of truth, and in their enthusiasm for learning, the otherworldly beings provide unlimited volunteers for experimentation. (The analgesics and resuscitants ensure that even with this high level of informed co-operation, there will be no ethical issues resulting from grave consequences like pain or death in these experiments). Now, given this scenario, is it conceivable that the scientists will ever be able genuinely to reproduce human intelligence and consciousness where previously it was non-existent? There are no practical limits on their abilities, only metaphysical ones (assuming such exist, which it is not necessary to assume for this exercise). Physicalism must logically affirm that, even if it never happens in our world, consciousness *could* be duplicated under the conditions described. Dualism affirms that *even under* the conditions

described, human consciousness cannot *in principle* be duplicated - *a fortiori* in our world. There is no other possible outcome. Therefore no form of physicalism can be meaningfully described as nonreductive.

Some of the most articulate expressions of scepticism regarding the tenability of ‘supervenience’ are those of Jaegwon Kim. Kim points out that, if supervenience can be said to capture any insight, it is to formulate the dilemma that *constitutes* the mind-body problem: namely, the observation that, by all appearances, mental events supervene on physical events. The mechanism of this supervenience and, more crucially, the precise nature of the mental events that supervene, are not clarified by this position. For this reason Kim concludes that supervenience does not state a solution to the mind-body problem; it is simply a statement of the mind-body problem⁷⁵.

Elsewhere, Kim clarifies his view of the options actually available in addressing the mind-body problem and concludes, as I have done in Chapter I, that ultimately only materialism and dualism are possible as models of the mind-brain relationship:

Surprisingly, the abandonment of psychoneural reductionism has not led to a resurgence of dualism. What is curious, at least in terms of the expectations set by the earlier mind-body debates, is the fact that those who renounced reductionism have stayed with physicalism⁷⁶.

The distinctive feature of the mind-body theories that have sprung up in the wake of the identity theory is the belief, or hope, that one can be an honest-to-goodness physicalist

⁷⁵ Cf. Jaegwon KIM, *Mind in a Physical World*, p. 14.

⁷⁶ In fact, as Kim remarks elsewhere, “when the brain-state theory began fading away in the late 1960s and early 1970s few lapsed back into Cartesianism or other serious forms of mind-body dualism” (*Mind in a Physical World*, p. 2).

without at the same time being a reductionist [...] The leading idea in all this has been the thought that we can assuage our physicalist qualms by embracing “ontological physicalism,” the claim that all that exists in space-time is physical, but, at the same time, accept “property dualism,” a dualism about psychological and physical attributes, insisting that psychological concepts or properties form an irreducible, autonomous domain [...] To lay my cards on the table, I will argue that a middle-of-the-road position of the sort just described is not available. More specifically, I will claim that a physicalist has only two genuine options, eliminativism and reductionism. *That is, if you have already made your commitment to a version of physicalism worthy of the name, you must accept the reducibility of the psychological to the physical, or, failing that, you must consider the psychological as falling outside your physicalistically respectable ontology [...]* So if I am right, the choices we face concerning the mind-body problem are rather stark: there are three – dualism, reductionism, and eliminativism⁷⁷.

It would appear, then, that ostensibly non-reductive physicalist solutions to the mind-body problem do not in fact offer a meaningful solution; instead, they offer a restatement of the problem but avoid addressing the quandaries it raises. It does not capture what is best in each extreme position; it captures no new or distinct idea not already present in those extremes.

Kim demonstrates this point in another way:

Mind-body supervenience is consistent with a host of classic positions on the mind-body problem; in fact it is a shared commitment of many mutually exclusionary mind-body theories [...] If mind-body supervenience is a commitment of each of these diverse, and conflicting, approaches to the mind-body problem, it cannot itself be a position on this problem that can be set alongside these classic alternatives⁷⁸.

⁷⁷ Jaegwon KIM, “The Myth of Nonreductive Materialism”, in Warner and Szubka (eds.), *op. cit.*, pp. 243-244, emphasis mine.

⁷⁸ Jaegwon KIM, *Mind in a Physical World*, pp. 12-13.

The “diverse and conflicting” positions to which Kim alludes are *emergentism* (“a form of dualism that takes mental properties to be non-physical intrinsic causal powers [...] Emergentism [...] views mind-body supervenience as something that admits no explanation; it is a brute fact that must be accepted with ‘natural piety’”); *physical realisationism* (“the view that [...] there can be no non-physical realisations of mental properties”); *type physicalism* (“which reductively identifies mental properties with physical properties [...] On type physicalism, mental properties *are* physical properties”), and *epiphenomenalism* (“viewed by some physicalists [...] as their chief dualistic rival”), all of which (in his view) presuppose the observations made by supervenience⁷⁹. John Foster situates epiphenomenalism in relation to (other) physicalist theories of mind in the following manner:

[...T]he identity-theorist argues: *The physical world is a closed system. Mental items causally affect the physical world. Therefore, mental items are physical.* The epiphenomenalist argues conversely: *The physical world is a closed system. Mental items are non-physical. Therefore, mental items do not causally affect the physical world*⁸⁰.

Foster’s remarks help clarify why epiphenomenalism seems to occupy a middle ground between physicalism and dualism, and why it could be considered the “chief *dualistic rival*” model to physicalism. Epiphenomenalism is dualistic inasmuch as it attributes non-physicality to mental items, but remains solidly physicalist inasmuch as it denies to those items any relevance to or causality within the physical realm.

⁷⁹ Cf. *ibid.*

⁸⁰ John FOSTER, *The Immaterial Self: A defence of the Cartesian dualist conception of mind*, (London: Routledge, 1991), p. 189.

The mind-body problem, then, appears to have inspired a set of models each crafted to explain certain crucial data in the problem while, in some cases, allowing others to pass by. Supervenience, rather than being a helpful *solution* to the problem, is a helpful restatement of the problem: “Mental events supervene, at least in some sense, on the physical”. (A thoroughgoing Cartesian dualist can without difficulty admit that this is the case when, for instance, brain injury affects cognitive faculties. Therefore this observation can be accepted by all models of the mind-body relationship - except idealism, which would deny that what appears to be physical reality is in fact real).

The models that have been crafted to help untangle this knot (as opposed to eliminativist and idealist positions that consider the “problem” to be in some sense unreal) range from the strongest physicalist position – *materialism*, which holds that “mental” events *are in fact* physical events – to the strongest dualist position – *substance dualism*, which holds that mind and brain (or soul and body) are distinct entities each capable at least theoretically of existence in isolation from the other. Still within the category of physicalist positions, there is a range of more nuanced models that *tend* more toward materialism or more toward some sort of dualism. Identical for our purposes with materialism is *type physicalism*; however, *emergentism* and *property dualism* appear to be physicalist in name only. They recognise the phenomenon of “mental events” and classify them as distinct from physical events; they are genuinely *non-reductive*. However, though they affirm the truth of the defining physicalist premise - David Chalmers expresses this premise as “The physical domain is causally closed”⁸¹ - in no way are emergentism and

⁸¹ David CHALMERS, *op. cit.*, p. 161. Note that Chalmers refrains from making physicalism affirm that “a non-physical domain *does not exist*”.

property dualism able to *account* for mental events within that definition. In effect, these positions are equivalent to *substance dualism* and avoid incurring the disdain normally reserved for that position only by affirming that the physical domain is causally closed; which, I submit, will be found to be inconsistent with the positive affirmations they do make about mental events. If we consider their descriptions of mental events, and their inability to account for causal relationships between mental and physical events in strictly physicalist terms, they are for practical purposes within the dualist pale. We shall examine the position of property dualism as represented by David Chalmers and of emergentism as expressed by John Searle.

c) *John Searle and emergentism*

One of the principal examples for John Searle's philosophy of mind is his *The Rediscovery of the Mind*. In this work he presents the assumption that dualism is not even a serious contender as a model of brain-mind relationship:

[N]owadays, as far as I can tell, no one believes in the existence of immortal spiritual substances except on religious grounds. To my knowledge, there are no purely philosophical or scientific motivations for accepting the existence of immortal mental substances⁸².

Searle's insistence here on the *immortality* of the dualist's putative immaterial principle - an attribute, I must insist, not strictly necessary to the case in favour of dualism - does not seem to be the crucial factor in his cautious dismissal of it. Moreover, though

⁸² John SEARLE, *The Rediscovery of the Mind*, (Cambridge MA; MIT Press, 1992), p. 27.

he is sceptical as to the existence of any pro-dualism argument, an insight into the dualist case can be found further on in his work, where he affirms the *ontological irreducibility* of consciousness:

When we come to consciousness, we cannot perform the ontological reduction. Consciousness is a causally emergent property of the behaviour of neurons, and so consciousness is causally reducible to the brain processes. But - and this is what seems so shocking - a perfect science of the brain would still not lead to an ontological reduction of consciousness in the way that our present science can reduce heat, solidity, colour, or sound. It seems to many people whose opinions I respect that the irreducibility of consciousness is a primary reason why the mind-body problem continues to seem so intractable. *Dualists treat the irreducibility of consciousness as incontrovertible proof of the truth of dualism.* Materialists insist that consciousness must be reducible to material reality, and that the price of denying the reducibility of consciousness would be the abandonment of our overall scientific world view⁸³.

This (to Searle, false) dichotomy occasions the chief point of Searle's discussion, which is a presentation of the *emergentist* position, one that seems emphatically a form of non-reductive physicalism.

[...C]onsciousness is a causally emergent property of systems. It is an emergent feature of certain systems of neurons in the same way that solidity and liquidity are emergent features of systems of molecules. The existence of consciousness can be explained by the causal interactions between elements of the brain at the micro level, but consciousness cannot itself be deduced or calculated from the sheer physical structure of the neurons without some additional account of the causal relations between them.

⁸³ *Ibid.*, p. 116, emphasis mine. Note that in this reading, it is the dualists who invoke the empirically observed facts, while it is the materialists who are the hidebound dogmatists, insisting that a certain state of affairs *must* obtain because their system requires it.

This conception of causal emergence, call it “emergent1,” has to be distinguished from a much more adventurous conception, call it “emergent2.” A feature *F* is emergent2 iff *F* is emergent 1 and *F* has causal powers that cannot be explained by the causal interactions of *a, b, c...*If consciousness were emergent 2, then consciousness could cause things that could not be explained by the causal behaviour of the neurons. The naive idea here is that consciousness gets squirted out by the behaviour of the neurons in the brain, but once it has been squirted out, it then has a life of its own. [...O]n my view consciousness is emergent1, but not emergent2. In fact, I cannot think of anything that is emergent2, and it seems unlikely that we will be able to find any features that are emergent2, because the existence of any such features would seem to violate even the weakest principle of the transitivity of causation⁸⁴.

Searle has introduced a sophisticated and very important objection to substance dualism, one that derives its force from its seeming ability to account for the phenomena of consciousness that I have cited in Chapter I but without having to posit nonmaterial principle over and above the brain. It does so by affirming that the only mind-body problem is one of verbal confusion. We see the potential power of non-reductive physicalism advocated by Searle, Murphy and others in slightly different forms if we distil from these positions their central dispute with dualism: Dualism is unnecessary to account for the higher-level functions of consciousness as these can be satisfactorily explained as *emergent properties* of neurons alone.

Searle elsewhere describes his programme in the following terms:

⁸⁴ *Ibid.*, pp. 111, 112. Searle seems implicitly to be recognising that non-reductive physicalism is ultimately either reductive physicalism (if consciousness is emergent1 and therefore accountable in terms of causal interactions of neurons) or else suspiciously obscurantist (if consciousness is emergent2 and therefore in some mysterious way emerges from neuronal interactions and carries on its life without reference to those neuronal interactions).

The view of the relation between mind and body that I have been putting forward is sometimes called “reductionist”, sometimes “antireductionist”. It is often called “emergentism,” and is generally regarded as a form of supervenience.⁸⁵

He helpfully offers a synopsis of this view:

The famous mind-body problem, the source of so much controversy over the past two millennia, has a simple solution. The solution has been available to any educated person since serious work began on the brain nearly a century ago, and, in a sense, we all know it to be true. Here it is: mental phenomena are caused by neurophysiological processes in the brain and are themselves features of the brain. To distinguish this view from many others in the field, I call it “biological naturalism”.⁸⁶

Searle explains that he considers both “property dualism” and “materialism” to be false approaches to the problem. What characterises these options is their view that “consciousness and intentionality”, as plainly mental phenomena, are the heart of the problem; property dualists by thinking them unaccountable in materialist terms, materialists by thinking that consciousness and intentionality (which for them really “are irreducible to physical phenomena”) can be “naturalised”.⁸⁷ Clearly, then, understanding Searle’s particular contribution to the debate requires us to grasp *his account of so-called mental events*.

He points out that accounts of consciousness in contemporary analytical philosophy seem curiously prone to positing (to him obvious) falsehoods, such as the

⁸⁵ John SEARLE, *The Rediscovery of the Mind*, (Cambridge MA: MIT Press, 1992), p. 111.

⁸⁶ *Ibid.*, p. 1.

⁸⁷ *Ibid.*, p. 2.

claim that there is no such thing as “subjective mental states”⁸⁸. Searle sees these “incredible” claims as desperate attempts to avoid the dualist alternative, but considers that this is unnecessary as the dilemma is only apparent, and results from an unreflective continued use of an “archaic vocabulary”. One example of this vocabulary is the dichotomy “dualism - monism” or “mental - physical”. In Searle’s view, these dichotomies are invalid, and they contribute to such absurdities as the denial of consciousness because some philosophers fear that attributing existence to mental states is plain Cartesian dualism. Because they have accepted the assumption that in fact mental states are nonphysical, they end up resorting to absurd claims about mental states for fear that anything else will lead to the most blackly unscientific dualism. This, Searle says, is the heart of the problem.

In contrast, he affirms:

If there is one thesis that I would like to get across in this discussion, it is simply this: the fact that a feature is mental does not imply that it is not physical; the fact that a feature is physical does not imply that it is not mental. Revising Descartes for a moment, we might say not only “I think, therefore I am” and “I am a thinking being,” but also *I am a thinking being, therefore I am a physical being.*⁸⁹

In other words, if there is a mind-body problem, it is largely because use of traditional vocabulary allows one to assume that if the mental exists, it is a species of non-physical reality. This insight contributes to one of the points for which Searle is often cited: his (resolutely physicalist) denial that computers could ever have mental states:

⁸⁸ *Ibid.*, p. 3.

⁸⁹ *Ibid.*, pp. 14-15.

[...] the third-person character of the epistemology should not blind us to the fact that the actual ontology of mental states is a first-person ontology. The way that the third-person point of view is applied in practice makes it difficult for us to see the difference between something really having a mind, such as a human being, and something behaving *as if* it had a mind, such as a computer. And once you have lost the distinction between a system's really having mental states and merely acting as if it had mental states, then you lose sight of an essential feature of the mental, namely that its ontology is essentially a first-person ontology.⁹⁰

Why is this 'essential feature' important? Because, Searle explains, it is essential to recognise this feature if we are to accept that observations about mental states can be genuinely objective and "scientific". If we persist in doubting that first-person observations can be objective, then we will persist in saying intolerable things about mental events, as that they do not exist, or else that they oblige us to posit separate Cartesian substances.

Searle, it appears, invites the reader to step back and realise the simplicity of the problem: there is only a mind-body problem if we are confused physicalists who fail to apply the foundational physicalist position (perhaps expressible as "all things that exist are physical") across the board. Because of this failure, consciousness appears either as something that must be explained away or else as something that disproves physicalism. If, however, the physicalist insight were consistently applied, there would be no mind-body problem in the conventional sense. Instead, physicalists would simply accept that the

⁹⁰ *Ibid.*, pp. 16-17.

mental is a property of the physical. This allows the physicalist to profess the naturalist credo while granting all the mental phenomena without tension⁹¹.

Jaegwon Kim describes emergentism as “a form of dualism that takes mental properties to be non-physical intrinsic causal powers [...] Emergentism [...] views mind-body supervenience as something that admits no explanation; it is a brute fact that must be accepted with ‘natural piety’”⁹². This appears to attribute too much of obscurantism to Searle’s emergentism; Searle’s complaint is precisely that describing mental events as physical events should not be seen as something that requires elaborate justification. Physicalism says that the world is entirely physical; it should not hesitate to do so consistently.

It seems fair to call emergentism as a form of dualism when we consider presently the position that goes by the name “property dualism”. Searle rejects the name as a perpetuation of the “archaic” view that physicalism needs to provide credentials to its discredited dualist foes, but inasmuch as he unquestionably does describe mental events as properties of physical events, the name applies justly to his position. David Chalmers expresses this view as follows:

⁹¹ This conclusion is similar to that which is reported by John Horgan of Noam Chomsky. Chomsky, Horgan writes, considers that there is no mind-body problem because physics since Newton has shown that physical entities have non-physical properties like exerting a force of gravity. If a physical entity can exert an influence like gravity, not mediated by spatial contact, there is no reason not to suppose consciousness is the same kind of ‘nonphysical’ property of physical objects. (Cf John HORGAN, *op. cit.*). The remark is insightful but it must be said that gravity and consciousness are very different sorts of ‘nonphysical’ properties, and indeed that it is difficult to maintain that gravity is actually nonphysical. Certainly physics has no difficulty quantifying and measuring the effect of gravity, which is not the case with consciousness.

⁹² Jaegwon KIM, *Mind in a Physical World*, p. 12.

Sometimes it is argued that consciousness might be an *emergent* property, in a sense that is still compatible with materialism [...] It is often held that emergent properties are unpredictable from low-level properties, but that they are physical all the same. [...] But emergent properties [such as “self-organization in biological systems, or...flocking patterns in simulated birds”] are not analogous to consciousness. What is interesting about these cases is that the relevant properties are not obvious consequences of low-level laws; but they are still logically supervenient on low-level *facts*. If *all* the physical facts about such a system over time are given, then the fact that self-organization is occurring will be straightforwardly derivable. [...] If consciousness is an emergent property, it is emergent in a much stronger sense [...] according to which emergent properties are not even predictable from the entire ensemble of low-level physical facts [...] But this sort of emergence is best counted as a variety of property dualism [requiring] new fundamental laws in order that the emergent properties emerge.⁹³

It is to property dualism, then, and first to Chalmers’ own account of it, that I shall now turn.

d) David Chalmers: a physicalist dualism?

The position adopted by David Chalmers and of which he is one of the most articulate exponents is *property dualism*. This view, which professes to remain (at least provisionally) within a physicalist worldview, is an attempt to face the real shortcomings of materialism and acknowledge quite strongly the reality of the mental world without “lapsing” into substance dualism. Chalmers explains:

[The] failure of materialism leads to a kind of *dualism*: there are both physical and nonphysical features of the world [...] The dualism implied here is [...] a kind of *property dualism*: conscious experience involves properties of an individual that are not entailed by

⁹³ David CHALMERS, *The Conscious Mind*, (Oxford: Oxford University Press, 1996), p. 129.

the physical properties of that individual, although they may depend lawfully on those properties. [...] This is not to say [consciousness] is a separate “substance”; the issue of what it would take to constitute a dualism of substances seems quite unclear to me. All we know is that there are properties of individuals in this world [...] that are ontologically independent of physical properties.⁹⁴

Chalmers, whose case for this sort of dualism rests above all on the nature of consciousness (the attribute of subjective awareness) rather than cognition (the attribute of intelligence and reasoning), explains how *this* sort of property dualism differs from another in which the ontological dependence of properties on physical entities is *not* denied:

It is sometimes said that property dualism applies to any domain in which the properties are not themselves properties invoked by physics, or directly reducible to such properties. [...] But this sort of “dualism” is a very weak variety. There is nothing *fundamentally* ontologically new about properties such as fitness, as they are still logically supervenient on microphysical properties. Property dualism of this variety is entirely compatible with materialism. By contrast, the property dualism that I advocate involves fundamentally new features of the world. Because these properties are not even logically supervenient on microphysical properties, they are nonphysical in a much stronger sense.⁹⁵

Chalmers’ property dualism appears to be a kind of genuinely non-reductive physicalism similar to that held by a number of philosophers of mind who wish to avoid

⁹⁴ David CHALMERS, *The Conscious Mind*, (Oxford: Oxford University Press, 1996), pp. 124-125.

⁹⁵ *Ibid.*, p. 125.

materialism, supervenience and substance dualism alike. For example, Zeno Vendler⁹⁶ and Peter Forrest⁹⁷ appear to hold such positions.

Jaegwon Kim, as we have already seen, considers property dualism to be a capitulation to dualism, attempted ostensibly from within the physicalist framework but ultimately inconsistent with it:

The distinctive feature of the mind-body theories that have sprung up in the wake of the identity theory is the belief, or hope, that one can be an honest-to-goodness physicalist without at the same time being a reductionist [...] The leading idea in all this has been the thought that we can assuage our physicalist qualms by embracing “ontological physicalism,” the claim that all that exists in space-time is physical, but, at the same time, accept “property dualism,” a dualism about psychological and physical attributes, insisting that psychological concepts or properties form an irreducible, autonomous domain [...] To lay my cards on the table, I will argue that a middle-of-the-road position of the sort just described is not available⁹⁸

David Chalmers argues on the contrary that it is possible to adopt a dualism that remains within the realm of physicalist theories (though not of materialist, i.e. reductionist theories):

Many people, including a past self of mine, have thought that they could simultaneously take consciousness seriously and remain a materialist. In this chapter I have argued that this is not possible, and for straightforward reasons. The moral is that those who want to

⁹⁶ Cf. Zeno VENDLER, *Res Cogitans*, (Ithaca NY: Cornell University Press, 1972).

⁹⁷ Cf. Peter FORREST, “Difficulties with physicalism, and a programme for dualists”, in Howard Robinson (ed.), *Objections to Physicalism*.

⁹⁸ Jaegwon KIM, “The Myth of Nonreductive Materialism”, in Warner and Szubka (eds.), *The Mind-Body Problem*, (Oxford: Blackwell, 1994), pp. 243-244. Cf p. 47 *supra* and p. 48 *supra*, note 69.

come to grips with the phenomenon *must embrace a form of dualism*. One might say: You can't have your materialist cake and eat your consciousness too.⁹⁹

Kim affirms that ultimately only two positions are possible, dualism and materialism; Chalmers agrees, but affirms that the dualism he posits to save the appearances (in this case, of mental events such as consciousness) can meaningfully be posited within a physicalist framework. In other words, Chalmers shuns substance dualism as energetically as any committed physicalist. He says, “[The] failure of materialism leads to a kind of *dualism*: there are both physical and non-physical features of the world [...] The arguments do not lead us to a dualism such as that of Descartes”¹⁰⁰.

The great strength of property dualism, which is sometimes also described as the “dual-aspect” position, is that it recognises the powerful evidence for the distinctness of mental events from physical events. It can accept reason, freedom of will, consciousness and self-consciousness and the rest¹⁰¹ without attempting to reduce these to (or posit their supervenience on) physical states. Property dualism achieves this precisely by affirming that physical realities such as the brain can have a distinct class of properties, the mental, that are in no sense reducible to the physical (though, as Chalmers says, “it remains plausible [...] that consciousness *arises* from a physical basis, even though it is not

⁹⁹ David CHALMERS, *The Conscious Mind*, p. 168, emphasis mine. This chapter, tellingly, is entitled “The Irreducibility of Consciousness”.

¹⁰⁰ *Ibid.*, p. 124, emphasis in original.

¹⁰¹ There is a set of arguments employed by property dualists to defend their claim that mental properties are quite distinct from physical properties that I did not invoke in Chapter I because I do not see that they necessarily show this distinction in a compelling way, i.e. to provide evidence of *substance* dualism. Examples of such arguments are Richard Warner’s argument from incorrigibility (cf. Warner, “Incorrigibility”, in Robinson (ed.), *Objections to Physicalism*, pp. 185ff.), and George Myro’s argument from indubitability (cf. Myro, “On the distinctness of the mental and the physical”, in Warner and Szubka (eds.), *The Mind-Body Problem*, pp. 329 ff.).

entailed by that basis”¹⁰²). Property dualism abandons materialism by refusing to describe mental events as a kind of physical event, but it retains physicalism by describing mental events as a totally new sort of property *characteristic* of the wholly physical. In this way property dualism appears to achieve all the explanatory triumphs of substance dualism without incurring the penalty of having to explain the interaction of physical with non-physical or the apparent violation of the law of conservation of energy.

William Stoeger appears to argue implicitly for the possibility of a property dualism when he acknowledges all the evidence for the distinctiveness of the mental vis-à-vis the physical, but questions whether it is even meaningful to distinguish sharply between notions as ambiguous as “material” and “spiritual”:

[...] if we ask what characteristics matter, or, even more narrowly, entities possessing mass-energy, can have, what restrictions should we place on answers to those questions? We really have to include life, consciousness, and mental capacity as possible properties of matter, or of entities with mass-energy, even though we do not yet understand the laws of nature that relate to these remarkable characteristics. [...] Thus, we begin to see that speaking about “matter”, or what is “physical”, involves deep ambiguities, both scientifically and philosophically. Obviously then, “the nonphysical” and “the immaterial” are even more ambiguous designations. In this context it is difficult to specify to what these predicates refer.¹⁰³

¹⁰² *Ibid.*, p. 125.

¹⁰³ William STOEGER, “The mind-brain problem”, in *Neuroscience and the Person*, edited by R J Russell *et al.*, (Vatican City: Vatican Observatory Press, 1999), p. 134.

Clearly Stoeger is making a point of the utmost importance for our discussion here. He seems to maintain that substance dualism could eventually be found to be the correct model for the mind-body relationship, but that it could just as well not:

All of the issues with which we are concerned here have at their basis the intimate relationships between the manifestations of what we refer to as “spirit”, “mind”, and the properties of highly neurologically organized matter. Though we acknowledge this profound connection, we must also acknowledge, as I have already stressed, that what we understand about entities with mass-energy in these highly-organized configurations is not sufficient to account for these characteristics. This does not mean that some completely extraneous principle is needed - it *may be* - but only that we lack essential knowledge and information concerning such complex neurological structures and their many levels of function.¹⁰⁴

Stoeger thus appears to have struck an exceedingly delicate balance between recognising the profound link between what we call mind and the patently neuromechanical processes associated with it. He has also struck a balance between the possibility of, on the one hand, what Popper calls “promissory materialism”¹⁰⁵ - a future state of the sciences in which the laws of nature will manifestly account for consciousness and cognition, and on the other hand, plain substance dualism. This position is not necessarily a stable one, in that developments in neuroscience could potentially unseat it and establish outright physicalism as the correct view, while other developments (perhaps

¹⁰⁴ *Ibid.*

¹⁰⁵ Cf. Sir Karl POPPER, *The Self and its Brain* (with Sir John Eccles), (New York: Springer, 1977), pp. 96ff.

in philosophy) could at least in principle achieve the same results for substance dualism; but it looks like the most reasonable position available given our present knowledge.

This also appears to be the position hinted at by John Macnamara when he writes,

The only way ahead for cognitive psychology is to admit such primitives as reference and referring and acknowledge that they cannot be reduced to the language of neural science. This is to concede a certain “dualism” among the sciences that deal with the nature of man. Whether this entails metaphysical dualism I see as an open question.¹⁰⁶

Chalmers himself, as we saw, leaves the door to substance dualism open without passing through it: “This is not to say it is a separate “substance”; the issue of what it would take to constitute a dualism of substances seems quite unclear to me”¹⁰⁷. Thus it appears that we can express the position held by Chalmers, Stoeger and Macnamara in the following terms: Mental phenomena are of such a kind that in order adequately to account for them we must posit a certain dualism: at the very least the duality of *mental properties* and *physical properties*. The crucial question then is whether these mental properties are in fact an aspect of physical entities or whether instead they are properties of another, non-physical principle. To answer this we must first establish whether it is even meaningful to distinguish between “physical” and “non-physical” or “material” and “immaterial”; in the end, both the physicalist and the substance dualist positions are possible. For now we lack adequate data to come to a definitive conclusion.

¹⁰⁶ John MACNAMARA, “The mind-body problem and contemporary psychology”, in *The Mind-Body Problem*, edited by Richard Warner and Tadeusz Szubka, (Oxford: Blackwell, 1994), p. 167.

¹⁰⁷ David CHALMERS, *loc. cit.*

If this is a fair statement of the view of Chalmers, Stoeger and Macnamara, it appears to be a serious challenge to the case for substance dualism as I have presented it. Its credibility arises from its capacity to incorporate data that tend to support divergent positions, including the arguments I have adduced in favour of a fairly vigorous substance dualism, without claiming to have settled the case, which claim would seem to leave anomalous data unaccounted-for. Their view can accommodate the possibility that views ranging from materialism to the strongest interactionist substance dualism may turn out to be true. In the end, it consists in a prudent hesitancy to rule once and for all in the absence of adequate data, whether scientific or philosophical, and refrains from dogmatically ruling any intelligible and coherent position out of court, but it accepts that someday such a definitive solution may be the most reasonable option. It is a prudent, an attentive, but not a doctrinaire agnosticism on what Stanley Jaki calls “the hottest issue of all time”¹⁰⁸. It is difficult indeed to quarrel with such a balanced and reasonable view.

There is, however, a serious flaw in this position. On the one hand, property dualism may seem to be able to reproach substance dualism with perpetrating, on logically circular grounds, an unnecessary mystification. On this view, substance dualism can be made to argue invalidly, “Human beings have the attributes of consciousness, sensation, understanding and will. Now, a non-physical spiritual soul would have the attributes of consciousness, sensation, understanding and will. Ergo, human beings have non-physical spiritual souls, and physicalism is false.” In reply, property dualism appears instead to reason “Human beings have the attributes of consciousness etc. Now, consciousness etc.

¹⁰⁸ Stanley JAKI, *The Savior of Science*, (Chicago: Regnery, 1969), p. 155.

cannot meaningfully be described as physical properties. Ergo, human beings are characterised by a duality of distinct properties, physical *and mental*. The advance of knowledge may eventually reveal that mental properties are indeed aspects of the physical world as such; or it may reveal that mental properties can only be explained as attributes of a “non-physical” substantial soul, or some other explanation may be seen to be the case. Until we acquire this more certain knowledge, Occam’s razor and sheer common sense require to us stick with what we know with certainty: There is a duality of properties, which we have every reason to believe is a double aspect of the one physical world.” This appears unanswerable.

However, the dualist case need not be presented in the question-begging form sketched above. Instead, it can be presented: “Human beings have the attributes of consciousness etc. Now, consciousness and its constituent faculties of understanding, willing and self-awareness are utterly unlike anything else in the physical world, and cannot meaningfully be described in any of the categories by which we normally describe mass-energy entities (quantity, charge, determinate causality, electromagnetic or gravitational force, etc.). Therefore we must conclude that consciousness etc. are attributes of some other kind of entity that is not physical but conscious, rational, volitional, unextended etc.” Insisting that these attributes be considered properties of the physical world *tout court* is simply an *a priori* insistence on a physicalist presupposition. This insistence is justifiable as a point of methodology within the sciences, but as a premise which metaphysical considerations may not question it is unwarranted. Colin McGinn

exemplifies the philosophical presupposition (not empirical conclusion) at the heart of physicalism when he writes:

Purported solutions to the [mind-body] problem have tended to assume one of two forms. One form, which we may call constructive, attempts to specify some natural property of the brain [...] which explains how consciousness can be elicited from it. [...] The other form, which has been historically dominant, frankly admits that nothing merely natural could do the job, and suggests instead that we invoke supernatural entities or divine interventions. Thus we have Cartesian dualism and Leibnizian pre-established harmony. These “solutions” at least recognize that something pretty remarkable is needed if the mind-body relation is to be made sense of; they are as extreme as the problem. The approach I favour is naturalistic but not constructive: I do not believe we can ever specify what it is about the brain that is responsible for consciousness, but I am sure that whatever it is it is not inherently miraculous.¹⁰⁹

John Searle’s reading of the current debate is that it comes down to a similar fundamental philosophical option:

I believe one of the unstated assumptions behind the current batch of views is that they represent the only scientifically acceptable alternatives to the antiscientism that went with traditional dualism, the belief in the immortality of the soul, spiritualism, and so on. Acceptance of the current views is motivated not so much by an independent conviction of their truth as by a terror of what are apparently the only alternatives.¹¹⁰

Chalmers, for his part, opines in (perhaps comically) sinister tones:

¹⁰⁹ Colin MCGINN, “Can we solve the mind-body problem?”, in Warner and Szubka (eds.), *The Mind-Body Problem*, p. 100. Note the use of scare quotes without explanation around “solution”.

¹¹⁰ John SEARLE, “What’s wrong with the philosophy of mind?”, in Warner and Szubka (eds.), p. 279.

A [...] motivation to avoid dualism, for many, has arisen from various spiritualistic, religious, supernatural and other antiscientific overtones of the view. But those are quite inessential. [...] A naturalistic dualism expands our view of the world, but it does not invoke the forces of darkness.¹¹¹

Does the mind-body problem come down, in the end, to a stark alternative? Must we either assume that, confronted with the mental, immaterial postulates must be assumed guilty (largely for the sake of mistrust of their theological colour), or else that they must be assumed innocent until proven guilty (by the needed development in neuroscience that would explain consciousness in satisfactorily physicalist terms)? It would appear so. What I have suggested in this section is that it is physicalism that requires an act of faith, made for methodological but also for ideological and even theological reasons. Dualism offers an explanation that covers the data without in any way obviating or undermining ongoing neuroscientific inquiry. It is many physicalists who insist that the mind-body debate is fundamentally a theological one¹¹².

¹¹¹ David CHALMERS, *op. cit.*, p. 170. Jaegwon Kim evokes similar fearful prospects in the concluding paragraph of his *Mind in a Physical World*: “It will be premature, however, to conclude that an all-out dualism offers a more realistic chance of saving the mental. For most of us, dualism is an uncharted territory, and we have little knowledge of what possibilities and dangers lurk in this dark cavern.” (p. 120).

¹¹² Richard Swinburne proposes an argument against what Popper calls promissory materialism (cf. Richard SWINBURNE, *The Evolution of Soul*, pp. 236ff.) but his logical argument, concluding that it is not *logically certain* that future investigations will eventually unearth all there is to know about the world, seems to me unsatisfactory. It seems to me that in many cases it is not suggested that future scientific research must eventually and necessarily uncover everything there is to know; all that is suggested is that we ought to be reticent flatly to deny that a future science will ever understand some feature of the world. The issue is not an allegedly infallible accuracy of science, but its stunning if sometimes imperfect record of success and progress .

CHAPTER III: Some Objections to Substance Dualism

The Objections

Mario Bunge offers a concise summary of some objections to dualism in his *The Mind-Body Problem*¹¹³, a work which “intends to show that the idea of a separate mental entity is not only unwarranted by the available data and the existing psychological models, but collides head-on with the most fundamental ideas of all modern science and is thus a stumbling block to progress”¹¹⁴. Bunge’s arguments against dualism are of ten kinds¹¹⁵, from which we can distil two serious objections to dualism: namely, its apparent violation of the law of conservation of energy, and its inability to deal with the manifest dependence of mental life on cerebral integrity and health.

Irving Thalberg offers a third major objection to dualism: the difficulty if not impossibility of conceiving the nature of the “immaterial principle” it postulates: “[...]if a mind, and the episodes taking place ‘in’ it, are of no size, occupy no volume of space, and presumably have no spatial position, then what do they do? What alternatives are there to

¹¹³ Mario BUNGE, *The Mind-Body Problem*, (New York: Pergamon Press, 1980). While he strives in fairness to make a case for dualism, the force of Bunge’s argument is significantly diminished by the straw men he calls by this name. For instance, he summarises dualism as the belief that ‘the mind is an immaterial entity wherein all mental states and processes occur: feelings, memories, ideas and so on, would be in the mind’ (*Op. cit.*, p. 1). Any dualist-*interactionist* model whereby these mental events could be *both* material and non-material is not seriously raised by Bunge as an option. Another striking instance is his summary of arguments in *favour* of dualism: he proposes 10 of them, each of which he explains and demolishes in half-page paragraphs such that at the end of his list of pro arguments he can confidently claim ‘Thus far the score is 0 pro and 10 con dualism’ (p. 16). This can hardly be regarded as a serious attempt to deal with rival positions. Cf also John Eccles’ acid remarks about Bunge’s work in Eccles, *The Human Psyche*, pp. 23ff.

¹¹⁴ *Op. cit.*, p. x.

¹¹⁵ Cf. *op. cit.*, pp. 16-20.

having an address - to hanging out somewhere in the physical universe, filling up a small portion of the cosmos?"¹¹⁶

Other objections to dualism can be found in the study *Neuroscience and the Person*, edited by Nancey Murphy *et al.* Murphy's own essay in this collection, she explains, was written "to contribute to a nonreductive physicalist account of human nature", a position she intends to be "consistent with views advocated by others in this volume"¹¹⁷. Clarifying the need to rebut dualism is understandably one goal of the contributors, and indeed Philip Clayton remarks that "other authors in this volume have given good summaries of why dualism is no longer a tenable position; I shall not repeat their arguments here"¹¹⁸. Upon examination, these arguments are not numerous but one is particularly important.

Searle positions himself between Cartesian dualism, on one side, and reductionist materialism, on the other. He opposes dualism because, having drawn a strict distinction between two realities - what is mental and what is physical - dualism has been unable to make the relation of the two intelligible¹¹⁹

Dualism, it is claimed, cannot account for the interaction of these two distinct entities it posits. As Ted Peters phrases the objection a little further on, citing Ian

¹¹⁶ Irving THALBERG, *Misconceptions of Mind and Freedom*, (Lanham MD: University Press of America, 1983), p. 33.

¹¹⁷ Nancey MURPHY, "Supervenience and the downward efficacy of the mental: A nonreductive physicalist account of human action", in *Neuroscience and the Person*, edited by R J Russell *et al.*, (Vatican City: Vatican Observatory Publications, 1999), p. 147.

¹¹⁸ Philip CLAYTON, "Neuroscience, the person, and God" in Russell *et al.* (eds.), *op. cit.*, p. 191.

¹¹⁹ Ted PETERS, "Resurrection of the very embodied soul?" in Russell *et al.* (eds.), *op. cit.*, p. 309.

Barbour, “the postulated mental and physical substances are so dissimilar that it is difficult to imagine how they would interact.”¹²⁰ As we saw above, this explanatory lacuna in dualism was one of Dennett’s strongest objections to dualist hypotheses.

Other objections I have located in this study are statements in other words of objections already seen in Bunge. For instance, in Peters’ reference to Barbour, “it would seem that if mental events could influence physical events, then this would violate the conservation of energy”¹²¹. Again, still in Peters (the other contributors do not appear to have adduced any arguments other than biblical against dualism), “what empirical brain research demonstrates, says Damasio, is that the mind’s rationality functions in inextricable concert with - not isolation from - bodily actions such as feeling and emotion.”¹²² This can be seen as another formulation of the objection that dualism cannot cope with the obvious physiological element in such mental phenomena as skill or disability.

Douglas Hofstadter and Daniel Dennett are the editors of an anthology of readings in the philosophy of mind. In a reflection by the editors following one otherwise negligible contribution, they pithily and perceptively state a serious concern we have seen before:

[D]ualists divide into two schools: those who hold that the occurrence or existence of a mental event has *no effect whatsoever* on subsequent physical events in the brain, and those who deny this and hold that mental events do have effects on physical events in the brain. The former are called epiphenomenalists and the latter are called interactionists. [...] Ever since Descartes first struggled with it, interactionists have had the apparently

¹²⁰ *Ibid.*, p. 313.

¹²¹ *Ibid.*

¹²² *Ibid.*, p. 311.

insuperable problem how an event with no physical properties – no mass, no charge, no location, no velocity – could make a physical difference in the brain (or anywhere else). For a non-physical event to make a difference, it must make some physical event happen that wouldn't have happened if the nonphysical event hadn't happened. But if we found a sort of event whose occurrence had this sort of effect, why wouldn't we decide *for that very reason* that we had discovered a new sort of *physical* event? [However, if mind-stuff is by nature] off-limits to science, then we have a guarantee that the mystery will never go away. Some people like that idea.¹²³

The value of these condescending remarks is that they clarify the force of the objection that not only is dualism reproached with its inability to describe the nature of the interaction it alleges, but on dualism's own terms it sounds like we are simply speaking of another form of matter.

Pride of place among opponents of dualism ought perhaps to go to David Armstrong, whose *A Materialist Theory of the Mind* features not only an important fairly early statement of the scientific physicalist position, but also a fair summary of different models of brain-mind relations. In particular his four “difficulties for any dualist theory”¹²⁴ are cogent and articulate. Some of the four will be familiar from what has already been seen but Armstrong's statement of them is valuable and clear. His arguments are as follows:

- a) “Can a Dualist account for the unity of mind and body? [...] The difficulty is this: does a Dualist theory provide for a sufficiently close connection between the spiritual and the physical components of man? We ordinarily think of the

¹²³ Douglas HOFSTADTER and Daniel DENNETT, *op. cit.*, p. 388, emphases in original.

¹²⁴ David M ARMSTRONG, *A Materialist Theory of the Mind*, (London: Routledge and Kegan Paul, 1968), p. 24.

connection between the mind and the body as very close indeed. Man is a unity. Dualism is unsatisfactory because it breaks up that unity.”¹²⁵

b) “How do we numerically differentiate spiritual objects? [...] If we consider two physical objects that exist at the same time, we can say that what makes them two, that is to say makes them numerically different, is that they are in different places. [...] But now let us consider the possibility that there are two spiritual substances [...] which are exactly the same in nature at a certain time. What makes two such objects [...] *two*?”¹²⁶ Armstrong points out that such a difficulty was what led St Thomas to conclude that every single angel (a purely intellectual being by definition) is a separate species *sui generis*.

c) “Is the Dualist account of the origin of the mind a plausible one? [...]”

Armstrong explains that, if mind originates with the body, it cannot precede the body; but it is not plausible to maintain that it suddenly originates at some point after conception since “there seems to be nothing in the physiological development of the organism to suggest any point of sharp break.” Positing the independent existence of the soul vis-à-vis the body, of course, goes far beyond anything we have scientific evidence for. He concludes, “The problem we are discussing here is closely connected with [the question] ‘When does the infant acquire a soul?’ This question may appear academic or scholastic in the worst

¹²⁵ *Ibid.*, pp. 24-25.

¹²⁶ *Ibid.*, pp. 27-28.

sense, but it is one that those who believe in the soul as something distinct from the body have to consider.”¹²⁷

- d) “Do mind and body interact?” We have already seen this objection clearly formulated but Armstrong adds an interesting factor: He points out that a physical stimulus that occasions thoughts that stimulate further physical action would, on the dualist account, have to pass “up” into the mind before passing back “down” into the brain to continue on its way. This suggests that there will be a “‘gap’ between the state of the brain before the mental event has had its effect and the state of the brain after the mental event has had its effect [...] physiologists are becoming increasingly unwilling to think that there is any such gap.”¹²⁸

I shall attempt to deal with these difficulties, except for the claim that dualism seems to divide what appears to us to be a unity. This claim is not obvious; a significant portion of humanity seems to assume just the opposite, that what we refer to as *body* and *soul* are in ceaseless conflict, and that in some way (through philosophy, or grace, or the eightfold path, or ascesis, or a twelve-step programme, or a personal trainer) this conflict needs to be overcome. I do not say that the claim of a conflict is true; only that it is widespread enough to cast doubt on the affirmation that what we are conscious of is an obvious unity.

So far we have identified eight distinct objections to dualism:

¹²⁷ *Ibid.*, pp. 29-31.

¹²⁸ *Ibid.*, pp. 31-33.

- 1) An “immaterial” entity, such as the “soul” as postulated by dualism, is *inconceivable* as it is spatially unextended and no positive qualities can be attributed to it.
- 2) Dualism cannot explain the fact that the condition of the brain affects the quality of mental events, as manifested (for instance) by skill and aptitude, or disease and disability.
- 3) Dualism is *unnecessary* to account for the higher-level functions of consciousness as these can be satisfactorily explained as *emergent properties* of neurons alone.
- 4) Dualism violates the conservation of energy.
- 5) Dualism cannot explain how the two dissimilar realities it posits can interact, and in particular requires us to posit a gap in the brain’s operation whenever the brain must ‘wait’, so to speak, for the mind to play its part.
- 6) Dualism cannot plausibly account for the *origin* of the soul.
- 7) Dualism cannot explain how we may numerically differentiate spiritual objects.
- 8) Dualism “wallows in mystery”¹²⁹; it gives up before a challenging problem and takes refuge in curious fictions rather than patiently investigating in a spirit of scientific discipline and inquiry.

I shall now attempt to reply to these objections.

To the first objection: It is true that the soul posited by dualism appears to lack those positive qualities by which we normally identify an entity - mass, charge, location, size,

¹²⁹ Daniel DENNETT, *op. cit.*, p. 37.

shape, density, etc. It is not quantifiable or measurable. However, the positive attributes of “soul” (not merely here but in a number of traditions that have expressed an opinion on the question) are precisely those attributes of the human person which dualism maintains are not reducible even in principle to physical causalities: The soul is the (self)conscious, rational, willing subject. It is not imaginable in physical terms because it does not exist in physical terms. Whether there is any evidence for such an entity is of course what is under discussion. St Thomas proposes that spiritual entities are present *wherever they are active*, not extended in space but present at that *point* where they are operative (if location or situation are even meaningful for a spiritual being, which would only be the case *ex hypothesi* for those spiritual entities engaged upon some sort of interaction with material entities like a body). In other words, the soul may be conceived of along lines similar to the way philosophies that believe in such things can conceive of angels or the Deity. It is not necessary to affirm the existence of these to grasp what is meant by a description of them as spiritual intelligent beings, occupying no space but active in the physical world. Even if one does not affirm the existence of angels or of God, the *notion* of these is at least comprehensible and not absurd. So it is with the soul.

John Foster, following Descartes, describes the “whole essence” of the soul as *cogitatio*, which Foster translates as “mentality.”¹³⁰ He suggests that the “noumenal theory” may apply here, the theory that “accepts that subjects have essential natures, but ones which, being neither physical nor psychological, lie beyond the scope of our

¹³⁰ Cf John FOSTER, *The Immaterial Self*, pp. 223ff.

knowledge.”¹³¹ He points out, however, that the apophatic (as we might call it) noumenal approach is not the controversial preserve only of dualists:

In any case, it seems we encounter a similar situation of inscrutability in the case of the physical realm. For [...] we cannot discover anything about the *intrinsic* nature of physical space, beyond its geometrical structure, nor anything about the *intrinsic* nature of the fundamental occupants of space, beyond their shape and size. Nor [...] does our system of physical concepts even equip us to speculate on what these natures might be. In these respects, the noumenal theory is keeping what we would normally regard as good company.¹³²

To the second objection: The fact that our mental lives are affected, sometimes very seriously, by patently material, neuromechanical events (such as brain damage, sleeplessness, genetic disposition, pharmaceuticals and so on) is for many people a clear proof that dualism is false. (Or, to say the same thing a different way, that physicalism is true¹³³). If thought can be affected by the state of the brain, thought must consist in the operations of the brain. However, dualism as I have proposed it never denies that human nature is essentially physical. An analogy might be made with guitar virtuoso Don Ross playing “Berkeley Springs” on his custom seven-string instrument; there is no doubt that if his guitar were to break during a performance, the music would cease completely. Any

¹³¹ *Ibid.*, p. 228.

¹³² *Ibid.*, p. 229.

¹³³ Cf. Nancey MURPHY, “Human nature: historical, scientific and religious issues”, in Brown *et al.* (eds.), *Whatever Happened to the Soul?*. Murphy, speaking of studies that map the brain and the functions of its several regions, affirms: “Studies of this sort [...] provide dramatic evidence for physicalism.” If my central argument is true, such studies provide as much evidence for dualist-interactionism as for physicalism, for both are metaphysical positions. “Scientific” proof of physicalism is impossible.

defect in the material or workmanship of the guitar, any change to the precise tuning of the strings, any damage to it, or contrariwise any virtue in the wood and metal used will affect the quality of the music produced. A serious enough defect will halt the production of music. However, the guitar is in no way the source of the music produced; without Don Ross, the guitar would just sit there, responding naturally to ambient conditions but unable to resonate with music properly so-called. (This analogy, of course, remains within the pale of the physical world. It is not a proof of dualism but a model of how a *performance* can be radically dependent on one entity without the *performer* being dependent on it). In the case of mind-body dualism, dualism willingly concedes that the health and welfare of the brain is essential for the soul-qualities of consciousness, reason and will to be adequately expressed. In no sense, however, does this acknowledged *dependence* constitute *reducibility*. This is not an especially remarkable or original insight, but it is necessary to repeat it given the frequently expressed view that the incontestable dependence of cognitive functions on cerebral integrity somehow demonstrates the *identity* of cognitive functions with cerebral integrity.

Some of the most complex questions of interaction and dependence are raised by phenomena that illustrate the elaborate relationship between plainly physical and broadly mental items in a person's existence: for instance, *blindsight* and *prosopagnosia*. These phenomena raise important questions, as much for dualism as for any model of the mind-brain relationship, about the distinction and co-operation among diverse operations like perception, consciousness, recognition, habit, decision-making, reflexes, and so on. However, as crucial as these questions are, the basic fact that mental events depend upon

at least passive co-operation from the brain as such does not nullify the dualist position. Dualism not only *tolerates* but also (as I have framed it here) *requires* that one posit *interaction*. Dualism objects not to interaction, nor even to dependence, but to reduction¹³⁴. As John Smythies remarks,

The evidence from neurology and neuropsychiatry that lesions of the brain can interfere with, and indeed abolish for all intents and purposes, mind in all its manifestations, has long been held to provide conclusive evidence that mind and brain are identical. This, however, is a logical mistake. All that this evidence proves beyond doubt is that certain brain events are *necessary* for mental events to occur as we know them. It does not show, however, that they are *necessary and sufficient* for mental events to occur. You cannot show a movie without the film. But the film by itself is not sufficient; you must have a projector and a screen too.¹³⁵

To the third objection: Emergentism does not provide a solution to the mind-body problem but simply states, according to whether it tends toward dualism or physicalism, an aspect of the problem from either perspective. In other words, emergentism either considers mental events to be an order of phenomena (emergent1 in Searle's lexicon) that

¹³⁴ It is in connection with this objection that the case of Phineas Gage is sometimes invoked - cf. *Whatever Happened to the Soul?*, pp. 77-78. Sometimes the lot of this poor man and of his ilk is held up as proof that, in the end, even such higher-order functions as morality, duty and aspirations can be reduced to cerebral functions. The dualist could reply quite reasonably that it would be surprising if having one's brain perforated by a long iron rod did not change a man's life and outlook. It is the sort of thing, one imagines, that cannot easily be taken in stride. At any rate, we can see these poignant human tragedies as analogous with Don Ross attempting to play "Berkeley Springs" on an imperfectly tuned guitar. When the instrument is uncooperative enough, even good intentions may produce something of a cacophony. The soul, however, remains sound and intact.

¹³⁵ John SMYTHIES, *The Walls of Plato's Cave*, (Aldershot: Avebury Press, 1994), pp. 142-143, emphasis in original. Though Smythies provides valuable replies to common objections to dualism, it should not be concluded that he is sympathetic to substance dualism itself or that he would necessarily be sympathetic to the conclusions arrived at in these pages.

can be causally reduced to the physical - in which case no additional account has been given of consciousness and cognition, but they have simply been described to be an aspect of the physical world that has attributes not easily accounted for in terms of physical laws; or else it describes mental phenomena as a whole other order of being from the physical (Searle's emergent²) - in which case the profession of physicalist faith is merely lip service as it were, to the physicalist creed whereas the actual terms in which the problem is framed are irreconcilable with genuine physicalism. (Demonstrating this irreconcilability was the burden of Chapter I). Granted, not conceded, that neuroscience could one day give a full account of cognition and consciousness in strictly physicalist terms, the case for dualism as I have presented it here would absolutely fall apart. The point of my argument in Chapter I was to show that neuroscience never will have such an accounting, not because its practitioners are incompetent or science poorly developed, but because the nature of the phenomena under consideration lie outside its ken - as much, I am tempted to say, as such hypotheses as angels and God lie outside its ken.

Objections four and five are arguably the most serious specific objections to dualism, as they point out what appear to be fundamental flaws in the notions at the very heart of mind-body dualism.

To the fourth objection: Two replies are possible to this objection. The first and more controversial would be to point out that the law of the conservation of energy simply generalises from what is observed. There can be no implication that it is an ironclad feature of the universe that matter/energy are never created. Normally they are not, but

(after all) they are there in the first place and therefore positing the creation of energy at those moments when soul or mind influence brain or body is not absurd. This, however, is not the best reply that can be made to this objection. More to the point is John Beloff's very pertinent riposte:

Cybernetics has made us more keenly aware of the distinction between the control function and the power function of a given physical system so that *we do not have to suppose that the mind transmits energy but only that it transmits information*. What we are being asked to consider involves no gross disturbances of the natural order, such as the determinist is presumably thinking of when he speaks nervously of miraculous interventions, but only the channelling of events in one direction rather than another.¹³⁶

Forty years earlier, C D Broad (to whom Beloff alludes frequently) had made a similar point:

[...T]he facts brought forward by the argument from energy do throw some light on the *nature* of the interaction between mind and body, assuming this to happen. They do suggest that all of the energy of our bodily actions comes out of and goes back into the physical world, and that minds neither add energy to nor abstract it from the latter. What they do, if they do anything, is to determine that at a given moment so much energy shall change from the chemical form to the form of bodily movement; and they determine this, so far as we can see, without altering the total amount of energy in the physical world.¹³⁷

An intriguing confirmation of Beloff's point, that the link between the mental and

¹³⁶ John BELOFF, *The Existence of Mind*, (London: MacGibbon & Kee, 1962), p. 158, emphasis mine.

¹³⁷ Charlie Dunbar BROAD, *The Mind and its Place in Nature*, (London: Routledge & Kegan Paul, 1925), p. 109.

the physical is assured by *information*, is provided by contemporary information theory. Credence is lent to the suggestion that information straddles the posited mental/physical divide by the existence of two commonly-accepted ‘metaphors’ for the nature of information: the *physical* and the *cognitive*.

At the center of this [*physical*] metaphor is the idea that information can be regarded as a fundamental and universal phenomenon similar to matter and energy. Just as energy is manifest in a variety of forms such as heat, light and electricity, so is information in such forms as knowledge, news and data. [...] A central assumption of the *cognitive* metaphor is that information processing and communication are necessarily mediated by systems of conceptual categories which for the processing device (human or machine) model the world that it inhabits¹³⁸.

In other words, one can conceive of information both as a physical phenomenon (i.e., as some state of affairs obtaining in the physical world, though not a substance, energy or force) and as a conceptual reality consisting of a meaning relevant to a beholder with the capacity of apprehending the meaning in question. This allows us to posit a model of brain-mind interaction in which the influence of one on the other does not involve the transfer of energy. Instead, it consists of correspondence of a physical state of affairs to an intentional, cognitive state, or else of the potentialities and limitations of cognitive states consequent upon those of the physical channels of data (e.g., the senses).

To the fifth objection: It is perfectly legitimate to ask what the nature of causation between a putative non-physical principle of cognition and the physical brain might be;

¹³⁸ Douglas RABER, *The Problem of Information*, (Lanham MD: Scarecrow Press, 2003), pp. 51, 95, emphases mine. Cf also the remarks by Howard Robinson *supra*, p. 21.

indeed, to wonder how such a thing is possible. It is not obvious, and it is fitting that a scientific inquiry should seek answers to its questions about the hypothetical interaction of brain with mind. However, the common physicalist objection to dualism - we have seen it in Dennett, Peters, Bunge and others - is not that interaction is a challenging notion, but that it is not possible to conceive of it in any intelligent way. Dennett, for instance, compares dualist-interactionism with cartoon character Casper the Friendly Ghost: “How can Casper *both* glide through walls and grab a falling towel? How can mind stuff *both* elude all physical measurement and control the body? A ghost in the machine is of no help in our theories unless it is a ghost that can move things around [...] but anything that can move a physical thing is itself a physical thing.”¹³⁹ *Anything that can move a physical thing is itself a physical thing*; ergo, mental realities are either fundamentally physical, or else they are non-physical and therefore unable to influence physical realities and therefore are causally irrelevant. The dilemma could scarcely be more dramatic for dualism; the objection on these premises is insurmountable.

Is the premise true that “anything that can move a physical thing is itself a physical thing”? If it is, dualist interactionism is done for; if it isn’t, the chief physicalist objection to dualism is deprived of its barb. It therefore looks as though this question is a crucial one for our discussion.

It is not the case that anything that can move a physical thing must *logically* itself be a physical thing; there is no absurdity in positing a contrary state of affairs. Telekinesis, for instance, or divine or angelic agency in the world, while for the present discussion may not

¹³⁹ Daniel DENNETT, *op. cit.*, p. 35, emphasis in original.

be *true*, are nonetheless *conceivable*. The ability to influence the physical world is not logically one that only a physical entity can possess.

Is a non-physical entity ever observed to move a physical thing? In a sense, this is precisely the question under discussion. The materialist would reply that non-physical entities are at best irrelevant and at worst non-existent, so that the answer must be, No. The dualist would reply that we do observe such causation every time a man raises his hand to speak, so that the answer must be, Yes. Again, we are left with an open question. Empirically and logically we have no basis for affirming that anything that can move a physical object is itself *necessarily* a physical object.

John Foster remarks,

Whether we are dualists or materialists [...] we presumably have to accept the existence of psychophysical causation. [...] The question we have to consider is whether the recognition of such psychophysical causation raises problems for the dualist - and in particular (at this stage of our discussion), whether it raises problems of an *a priori* kind. The general consensus is that it does [...] Curiously, many philosophers regard the problem as self-evident and not calling for further elucidation: they take it as just obvious that there is something deeply puzzling, perhaps even incoherent, in the notion of the non-physical mind coming into causal contact with the physical body. But if there is a genuine puzzle here, it is surely one, which needs to be spelt out. Why should the fact that mind and body are so different in nature make it difficult to understand how there could be causal relations between them?¹⁴⁰

Foster goes on to point out that a major reason for supposing there is such a difficulty is that we are accustomed to causality being mediated by spatial contact. He replies, "If this is the supposed problem then the dualist has a simple and effective answer. For even

¹⁴⁰ John FOSTER, *The Immaterial Self*, p. 159.

if physical causation typically, and perhaps always, operates through spatial contact, it is certainly conceivable, and unproblematically conceivable, that it should sometimes not.”¹⁴¹

Smythies approaches this objection from a similar perspective:

How can extended and unextended entities interact if they are so different? This is, however, just a red herring that has needlessly bothered generations of neuroscientists. Richardson (1982) deals with this fallacious argument as follows: ‘So long as Descartes holds, as he must, that there are two fundamental and different forms of causal interaction, there can be no sense given to the question of how mind acts on body’. - any more than one can ask *how* gravity works or *why* space is curved. Certain explanations are *fundamental* and it is illegitimate to seek to inquire further. The problem of how an extended and an unextended entity could interact is a pseudo-problem arising out of the unjustified assumption that psychophysical interactions *must* be the same as physical interactions.¹⁴²

Wilbur Hart invokes the ideal attitude of the scientific mind in his reply to the problem of psychophysical causation for dualism. He points out that the haste with which this objection is deemed insuperable may in fact hinder fruitful inquiry:

It has been patent ever since the seventeenth century that the problem of how disembodied minds could interact causally with any matter at all, not just the bodies in which those minds might happen to be lodged is a (if not the) central intellectual problem for Cartesian dualists. The usual verdict seems to have been to throw up one’s hands in despair and to claim that the mental is the physical. [...] The price paid for this despairful belief that the mind is the brain ticking over has been an absence of intellectual experiment, that is, an absence of sustained and informed speculation about how disembodied minds could engage in causal transactions with matter¹⁴³.

¹⁴¹ *Ibid.*, p. 160.

¹⁴² John SMYTHIES, *The Walls of Plato’s Cave*, p. 141.

¹⁴³ Wilbur Dyre HART, *The Engines of the Soul*, (Cambridge: Cambridge University Press, 1988), p. 8.

To the sixth objection: Armstrong and others point out that if the origin of soul as postulated by dualism is located in the continuum of biological evolution, it is difficult to identify the source of such a dramatic leap in the process of evolution, difficult also to locate a moment when this leap took place given the data available about the rise of species. To deal with the second element first, we know virtually nothing about the details of the existence of hominids prior to the unmistakable rise of *homo sapiens* - nothing, in other words, that would provide compelling reason to affirm or deny that at such-and-such a point, hominids had unquestionably attained a contemporary degree of intelligence. In concrete terms, the very paucity of hard data about what daily life was like for Neanderthals or any other protohuman neither warrants a confident claim that they were human (in something like the modern sense), or else ape-like (in something like the modern sense). And yet a chasm, not a clear continuum, unquestionably exists now between *homo sapiens* and the next nearest primates. Not, to be sure, at the genetic level, but that only makes the exponentially higher level even of mechanistic intelligence among humans all the more striking - not to mention all the other more heuristic and intuitive manifestations of the human mind. Contrary to the affirmation that dualism is positing an idiosyncratic discontinuity in evolution, it must be affirmed that it corresponds most fittingly to the real gap between human and non-human intelligence, without for all that warranting a callous dismissal of the latter as though it justified cruelty.

As for the first element in this difficulty, namely the challenge of explaining in naturalistic terms whence souls could arise, it appears difficult indeed to do so without

invoking some sort of divine creator. Whether this fact is fatal to dualism is a question I address in the guise of objection eight, *infra*.

Having affirmed this, can Armstrong's challenge be met, that dualists should be able to hazard an answer to the question of when the soul emerges? Plausibly, we may suppose it is at the moment of conception, through an act of individual creation. No empirical data can be marshalled in support of this claim, but it is logically possible and accounts most satisfactorily for the subsequent developments of the person.

To the seventh objection: This difficulty is a real but not necessarily a fatal one. As David Armstrong pointed out, St Thomas recognised the problem of the numerical differentiation of immaterial beings in the case of his doctrine of angels. Now, normally the only mind of which we have direct experience is our own; other people and (hypothetically) angels we know indirectly through their effects, behaviour or testimony. In other words, in a practical sort of way, one differentiates oneself from all other conscious beings by recognising the boundaries of one's own direct influence (normally coextensive with one's body), and similarly one distinguishes among other conscious beings by identifying the limits of their direct volitional influence. While Armstrong rightly points out that the disembodied existence of the soul posited by dualism is logically possible, it does not follow in that it would be necessary under such conditions to be able to differentiate among minds. Of course, Armstrong's objection is not that such differentiation is practically impossible, but that the very notion of a spiritual being raises the conceptual difficulty of grounding any distinction between a plurality of such beings.

He is not raising a pragmatic but a logical difficulty: What does plurality even mean where there are no spatio-temporal limits to ground differentiation? Perhaps the solution to the pragmatic difficulty provides a key to the logical one as well. Since, in a practical way, one identifies one's own being in terms of the perceived extent of one's own direct influence (the body, to the extent it is under the influence of will and susceptible of sensation) and in terms of the content of one's own awareness, perhaps spiritual beings can be differentiated in terms of the discrete *ego* each one represents, with a distinct *sense of individuality*.

To the eighth objection: This objection cannot be tidily addressed in a few words as it consists not in a specific instance of a logical flaw in dualism or of a manifest explanatory superiority in physicalism, but in a basic attitude towards scientific inquiry. We saw it eloquently expressed by Daniel Dennett, for whom dualism is problematic not above all because of a particular lacuna but because, as he phrased it, “dualism is giving up”. In this view, dualism is gratuitous, almost superstitious; it resembles a Deistic “god of the gaps”, the superfluous hypothesis for which Laplace had no need. Dualism, according to what I am calling the eighth and most profound critique of dualism, unreasonably asks or even requires one to simply abandon inquiry in the case of perhaps the most fascinating puzzle science has to unravel: The human mind. Science has advanced to extraordinary levels of understanding and complexity by dint of discipline, perseverance and the carefully honed tools of the scientific method and peer review; and one of its essential and efficacious pillars is its methodological materialism. Science has advanced precisely by assuming at

least for the purpose of investigation that “the physical domain is causally closed.” This assumption has led to the most astonishing and enduring breakthroughs; and dualism would panic at the threshold of this challenging phenomenon of consciousness, deciding that the scientific method is suddenly unreliable and taking refuge in nebulous theological notions like mind or even soul. Objection eight indignantly views dualism as the equivalent of recommending that we cease our quest for the fundamental particle and instead just accept that angels keep atoms moving after all, and there is nothing more to be said. Objection eight is more than simply an objection: it is a vivid, energetic worldview in which there is scant room for an immaterial soul, at least as a principle of any sort of physical causation or observable phenomenon.

The eighth objection does not necessarily deny the existence of souls or angels or of God; but all these notions equally lie outside the empirical realm, and one must object if these theological hypotheses encroach upon the domain proper to the natural sciences. One may, if one wishes, posit an immortal immaterial substance (in Searle’s terms) for private religious reasons; it is a bit much to posit it as an explanation for the observable phenomena of consciousness and cognition.

Any reply to this objection must begin by acknowledging the importance of respecting the scientific method, for the sake above all of its intrinsic reasonableness, but also for the sake of its successes. At the same time, the scientific method is not an end for its own sake; it is a sensible and efficient tool in the service of another goal, which is to arrive at an ever greater understanding of the nature of things, to arrive at “laws” and theorems and explanations that approximate ever more closely the ways things are. Dualism does not

seek or require implicitly or explicitly that we abandon all sense of the intelligibility of the cosmos in scientific terms; but, motivated by metaphysical reasons (and in some cases, perhaps even religious ones), it proposes that at the level of persons (whether human, angelic, divine or other) another order of being obtains than only the physical.

Consequently, in the case of persons, the scientific method alone will be inadequate to account for the phenomena associated with them. (In the case of God, he would *ex hypothesi* be completely inaccessible to empirical verification, although not to metaphysical insight, as St Anselm perceived. One may suppose that angels, should they exist, are likewise beyond the reach of physical verification). Consciousness and cognition are phenomena profoundly associated with the human person; consequently, it is to be expected that there will be much in consciousness and cognition that will fall within the purview of the physical sciences, e.g. the discovery of neural events associated with mental events. However, within this broader worldview, it should not be surprising or shocking that a full grasp of the phenomena of human existence requires us to call on disciplines that are not methodologically limited to physical entities.

If what I am arguing is true, then the dualist need not deny any of the valid discoveries about the physical factors operative in mental events (e.g., evidence of localised neural activity associated with specific tasks like speaking or driving a car). If what I am arguing is true, then human consciousness and cognition are not wholly reducible to physical terms; consequently, physicalism will never fully understand the human person, while dualism will open the door to understanding a great deal more.

In short, no short answer to this eighth objection is possible. Fully aware of the vast philosophical issues at stake, I cannot simply dismiss, nor can I adequately engage the physicalist worldview in the space available. What I do instead is suggest that dualism is not equivalent to giving up; it leaves scientific inquiry and even methodological materialism intact, insisting only that *methodological* materialism is no warrant for *ontological* materialism. In so doing it hinders no ethically upright scientific investigation into the human mind, but opens up the vista of *metaphysical* insight into the nature of things. To return to the image of guitarist Don Ross as a broad model of the mind-body relationship, dualism in no way denies the guitar, the necessity of the guitar, or the value of investigating the guitar and the hands that play it. Dualism (as a metaphysical position that posits the existence of immaterial entities dense with meaning) simply introduces us to a new realm of things (not simply functions or modes) worth investigating but not accessible to empirical inquiry alone: the musician's creativity, his artistry, his method for acquiring virtuosity, his motivations, the very notion of music and beauty, and so forth.

CHAPTER IV: Some Theological Implications of Mind-Body Substance Dualism

In preceding chapters I have discussed the mind-body problem from a mainly philosophical perspective. I have demonstrated that mind-body dualism is at least plausible on philosophical grounds, and that objections to it are not fatal. If I have been fully successful, I have demonstrated that mind-body dualism is better able to account for the phenomena of human consciousness than physicalist alternatives.

In this chapter, I shall discuss some of the implications of mind-body dualism for a philosophical theology.

The notion of “soul” is, of course, one that is of great importance to many religious traditions. At the same time, not every religious conception of the soul would necessarily describe it as a non-physical principle distinct from the body. Many of the contributors to *Neuroscience and the Person*, for instance, consider that Christianity (which is often considered to be dualist on this point) is at least reconcilable with physicalism and may be more compatible with it than with dualism. Interestingly, even a writer with preoccupations as seemingly secular as Mario Bunge takes the time to insist that Christianity is not obliged to profess dualism¹⁴⁴. (His motive may have been to deny that substance dualism can cite Christianity as a witness in its defence, though the weight of such an endorsement in philosophical inquiry would be scant indeed). On the other hand, Hinduism appears firmly dualistic since it professes the working out of the law of Karma through successive incarnations of the same soul in a multitude of bodies.

¹⁴⁴ Cf. Mario BUNGE, *The Mind-Body Problem*, p. 10.

Smythies argues¹⁴⁵, however, that Hinduism actually conceives of the soul as a (perhaps rarefied) form of matter, which would make it close to some kind of property (but not substance) dualism. It may, however, be reasonably doubted that the Hindu vision of “matter” is very close to what the natural sciences imply by this term. In the end, dualistic conceptions of the soul are a common feature of many religious traditions at least in their popular forms. Is this fact simply insignificant? Does the presence or absence of mind-body dualism affect a set of religious beliefs in any meaningful way? Can religious traditions survive dualism or its absence? What, in short, is at stake theologically in the dualist model of the brain-mind relationship?

In this chapter I will consider this question from three angles:

- 1) Views of the human person;
- 2) Views of God;
- 3) Ethical considerations.

1) Mind-body dualism and views of the human person

a) Personal immortality

If dualism is true, it does not necessarily follow that personal immortality is true; the “soul”, the putative non-physical principle of cognition, may be subject to some kind of extinction or desuetude. However, if personal immortality is true, then dualism must also be true, unless we wish either to deny the reality of bodily death or wish to affirm that

¹⁴⁵ Cf. John SMYTHIES, *The Walls of Plato’s Cave*, (Aldershot: Avebury Press, 1994), p. 165.

what survives bodily death is actually some kind of matter¹⁴⁶. (This consequence seems obvious enough; the only way personal immortality can be true is if some essential aspect of the person persists when the body (including the brain) has utterly dissolved. By definition such an essential element would be a principle distinct from the body and capable of subsisting apart from the body. Such has been our description of the soul).

Consequently, any religious tradition that believes in personal immortality is necessarily committed (at least implicitly, *i.e.* despite what that tradition may explicitly profess to the contrary) - is necessarily committed, I say, to a substance-dualist model of the mind-body relationship. By the same token, if dualism is truly untenable, then personal immortality is similarly untenable. Some non-dualist theologians dispute this conclusion, as we shall see.

Take, for instance, a religious tradition that unequivocally professes belief in the individual survival of bodily death - the Roman Catholic expression of Christian faith. Roman Catholicism as mediated by the *magisterium* of the Roman Catholic Church has committed itself to a number of beliefs dependent on the positing of personal immortality. Two clear examples of this are *prayer for the dead* and *invocation of saints*. These practices not only find a formal, official expression in the magisterial teachings of that church, but also are strongly embraced by the faithful in practical multicultural expressions of Roman Catholic Christianity. Both of these deeply rooted beliefs and ensuing practices strongly assume that the existence of individual human persons persists when death and its consequences definitively destroy the body. Whether this professed subsistence beyond

¹⁴⁶ An example of such matter might be the ectoplasm posited by spiritualism.

death fosters an obligation to pray that the deceased individual will soon be purified so as to behold God's face, or fosters an opportunity to seek the intercession of some holy man or woman who is believed to have already attained beatitude, it is clear that the Roman Catholic faith (and, of course, the Orthodox Christian churches, which hold similar beliefs *mutatis mutandis*) is committed to the following proposition: *An essential and subsistent part of the person survives when the physical body dies and is utterly dissolved.* This proposition maintains that some non-physical principle persists after death that can in a meaningful way be identified with the living personality of the individual who has died. This appears indistinguishable from dualism as we have defined it.

Another example that can be taken from the Christian faith is belief in the *general resurrection*: the belief, common to all Christian traditions, that at some future point all human persons who have died will "rise from the dead", will recover integral bodily existence and live, no longer subject to sickness or death. It is common to affirm that, far from supposing dualism, the Christian doctrine of resurrection makes it possible to deny such personal immortality as appears to presuppose mind-body dualism, while remaining safely within the pale of Christian orthodoxy. On the contrary, it appears that the notion of resurrection is highly problematical unless the subsistence of a spiritual soul is posited. This can be shown in the following way: One can imagine oneself existing at the present moment, and returning to consciousness on the occasion of a general resurrection some years or centuries hence. It is not necessary to suppose that one was consciously aware of all the intervening years for this image to be meaningful and to avoid absurdity. The imagined resurrected person would, it may be supposed, have all the same bodily and

mental attributes and even memories that one has now. If one's (putative) soul is imagined to have continued existing between death and resurrection, then, even if one was unconscious during the interval, one can imagine the moment of resurrection as a restoration to full awareness, a kind of awakening that is predicated of *the very same subject* who died years before. There is a real and literal continuity between the person who died (call him Peter1) and the person who "rose from the dead" (call him Peter2). If, however, there is no non-physical soul to persist between death and resurrection, then in what meaningful way are Peter1 and Peter2 the same person, except that they happen to have the same bodily attributes and (entirely artificially) memories? Even supposing that the very phenomena of memory and so forth can be seen intelligibly as purely bodily attributes of Peter1/Peter2, it is not possible to see Peter2's memories as continuous with Peter1's *except by the generation of an illusion of continuity, presumably by the Creator*. In other words, since there is in fact no continuity between Peter1 and Peter2 - since they just happen to have the same bodily configuration (like very identical twins); and since the "continuity of memory" between Peter1 and Peter2 is actually a *pure fabrication of the illusion of memory* in Peter2; then in no meaningful way can Peter2's rising to life be seen as a resurrection of Peter1. Instead, it must be seen as the creation of a new being in whom the memories of another have been artificially infused. Thus, in the absence of mind-body dualism, Christian belief is reduced to making the Creator into a large-scale generator of unfounded illusions at the moment of the general resurrection; and it is further reduced to promising an utterly empty hope to the men and women of today. This empty hope may be expressed as follows: "You yourself will perish utterly at the time of

your death; but at some future date, someone else will be created and your memories will be artificially infused into his or her mind”. The power of such a proclamation to inspire and console is not immediately obvious.

For these reasons, while dualism does not logically entail immortality, it is entirely consistent with it, whereas physicalism is not. Consequently any religious tradition committed to affirming personal immortality is *ipso facto* committed to substance dualism.

This conclusion is disputed, specifically in relation to Christian doctrine, by a number of theologians. For instance, Nancey Murphy raises the issue as follows:

If there is no substantial soul to survive bodily death then what is to be made of doctrines, formalised at the time of the Reformation, specifying that the dead enjoy conscious relation to God prior to the general resurrection? [...One] approach is to question the meaningfulness of a time-line in discussing eschatological issues. That is, we presume that God is, in some sense, “outside” of time. If those who have died are “with God” we cannot meaningfully relate their experience to our creaturely history.¹⁴⁷

This approach appears simply to side-step the logical difficulty of attempting to reconcile belief in immortality with physicalism. It seems doubtful that vaguely invoking a divine attribute of existing “outside time” (whatever this means) adequately explains how a being who has utterly ceased to exist can “enjoy conscious relation to God” or anything else. The difficulty is not with imagining an inappropriate timeline; the difficulty consists in the attempt to predicate actual characteristics of an entity that (on the physicalist account) no longer exists.

¹⁴⁷ Nancey MURPHY, “Introduction”, in *Neuroscience and the Person*, edited by R J Russell *et al.*, (Vatican City: Vatican Observatory Press, 1999), pp. viii-ix.

Ted Peters, in the same collection of essays, devotes an article to discussing themes germane to immortality; but his concern is to affirm the centrality of belief in bodily resurrection to Christian faith. Though he identifies dualism as the view contrary to the one he espouses, dualism is in no way incompatible with a doctrine like bodily resurrection. On the contrary, dualist *interactionism* makes the necessity of bodily resurrection more apparent. However, Peters never explains how his insistence on bodily resurrection excludes dualism; nor does he concern himself with the crucial objection I have raised here, namely, that physicalism is incompatible with notions of the immortality of soul and with any meaningful interpretation of resurrection.

The question of just how essential the idea of disembodied soul is to Christian belief is a matter for theologians to debate among themselves. It is my judgement, based on both historical and systematic criteria, that what is so essential as to be indispensable is the affirmation of bodily resurrection following the model of Jesus' Easter resurrection. This would be the case regardless of how the question of a temporarily disembodied soul is resolved.¹⁴⁸

I fully concur with this. Peters has, however, left unanswered the central dualist challenge to physicalist readings of Christian eschatology: namely, how resurrection can be meaningful unless, in the interval between bodily death and resurrection, continuity is guaranteed precisely by the temporary disembodied existence of a spiritual soul.

In another collection of essays by theologians sympathetic to ("non-reductive") physicalism, Ray Anderson addresses among other issues the problem of identity if there is

¹⁴⁸ Ted PETERS, "Resurrection of the very embodied soul?", in *Neuroscience and the Person*, p. 315.

no “indestructible soul” to guarantee continuity between the individual before death and after resurrection. He concludes,

Where Scripture does affirm the stability and continuity of the self through death and resurrection, the basis is not that of an indestructible soul but the guarantee of the Spirit of God (2 Cor. 5:5). The assurance that self-identity will survive death is not based on some non-physical aspect of the person but on the bond between the risen Jesus Christ and the believer through the Holy Spirit. [...]he actual process by which human mortal life becomes immortal is hidden from us.¹⁴⁹

How the “bond” of which Anderson writes provides continuity between one person who dies on Tuesday and another, similar person who is created on Wednesday in the general resurrection, is difficult to see. Perhaps his argument is that identity consists in the way a being is perceived or considered by God, so that all that is needed for Peter₁ truly to be *resurrected* as Peter₂ is *for God to see them/him* as the same person. This almost Berkelian view merits reflection and may provide a partial solution to the apparent inability of physicalism to ground religious beliefs about immortality save by invoking nebulous “hidden processes”. On the other hand, grounding identity not in a being’s intrinsic nature but in the way it is *perceived* by God seems to evacuate from the very notion of identity any objective content.

b) Free will

The freedom of the human will is an issue much disputed among and within several

religious traditions. It is not necessary to dwell at length on the details of the respective implications of dualism and physicalism for religious views of the will, as the import of the notion of free will was addressed *supra*¹⁵⁰. However, it is necessary to point out that any religious tradition that affirms free will (such as the Roman Catholic tradition) is thereby committed to holding a dualist position on mind and body, and to rejecting physicalism. The reasons for this were made clear above: in the physicalist perspective, any genuine capacity of the “mind” to influence the (rest of) the physical world violates the law of the conservation of energy as well as the universality of physical laws. If mental events, alone in all the cosmos, have the attribute of occurring without being bound to the laws of physics but in fact have the freedom to understand and to will, then on a physicalist accounting they are utterly idiosyncratic and constitute an anomaly of the first magnitude. Indeed, so anomalous would their attributes have to be that it would be more plausible to be consistent and affirm outright that the mind is a non-physical principle distinct from the body. If, on the other hand, the laws of physics hold in the brain as elsewhere, then there is no room for a free exercise of the will, and no room for the mental properties of the brain somehow to develop the capacity to influence the physical world.

If a religious tradition chooses physicalism over dualism, then any sense it may have of personal accountability or of individual participation in the process it conceives of as salvation or enlightenment is evacuated. Any sense of a just reckoning after death (be it a system of direct karmic consequences, or an eschatological meting out of destinies like the Catholic vision of heaven, hell and purgatory, or another vision of justice after death)

¹⁴⁹ Ray ANDERSON, “On being human: the spiritual saga of a creaturely soul”, in *Whatever Happened to the Soul?*, pp. 192-193.

becomes impossible or at least, meaningless, if the human will is not free. Moreover, as life is manifestly not always fair, rejecting free will appears to confront religious traditions with the necessity of explaining where the justice is in God's providence, since one can neither merit one's present lot nor look forward to the satisfaction of justice in the case of criminals and tyrants. Rejecting free will and consequently the possibility of a just settling of accounts places responsibility for the present and future sufferings of the world squarely at the feet of Providence. This is not to say that dualism solves the problem of evil, but at least it provides a space for men and women to take responsibility for their own actions and accept the consequences, as well as to put their hope in the justice that will be meted out on some future occasion, such as evildoers will not escape scot-free. If one is to preserve the meaningfulness of karma or of heaven, hell and purgatory, one must retain a dualist view of the soul.

Mind-body dualism and views of God and Providence

An episode in the mid-1990s of the American public affairs programme *Firing Line* featured a debate between scientists representing various opinions on biological evolution and divine creation. In the course of the debate, one biologist pointedly asked whether those who attribute the creation of the physical world to a divine being only credit that being with the pretty things; in this case, he asked, who gets the blame for the “nasty bits”?

¹⁵⁰ Cf. *supra*, pp. 34ff.

This question, of course, is the classic problem of evil in one of its many formulations. No knockdown answer has (yet?) been found, but paths toward understanding have been proposed by religious believers to make this crucial problem less daunting. One explanation that has emerged within the Christian tradition (but not exclusively there) has been to ascribe a significant measure of autonomy to the natural world and to posit a degree of angelic agency in the movement of physical creation. John Henry Newman, for instance, developed a keen sense of such a state of affairs as a young man, influenced by his reading of the Alexandrian Fathers.¹⁵¹ Now, no presentation of such a theory could seem reasonable to an observer for whom the very notion of angels is ridiculous; but it is a coherent solution proposed within the framework of Christian belief.

If, as the Christian faith holds, some of these angels have rebelled against their creator, it is not surprising that creation should in fact display a noticeable proportion of nasty bits. The explanation may be false, but it is at least plausible within the parameters of Christian belief.

In such a view, it is possible to safeguard a close link between God and human beings by positing the individual divine creation of a spiritual soul. Such a creation would found religious convictions of the dignity and purposive character of each person's existence: each individual can be affirmed literally to be intended and wished by God, and to be an *imago Dei* in virtue of his or her free, rational soul, albeit an embodied one. By positing this individual spiritual creation, the autonomy of the physical world is untouched:

¹⁵¹ Cf John Henry NEWMAN, *Parochial and Plain Sermons*, II, sermon 29, "The Powers of Nature" (a sermon for Michaelmas), (San Francisco: Ignatius Press, 1997), pp. 455ff. Cf also his *Apologia pro Vita Sua*, ch. 1 (London: Longmans & Co., 1905), p. 28.

one does not need to postulate a divine creative reorganisation matter at the conception of every human being such that the being conceived can be said to be God's creation. On the contrary, a dualist-interactionist model of the individual creation of a spiritual soul at conception (let us say) underpins a radical affirmation that every person is willed and created by God as well as the strong affirmation of the autonomy of the physical world. This has important implications for the notion of Providence. (It also has important ethical implications, which we shall see in a moment). Dualism provides the framework within which cognition and consciousness can be accounted for (and in which they can be identified as features of *humanity-as-imago-Dei*), in which the intendedness of the individual can be strongly affirmed, and in which it is possible to understand disorder and suffering in creation as manifestations at least of a certain autonomy, and possibly even of a certain deliberate rebellion. On the other hand, physicalism (even non-reductive) is reduced to three unconvincing alternatives: Either the physical world including the wholly-physical human person is autonomous, in which case pain and suffering are less problematic but the purposiveness of each individual is lost; or else the wholly-physical human person and the rest of the physical world are the forum for God's direct interventions, in which case pain and suffering are much more difficult to account for; or else God intervenes just enough to warrant regarding the individual as specifically willed but not so much that the blame for (say) hereditary alcoholism is laid directly at the feet of Providence. This last option begins to look like special pleading at best, and has further the serious problem of explaining why God, who deliberately created each wholly-physical

person, should (in so many cases) not merely have permitted but have directly caused him or her to be saddled with severe illness or pain.

Once again, establishing the plausibility of dualism does not prove individual divine creation of a spiritual soul (though it is probably difficult to imagine another hypothetical origin for the soul postulated by dualism); it does, however, provide ample scope for religious traditions to posit individual divine creation and thus to affirm both the goodness and the providence of God despite the problem of pain. A religious tradition that rejects dualism, however, appears to have excluded this crucial option.

One other area in which the mind-body problem appears germane to religious and theological considerations is in the ostensible difficulty of even conceiving of the “spiritual soul” posited by substance dualism. Some authors (we cited Thalberg *supra*¹⁵², among others) question whether there is anything meaningful in descriptions of the soul as a spiritual, non-physical entity characterised by consciousness, volition, reason and so forth. This objection must be taken seriously and replied to, and I have tried to do so in the last chapter. Here I simply wish to point out that if this objection is adopted, it has dramatic consequences for many religious traditions since many conceive of God in very similar terms. If the “spiritual soul” is a meaningless postulate, so too is “God” as many religious traditions conceive of God. This does not establish the validity or invalidity of the objection; it simply identifies another significant theological stake in the acceptance or rejection of dualism.

¹⁵² Cf. *supra*, p.105.

Ethical considerations

Ethical prohibitions against cruelty towards living creatures need not be based upon the affirmation that the creature in question is characterised by a spiritual soul, since the obligation for a moral agent to shun cruelty is not logically connected to the metaphysical status of the one acted upon. The Hippocratic injunction “*primum non nocere*”, for instance, locates the duty of kindness in the agent’s duty to shun what is debasing and inconsistent with the dignity of the agent as moral being. The Christian tradition, for another example, has evolved a set of ethical imperatives forbidding cruelty to animals despite its hesitancy formally to posit a spiritual soul in non-human physical creatures. Such a belief as the latter is not incompatible with Christian orthodoxy, but even in the absence of such a belief, Christian ethics recognises a duty to be attentive to the pain of all creatures and to shun what needlessly gives pain, still more to abhor any modicum of pleasure in the giving of pain. Consequently it is not possible or tenable to posit a flat-footed mutual dependency between a dualist conception of the soul and its resultant moral imperatives to act rightly with respect to human beings. The compassionate treatment of human beings can be enjoined even without positing a substantial spiritual soul. On the other hand, religious traditions that do positively attribute a spiritual soul to animals have consequently developed an elaborate attitude of respect for non-human animals *that goes beyond the avoidance of cruelty*. Many Hindu and Buddhist traditions and emphatically the Jain tradition conclude from their belief in the spiritual soul of animals that any killing of animals is tantamount to murder. This is consistent with the key distinction in Christian ethics between the killing of animals (which must be humane,

and must respect such factors as ownership, or the existence of a relationship with the animal that deserves consideration, as in the case of a family pet, but which is a legitimate option) and the killing of human beings (which in Christian ethics is almost always or even always murder, when deliberate). The heart of the distinction is the positing of a spiritual soul.

Accordingly, the possibility of retaining the imperative of compassion even in the absence of belief in a spiritual soul may not be true in the case of all the other precepts that religious traditions have developed concerning ethical treatment of the human person. Arguably the clearest example of this is found in the case of the severely handicapped.

We may assume for the purpose of argument that no ethical position of a religious tradition would tolerate *cruelty* toward the severely mentally or physically handicapped. It would be patently false and unfair to say that the rejection of substance-dualism leads logically to the mistreatment of severely handicapped human beings - it does not. However, I will attempt to show that forsaking substance-dualism does lead logically to a state of affairs in which euthanising or aborting the severely handicapped is entirely acceptable.

The dualist position in itself is silent about ethical imperatives. Chapters I, II and III simply demonstrated that it is not absurd to posit a subsistent non-physical principle of human cognition, which we have called the soul. As in previous instances in this chapter, I am claiming not that dualism in itself leads to certain beliefs about Providence or ethics, but rather that dualism is compatible with certain key beliefs of many religious traditions while physicalism is not. In other words, the logical progression I am sketching here is not

“dualism therefore x and y religious beliefs”, but “ x and y religious beliefs compatible only with the basic dualist position, and not with alternatives to it”. Ethical injunctions against euthanising the severely handicapped and in favour of accepting them as full members of the human family are such beliefs, as I will show.

The principal ethical bulwark that a religious tradition has to defend the severely handicapped against dehumanisation is the affirmation that a person’s value resides chiefly in some feature of his or her existence that is not subject to erosion. By ‘erosion’ I mean any influence (such as loss of autonomy, change in social standing or lack of intellectual power) that would tend to diminish the degree to which an individual is recognised or recognisable as a human person. Now, a spiritual soul is precisely such a feature; it is not subject to erosion at the hands of any outside influence. A religious tradition such as Christianity, which describes the human person as *imago Dei*, can reasonably situate this ‘resemblance’ to God in the spiritual soul.

In this way, a religious tradition with what could be called a dualist-interactionist vision of the soul can see in the severely handicapped a person directly willed by God and resembling God in his or her reason, freedom and immortality. The fact that congenital and other factors have diminished the body’s capacity to express or mediate some operations of the soul does in no way lessen the intrinsic dignity of the soul. No more than Don Ross with a broken arm, or better, a snapped guitar neck, is any less a musician simply because his instrument (as valuable as it genuinely is) does not permit him to express his ‘intrinsic’ musical talent.

A severely intellectually handicapped person will never produce a great work of art, never have a profound conversation, probably never start a family; indeed, he or she may be utterly unable to communicate. True, those who work with the handicapped often remark that this work teaches them important truths about love and about real priorities; but the fact is that one has to be free of severe handicap to make such an observation. The lesson is only available to those able enough to receive it. The severely handicapped person will never express (and likely never have) such an insight. Now, if humanity resides in the (putative) spiritual soul, these facts merit compassion, but do not constitute a tragedy of final significance or some catastrophic lacuna in the individual's dignity. His or her bodily existence can remain noble and sacred from certain religious perspectives, and the realistic appraisal of the handicap as severe in no way diminishes his or her dignity relative to, say, a Nobel laureate philanthropist. A religious tradition that believes in a spiritual soul can without absurdity place human beings of all levels of achievement on the same footing, whether that person is an infant, a very elderly man or woman, a severely handicapped individual or some more visibly glamorous specimen of humanity.

If, on the other hand, a religious tradition accepts the physicalist perspective, then the whole of a person's existence and dignity resides in his or her bodily existence. This is a problem not because the body is unworthy of such status; but because it relegates those whose intellectual and emotional lives are severely limited to a precarious position. Since in the physicalist view all that a person is can be found in his or her body, what is it that distinguishes him or her from an animal if the person lacks intelligence, lacks an emotional life, perhaps even lacks sentience? No logical consequence ensues to be *cruel* to that

person, but what motive is there to support, to honour or even allow his or her continued existence? Without a spiritual soul, a severely handicapped person is no more than his or her handicap. To describe a severely handicapped person with a spiritual soul as a “vegetable” is a disgrace and an affront of the gravest kind. To describe a severely handicapped person without a spiritual soul as a “vegetable” is a mere truism.

Stephen Post, a critic of dualism, observes, albeit sceptically:

Radical dualism [...] purportedly confers a protective canopy over those imperilled and vulnerable people at the very margins of human mental capacity. The most severe cases of retardation or advanced irreversible progressive dementia (e.g., Alzheimer’s disease) only hinder the expression of the invisible soul, which in fact still exists in all its eternal value under the veneer of confusion. Therefore (so the argument would go) caregivers need never think that their loved one is no longer present, that they have before them only a “shell” or “husk” or “half-empty” glass. Indeed the glass is still full because the soul is still there, even if camouflaged by neurological devastation. Such lives are worthy of all the moral consideration and standing that we would ordinarily bestow upon those of us who are neurologically more intact.¹⁵³

Dualism allows a religious tradition to affirm the humanity of individuals who by all measurable standards have nothing to contribute to society: the elderly, the severely handicapped, infants, addicts, street children who are more trouble alive than dead, unborn children and so on. Physicalism maintains that all that it is to be a human being consists in an individual’s physical being (albeit ‘non-reductively’ so); it thereby removes the only

¹⁵³ Stephen POST, “A moral case for nonreductive physicalism”, in *Whatever Happened to the Soul?*, edited by Nancey Murphy *et. al.*, (Minneapolis MN: Augsburg Fortress Press, 1998), p. 197.

means by which a severely incapacitated individual can be meaningfully distinguished from an animal of similar moral and intellectual attainments. Post concludes,

Presumably nondualist theologians have and can remain within the domain of Christian moral thought. Even the most incapacitated human being deserves our full consideration not because he or she has a nonmaterial soul, but because of a common Christian narrative that bids us to love even the most devastated and imperilled neighbour.¹⁵⁴

What Post fails to show is how the Christian moral imperative he movingly summarises can identify “even the most incapacitated” as one’s neighbour when the incapacitated body is the only material with which physicalism can make its judgements. Moreover, Post’s rationale would support the welfare of handicapped human beings on a very slender pillar: not a common human nature accessible to all, but on one interpretation of one aspect of one religious tradition. My argument is not that physicalists will necessarily be cruel to the severely handicapped, but only that their compassion is sentimental and unintelligible.

These observations do not show that dualism is true, but only that the theological stake in dualism is high. If dualism is untenable, then a number of pivotal religious doctrines are likewise untenable. On the other hand, if dualism is tenable (as I have shown it is), and religious traditions wish *coherently* to affirm their beliefs, they will in a number of important instances need to affirm substance dualism as well.

¹⁵⁴ *Ibid.*, p. 210.

Chalcedon: a model for understanding?

While it is beyond the scope of this thesis to examine the point in detail, it is fitting to indicate a theological tradition that may have much to reveal about the possibility of coming to a clearer model of brain-mind dualism. In the Christian tradition, orthodox belief since the Council of Chalcedon in 451CE has expressed the following about Jesus Christ: That Jesus is one “person” in whom two “natures” are “hypostatically united”. This point has been among the parameters for Christian theology (except in the non-Chalcedonian Coptic and Ethiopian traditions) ever since, and the dualist with theological concerns may well examine the tradition of reflection on this doctrine that has emerged over those centuries. Clearly, Chalcedon’s Christology evokes points analogous with brain-mind dualism inasmuch as both posit two distinct substantial entities (brain/mind on the one hand and complete divine nature/complete human nature on the other) that coexist and interact in profound unity in a single person (whether any human person, or Jesus Christ specifically). Both present problems arising from the difficulty of imagining the way such different entities would interact without compromising the unity of the person in whom they exist. Consequently, it would be worthwhile to examine the Christian theological tradition to see what insights time and reflection have yielded that are apropos not only of Chalcedonian Christology but of the brain-mind dualism for which it may provide a model¹⁵⁵.

¹⁵⁵ John Foster implicitly suggests the possible value of such an inquiry when he writes: “The central core of our common sense outlook construes the living human individual as something which (to echo the language of Chalcedon) hypostatically unites two natures [...] The basic problem is [...] the problem of understanding how it is possible for the same thing to possess two such different natures.” (*The Immaterial Self*, pp. 207-208).

One detailed study of the problematics of Chalcedonian Christology, that sheds light on the mind-body problem, is Bernard Lonergan's *De constitutione Christi ontologica et psychologica*. Lonergan's concern is precisely to determine how Christ's duality of natures may be reconciled with the posited unity of his person.

The gist of the dogma is this : one and the same is both truly God and truly man; that is, the one person of the divine Word subsists in two natures, divine and human; and since the person must not be divided so as to have one person who is divine and another who is human, the union is said to be in the person [...]; on the other hand, since the two natures are not to be merged so that a single nature somehow results from the two, the union is said to be on the basis of the person [...]¹⁵⁶

Lonergan seems to locate this fundamental unity in the creative act of God the Son (the Word) who creates the human nature that he assumes :

[...] since the 'being assumed' exists because it is required by the infinite act of the assuming Word, the substantial supernatural act received in Christ's human essence is the foundation of the real relation of the assumed nature to the Word alone [...T]his substantial act, this secondary act of existence, is not some intermediary linking and uniting the divinity and humanity. The hypostatic union takes place in the person and on the basis of the person, so that the intermediary between the two natures is the person of the Word who is God and who is man. [...] The infinite act of existence of the Word, therefore, is the sole cause of the hypostatic union [...]asmuch as the conjoining person constitutes himself contingently as a man through the infinite act of existence, that secondary act follows by way of a simply posterior term¹⁵⁷.

¹⁵⁶ Bernard LONERGAN, *The Ontological and Psychological Constitution of Christ* (trans. By Michael G. Shields), (Toronto: University of Toronto Press, 2002; originally published in Latin in 1956), p. 109.

¹⁵⁷ *Ibid.*, pp. 147-149.

Loneragan appears to be arguing that Christ's personhood is not some third term subtending and lending unity to the two other terms, divinity and humanity; rather, the divine Word, being 'the sole cause of the hypostatic union', is the ground of the unity in Christ. This unity of being a single person (not extrinsically possessing some united personhood, but *being* a single person), that single person being the Word, unifies the assumed human nature with the assuming divine nature in virtue of the fact that the very (contingent) existence of the human nature is an ongoing act of creation by the Word.

Loneragan takes pains to investigate the implications of Christ's dual (divine and human) consciousness. Here again, while there is an ontological duality, Lonergan posits a fundamental unity between the distinct consciousnesses of Christ :

First of all, let us recall that consciousness is not on the side of the object but on the side of the subject, not on the side of the perceived but on the side of the perceiver. Hence it follows that the Son of God or the person of the Word is conscious of himself through human consciousness not because the Son of God is perceived but because the Son of God perceives, nor because the Son of God perceives himself as an object but because the Son of God either senses or understands or chooses or attends to any object whatsoever. Second, recall to mind the mystery of the incarnation [...] Indeed this mystery affirms a certain ontological kenosis, not as if divinity were laid aside, but in that humanity is really and truly assumed [...] [Next,] although this dissimilarity between the two consciousnesses is manifest to the Son of God inasmuch as he is the subject of both consciousnesses at once, nevertheless it remains true, even if we prescind from the divine consciousness of Christ, that the Son of God is truly and in the proper sense conscious through human consciousness and therefore that the Son of God is aware of himself on the side of the subject and under the formality of the experienced¹⁵⁸.

¹⁵⁸ *Ibid.*, pp. 267-269.

Finally, Lonergan concludes :

According to this solution, therefore, the divine person is manifest through Christ's human consciousness, not because his human consciousness is different from any other human consciousness, [...] not in that he gets a different answer to the question, What am I? but in that he gets a different answer to the question, Who am I? And this answer is different not because something else is perceived through Christ's human consciousness, but because someone is doing the perceiving¹⁵⁹.

If we apply Lonergan's insight into the fundamental unity of the person of Christ (as I understand it) to a dualist solution of the mind-body problem, perhaps we might tentatively suggest the following.

The substantial soul posited by substance dualism is not a principle at odds with and radically sundered from the body/brain of an individual. Rather, the body is *assumed* by the soul such that together they constitute a new and profound unity. The union between them is not some shadowy third party in the interior constitution of the person; rather, the single person (Maggie or Stan or whomever) is the ground of unity between the two principles, body and soul, that constitutes him or her. Moreover, the cause of that union, and indeed of the person's identity, is the soul, precisely because it assumes the body as an essential component of its integrated existence. Thus, if someone were to object that substance dualism divides a unity (the human being) and suggests that the body is by far the more dispensable of the pair, one could reply that this is a deeply flawed analysis. Just as the human nature of Christ, though contingent, was anything but a

¹⁵⁹ *Ibid.*, p. 269.

negligible afterthought *precisely because it was deliberately assumed by the divine Word upon whom it depends for its existence*, in the same way the body or brain is anything but a negligible component of the human person precisely because it is assumed by the soul or mind with all of its majestic faculties. This assumption is not superfluous; it is the very nature of the *human* soul to function adequately and exist fully only when it is 'hypostatically united' with a brain or body – not merely the instrument but the locus of its interaction with the world.

CONCLUSION

In this thesis I have attempted to state a plausible case for mind-body substance dualism, and have particularly attempted to show some of the ways in which the theological implications of such a position (or its denial) are serious and significant. I have proposed eight important arguments for a dualist view of the mind-brain relationship, and have attempted to engage some of the major contemporary rival models of this relationship, all of which share a physicalist commitment but each of which comes to distinctly different conclusions. In a separate lengthy chapter I have attempted to deal with the eight main objections to the dualist view.

In particular I have attempted to deal seriously with four physicalist authors and the positions they represent: Daniel Dennett and eliminative materialism, Jaegwon Kim and the unavoidable alternative between physicalism and dualism, John Searle and emergentism, and David Chalmers and property dualism. I have shown that property dualism provides the most serious challenge to substance dualism because it appears capable of accounting for the data which form the case I have made for substance dualism, without betraying physicalist loyalties. While the challenge is a serious one and merits more concerted attention from a substance-dualist perspective, I have shown that the case for the property-dualist position is not definitive and that substance dualism remains a serious contender in the debate. In particular I have shown that the debate is emphatically a philosophical and even a theological problem and not a neuroscientific one: the fundamental characteristic of all physicalist positions is an *a priori* commitment to the

denial that any non-physical entity exists or at least that, if it exists, it has influence on the physical world. This, in turn, is sometimes justified by appeals to a plainly theological, almost an ethical, position: The imperative of avoiding at all costs anything that could introduce “superstition”, “mysticism” and other “antiscientific” notions into an informed contemporary worldview.

In the final section of my thesis I have inquired what the theological stake is in this debate, and have concluded that it is very high indeed. The implications of the question, while it does not settle which view is the right one, does reveal that religious believers from many traditions cannot be indifferent to the mind-body problem. Many crucial theological affirmations common to a number of diverse religious traditions assume and depend at least implicitly on a dualist position. If my reading of these positions is accurate, examples must include the affirmation of personal immortality, the nature of Providence, and the ethical imperative of honouring human persons as ends and never using them or disposing of them as expendable means. Examples drawn from the Catholic Christian tradition in particular include the invocation of saints, prayer for the dead, affirmation of the immediate individual divine creation of the person, and the eschatological hope of general resurrection. We saw that there is one line of argument that may be able to salvage some meaningful interpretation of the general resurrection for the physicalist perspective, namely, the view that identity and therefore persistence of identity resides in some way in God such that God’s view of a person is definitive for the persistence or not of that person’s existence, irrespective of whether the matter in which the person’s life inhered perdures or not. I also pointed out, however, that unless even

God's view is grounded in some objective (if contingent) survival of the individual, then the objective content of personal identity is evacuated in favour of virtually a Berkelian vision of the person: The existence one has consists in the thoughts God has about or of one, and not in any distinct (if contingent) ontological existence.

The theological reflection ended with a proposal for the focused examination of the Christian tradition in particular in search of useful models of dualist-interactionism. In particular I proposed that Chalcedonian Christology may provide suitable ground for such reflection, as it too posits a duality of distinct substances coexisting and interacting in profound unity. Possibility the tension among the elements of Chalcedonian Christology has generated insights over the centuries that could be useful as models to understand better the duality posited of brain and mind by the substance dualist who is interested in the theological implications of his or her position.

Dualism is often mistrusted because of the assumption that if one posits two principles of human nature they must be posited as mutually hostile, or one must revere one and despise the other. It is seen as irrational because it is assumed that dualism cannot coherently admit the role of the brain in consciousness and cognition. However, this is sheer misunderstanding. Dualism affirms two principles and their interaction; any deprecation of the body is an unwarranted prejudice, and any denial of the brain's central role in personality is simply *naiveté*. The case for dualism must still be answered, by intelligent debate, and not by "pert gibes". Michael Polanyi, discussing the consequences of the scientific method when it becomes ideology, observes :

[...] it has now turned out that modern scientism fetters thought as cruelly as ever the churches had done. It offers no scope for our most vital beliefs and it forces us to disguise them in farcically inadequate terms. Ideologies framed in these terms have enlisted man's highest aspirations in the service of soul-destroying tyrannies.¹⁶⁰

The philosophical price of declining to engage in this discussion, I submit, is to fall into plain dogmatism; the theological price of forsaking dualism is the collapse of several pivotal religious positions, not the least of which is the dignity and nature of the human person as *imago Dei*.

¹⁶⁰ Michael POLANYI, *Personal Knowledge*, (Chicago: University of Chicago Press, 1958), p. 265. It would appear that Polanyi might have sympathised with some of the conclusions arrived at in these pages; cf. *ibid.*, p. 159.

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