**An Answer to the Interaction Problem**

In his excellent recent defense of Hylomorphism, James D. Madden discusses a number of theoretical objections to Substance Dualism.[[1]](#footnote-1) First and foremost among these is the notorious Interaction Problem, one still standardly presented as a “knock-down” refutation of Substance Dualism. In this brief presentation, I want to consider what can be said on behalf of the Dualist in response to this objection. I shall begin by sketching the version of Substance Dualism I am proposing to defend from this objection and then proceed to present my response to it.[[2]](#footnote-2)

 **What is Substance Dualism?**

 There are many versions of Substance Dualism, both ancient and modern, so it is appropriate to begin with a brief sketch of the dualist view that I intend to make a case for, without talking too much space contrasting it with related views. On the view that I am defending here, a human being is a *living organism*, a compound substance consisting of two substances, soul and body, each of which possesses its own distinct and contrary nature and its own act of existence. At the same time, each is by nature naturally dependent on the other for the exercise of its characteristic operation(s), so that the two form a single, mutually interdependent complex of operations. Considered in itself, the body of an organism is a material thing like any other material thing: it is a compound substance consisting of many parts, both proper and constitutive, that can be scientifically analyzed on several levels: organic, biochemical, chemical, and physical. *Qua* material thing, the substantial form of the body or Scotistic *forma corporeitatis*, encoded in its DNA, is both educed from its physical microstructure and strongly supervenient on it. At the same time, this substantial form dictates the standard pattern of organic development and endows that body with all of its qualitative attributes, including its dispositional ones, such as its causal powers and liabilities for change. Nevertheless, the body *qua* material thing possesses no properties different in kind from any other material thing; to this extent, it is a “machine,” though as we shall see a “machine” is not exactly what we have typically taken it to be.

 By contrast, the soul is a simple, immaterial sempiternal substance existing without a natural material component. It inherently possesses a single, undifferentiated act of *per se* causation by means of which it serves as the substantial form of the body, not *qua* material thing, but rather *qua* living organism, through being the proximate *per se* cause of its continuous operation as a living thing. The soul is thus the principle of the life of the body, exercising an act that, in relation to itself, shrinks to a single, dimensionless point but which in relation to the body *qua* material thing whose operations it sustains, is temporally and spatially extended as that action terminates in the spatially and temporally extended body that is the object of that act and through which that act achieves its effect of sustaining the body’s operations.

 Consciousness arises at the interface between soul and body, constituted by space and time as forms of intuition constituting an intentional field of awareness in which various contents - sensations, feelings, passions, emotions, mental images, concepts, thoughts, judgments, beliefs, inferences and so on - arise in various ways from various sources and are immediately apprehended by the self. Just as the body is alive through the power of the soul to sustain its operations as a living organism, so too is the soul conscious through its association with the body, although conscious awareness belongs to the soul and is in no way a bodily act of any kind. A soul that has become conscious is a *mind*. As mind, the soul acquires a number of additional powers by means of which the immaterial contents of consciousness come to be present in its intentional field of awareness. While those contents are immediately apprehended by us and capable of being introspected, the acts and processes by means of which the mind produces those contents are not and can only be the subject of transcendental analysis and investigation. A mind that possesses self-conscious rational agency (and not all minds do) is a *self* and, in addition to its mental contents also apprehends itself as an ongoing subject of awareness, not as one content among others (as Hume assumes would have to be the case) but rather as that which apprehends those contents. A soul that is *by nature* a self-conscious rational subject (or *rational soul*) is *eo ipso* an individual substance of a rational nature, or *person*. So too, then, will be the organism (for example, a *human being*) of which such a soul is the substantial form, and this status will attach to both that soul and the organism whose substantial form it is regardless of whether that person is, or is even currently capable of, being an actual conscious subject so long as the soul and the body are still joined.

 I have discussed the details of this account in other places.[[3]](#footnote-3) This sketch will have to suffice for the present as well as the many questions that it doubt brings to the reader’s mind. Let us instead turn to the interaction problem and my response to that problem.

 **The Interaction Problem**

The most commonly heard objection to Substance Dualism is the interaction problem, first raised by Princess Elizabeth of Bohemia in her correspondence with Descartes.[[4]](#footnote-4) Dualism says that the soul and the body are substances of contrary natures yet that they somehow causally influence each other. *Prima facie*, it is difficult to understand how an immaterial, sempiternal substance like a soul could in any way exert efficient causal influence in the spatio-temporal physical world. In the same way, it seems equally mysterious that any purely material body could exercise any sort of causal influence over an immaterial substance like a soul. In response to Elizabeth, Descartes frankly owns that this is a mystery, but one that we must accept and live with given that the natural light of reason informs us in no uncertain terms that we are both minds and have bodies. Despite what others may think he should have said, I think that this response by Descartes is well taken.

 Substance Dualism is arguably the default position on the mind/body problem; it is the most natural view to take on the grounds of everyday lived experience.[[5]](#footnote-5) Monistic views, whether Idealist or Materialist, require us to regard our experience as systematically misleading, though this is easier for the Idealist to make out than the Materialist. Now, of course, if some other theory about the relation between mind and body were able to successfully explain that relation, it might be preferable to Substance Dualism. In fact, however, every theory about the mind has its own analogue of the interaction problem that crops up precisely at the point where the precise relation between the mind and the body has to be explained. Idealists deny the existence of the body, whereas Eliminative Materialists deny the existence of consciousness *as experienced*; neither of these views is plausible given the fact of lived experience or what we experience when we advert to it; indeed the latter is simply obviously false in relation to it. Reductive materialists and identity theorists have no way to explain how consciousness as we experience it could be *nothing but* some purely physical process going on in the brain when these two things are so obviously different from one another. Panpsychists, Emergentists, and Constitutionalists have the difficulty of analyzing the relevant relations in such a way as to make them both clear and relevant to the explaining the relation between mind and body. Property Dualists, Double Aspect theorists, and Neutral Monists have the difficulty of explaining what this thing that is neither mind nor body but somehow both mind and body and neither mind nor body exclusively is supposed to be...and so on. Even if the Interaction Problem is a problem for dualism, there is a cognate problem for every other theory that has been tried so far - the mystery of mind, which in the case of dualism is articulated as the Interaction Problem, remains unsolved and is thus provides no reason for us to abandon Substance Dualism in favor of some other theory. Dualism remains the *prima facie* best explanation of the relation between mind and body on the basis of our common, everyday experience. As such, the presumption in favor of that view is not yet overcome and Descartes’ refusal to be baited on that score vindicated.

 However, the defense of dualism need not depend solely on this merely negative argument. I honestly believe that the Interaction problem can be solved, though not perhaps in the way that it was put to Descartes, either in the context of his own theoretical commitments or those likely to be taken for granted by those opposed to dualism on extra-philosophical grounds. At any rate, the idea that there is something *incoherent* about Dualism can, I think, be laid to rest by in a fairly straightforward way on the view I have sketched above. Let me discuss mind/body interaction from both aspects: mind to body and body to mind. Let us begin with the relation of body to mind.

**How the Body Influences the Mind** Descartes and Princess Elizabeth’s common commitment to Galilean physicalism (the view that nothing exists or exists external to the mind except matter in motion) made the problem of body/mind interaction insoluble for them. In particular, their rejection of substantial forms, non-physical structural features of external bodies existing as global emergent properties of those bodies, which while strongly supervenient on their physical microstructure serve as the ontological principle of all of that body’s qualitative and dispositional attributes, leads to the problem of the external world and, ultimately, to Humean skepticism. The first step on the way to a solution to the mind/body problem is the rejection of Galilean physicalism and the acceptance of a neo-Aristotelian ontology of material things, for which the thing’s physical microstructure constitutes merely the matter of that material thing, not its entire being. Material things are compound substances consisting of matter and form and for which form is the principle of intelligibility existing in that thing as its nature - its individualized, concrete essence.

Matter, understood as the modern scientific tradition understands it, is never present to us as something experienced by us - it is a theoretical entity, something posited to explain something else of which we are immediately aware in experience. As such, matter is only indirectly intelligible to us and cannot even be conceived of by us unless there is something else of which we are directly or immediately aware. Since matter cannot be present to us in consciousness as such, it is necessary that there be something else that conveys the nature and reality of the external world to us in order for us to even so much as conceive, let alone posit the existence of matter as modern science conceives it. However, if Galilean physicalism is true, there is nothing external to consciousness except matter in motion. Galileo, Descartes, and Locke suppose that causal interaction between our bodies and external things, all of which are constructed from simple material substances, somehow gives rise to sensation and perceptual experience in consciousness, but the difficulties in spelling this out simply reflect another aspect of the mind/body problem and ultimately undermine the New Science account of matter in motion itself.

On the ontology of material things, however, it is possible for external objects to be present in and to consciousness by means of their substantial forms which being non-physical are potentially contents of conscious awareness. On the traditional account, numerically one and the same substantial form can simultaneously exist in an external object as its nature or concrete essence and also in a different way (“formally and intentionally”) in the mind as an intelligible species or concept. The story of how the substantial form of a material thing comes to be present in the mind as an intelligible species is one I have told elsewhere.[[6]](#footnote-6) In this context, I just want to consider a couple of aspects of this account.

First, while the term “species” as used in the Scholastic (and for that matter the neo-Scholastic) tradition is somewhat vague, to call a substantial form a species is to say that it exists in some medium of transmission (a wave-packet, a state of a sensory organ, a brain state, etc.) without becoming the nature of that medium which it informs. Instead, the medium simply possesses that substantial form as an extraneous structural feature. Although it is the qualitative forms (which are merely perceptible surface properties of the material things that we experience in sense-perception) that are actually received in the act of sensory stimulation the brain, which has evolved to subserve conscious awareness, its needs and ends, acts as a kind of “common sense” which organizes all of this disparate inFORMation in such a way that its substantial form is present in consciousness, first as the principle of structural unity in the phantasm (roughly, “mental image”) and then in the intellect as a concept, indifferently applicable to many particulars. This concept existing in the mind as a universal, when imposed on a mental image or phantasm makes that collection of sense-data a *representation* of an extramental particular, from which the physical microstructure of that material thing can be theoretically reconstructed by natural science. In this way, genuine knowledge of external, material things becomes possible and, on its basis, the sort of theoretical inquiry that natural science engages in. Thus, both knowledge of the external world and scientific realism find a genuine basis and prospect in this theory, one denied to a Galilean physicalist picture of things.

**How the Mind Influences the Body** One of the most pervasive features of our ordinary everyday experience is the fact of *agency* and its efficacy in producing change in the world by means of bodily activity. To use the hackneyed example yet again: I will that my arm should rise and subsequently observe that it does. The most natural description of this situation is that my act of will, a mental event occurring in consciousness, caused the rising of my arm, an act of my body, a material thing in the external, physical world. Yet how can we make sense of this otherwise unshakeable conviction? The most natural supposition, the only one apparently conceivable to Descartes and Princess Elizabeth, and for that manner many people today, is that in order to direct the body, the mind must somehow enter the order of horizontal efficient causes, as occurs in the case of body-body interaction. As such, the soul must somehow generate and insert some sort of *influxus physicus* into the physical world, either in the form of physical energy or exert some sort of influence that moves physical energy around in the brain in order to guide and control bodily behavior. However, on the model of mind and brain/body interaction I have offered elsewhere,[[7]](#footnote-7) since the soul acts as the *per se* cause of the body’s operation rather than as an efficient cause, it need not enter the order of efficient causes in order to influence the course of events in the physical world. Instead, since the soul’s act of sustaining the body’s operations is a necessary condition for the occurrence of those operations, the soul can simply withhold its sustaining act from those proposed actions that it does not choose to acquiesce in, thus removing one of the necessary conditions for them to proceed into full realization or enactment. Since that sustaining act is present to me in consciousness as the general awareness or apprehension that accompanies all mental contents of whatever sort I can exert immediate, voluntary control over those contents by *concentration of attention*, i.e. by simply disattending from those proposals for action (realized in the brain and central nervous system as physical *action-patterns*) that I elect not to enact. Of course, this supposes that the physical body/brain is not a closed system that altogether excludes the possibility of vertical non-physical causal influence. In particular, this involves a rejection of the notion of causal necessity critiqued by Hume with an account of causality according to which causal necessity, and causal laws, are merely conditionally necessary and all causal processes are in principle interruptible. In that case, given that mind and body are one system rather than the body being a closed physical one, there is no reason why the soul cannot influence the body in the way just outlined. However, there is no space to consider the details of this account here. I have discussed it elsewhere.[[8]](#footnote-8)

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1. James D. Madden, *Mind, Matter & Nature*, Washington, DC, Catholic University of America Press, 2013, 60-88. [↑](#footnote-ref-1)
2. This paper is extracted from a longer essay I have posted to *Philpapers* entitled “Objections to Dualism.” [↑](#footnote-ref-2)
3. See my essays “Mind, Body, Space, and Time,” and “From Private Experience to Public Language,” also on the *Phiipapers* website. [↑](#footnote-ref-3)
4. See Lisa Shapiro, ed. and trans., *The Correspondence between Princess Elizabeth of Bohemia and Rene Descartes*, Chicago, IL, Chicago University Press, 2007, 61-73. [↑](#footnote-ref-4)
5. See Tomas Bogardus, “Undefeated Dualism,” *Philosophical Studies* 165 (2), (2013), 445-466 [↑](#footnote-ref-5)
6. In the aforementioned essay, “From Private Experience to Public Language” on *Philpapers*. [↑](#footnote-ref-6)
7. See my *How Free Will Works: A Dualist Theory of Human Action*, Eugene, OR, Wipf and Stock, 2011, 51-70. [↑](#footnote-ref-7)
8. See the aforementioned essay “Objections to Dualism” on *Philpapers*, as well as my essays, “What we should Learn from Hume’s Critique of Causation” and “More on Causation (with Special Reference to Hume)” on the same website, and my book *Determinism and Causation* (Amazon CreateSpace, 2017). [↑](#footnote-ref-8)