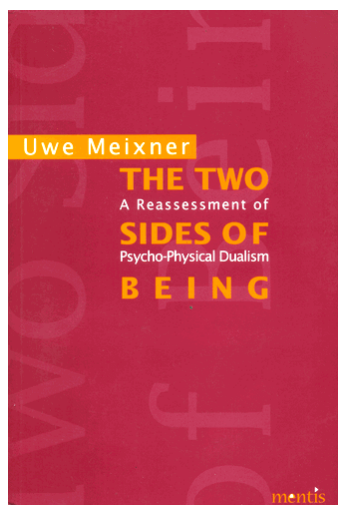


BOOK REVIEW



Uwe Meixner

The Two Sides of Being:
A Reassessment of Psycho-Physical Dualism

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Review (Part I) by Ulrich Mohrhoff

A defense of psycho-physical dualism — especially one as comprehensive, rigorous, passionate, and well written as *The Two Sides of Being* — is bound to be hugely unpopular with large parts of the contemporary philosophical community. The author of this important philosophical work is Uwe Meixner, who teaches philosophy at the University of Regensburg. There are two thrusts to his defense of dualism.

The first thrust goes to establish that dualism, rightly considered, does not contradict natural science or any other body of metaphysically unbiased rational principles (on the contrary, it is supported by such principles). The second thrust goes to establish that dualism, rightly considered, fits better than its rival physicalism (or materialism) common sense and ethical and religious ideas that have been beneficially prevalent among a large part of mankind for thousands of years. Therefore, all things considered (science, common sense, ethics and religion), dualism is to be preferred if we are to take a metaphysical stand on the relation of body and mind (and we are not in a position to avoid taking a stand: since our very own nature is at issue, agnosticism is out of the question). (p. 9)

The first of the book's ten chapters (seven of which are discussed in this first installment of my review) is dedicated to basic conceptual matters. Four types of physicalism are considered: substance physicalism (every actually existing *substantial individual* is physical), property physicalism (every actually existing *property* is physical), event physicalism (every actually existing *event* is physical), and physicalism with respect to states of affairs (every actually existing *state of affairs* is physical). To these specializations of *inclusion physicalism* there correspond four types of dualism: substance dualism (at least one actually existing *substantial individual* is not physical), property dualism (at least one actually existing *property* is not physical), event dualism

(at least one actually existing *event* is not physical), and dualism with respect to states of affairs (at least one actually existing *state of affairs* is not physical).

Inclusion-physicalism is subsumable under *dependence-physicalism*, given that the latter is stated by the following proposition: every actually existing entity is physical or depends one-sidedly on some physical entity. Inclusion-physicalism has the problem of explaining the word “physical”; dependence-physicalism has in addition the problem of explaining the phrase “depends one-sidedly on.” Other predicates needing explication in physicalistic (and hence also in dualistic) theses are the categorial ontological predicates: “x is a substantial individual,” “x is a property,” “x is an event,” and “x is a state of affairs.” However:

The matter of explicating categorial ontological predicates is exhaustively and rather controversially treated in formal ontology, not in the philosophy of mind. It thus becomes apparent that the very framework of the philosophy of mind – the framework within which all its discussions move – involves a considerable number of – possibly shaky and problematic – conceptual presuppositions, which, as a matter of fact and practical necessity, remain largely undiscussed and often unclarified by philosophers of mind. (p. 19)

A dualist is under no obligation to furnish explications that to date no physicalist philosopher of mind has bothered to furnish. An explicit definition of the concept of a physical property appears to be out of the question, since

the inductive basis on which such a definition might be attempted looks unpromisingly heterogeneous. What *interesting essential feature* do all the physical properties have in common, and all the nonphysical ones lack? It is certainly hard to say. (p. 31)

Meixner nevertheless accepts the following as examples of genuine physical properties: the property of being at exactly one place at a time, the property of having a mass of 2 kg (at a certain time), the property of being 1 mm long (at a certain time), the property of being at a distance of one light-year from the Earth (at a certain time), and so on.

Indeed, all not purely mathematical properties that are named or expressed in the language of physics by physicists doing physics can safely be considered to be physical properties. This gives us a rather clear and comprehensive idea of the physical properties there are. (p. 31)

No, they can't, and no, it doesn't. The fundamental theoretical framework of contemporary physics – quantum mechanics, a.k.a. quantum theory, a.k.a. quantum physics – encapsulates statistical correlations between measurement outcomes. The probability of finding one and the same particle in more than one place at a certain time is indeed zero, but if a plate containing two slits *L* and *R* is placed between two detectors *A* and *B*, then the probability of detection by *B*, given its prior detection by *A*, comes out completely wrong if one calculates it assuming that the particle went through a single slit (*either L or R*).

Again, in quantum physics – the full relativistic version – the mass of a particle is an energy measured in mass units, while this energy is a frequency measured in energy units, which in turn is the time rate of change of the phase of a complex number. The

latter has no physical meaning but only contributes to calculations of probabilities of measurement outcomes. The kilogram (as in “a kilogram of potatoes”) is thus defined in terms of a mathematical feature of an algorithm that serves to assign probabilities to the possible outcomes of position measurements (using information provided by prior position measurements). This mathematical feature is *not* a physical property and is *not* defined in terms of any physical property — least of all the vegetable shopper’s meaning of a “kilogram.” And so on. Meixner is therefore mistaken if it seems to him — as undoubtedly it does to his physicalist opponents —

that one could very well say that a physical property is a *fundamental* physical property, or a property that can be *defined* on the basis of fundamental physical properties. And in specifying — simply listing — the *fundamental* physical properties physics will certainly be of great help; the specifying of the fundamental physical properties should not be a non-negotiable difficulty. (p. 31)

There is more trouble ahead. According to the definition that Meixner formally adopts, a physical quantity is “an item out of the specified set — *ask the experts* — of fundamental physical properties (which are stipulated to apply *only* to physical individuals), or a property which is definable on the basis of fundamental physical properties as a specification of the property of being a physical individual.” What, then, does the predicate “physical individual” mean?

Unfortunately, we have already used the expression “physical individual” for defining “physical property,” and hence employing the latter expression for defining the former seems to be out of the question. But how else, if not via essential reference to physical properties, could the term “physical individual” be defined? It seems, this predicate must remain unanalyzed. But if it must remain unanalyzed, how could the sense of the predicate “physical property” be *central* — as has been asserted above — in the constellation of the various analogical meanings of the word “physical” which are generated by applying that word within (the fields of) different ontological categories? (pp. 33–34)

Meixner settles for the following analysis (rather than definition): “a *physical individual* is an individual that has at least one physical property essentially (or necessarily).” What is clear is

that it is not at all clear *a priori* what “physical” means, that [it] requires an astonishing amount of painstaking analysis to clarify the term’s meaning within its various areas of application. (p. 42)

The second chapter addresses motivation — for dualism as well as for physicalism.

The concern of this chapter is not whether dualism (or one of its various forms) is true, but rather what might be one’s motivation for wanting it to be true, for being vitally — and not merely in a detached, purely theoretical manner — (positively) interested in its truth. (p. 53)

Nowadays one of the motivations for asserting dualism is to protest against physicalism, which is felt to be an oppressive and intimidating doctrine. This tends to obscure the historical fact that the main original motivation for physicalism (or materialism) was the protest against dualism, which was felt to be an oppressive and intimidating doctrine.

Even a brief glance at the contemporary physicalist literature shows that what is at issue is not a mere matter of disinterestedly looking at the revealed facts. When David Chalmers puts in a word for dualism, he insists that a “natural dualism expands our view of the world, but it does not invoke the forces of darkness.” John Searle is more candid:

[W]e have a terror of falling into Cartesian dualism. The bankruptcy of the Cartesian tradition, and the absurdity of supposing that there are two kinds of substances or properties in the world, ‘mental’ and ‘physical,’ is so threatening to us and has such a sordid history that we are reluctant to concede anything that might smack of Cartesianism.

“Why do we (*we?*), supposedly, feel *threatened* by a Weltanschauung, and are *in terror* of it, that at the same time is, supposedly, *absurd, bankrupt, and sordid?*” Meixner asks.

We do not need to fear what is absurd and contemptible, do we? ... The truth is that there is neither sordidness nor absurdity in dualism. And therefore — and only therefore — it can be feared by those philosophers *who hate the idea of it*. Calling the idea “absurd” and “sordid” is merely an oblique expression of that very fear and hate, just like calling the hated and feared enemy “weak” and “craven,” when one is, not indeed positively lying, but knowing in one’s deepest heart that the enemy is, in fact, no such thing.

Perhaps one is calling the enemy these names in order to work up a courage in oneself, perceiving the lack of it, or perhaps one is calling him thus because one has noticed that the others on one’s own side suspect one of sympathizing with the enemy, or perhaps simply because “we endeavor to affirm everything of something we hate that we imagine will affect it negatively, and to negate everything of it that we imagine will affect it positively,”

as Spinoza observed. (p. 57)

Reading the passage quoted above, I can almost picture Searle trying to wash the stain of dualism from his hands. But, just as in Lady Macbeth’s bloody case, the spots just won’t go away. (p. 58)

Physicalists fear and hate dualism because they associate it with “the forces of darkness” — with religion in short. And why do they hate and fear religion? Meixner looks beyond zealously assembled evidence of religiously motivated cruelty at motivations for hating and fearing religion that are less respectable. Take, for instance, the conviction that religion — “as modern science teaches us” — is nothing but a collection of contemptible lies.

How does this differ in kind from the conviction of a religious fundamentalist condemning the teachings of other religions and of science as “ungodly”? I do not think that the two convictions differ significantly in kind; in both there is a good deal of what one can but call *stupidity*, whether willful stupidity or not. (p. 61)

The association of dualism with religion is of course not without foundation. One or another form of dualism is, certainly, an important part of the implicit or explicit metaphysics of most religions. Salvational religion in particular appears to demand dualism. But even substance dualism doesn’t require that (some) non-physical substances be *immortal*.

Not even the acceptance of Cartesian dualism — not even by Descartes' own lights — implies the acceptance of immortality. Nevertheless, in *The Rediscovery of the Mind*, p. 27, Searle refers to “the Cartesian view that in addition to physical particles there are ‘immaterial’ souls or mental substances, spiritual entities *that survive the destruction of our bodies and live on immortally*” (emphases mine). To some people it just does not seem to be an obligation of intellectual fairness to at least correctly represent opinions they believe to be incorrect. Searle is not the only one. (p. 69)

In *Self-Consciousness* — John Updike's memoirs — the author remarks: “Western culture from Boethius to Proust had transpired under the Christian enchantment.” One might as well replace “Christian enchantment” by “dualistic enchantment.”

The *dualistic enchantment* — with all the fruitful tensions and harmonies of body and soul, mind and body, mental and physical, which it brought along with it, the rich language of a passionate relationship emerging in art, literature, religion and philosophy as well as in everyday life and its ethics — *made* the Western culture, and indeed made human culture as a whole (and is still operative in it, whether we like it or not). This being so, *can* we, who are heirs to this culture and live in it, regard dualism as a mere collection of misconceptions our benighted and sadly deluded forebears had about themselves? ...

Besides, there are certain other considerations that are relevant for choosing between dualism and materialism/physicalism: The world of dualism is open, the world of physicalism is closed. Dualism, in its present form, is nondogmatic and unorthodox; physicalism, in contrast, has mutated to a dogmatic and oppressive orthodoxy. Moreover, physicalism denies the possibility of what is *worth* believing in or hoping for ... *without sufficient reason*, and without offering anything worth believing in or hoping for instead. (p. 82–83)

“What is wisdom? Is it knowledge?” Joseph M. Marshall III asked, and gave this answer: “Knowledge is the basis for wisdom, but it is not a guarantee that wisdom will follow.” (*The Lakota Way*, p. 202) Taking his clue from this, Meixner characterizes metaphysics as a form of wisdom, affirming that it is not knowledge, but that it is about the way how to use knowledge wisely.

This does not mean that metaphysics — as the logical empiricists notoriously held — is not about truth and falsity; it is about truth and falsity, and in a systematic and conceptual, that is: *theoretical* way (which, to boot, can be highly abstract). Nevertheless, metaphysics is not knowledge, because it never reaches the degree of rationally justifiable (potentially) intersubjective certainty that is required for knowledge. Instead, it offers wisdom. The empirical knowledge we have about the mind has greatly increased in our days, and will further increase in the future. *How should we use this knowledge wisely?* ... Is physicalism, the modern version of materialism, *the wise answer*, fulfilling the purpose of metaphysics: to instruct us on how to use knowledge *wisely* (in the theoretical arena, which [has] implications for the practical one)? I do not believe that physicalism is the answer *required* by wisdom to the anthropo-cosmological question. It is even doubtful whether wisdom *allows* the physicalistic answer. An incidental indication of this is that wisdom will have nothing to do with arrogance and contempt, and there is a lot of arrogance and contempt in modern physicalists. (p. 83–84)

How very true. Chapter III presents a respectable neo-Cartesian argument for substance dualism. It begins with some general remarks about arguments:

Let us call an argument that is formally correct and that rests, without begging the question, on intersubjectively plausible premises a *respectable* argument.... The important thing to note in this context is that a respectable argument need not be a *compelling* argument, i.e., an argument that *every* rational individual that scrutinizes it will be convinced by....

Note that there are, de facto, hardly any compelling arguments in philosophy. One may even hold that philosophy is that essentially critical part of human intellectual activity where every seemingly compelling argument is turned into an argument that is at most respectable. This view of philosophy notwithstanding, there are, however, certain pieces of fallacious reasoning in philosophy that are contrary to the critical spirit of philosophy, but nevertheless not uncommon among philosophers.... They run like this: This argument — some argument for some metaphysical conclusion — is not compelling; therefore, it is not respectable; therefore, its conclusion is false. Or a bit less absurdly: There is no compelling argument for P (some metaphysical position); therefore, there is no respectable argument for P; therefore, P is likely to be false. Yet, bad as the reasonings that have these forms are, they are still better than the reasonings (also found among philosophers, although not explicitly subscribed to) that have the following form (which might be called “petitious”): Whatever arguments are presented for P (say, dualism), they are, whether scrutinized or not, not respectable, since their conclusion, P, is not respectable; therefore, P is false. (p. 85–86)

Parts of Meixner’s respectable argument for substance dualism are philosophical classics:

The physical world is *for you* in no other way than as a never completed sum-content of your consciousness.... Edmund Husserl pointed out this simple truth over and over and over again; but physicalists blithely continue to ignore it, turning that which is their very window to the physical world — the conscious mind — into one more puny little item of the physical world, into a “collection of cheap tricks,” into a “gadget,” as Dennett is happy to express himself regarding the conscious mind.... They never seem to seriously ask themselves how they could know what they believe to know about consciousness if their view of consciousness were correct. They must have some secret backdoor to the truth, or perhaps some Big Brother is directly infusing the truth into them (sidestepping their consciousnesses), their mouths speaking it parrotlike. (p. 97)

Chapter IV discusses a further eleven arguments for dualism, sampled from the vast literature on the philosophy of mind. Here is one:

Suppose in defense of the soul someone asserted: “If there were no soul, then there would not be any material objects either.” For most physicalists this can only be laughable madness. Would, indeed, *any* physicalist have an inkling of what might be the philosophical rationale behind asserting something as “absurd” as that? If she has a serious education — and one taken seriously — in the history of philosophy (which most physicalists seem to lack), then she might have an inkling.

We never ever encounter material objects without the encounterer: *us*. Material objects are one pole in a complex that has two poles, the other pole being *we*. Let me call complexes such as these “intentional complexes.” Such complexes always consist of an *intender* (in the highly general technical sense required by the sense of the word “intentionality” as it is used in the philosophy of mind), of *what is intended*: the intentional object, and *the medium of intending*. Suppose material objects exist only as poles in intentional complexes (as Edmund Husserl in fact believed).

“But this is false!” cries Otto. How can you be so sure that it is false, since each and every material object you ever encountered was just that: a pole in an intentional complex of which you were the other pole? “Material objects would exist, and did in fact exist, without any intender existing!” All right, I do not want to tax your patience as a righteous realist more than is necessary. But you would surely agree that you have direct knowledge of any material object *only insofar* as it is the intended pole in an intentional complex of which you are the intending pole? “This seems correct.” It follows that you are not a material object. “What??” Because you have direct knowledge of yourself *not only insofar* as you are the intended pole in an intentional complex of which you are the intending pole (i. e., not only insofar as you can put yourself *before yourself*, for inspection, so to speak). You have *absolutely immediate* knowledge of yourself, no intentional distance intervening, for example, regarding your own existence. “I deny that I have any such knowledge.” Well, perhaps this is something *you don’t know best*. I, personally, know that I have absolutely immediate knowledge of myself.

My point is that you have knowledge of yourself in a way quite different from the way you have knowledge of material objects — in a way that you cannot have knowledge of material objects. ...you are not a material object because you have current knowledge about facts that intrinsically concern yourself that you *have not and cannot have* gained by being the most knowledgeable neuroscientist ever to exist and by having the ultimate cerebroscope at your competent disposal.... And if you did not currently know whether it seems to you that there are actually existing material objects, no neuroscientific knowledge of yours, no looking into a cerebroscope could remove that lack of knowledge on your part.... You know yourself and the facts that intrinsically concern yourself in a way quite different from the way in which you know any material object and the facts that intrinsically concern it, your brain not excepted, and this difference is not merely the effect of a lack of knowledge regarding material objects: it is, for example, not removed when you approach omniscience about your brain. (pp. 154–156)

Chapter V considers the most discussed recent arguments for dualism other than substance dualism: Nagel’s Bat, Jackson’s Mary, and Searle’s Chinese Room. In addition two other such arguments are considered, which are hardly less famous: Chalmers’ Zombie and The Inverted Spectrum/Modified Colors. Meixner succeeds in giving these arguments a crispness and to-the-point-ness they have not possessed before. He does this by (i) presenting them without the bells and whistles with which they have been adorned to the point of making them almost unrecognizable as hard arguments (as opposed to fantasies) and (ii) showing how physicalists misconstrue these arguments when defending themselves against them.

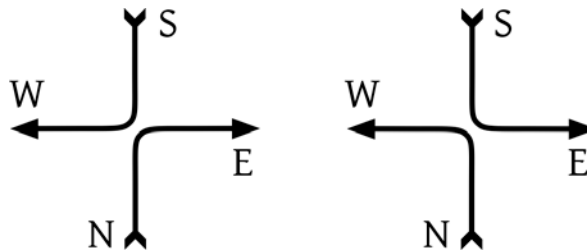
Chapter VI is dedicated to reviewing and refuting (or at least defusing) arguments against dualism that have been offered by some of the most influential present-day philosophers of mind. Meixner first addresses the empirical objection against substance dualism, according to which we lack empirical evidence that there are nonphysical substances. Specifically, we have no empirical evidence that what each of us calls “I” is a substance or even an individual, let alone a nonphysical one. To see the weakness of this objection one only has to remember that absence of evidence is not the same as evidence of absence.

That one has no empirical reason for believing in the existence of certain entities does not yet mean that one has good reason for believing that they do not exist, since there

may be other reasons than empirical reasons, and *good* reasons, for believing in their existence nevertheless. (p. 198)

If one asked me, I would object to substance dualism for the opposite reason: lack of empirical evidence of the existence of *physical* substances. In fact, in the case of physical substances we have *no reason whatever* (let alone a good one) for believing in their existence. In the context of classical (that is, pre-quantum) physics, the *only* reason for believing in *individuating* substances was the theory's determinism. This — and this alone — made it possible to attribute to material bodies persistent separate identities and thus to think of them as individual substances (or substantial individuals). In quantum physics determinism is gone, and along with it is the very *possibility* of thinking of material bodies — be they particles, atoms, or molecules — as individual substances.

To illustrate this point, let us consider the following experimental scenario. Suppose that an initial measurement has revealed the presence of two particles, one moving southward and one moving northward. And suppose that the next thing that is revealed by way of a measurement is the presence of two particles, one moving eastward and one moving westward. If the particles were individual substances with persistent separate identities, we would be looking at either of these possibilities:



If, in calculating the probability of the final measurement outcome (one particle moving eastward, one westward) given the initial measurement outcome (one particle moving southward, one northward) we were to assume that what actually happened was *one* of these possibilities, then in general the result of our calculation would be wrong. In other words, the probabilities predicted by quantum mechanics and observed in the laboratory differ significantly from the probabilities that we would observe if we were dealing with objects that possess persistent separate identities — as we would if we were looking at individual substances.

Daniel Dennett's book *Consciousness Explained* contains a brief section with the title "Why Dualism Is Forlorn." Let us see, why, according to Dennett, dualism is forlorn.

It proves surprisingly difficult to extract a hard argument against dualism from Dennett's remarks. What he does most conspicuously offer is a *denigration* and a *defamation* of dualism.

He *denigrates* dualism by defining it, absurdly, as the doctrine that mind is distinct from the brain by being "composed not of ordinary matter but of some other, special kind of stuff" which Dennett calls "mind stuff."

Why is this definition of dualism absurd? One reason is that the definiens — understood as a phrase of ordinary philosophical English — is blatantly self-defeating for dualists and would never be accepted by them (if not misled). Consider: if “mind stuff” is not extended, then it is not *stuff*, and mind cannot be composed of it; if, however, “mind stuff” is extended and mind is composed of it, then mind is *res extensa*, and cannot be *mind* (*res cogitans*)....

But unfortunately, absurdities have the tendency to catch on if they are promulgated by people that are regarded as authorities....

Perhaps I should not be too hard on Dennett.... For there are other distinguished thinkers who, like Dennett, promulgate the inane idea that a belief in dualism involves a belief in “mind stuff.” For example, Colin McGinn. He calls the strange stuff, supposedly supposed by dualists to exist, “soul-stuff”: “some supposed immaterial stuff,” “a stuff that lacks such material properties as extension, mass, gravitational force, and so on.”...

As my penultimate example of “stuffing” dualism, here goes Patricia Churchland: “Soul-stuff [supposed by substance dualists to exist, according to Churchland] allegedly has none of the properties of material-stuff and is not spatially extended.” *Allegedly? Who alleges this? I do not know of any reasonable dualist who does....*

Why, notwithstanding the clear statement of mainstream dualist thinkers to the contrary, do so many prominent physicalists assert that dualism involves the belief in a “*materia spiritualis*” (or, in other words, “mind stuff,” “soul-stuff”)? That those physicalists are just ignorant about what is truly involved in dualism, historically and systematically, and that they do not really know what they are talking about is one of the more charitable explanations. Could it be that the only basic sense of the word “substance” that can enter the minds of some physicalists is the chemical and pharmaceutical sense of that word (which sense, too, has its root in Aristotle’s many-sided use of the word “*ousia*”), according to which a substance is indeed a *stuff*? But that chemical and pharmaceutical sense of the word “substance” is simply not the *relevant* sense when one is talking about *substance* dualism.

This said, the following lines by Richard Swinburne — a well-known defender of substance dualism — are a shocking disappointment to me:

“Normally the stuff of which substances are made is merely matter, but some substances (*viz.* persons) are made in part of immaterial stuff, soul-stuff. Given, as I suggested earlier, that persons are indivisible, it follows that soul-stuff comes in indivisible chunks, which we may call souls.”

I am nonplussed by the absurdity of this monstrous merging of Descartes and Democritus (for which Swinburne, to boot, invokes the blessing of Aristotle), and I would gladly believe that this is not meant seriously. “Stuffing dualism” — settling dualism with a belief in “immaterial stuff,” “soul-stuff,” “mind-stuff” — might be generously regarded as something *materialists* can’t help doing, given their way of thinking, but a *substance dualist’s* doing the very same thing! In contrast, John Foster is surely right when he writes:

“[The externalist perspective, taken to its extreme] sometimes seduces us into picturing the Cartesian soul as a parcel of ghostly, but spatially voluminous, stuff — a fuzzy-edged portion of some form of ethereal protoplasm, which is lodged within the person’s body, though without making obstructive contact. Such pictures strike the reflective philosopher as absurd — and rightly so.”...

But back to Dennett. In addition to denigrating dualism by “stuffing” it (well, deplorably, some dualists do this, too), Dennett is also denigrating dualism by insinuating that adhering to it is not intellectually respectable. Condescendingly, he speaks of the few brave souls who have bucked the tide of materialism, of the few dualists to avow their views openly.

Moreover, Dennett *defames* dualism by accusing it to be a “fundamentally antiscientific stance,” by claiming that it “wallows in mystery.”... Dennett leaves the bounds of rational discourse, whose first principle ought to be not to let dogmatic prejudice hamper the search for truth, by adopting the “rule that dualism is to be avoided *at all costs*” (the emphasis is Dennett’s). Even at the cost of *truth*? At the root of this not merely “apparent” dogmatism (Dennett, indeed, thinks that his rule is merely “apparently dogmatic”) there is a deep intellectual fear of dualism, which surfaces in the revealing remark: “*accepting dualism is giving up*” (the emphasis is Dennett’s)....

We are left with the following question: What is *Dennett’s argument* against dualism? There is indeed such an argument. Dennett begins by stating that dualism apparently violates the principle of the conservation of energy.... (pp. 199–202)

Since *this* nonsense is something I have demolished with some finality in my essay “The physics of interactionism”¹ ↗, nothing more needs to be said. (I’m obviously fishing for a quick way out of the rest of this chapter, in which Meixner makes a valiant attempt to deal fairly with Dennett’s virtually inexhaustible supply of inanities.) But I cannot resist quoting Meixner’s satirization of the caricaturists of dualism, prominent among which are, besides Dennett, Patricia Churchland and Colin McGinn.

A philosophical controversy in Laputa

In Laputa, there is a longstanding controversy between the *matrimonial monists*, who hold that husband and wife are *one* (of the monists, some say that every wife is identical with her husband, others say that wives only supervene on their husbands), and the *matrimonial dualists*, who hold that husband and wife are *two*, although closely related to each other. For reasons very hard to understand philosophically, but very easy to understand psychologically, the matrimonial monists develop somewhat distorted views concerning the views of the matrimonial dualists. As an illustration of this, I quote from the tenth printing of S. P. Urchchland, *Androphilosophy. Toward a Unified Science of the Wife-Husband* (pp. 317–319):

“[According to the matrimonial dualists,] the wife is characterized as independent of the husband inasmuch as she allegedly survives the husband’s disintegration, though she is considered to interact causally with the husband when the latter is intact.... Each substance [husband and wife] is thought [according to the matrimonial dualists] to have its own laws and its own range of properties, hence research on the husband is not going to yield knowledge of the wife and her dynamics, nor, by parity of reasoning, will research on the wife tell us anything much about how the husband works.... An intractable problem confronting matrimonial dualism concerns the nature of the interaction between the two radically different kinds of substance.... This [alleged] independence of the higher wifely operations from the masculine business of the husband was really the *raison d’être* of the matrimonial dualist hypothesis, for it was these wifely functions that

¹ *Journal of Consciousness Studies* 6 (8–9), 165–184, 1999; reprinted in *The Volitional Brain*, edited by B. Libet, A. Freeman, and K. Sutherland (Imprint Academic, 1999).

seemed utterly inexplicable in masculine terms. . . . On the matrimonial monist hypothesis, the observed interdependence [of husband and wife] is precisely what would be expected, but it is distinctly embarrassing to the matrimonial dualist hypothesis.”

Understandably, the Laputan matrimonial dualists do not feel entirely well-understood or well-described regarding their philosophical position by the illustrious Laputan matrimonial monist Urchchland. But most of all they dislike the tone of Urchchland, which is very civil indeed, yet forcefully insinuating that the characterized philosophical opinion is an instance of utter absurdity. The true heart of the matrimonial dualist position, which Urchchland seems never to have taken proper cognizance of, or to have chosen to disregard, has been memorably expressed by the great matrimonial dualist R. Artescius in his *Principles of Matrimonial Philosophy* (part I, §60) a long time ago (and therefore in theological terms):

“And even if we assume that God has united with such a feminine substance a masculine substance as closely as possible, and that thus a certain unity has flowed together out of those two, both remain nevertheless really distinct. For even though God has united them closely, He cannot have divested Himself of His former power to separate them or to preserve the one without the other. And what can be separated by God or preserved separately is really distinct.”

Let me emphasize that Urchchland’s characterization of matrimonial dualism is quite typical of Laputa’s matrimonial monists, and not the result of a personal quirk of S. P. Urchchland. One truly astonishing thing should also be noted: Urchchland’s characterization of matrimonial dualism is *not* intended as a satire or parody of it, but as an objective, trenchant description of it, and — what is most dismaying to matrimonial dualists and does not allow them to laugh the “description” away — it is taken as the literal objective truth about matrimonial dualism even by many readers who are not already committed to matrimonial monism. (pp. 249–251)

Churchland now begins to sound like a caricature of Urchchland:

The price of espousing substance dualism begins to look high, for among other things it entails arbitrary and unmotivated exceptions to the plausible and unified story of the development of intelligence provided by modern evolutionary biology.

“In the first place,” Meixner responds, “there is, to date, no ‘plausible and unified story of the development of intelligence provided by modern evolutionary biology.’ In the second place, there will not be such a story unless mind-body dualism — property, event, and substance dualism — is integrated into the evolutionary picture.” I tend to agree.

The last two victims of Meixner’s “savage indignation”² (as far as Chapter VI is concerned) are Jaegwon Kim and Peter van Inwagen. To the latter we owe the following piece of irrefutable logic: “if dualism were correct, we should expect that the ingestion of large quantities of alcohol would result in a partial or complete loss of motor control but leave the mind clear.” The chapter’s summary therefore comes as no surprise (line breaks added to emphasize its poetic quality):

² See “Swift’s Epitaph“ by William Butler Yeats ♠.

Having now looked at not a few objections
to dualism in the recent literature,
what is the main impression
these objections leave one with? —
It is the impression of argumentative unfairness
and conceptual carelessness,
of misrepresentation and detraction,
of dogmatic metaphysical inflexibility
hiding behind ostentatious scientificness,
of *mere repugnance*
towards the idea of dualism. (p. 257)

Mind-body dualism is widely alleged to be foreign or even inimical to science. This allegation makes dualism unpopular, in a manner which is not entirely unlike the way slanderous hearsay has made many a good kid in high school undeservedly unpopular to the point of becoming a pariah. Perhaps even more damaging to the cause of dualism is the unquestioned assumption that physicalism is the scientific world view. I am reminded of the following insight by Michael Polanyi:

In the days when an idea could be silenced by showing that it was contrary to religion, theology was the greatest single source of fallacies. Today, when any human thought can be discredited by branding it as unscientific, the power previously exercised by theology has passed over to science; hence science has become in its turn the greatest single source of error. (*Knowing and Being*. University of Chicago Press, 1969.)

Chapter VII is dedicated to showing that the allegation of the nonscientific or anti-scientific nature of dualism is false. Consider the following remark of Samuel Guttenplan:

One science — physics — studies the configurations of energetic matter at the most basic level, and it is for this reason that the scientific world view is often called ‘physicalism.’

“It does not occur to Guttenplan (and to so many other philosophers),” Meixner comments, “that there might be a certain tension — perhaps amounting to the degree of contradiction — between the property of *being a world view* and the property of *being scientific*.”

Nor does it occur to Guttenplan (and to so many other philosophers) that it may not be the case that science is ultimately physics, or that the hope that science will turn out to be ultimately physics is chimerical. One rarely comes across a nonpartisan definition of science, but Meixner offers one:

Science is the totality of *all* systematic paradigm-guided rational human inquiry that is directed at finding out as much of importance as it possibly can about how things are in a particular region of what there is. (p. 260)

The empirical work of psychologists and neuroscientists who are interested in consciousness is, primarily, directed at finding out about the correlations of states of consciousness with observed behavior, or with brain states or more global states of the nervous system. In pursuing that goal they obviously treat states of consciousness as if they were different from behavior, brain states, and more global states of the nervous system. Their undertaking is a very worthwhile one, since there are indeed correla-

tions there to be discovered and described. The promise remains that on a sufficiently basic level of precise observation, combined with a correspondingly high level of theoretical conceptualization, some of these correlations will turn out to be powerful psycho-physical laws. Meixner:

[W]ould this undertaking of psychologists and neuroscientists be any less worthwhile if states of consciousness were taken to *be in metaphysical fact*, and not only as a matter of method, different from behavior, brain states, and more global states of the nervous system, and indeed: different from all physical states? — It would not be less worthwhile. It cannot be otherwise, since the *methodological difference* of states of consciousness and physical states — that is, a difference provisionally assumed for the sake of empirical inquiry (while a decision on the ultimate, metaphysical issue is left pending by the empirical inquirer) — is a necessary condition of the entire enterprise of psycho-physical research. Without this methodological difference in place, there could not be any psycho-physical research. How, then, could the assumption of the *metaphysical difference* of states of consciousness and physical states, that dualists make, be detrimental to that enterprise? (p. 264)

Would it *hurt* science if the assumption of the metaphysical difference of states of consciousness and physical states were made?

The answer is negative. The allegations of physicalists, repeated over and over again, of dualism being inimical to science, destructive of science, counterproductive, or at least scientifically otiose are just so much propaganda, *because* dualism, methodologically conceived, is a necessary ingredient in the workings of a flourishing branch of science. What, methodologically conceived, is essential for (a part of) science cannot be, metaphysically conceived, bad for it. So much for Dennett's "if dualism is the best we can do, then we can't understand human consciousness." ... All I am claiming for metaphysical dualism on this basis is that metaphysical dualism cannot be detrimental for science, that it cannot be anti-scientific, since *methodological dualism* is a necessary prerequisite for there being a science of consciousness in the world at all. (pp. 264–266)

Here is another of Dennett's (mis)leading questions: "why should consciousness be the only thing that can't be explained?" The answer is, of course, that consciousness is far from being the only thing that can't be explained.

What, for instance, is matter? Did it occur to Dennett or the likes of him that in the entire mathematical framework of contemporary physics there isn't a single symbol for *matter*? Matter just isn't a subject for physics! There is mass (which is energy measured in mass units) but I've already dealt with that: it quantifies the time-rates of change of the phases of such complex numbers as are used in calculating the probabilities of measurement outcomes.

Again, it is *de rigueur* to meet with outrage the suggestion of a causally efficient nonmaterial mind: *how could a nonmaterial mind possibly act on matter?!?!?* Apart from lack of imagination on the part of the questioner, there is the small matter of explaining how a material object can act on another material object miles if not light years away. Newton was wise enough to decline the framing of hypotheses, but wisdom is a rare commodity these days. Classical physics made it seem as if what it actually had — formulae for *calculating* the acceleration that a material object undergoes given the distribution and motion of other material objects — could be transmogrified with

impunity (at any rate, with some measure of consistency) into an *explanation of how* — by what *mechanism* or *physical process* — material objects act on material objects. The news that physicalists have somehow missed is that such transmogrifications won't work for the real physics. In fact, the major quantum-mechanical theorems proved over the last few decades are all “no-go theorems”: they tell us that the contemporary theoretical framework of physics won't tolerate such sleights of hand, without offering anything close to an explanation of how matter here can act on matter there.

Another important point, in this context, is that one cannot possibly explain everything in the *same* framework of explanation. Science itself operates within an interpretative framework that *formulates questions* and *interprets answers*. The *sense-making* framework itself is not testable by empirical means. Here is how Meixner makes this point:

Not all concepts are introduced for explanatory purposes, and it is not possible to introduce all concepts for explanatory purposes. Otherwise, there would be no concepts to *describe* whatever it is that is to be explained. The concept of a mental substance may seem like a concept that is introduced for explanatory purposes, but in fact it is not such a concept at all. Its primary function is descriptive (though there is plenty of explanatory work for it to do nonetheless)... Explanatoriness is only one aspect in gauging the value of a concept, and there would be enough of *descriptive* value left in the concept of mental substance even if it were a total failure regarding explanatoriness (which it isn't).
(p. 254)

Another Dennettian wisecrack: “Leaving something out is not a feature of failed explanations, but of successful explanations.” Meixner's response: “As long as you don't leave the explanandum out.”

And yet another: “Only a theory that explained conscious events in terms of unconscious events could explain consciousness at all.” Meixner's response: “This is just as true as this: ‘Only a theory that explained physical events in terms of nonphysical events could explain physicalness at all.’” With this response, I believe, Meixner has hit the bull's eye.

The last word (for this first installment of my review) goes again to Meixner:

After more than 2500 years of theorizing about *psyche*, we are finally in the position to throw considerable light on the precise manner in which soul (and its activity) is connected with body (and its activity). We are finally in the position to understand — at least in our own, human case — how the two fit together, the nature of the fitting and its details. But we are only at the beginning; most of the work still remains to be done, since the key to understanding the relationship between human body and human soul is the human brain, the most complex physical object in the universe (as far as we know). Since the ultimate tool we have to use for understanding the human brain is the human brain, it is far from certain that the task of understanding body-and-soul-relationship can be completed without remainder. But that we may not be able to understand *everything* does not mean that we may not be able to understand *much*... In explaining the relationship between body and mind we should not give up what is to be explained. And what is to be explained is only there if it is dualistically conceived. (p. 288)