

## Mind, Introspection, and “The Objective”

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Since ancient times, skeptic philosophers have often claimed that the physical objects we perceive around us, and sense data in general, are an “illusion,” and that our most important form of direct awareness, sensory perception, is “deceptive” and somehow “subjective.” At least since the time of Descartes, skeptic philosophers have referred in much the same way to the conscious mind and mental data in general, and the acts of introspection by which we are directly aware of them.

Part I of this essay seeks to refute these mistaken claims about mind, mental data, and introspection by applying the methods used in Robert Efron’s analysis of perception, Leonard Peikoff’s analysis of the ontological status of sense data, and the dual-aspect conception of “the objective” elucidated in Bissell 2007. It will be argued that just as sense data are neither intrinsic nor subjective but objective, the same is true of our mental data, i.e., the conscious mind and the various processes associated with it, as they appear to our direct, introspective awareness.

When we look inward, by an act of introspection, *we observe our selves, our minds, in action* in various ways: thinking, imagining, remembering, choosing goals, guiding our actions, etc. Since, on the Aristotelian view that is an integral part of the Objectivist metaphysics, *what acts are entities*, then, if our experience of the conscious mind or self as something that acts is not simply an illusion, *the mind must be a real entity*, and not just (as most Objectivists apparently believe) some attribute of human beings. And the only entity for which we have evidence of its being involved in conscious processes such as cognition, evaluation, and regulation of action is *the human brain and nervous system*.

So, rejecting both the skeptic and supernaturalist views of mind, this essay will set forth the position that the conscious mind is neither an illusion nor a “ghost in the machine.” Instead, like the good or concepts (as argued in Bissell 2007), conscious mind is an instance of a dual-perspective, objective phenomenon pertaining to a relationship between consciousness and existence. From the perspective of existence, i.e., the *object* of awareness, the conscious mind *is* the brain and nervous system as they *appear* to our direct introspective awareness—and from the perspective of consciousness, i.e., the *act* of awareness, the conscious mind *is* the *form* in which we are directly aware of our brains and nervous systems, as they carry out conscious processes and choices.

Thus, a parallel will be argued for between perceived physical objects and introspected conscious mind. Perceived physical objects and introspected conscious mind are both objective—i.e., *forms* in which we are aware of things that exist intrinsically, ways in which things that exist intrinsically *appear* to us in direct awareness. Perceived physical objects are the form in which we are directly (perceptually) aware of intrinsically existing physical objects, the way in which those objects appear to us in direct perceptual awareness—and introspected conscious mind is the form in which we are directly (introspectively) aware of the intrinsically existing physical brain (or a part of it), the way in which the brain appears to us in direct introspective awareness.

When we perceive the brain, as in cadaver studies or open-skull neurosurgery, it, too, as a perceived physical object, is objective. That is, the perceived, physical brain is the *form* in which we are directly, perceptually, aware of the intrinsically existing physical brain; it is how the intrinsic physical brain *appears* to us in direct perceptual awareness. From the objective perspective, then, the introspected conscious mind and the perceived physical brain are distinct—two distinct aspects of the intrinsically existing brain. From the intrinsic perspective, however, the mind and brain, or mind-brain, are one and the same entity (or at least, the mind and *part* of the brain are one and the same entity).<sup>1</sup>

The clear implication is this: if mind *is* brain, intrinsically, then the conscious brain (mind) as introspected is no more an illusion than is the physical brain as perceived. It is true that neither of them “look

like” the other. Yet neither of them “looks like” its underlying neural or molecular structures either; and since this does not imply that the perceived physical brain is illusory, then it does not imply that the introspected conscious brain (mind) is illusory either. Nor should it undercut the view that the introspected conscious brain (mind) and the perceived physical brain are merely different ways in which one and the same entity appears to us, any more than the difference in visual and auditory data would undercut the view that the seen lightning bolt and the heard lightning bolt are merely different ways in which one and the same interaction between cloud and earth appears to us.

In Part II, the focus turns to one of the major factors that have contributed to the denigration of our data and forms of direct awareness and impeded progress toward a true understanding of the nature of mind—what is referred to herein as an “infatuation with the basic.” This fixation has fueled not only naive Scientific Realism’s excesses, but also those of Atomism, Monism, and even the off-the-record Neutral Monism of Ayn Rand, Nathaniel Branden, and Leonard Peikoff. An antidote is offered in the dual-aspect view of mind argued for in this essay.

Part III addresses the confusion in the current state (of disarray) of Objectivist theory of mind, revealing it to be due to the use of the term “mind” to designate two distinct Objectivist models of mind, one explicitly stated and one (for the most part) only implicitly held, and to the conflicting implications of these two models for the Objectivist doctrines of (1) mind as causally efficacious and (2) mind as interacting with the body. Specifically, the former, much more explicit model views mind as an attribute or process or power of human beings, and this view is compatible *neither* with the efficacy and interaction doctrines *nor* with the Aristotelian-Objectivist tenet that it is *entities*, not their attributes or other features, that engage in actions and make things happen. However, the latter, mostly tacit model *does* view mind as a kind of entity (or part of an entity), and this view *is* compatible with the view of mind as causally efficacious and as interacting with the body.

Because the doctrines of mind-body interaction and causal efficacy of mind are only supportable from the perspective of mind as entity, not mind as attribute, Objectivists thus have a fundamental

choice to make. They must decide whether to continue to adhere to the standard, mind-as-attribute model and abandon the doctrines of causal efficacy of mind and mind-brain interaction—or to embrace the mind-as-entity model.

The course proposed herein is the latter: to regard mind as a causally efficacious entity interacting with the body, and to re-label human consciousness qua attribute or power as “mentality.” Mentality, then, *is* the attribute-power, it *is* the causal efficacy of the mind (i.e., the mind-brain), to engage in rational, conceptual activities—and mind (i.e., mind-brain) is the entity that *has* the causal efficacy, the attribute-power of mentality. By adopting this perspective and usage, we can henceforth avoid the confusing, contradictory implications of the double-use of the term “mind.” This further preserves the doctrines of “causal efficacy of mind” and “mind-body interaction,” without exposing us to the pitfalls of the Cartesian “ghost in the machine” model of mind or the infatuation with “the basic” and the misguided preoccupation with “stuff,” whether physical or spiritual.

In Part IV, in anticipation of crucial objections, it is shown that the proposed analysis of the orthodox Objectivist concept of “mind” (i.e., *mentality*) as an attribute has none of the feared disastrous consequences. On the one hand, the attempt to conceive of mental causation as something other than efficient (entity-action) causation—namely, “formal causation”—does fail to salvage the causal efficacy and interaction doctrines, even in an attenuated form. However, on the other hand, this does *not* entail Epiphenomenalism or deny the relevance of consciousness to human history.

## **Part I. Introspective Realism and the Ontological Status of Mind<sup>2</sup>**

The view of the nature and functioning of the mind advocated in this essay is strongly analogous to the Objectivist position on the nature of sense data. It amounts to drawing a parallel between perception and introspection, between sense data and mental data, and between physical objects and the brain-mind.

### **Perceptual Realism: Peikoff’s Analysis of Sense Data and Efron’s Analysis of Perception**

Peikoff (1991) discusses the senses as part of what he calls the

“anteroom” to epistemology (39–54). The light he sheds on the nature of sense data can also be used to clarify the nature of mental data, such as the contents of our experience of having thoughts and feelings and being able to choose our actions. As he has explained in various lectures and writings,<sup>3</sup> sense data (colors, shapes, sounds, etc.) are just as *real* as the entities that produce them in interaction with our senses and nervous systems.

This view, often referred to as “Perceptual Realism”<sup>4</sup> is the acceptance of the reality of the *effects* of causal primaries, whose own reality is not questioned (see Part II). It is proposed as a corrective to naive Scientific Realism, which holds that what is real does not include sense data, but only the entities that interact with us to *generate* the sense data.

In other words, on the view of naive Scientific Realism, all that is real is what Objectivists call “intrinsic” phenomena, i.e., things as they exist apart from our awareness. An enlightened Scientific Realism, by contrast, should incorporate Perceptual Realism and acknowledge that “objective” phenomena (e.g., entities as they *appear* to us) are real, too.<sup>5</sup>

Now, these interactive phenomena are just as *real* as the things that are interacting, but they have a different *status*, which can best be thought of as interaction-dependent, in the same sense that pertains to causal effects or consequences in general. These interactive phenomena are dependent upon the interaction of the two entities that interact to cause them.

Thus, sense data, which are objective, intentional, interaction-dependent phenomena, are just as real as the independently existing physical objects and conscious living organisms that interact to produce them. Sense data are *not* independent “third things” in the world, but instead are the *form* in which we independent things are aware of other independent things, the way those other independent things *appear* to us independent things.

That is what objective, intentional phenomena *are*, the essence of their real nature. An objective, intentional phenomenon is ObjectiveE, an aspect of existence, as it *appears* to us, being held as the object of an act of our consciousness—and it is ObjectiveC, the *form* in which an act of our consciousness holds as its object some aspect of existence.<sup>6</sup>

But what about the *reality* of such phenomena? For instance, we perceive red objects and wonder about the reality of the quality of red. It looks so real. Yet, as some scientists and philosophers tell us, the quality of red is just a subjective reflection of true reality, a mere causal result of the interaction between our sensory mechanism and the waves of electromagnetic energy reflected by the object we see as red.

Are the naive Scientific Realists correct? No. Although the redness is not an intrinsic attribute of the red object, it *is* an *objective* attribute, generated by our causal interaction with the red object, in the process of sense-perceiving it. As Peikoff (1991) says, an attribute like redness is a causal consequence, but it is *no less real* for that: “A thing may not be condemned as unreal on the grounds that it is ‘only an effect,’ which can be given a deeper explanation. One does not subvert the reality of something by explaining it” (45).

On the other hand, although our knowledge of the redness is more immediate than our later-gained, scientific knowledge of the reflective attributes of the object, the redness is *not more real* than the reflective attributes either. So, even though the redness is part of our primary data of the external world, and is in this sense “axiomatic” or foundational for our knowledge, it is not something that we hold onto *in spite of*, or *in opposition to*, our later scientific awareness of the nature of physical objects. Instead, we *integrate* all of this awareness. We realize that our mode of perceptual awareness operates by means of causal interactions that generate *objective* phenomena (percepts), *through which* we are aware of the world.

In his conceptually rigorous essay, “What Is Perception?”<sup>7</sup>, neurophysiologist Robert Efron (1969) defines perception as “the direct, immediate awareness of discriminated existents which results from patterns of energy absorption by groups of receptors” (147). By “discriminated existent,” Efron means “the segregated, isolated, cohering ‘thing’ which is perceived” (145).<sup>8</sup> He gives examples and explains further:

The objects we see or touch; the notes, the tones, or voices we hear; the odors we smell, and the flavors we taste, are all “discriminated existents.” The term . . . is used because it is sufficiently abstract to denote the object or content of *all*

forms of perception. In short, the “discriminated existent” is the “it” that we perceive. (145)

Efron carefully distinguishes perception from “interoception,” which is “another category of direct, immediate awareness resulting from energy absorption by receptor organs.” This type, he says, “gives us no direct information about external reality but informs us only of the physiological state or condition of our body,” such as experiences of nausea, hunger, pain, and cramp (144).

Psychologically, interoceptions are “directly and unambiguously experienced as ‘inside’ us while . . . perceptions give us direct awareness of what is ‘out there’” (144). Epistemologically, interoceptions “tell us of our physiological condition,” while “perceptions tell us about external entities” (144). The necessary *physical* condition of perception is “the existence of gradients or patterns of energy in space and time.”<sup>9</sup>

The same applies to the physical precondition of interoception, the energy patterns, however, originating within one’s body, instead of in the external environment. And if there were any additional forms of direct, immediate awareness of reality resulting from energy absorption by receptor organs (or some kind of energy-sensitive tissues), it is reasonable to presume that these, too, would depend upon some kind of patterned energy.<sup>10</sup>

Epistemically, then, what perception and interoception—and any hypothetical additional forms of direct, immediate awareness of reality—have in common is that they are ObjectiveC, i.e., acts of consciousness that hold as their objects some aspect of existence. To the extent that they are sustained without conscious effort, such acts of awareness are *automatically* ObjectiveC, i.e., automatically *adhering to reality*. And such automatic reality-adherence is facilitated specifically by the action of energy-sensitive receptor tissues operating on patterned energy arriving from inside or outside of the conscious organism.

### **Mental Realism: Extending Peikoff’s Analysis—Mind as ObjectiveE, the brain as it Appears to us in Direct, Introspective Awareness**

By means of introspection, we are directly aware of our mental

contents and actions, such things as ideas, memories, choosing, forming concepts, etc. (By hypothesis, these are actions and products of our brains and nervous systems.) They seem so real and immediate to us that we do not (and should not) question their reality.

However, some philosophers and brain scientists say that *all* that is real is the intrinsic, material properties and actions of the human brain or nervous system, and that our introspective awareness is thus “deceptive” and its contents “unreal,” because thoughts, feelings, etc., do not at all “look” anything like chemical and neural processes.<sup>11</sup>

Peikoff’s analysis of the equal reality of physical objects and their causal consequences (sensory qualities) indicates the pattern to follow for a resolution to this controversy. By adopting this perspective, we can uphold the reality of the mental *and* reject the Cartesian notion that the mind is some sort of entity distinct from the brain—and the implication that mental processes are some sort of processes distinct from brain processes.

Here, then, is an adaptation of Peikoff’s discussion (1972, lecture 12) of the nature of sense data and the validity of the senses. His argument has been reworded in a very straightforward way to apply to the issue of the nature of mental data and the validity of introspection. This lengthy paraphrase is for the purpose of fleshing out, in terms familiar to the adherents of Rand’s philosophy, the view that (1) our introspective awareness of mental states and qualities is not an illusion, but objective; and (2) our mental states and their qualities are not causal primaries, but are the effects of our brains, which, as they carry out processes of perceiving, remembering, conceptualizing, introspecting, etc., are *also* affecting certain sensitive brain tissues that function as “introspectory receptors,” as it were.

Let us assume that the entire realm of mind, as we introspect it, is an effect—an effect produced by the operation on certain sensitive tissues in the brain of the ultimate causal primary that makes up the human brain in itself. Let us assume we have discovered the actual causal primaries in the brain, the ultimate elements of the brain in itself, the basic irreducible building blocks of the brain in itself, which underlie and give rise to everything that we introspect, to the entire mental realm as we know it.

Now what these ultimate primaries are, I, of course, do not pretend to know. For purposes of this construct, let us call them “puffs of meta-energy.” In other words, let us assume that we have reached omniscience, penetrated to the core of the brain in itself and discovered that the brain in itself is puffs of meta-energy; and that what we introspect as the mental realm of thoughts and feelings and percepts and memories with varying intensities is all an effect on us of various combinations of energy puffs acting on our means of introspection; so mental contents in themselves are really combinations of various energy puffs.

Suppose, now, this whole construct were true. The crucial question is: what would it prove about the validity of introspection, or the status of mental qualities as we introspect? And the answer is: nothing of any epistemological significance whatever. The point here is this: if the brain is made of energy puffs in various combinations, so is the human introspective faculty: and it is still an iron, inescapable fact of reality that when the energy puffs which comprise the brain interact with the energy puffs which comprise the human introspective apparatus, when all of these puffs enter into all of the combinations that they enter into, the inexorable result is the mental realm as we introspect it, with all of the kinds of processes and qualities it possesses. This is a fact, a fact of reality, and not a creation of consciousness. It is a fact that, when such and such energy puffs unite in such and such a combination with other ones, the result is a thought with all of its properties, or an emotion, or a memory, or a precept, etc. So, whenever we introspect one of these mental objects, we are introspecting reality—in other words, energy puffs in a certain combination; and every introspection gives us real information about that particular combination of energy puffs. Does it mean that thought, emotion, imagination, memory, etc. are unreal just because they are effects of the energy puffs in certain combinations? Certainly not; the exact opposite is true. If they are effects of the energy puffs, by that very fact they are real—real prod-

ucts of the real puffs that make up the brain. We did not invent the puffs. We did not invent their capacity to unite into forms that bring about a mental realm. It is a metaphysical fact of reality that certain puffs in certain combinations produce, when introspected by a human being, a mental realm; and that every introspection we have gives us information about the puff combinations that exist. It is an intrinsic fact of things in themselves that B-puffs (man's brain) combined with I-puffs (man's introspective apparatus) yield mental objects.

Now, on this account, if we pursue it, the whole mental realm would be an effect—an effect of the brain in itself acting on the puffs that make us up and constitute our introspective apparatus. But the point is: the mental realm would be an effect, a *real* effect, and, therefore, *a real fact*. You do not deny the reality of something by explaining it. You do not make something subjective by giving a causal explanation of it. You do not detach it from reality by showing that something in reality produced it.

The exact opposite is true. If you have shown that the cause of something exists in reality, if you have shown that reality itself, reality *in itself*, produced certain facts, then you have given the most solid metaphysical foundation there is to those facts; you have shown that they are inherent in metaphysical reality itself. In a word: if the whole construct I have given you were true, it would change nothing about the validity of introspection or the reality status of the mental qualities we introspect. In this manner, *all* of the mental qualities we perceive are inherent in reality, in the brain in itself; they are real; they are not inventions or subjective products of consciousness. . . . *All* the qualities we introspect are facts of independent reality as introspected by human consciousness. . . . The actual facts are: there is a brain in independent reality which has various attributes in itself; human beings have the faculty of consciousness and introspect the brain by certain means, and thus in certain

forms, forms inexorably dictated and determined by the nature of the brain in itself, part of which includes the nature of man's introspective apparatus.

There is no ground to assume that the causal primaries in reality possess in themselves the exact same form as our mental data, since we know that our mental data are effects and that we perceive by certain means. But by the same token, you cannot pronounce our mental data as invalid on this ground. It is only by starting from our mental data that we can ultimately conceptually unravel the information they contain and finally end up with a conceptual account of the energy puffs or whatever it is we reach at the summit of the cognitive quest.

It has already been noted that Peikoff's discussion of the metaphysical status of sense data is an important contribution to the reconciliation of Perceptual Realism and Scientific Realism in regard to sense data. One purpose of the preceding lengthy paraphrase is to indicate the parallel application of Peikoff's view of the metaphysical status of sense data to the metaphysical status of mind and consciousness. Thus, an implication of this essay is that Objectivism should include a doctrine of direct, "Mental" Realism, which is fully compatible with an appropriately formulated version of Scientific Realism regarding the brain.

The mind is not an *intrinsic* phenomenon, like the brain and nervous system, but an *objective, intentional* phenomenon. Moreover, like the good and concepts and sense data, mind is both ObjectiveC and ObjectiveE. As ObjectiveC, it is the *form* in which we are aware of our brain and its conscious functioning.<sup>12</sup> As ObjectiveE, it is our brain and its conscious functioning, as they *appear* to our direct, introspective awareness.<sup>13</sup>

Mind is thus another name for the brain (or perhaps a *part* of the brain)<sup>14</sup> viewed introspectively, in the same general sense that color is another name for a *part* of an object (namely, its surface) as viewed via color perception.<sup>15</sup> Just as we do not say that the atomic structure of an object that we perceive as red is *itself* red, neither do we say that the physical structure of our organism that we introspect as being agitated

or happy or reminiscent or deliberative is *itself* those things.<sup>16</sup>

Those various things we experience external objects and ourselves as being are *objective*. They are the product of interactions between things that emit patterned energy and receptive tissues at various places in our organisms. (In the case of introspection, the thing emitting patterned energy and the thing with tissues receptive to that energy are distinct, but probably adjacent parts of one and the same entity—the human nervous system.<sup>17</sup>)

But being objective, they are also *interactional* phenomena, *causal consequences*. (Again, refer to Peikoff's analysis of the metaphysical status of sense data.) *Values and knowledge are possible*. They are what our organisms *produce* by interacting with reality, including by interacting internally with various parts of our organisms (as in entero-reception and introspection).

Someday scientists may be able to localize the brain process(es) that is the causal primary behind a specific experienced item of knowledge, and they may then be able to discover physical laws correlating that item both with its source in experienced reality and with the other stored items of knowledge in the brain.<sup>18</sup> This might allow them to assess that item of knowledge, in terms of both its correspondence to reality and its coherence with one's other knowledge. And it might allow us to discern whether, apart from the factual correspondence of that item of knowledge to reality, it has been correctly assessed as factual (i.e., justified) at that particular moment in time (i.e., in that particular context of knowledge).

But if and when this speculative scenario comes true, that will not in any way contradict what we already know. We *already* have more immediate data about a *causal consequence* of our brain processes. We can identify and evaluate and guide our actions by means of *that* data, just as we were able to identify and evaluate and guide our actions by means of our perceptual and conceptual data about external objects long before we knew the details of their microstructure and how it contributed to their overall macro-level characteristics such as color, shape, etc.

The mind, as we experience it, is not an intrinsic phenomenon, but (like a color patch) is an *objective* phenomenon. It is ObjectiveE: the brain and its functioning as they *appear* to us directly and introspectively—and it is ObjectiveC: the *form* in which we are

directly, introspectively aware of the brain and its functioning.

This is a view of the mind that is completely consistent with Rand’s trichotomy, and it completely obviates the necessity for debates over such conundrums as the “causal efficacy of mind.” The other entity involved in the mind-body relationship, the entity with the causal efficacy, the entity causally interacting with the body is the *brain*.

Consciousness, or mind, is thus not some other entity cohabiting, in mysterious, Cartesian fashion, with the brain. Instead, from the objective perspective, it *is* the brain as it *appears* to us introspectively, just as a round, red color patch *is* an apple as it appears to us perceptually.

Mental qualities are objective. They are real, and they are causal consequences. And just like sensory qualities, once they are generated, they become aspects of physical parts of the brain, which have causal efficacy just like any other physical part of the brain.<sup>19</sup>

Mind-body theory has no need for spooky mental-physical interactionism. No need for Descartes and the Ghost in the Machine. No need for a mind doing things separate from the brain of a conceptually conscious, self-directing, human being.

### **Introspective Realism: Extending Efron’s Analysis— Introspection as ObjectiveC, the Direct, Internal Awareness of Brain Activity**

The preceding parallel between the ObjectiveE status of sensory data and the ObjectiveE status of mental data points to a further parallel. By analogy to Perceptual Realism being a doctrine that perception is ObjectiveC—i.e., adherent to reality—this essay’s proposed doctrine of Introspective Realism argues that introspection is ObjectiveC, also. There is a reality to which introspection adheres, and that reality is the mind-brain and its attributes and actions.<sup>20</sup>

We have two pathways to knowledge about the nature of external physical objects: the sensory perceptual and the scientific. In parallel, we also have two pathways to knowledge about the nature and workings of our nervous system/brain: the introspective and the scientific.

Our awareness of thoughts and ideas is the form in which we are aware introspectively of what our brains are doing. Our awareness,

through scientific examination and measurement, of neuronal, electro-chemical, etc. processes is the form in which we are aware extrospectively of what our or someone else's brain is doing.

Specifically, in respect to *mind* as the aspect of reality that is the object of introspective awareness, mind qua entity is ObjectiveE—i.e., mind is the brain as it *appears* or “manifests” itself to our direct, introspective awareness.<sup>21</sup> And in respect to the *introspective* act of awareness that holds mind as its object, mind qua content of awareness is ObjectiveC—i.e., mind is the *form* in which we are directly, introspectively aware of the brain.<sup>22</sup>

Mental action does not involve any physical action that is evident to our sensory awareness. But it does involve detectable and measurable physical action in the brain and nervous system. Further, our *introspective* awareness of this mental action is enabled by the *same* general kind of process—energy emission and reception—that enables perception of the environment or of our internal physiological state. The sensitive, receptive tissues are probably not localized, but exist throughout the brain, and are able to be activated wherever conscious brain processes occur that might need monitoring.<sup>23</sup>

There is survival value in this kind of patterned-energy/data, just as there is in having sensitive tissues that receive patterned-energy/data coming from the environment or our internal physical processes. Otherwise, why would it have evolved? As Branden ([1969] 2001) explains:

[A]n organism sustains itself physically by taking materials from the environment, reorganizing them and achieving a new integration which converts these materials into the organism's means of survival. We can observe an analogous phenomenon in the process by which a consciousness apprehends reality. (29)

Rather than “materials,” what an organism takes from the environment in apprehending reality is *patterned energy/data*. And the environment from which an organism takes patterned energy/data in an act of introspection is *the brain (or nervous system) itself*.

It may be perplexing that we don't see neurons and synapses when we introspect—and it may seem that this argues against

introspection being the form in which we are aware of our brain and its power and actions. If so, consider this: it is a fact that our perception of the heat of a radiator is the form in which we are aware of the motion of the radiator’s molecules; and the fact that we do not see molecules does not invalidate this fact about our perceptual form of awareness.

In this respect, too, introspection is like perception. Although we don’t *see* the causally underlying factors of a direct mode of awareness (molecules: perception—neurons: introspection), we are still directly aware of them in terms of their *causal consequences* (molecules: heat—neurons: thoughts).

As with perception, the consequences of introspection are not less real than the causally underlying factors. The molecular motion of a physical entity is intrinsic; heat is objective. The neuronal action of a thinking brain is intrinsic; thoughts are objective. The mind-brain is intrinsic; the introspected mind is objective. The objective is the *form* in which we are aware of the intrinsic. The objective is the intrinsic as it *appears* to us.

We experience colors, smells, etc. by using the senses to attend to physical reality, not to the senses themselves, whereas it seems that we experience mind by using mind to attend to itself. However, the general kind of awareness is the same in each case. Both sense perception and introspection are forms of *direct* awareness. Energy-sensitive tissues, whether peripheral or internal to the brain itself, function as the infrastructure of direct awareness. They act as receptor organs for collecting patterned energy and relaying the collected data to some region of the brain for further processing.

There is a further parallel. The colors, odors, etc. of physical entities, as we are perceptually aware of them, are no less real than the physical infrastructures of those entities (*viz.*, the atomic and molecular structures) that support and enable the interaction of their colors and odors (via streams of patterned light and airborne chemicals) with our sensory organs. So, too, the mind as we are reflexively aware of it is no less real than its physical infrastructure of which we are not (and need not be) directly aware, but which supports and enables its functioning.<sup>24</sup>

“Mind” is the form in which we are introspectively aware of our brains in high-level action, and introspection is *the process by which we are*

*aware of our brains in high-level action.*

So, there *is* interaction between mind and body—not, however, between two *different* kinds of entities, just between higher-level and lower-level *parts* of the brain and nervous system. We are introspectively aware of one of these two parts of the brain and nervous system in the form of “mind.” We may also be aware of the other part in that form (and thus there is what appears to be a “mind-mind” interaction), or maybe not (in which case, there is what appears to be a “mind-body” interaction).

In other words, introspection is a kind of internal perception, which (we presently surmise) is supported by sensitive groups of cells all through the brain that receive energy from the “mental” brain processes, analogously to the way the external sensory organs receive energy from the outer environment. Such clusters of internally sensitive cerebral tissues would be the result of an evolutionary development that occurred in response to our need to monitor our inner brain processes of integrating sense data into concepts above the lowest level.

It is commonly held that sense organs evolved, because living organisms needed a way to monitor the outer environment and receive information so they could guide their *external* physical movements. Similarly, doesn't it make sense to presume that human beings have evolved an “organ of introspection” (perhaps omnibus groups of sensitive brain cells), as a way to monitor our “inner” brain environment and receive information so that we could guide our *internal* physical actions (i.e., the conscious processes of our brains)?<sup>25</sup>

The fact that our perceptual awareness of a color patch does not give us direct insight into the physical structure of the object that creates our awareness of it does *not* argue against the *reality* of the color patch, viz., that it is a *real form* in which we are directly aware of that object. But neither does it argue that the color patch is a *separate entity* from the object that creates our awareness of that color patch.

Similarly, the fact that our introspective awareness of a mental phenomenon does not give us direct insight into the physical structure of the brain that generates our awareness of it does *not* argue against the *reality* of the mental phenomenon, viz., that it is a *real form* in which we are directly aware of the brain's activity. But neither does it argue that the mental phenomenon is a *separate entity* or activity from the

brain that creates our awareness of that mental phenomenon!<sup>26</sup>

When we are perceptually aware of an apple as being red, we know that the red sensory quality is not some different attribute from the apple's redness, but instead is the *form* in which we are directly aware of the apple's real attribute of redness. The sensory quality of red is not taken as evidence of some *other* ghostly, spiritual entity, a sensed apple, that is mysteriously yet intimately linked to the physical apple. Nor do we make the naive Scientific Realist reversal and assume that the apple's redness as we are aware of it is something different from and less real than the apple's redness in itself.

We know that the sensed redness is the causal effect of the interaction between our sense organs and the stream of light particles reflected by the apple's surface. We know that our sensory awareness of the apple's redness is the form in which we are aware of the apple's power to absorb certain light frequencies and to reflect others. Based on this, we acknowledge that the apple's attribute of redness is, fundamentally, the power of the apple to reflect (rather than absorb) certain specific frequencies of light waves and, consequently, to cause certain changes in our sensory receptors and nervous systems.

We later learn about the molecular and atomic structure of the apple's surface, and about the nature of electromagnetic radiation, and about the molecular structure of our sensory apparatus. Yet, this does not justify our going off in either the naive Scientific Realist or the dualist directions and postulating additional entities with mysterious relationships to physical reality.

We have no warrant for the naive Scientific Realist view that the perceived redness of the apple is not real, and that only the physical attribute that underlies that perception is real. And we have no warrant for the dualist view that there are two entities involved: the physical apple and the red sense datum. We are not entitled to say that just because the sensory quality of the apple's redness does not resemble the atomic or molecular structure of the apple, they are two different things. Instead, they are two different *forms* in which we are aware of the same attribute of the same entity. They are the same attribute of the same entity as it *appears* to us in two different ways.

All of this we realize because we have rejected a dualism of attributes and entities, one of which may or may not be more real than the other, and the interaction between aspects of an unfathomable

mystery. Instead, we accept that there is only a duality of *perspective* on *one and the same* attribute and entity.<sup>27</sup>

Knowing and realizing all of this helps us to avoid all of these pitfalls in relation to the issue of *Perceptual* Realism. Yet, it seems insufficient to keep many of us from being lured into the parallel pitfall in regard to the issue of *Introspective-Mental* Realism, when thinking about *mental* qualities that we are aware of through *inward*-directed processes of direct awareness. This seems to be so, at least to some extent, because of a tendency among some philosophers (including some Objectivists) toward something that I call “The Infatuation with ‘The Basic’.”

## **Part II. Naive Scientific Realism and the Infatuation with “The Basic”**

Naive Scientific Realists might try to asperse the value or veridicality of perception by saying that it does not show what entities are *really* like, that sense data do not look a bit like entities “really are,” i.e., as the scientist discovers them to be. We believe that we perceive entities as being solid and having continuity, while the scientist knows that they are “really just” congeries of tiny particles with vast spaces in between them. Sense data are not real, and our belief that they give us valid cognitive contact with physical entities is just a delusion. While we believe that we perceive a tomato, for instance, as being red, the scientist knows that the tomato is “really just” an entity with a physical structure such that the tomato reflects certain light frequencies and absorbs others.

A Perceptual Realist, however, says that the reflected light from the tomato interacts with our sense organs, causing sense data that are the form in which we are directly, perceptually aware of the physical entity (the tomato) and its attributes (light reflectivity) and actions (light reflection). Just because those data are the causal consequences of the (light-reflecting) actions of the tomato, and they don’t look anything like the model physicists have of the tomato, that does not make them unreal or our experience illusory. Most importantly, the sense data *are* the tomato *as we are aware of it through perception*. They are *objective, real* phenomena. They are ObjectiveE.

Similarly, naive Scientific Realists might try to asperse the value or veridicality of introspection by saying that it does not show us

anything real, and in particular that it does not show us what the *brain* is really like, that introspective data do not look a bit like the brain “really is,” i.e., as the scientist discovers it to be. We introspect our brains as being engaged in thinking and remembering and imagining, etc., of varying degrees of intensity, while the scientist knows that they are “really just” three-pound hunks of “meat” that receive streams of energy from the environment and elsewhere in our bodies, and that control our bodily functions and physical actions. Introspective data are not real, and our belief that they give us valid cognitive contact with our brains is just a delusion. While we believe that we introspect our brains, for instance, as carrying out a mildly intense process of value-judgment, the scientist knows that the brain is “really just” an entity with a physical structure such that the brain responds to certain stimuli and ignores others.

In pattern, a Mental Realist would reply by suggesting that some form of energy (probably electrical and/or chemical) emitted by the brain interacts with another, sensitive part of the brain, causing introspective data (e.g., our awareness of our mind) that are the form in which we are directly, introspectively aware of a physical entity, the human brain, and its attributes (consciousness) and actions (in this case, a value-judgment). Just because those data are causal consequences of the brain’s action of value-judgment, and they don’t look anything like the model neurophysiologists have of the physical brain, that does not make them unreal or our experience illusory. Most importantly, the introspective data *are* the brain *as we are aware of it through introspection*. They are *objective, real* phenomena. They are ObjectiveE and ObjectiveC.

It is easy enough to see that Scientific Realism, in its one-sided, naive form, is a misleading view of the nature of human awareness and the objects of that awareness. It is also clear that Perceptual Realism and Mental-Introspective Realism, when properly integrated with Scientific Realism, are antidotes to the distortions caused by a one-sided focus on scientific data, and are necessary components in keeping the full context of one’s view of the nature of existence and consciousness.

Yet, naive Scientific Realism is only one of several one-sided doctrines or perspectives<sup>28</sup> that have derailed thought on the mind-body problem. It is not the only such doctrine that is fueled in

significant part by the seductive draw of the “the basic.”

### “The Given” vs. “The Basic”

Neo-Atomist philosopher Laird Addis offers a very helpful formulation of the distinction between “the given” vs. “the basic.” Addis (1989, 11–12) writes that:

For the philosopher of the modern age, there are and can be only two possible answers to the question of how we should decide what fundamental properties are exemplified in the world. The first answer is this: just those properties that are *given* to us in experience including introspection *and* all those other properties that, according to the findings of science and everyday experience, are needed to explain those properties that are given to us. The other answer is this: just those properties that are mentioned in the laws of basic science. Choosing one rather than the other of these two possibilities is choosing *the starting place of philosophy*. . . . [I]t is choosing between *the given* and *the basic* as the starting place for philosophy.<sup>29</sup>

Peikoff (1991) attempts to draw a similar distinction in terms of “the epistemologically primary” vs. “the metaphysically primary” (54), and he also discusses how “direct experience,” by which he specifically means the perceptual level of consciousness, is “the given” (52–54).<sup>30</sup> Our experiential-perceptual grasp of entities is epistemologically primary, he says. All other knowledge presupposes awareness of entities as a starting point. He further acknowledges that this “does not necessarily mean that the entities we perceive are metaphysical primaries; as we have seen, that is a question for science” (54).<sup>31</sup>

Rand’s argument for the epistemological primacy of entities ([1966–67] 1990), being framed in regard to the conceptual level of awareness, is not convincing as expressed, mainly because she seems to also be trying to argue that they are, in some sense, *metaphysically* primary, and that the former kind of primacy depends on the latter:

The first concepts man forms are concepts of entities—*since* entities are the only primary existents. (Attributes cannot

exist by themselves, they are merely the characteristics of entities; motions are motions of entities; relationships are relationships among entities.) (15; emphasis added)

One could equally well point out that *entities* cannot exist by *themselves*: there are no entities existing without attributes, without undergoing some process of change (action), or without being related to other entities, to their actions, etc. That being the case, it is not clear how Rand’s parenthetical point justifies her inference about the epistemological primacy of entities. Since neither entities, nor attributes or actions, exist by themselves, it could just as well be that we first form concepts of attributes or actions; yet, we don’t.<sup>32</sup>

What Rand appears to be saying is better expressed by Aristotle in the following tetrachotomy (Diagram 1) based on his *Categories* II.<sup>33</sup> Aristotle’s analysis provides a solid rationale for Rand’s apparent view that particular entities are more metaphysically primary than attributes, since their “existing in a thing” clearly indicates a way in which attributes are ontologically subordinate to entities.<sup>34</sup>

**Diagram 1**

<b>What are the most primary things? (From Aristotle’s <i>Categories</i> II)</b>	<b>Predicated of a thing (universal and abstract)</b>	<b>Not predicated of a thing (particular and concrete)</b>
<b>Existing in a thing (attribute)</b>	Concepts of attributes (e.g., red, tall)	Particular attributes (e.g., this red, this height)
<b>Not existing in a thing (entity)</b>	Concepts of entities (e.g., car, apple)	Particular entities (e.g., this car, this apple)

As science develops, the deeper causes of what we observe in perceptual awareness are revealed. But finding out that quarks or meta-puffs of energy or whatever is the basic—i.e., the underlying physical basis of the entities we perceptually experience—would not overthrow either the epistemological or the metaphysical primacy of entities. Nor would it invalidate the knowledge we have of entities and their attributes, etc.

Whatever may be the physical foundation of the entities we perceive is *not* the epistemological foundation of what we know. That distinction goes to particular entities, whatever their ultimate metaphysical source or composition. Regardless of the real nature of “the basic” (again, the ultimate underlying causes of those entities and their attributes, etc.), physical entities and their attributes are “the given,” and they are no less real than their ultimate constituents or causal antecedents.

Realizing this, we need not be susceptible to infatuation with “the basic.” We need not mistake the very real causal primacy of certain things in the world with a kind of ontological or metaphysical primacy that sees some things as being “more real” than others. Unlike some philosophers and scientists, we need not suffer from ontological vertigo induced by the dogma that the solid objects we experience are “really mostly empty space”—nor reel helplessly from attacks on the validity of our knowledge of the world, being based as it is on our “deceptive” senses.<sup>35</sup>

Unfortunately, naive Scientific Realism is only one of several versions of infatuation with “the basic” that have hampered efforts to gain a clear and valid understanding of the nature of the mind-body relationship. In particular, the doctrines of Atomism and Monism, and the related doctrines of Organicism and Dualism, have negatively affected the quest for a proper grasp of the nature of mind, and we will now consider them each in turn.

### **Atomism, Monism, and “The Basic”**

The existence of atoms and even smaller constituent particles of reality has long been an accepted theory and demonstrated fact.<sup>36</sup> However, there is some controversy over certain claimed philosophical and scientific implications of their existence, as expressed in the doctrine(s) of Atomism.

As a doctrine, Atomism may be considered as either a cosmology or a methodological orientation. In other words, Atomism can refer to a certain view of what is most fundamental or basic in the universe—or to a certain view of what is the best approach to studying some subject area (including, but not limited to the nature of the universe as a whole).

As a view of the ultimate nature of reality, Atomism dates back

to Ancient Greece, to the views of Leucippus (regarded as the founder of Atomism), Democritus, Epicurus, and Lucretius. (Some would include the Pythagoreans as an early proto-form of Atomism.) Beginning in the seventeenth century, Atomism had a modern revival as a purely physical theory (with no “spiritual atoms” as in ancient Atomism) in the views of such philosopher-scientists as Gassendi and Boyle.

Berryman points out (2005, section 2) that Democritus argued for a distinction “between perceived properties like colors and tastes, which exist only ‘by convention,’ in contrast to the reality, which is atoms and the void.” Democritus did, however, recognize that “atomist theory threatens to undermine itself if it removes any trust we can place in the evidence of the senses, by claiming that colors, etc. are unreal” (section 2). Epicurus staunchly defended the validity of the senses, claiming that “reasoning to truths about things that are not apparent—like the existence of atoms—depends on the evidence of the senses, which is always true” (section 7).

As to Atomism in modern times, Sciabarra (2000) points out that “the strict-atomist position is self-defeating, and no seminal empiricist has ever advocated it” (157).<sup>37</sup> Nevertheless, the Newtonian worldview characterized by mechanism and Atomism “provided philosophers with the portrait of an atomized reality” (53).<sup>38</sup> Thus, as Pols (1998) puts it: “[I]n view of Newton’s acceptance of atomism, it might be . . . accurate to speak of a general *commitment* to atomism on the part of scientists” (69). More broadly, then, *all* modern reductive materialist philosophers and scientists who regard the world as reducible to and “nothing but” particles of matter in motion are atomistic in spirit or outlook.

Modern Atomists often have not had such compunctions as Democritus and Epicurus against dismissing the reality of sensory experience. As Pols (1998, 89) notes:

[F]or those who defend microentity reductionism, *the antireductive disposition of common sense is nothing more than a disposition to take an appearance for a reality*. . . . If, for instance, mind focuses (at the commonsense level) on what is in fact a complex of microentities, it does not acknowledge that complex but acknowledges instead the presence of a sup-

posed commonsense entity. . . . There are many accounts of how mind deceives itself in this way.

In other words, modern Atomism regards parts—and the smaller, the better—as being not just constituent of wholes or causally primary to wholes, but as *more real* than wholes, a view that even ancient Atomism was hesitant to embrace wholeheartedly. To the extent that modern Atomists have embraced this notion that parts are the primary reality, they (like the Scientific Realists) have fallen prey to the seductive lure of “the basic.”

As a methodology, Atomism, in its Strict form, “*is an orientation toward analysis by separation and isolation of a system’s components*” (Sciabarra 2000, 156). To the extent that methodological Atomists regard components or parts as more real than systems or wholes, and elevate this approach from one of several useful research techniques to the “royal road to knowledge,” as it were, they, too, have been seduced by “the basic.”

Sciabarra illustrates this tendency of strict Atomists in terms of the metaphor of a television screen, in which you see only a lot of little dots rather than the picture they compose, when you stand too close to the screen. He writes:

It might be said that atomists keep their noses on the screen. For them, what is real, or most real, is only dots, and the additive, mechanical combination of independent, externally related dots yields an image that is not as real as the dots themselves. (157)

By contrast to methodological Atomists, Strict Organicists regard the whole or the system as the “sole reality,” or at least as “more real” than the parts or components that comprise them, and they direct *their* research accordingly. “*Strict organicism is an orientation toward ‘synoptic’ analysis of a system and its internal relations*” (162).

Strict Organicists begin with a proper focus on the necessity “to treat the elements of the real world as interconnected . . . [and wholes] as organic systems in which the parts cohere so that each part is related to the other parts and all the parts, in their interconnections, are constituted by the whole.” But they go too far in “ascrib[ing] to

the whole a metaphysical primacy that virtually wipes out the need for differentiation among parts” (163). This is in stark contrast to the Strict Atomists, who eschew integration and system-building, in favor of isolating and studying the smallest detectable components of an entity or system.

Atomists and Organicists thus line up on opposite sides of a false dichotomy, which sees either parts or wholes as being the “sole reality” or “more real” than the other. They both fail to recognize that reality, in inorganic nature as much as in the realm of living beings, is thoroughly organized into hierarchical structures—and that wholes and parts, systems and components, are equally indispensable to there being a world that we can live in and learn about.<sup>39</sup>

Diagram 2 below graphically represents the false dichotomy between Atomism and Organicism, along with the other two logically possible views. (Hierarchically structured reality, where *parts and wholes are equally real*, is the position supported in this essay.)

**Diagram 2**

<b>What is the relation of metaphysical primacy between wholes and parts?</b>	<b>Parts are primary reality</b>	<b>Parts are not primary reality</b>
<b>Wholes are primary reality</b>	<u>Parts and wholes are both primary realities ⇒ Hierarchical structure in reality</u>	Only wholes are primary reality ⇒ Strict Organicism
<b>Wholes are not primary reality</b>	Only parts are primary reality ⇒ Strict Atomism	Neither parts nor wholes are primary reality ⇒ Nihilism

How, then, has Atomism’s version of “the basic”—viz., the idea that parts are more real than wholes—led thinkers away from discovering the correct view of the mind-body relationship? The answer lies in the fact that viewing parts as ontological primaries leads one to look for causal power and explanation in the parts and not in the wholes.

In other words, if parts are “more real” than wholes, then it is only reasonable to look to parts—and the smaller the part, the better—for a causal explanation of what goes on in the world. And, in fact,

this is exactly how modern Atomists approach causal investigations, positing what Sperry (1987, 19) refers to as “microdeterminism,” which is essentially the view that there is a one-way causal flow from the smallest, “most real” constituents of reality “upward” to the largest things in the world, the “least real” things (which also happen to be the things we perceive around us in everyday life—thus the denigration of the realism of perception by Atomism).

**Diagram 3**

What is the causal relation between wholes and parts?	Parts have causal power over wholes	Parts do not have causal power over wholes
Wholes have causal power over parts	<u>Wholes and parts have reciprocal causal power over one another ⇒ Part-whole Interaction aka Hierarchical Causality</u>	Only wholes have causal power over parts; parts do not have causal power over wholes ⇒ Strict Organicism aka Macrodeterminism
Wholes do not have causal power over parts	Only parts have causal power over wholes; wholes do not have causal power over parts ⇒ Strict Atomism aka Microdeterminism	Neither parts nor wholes have causal power over one another ⇒ Brute Coincidence aka Indeterminism

In Diagram 3 above is another tetrachotomy displaying the false dichotomy between Atomism and Organicism (which posits a one-way causal flow from the largest, “most real” constituents of reality—entities or systems—“downward” to parts of entities or components of systems). The other two logically possible views are included, the view supported in this essay being shown in underscore: *hierarchical causal interaction between parts and wholes*.<sup>40</sup>

Closely related to Atomism is Materialism, the view that the only thing, or the “most real” thing, that exists is matter, the “stuff” that constitutes the physical entities we see around us in the world, and which itself is comprised of atoms and even smaller particles. Materialism, in turn, is one form of Monism, considered as one of the cosmological views that some aspects of reality are more real than others.

In Materialism, the Monist premise takes the form of the

assumption that matter is all that is real, or at least that matter is “more real” than consciousness or spirit. The only real (or fully real) entities in the world are physical objects and their constituent parts and particles.

Similarly, in Spiritualist Monism, as one might expect, it is consciousness or spirit that is considered to be all that is real, or at least as being “more real” than matter. The only real (or fully real) entities in the world are spiritual entities, such as minds, souls, spirits, ghosts, etc. Thus, Monism holds that either matter is the primary reality, the primary kind of thing—or consciousness is the primary reality, the primary kind of thing.<sup>41</sup>

In contrast to both forms of Monism, there is Substance Dualism (most famously, Cartesian Dualism), which regards both consciousness and matter as equally real—moreover as constituting entities, mind and body, which, though radically different in their nature and constitution, are capable of coexisting and interacting with one another in human beings. Substance Dualism holds that matter and consciousness are equally primary realities, and bodies and minds being two irreducibly primary kinds of things.<sup>42</sup>

**Diagram 4**

<b>What is the relation of metaphysical primacy between consciousness and matter?</b>	<b>Consciousness is primary reality</b>	<b>Consciousness is not primary reality</b>
<b>Matter is primary reality</b>	Matter and consciousness both primary realities (entities cohabitating human being) ⇒ Cartesian Substance Dualism	Matter primary reality, consciousness not primary reality ⇒ Materialistic Monism
<b>Matter is not primary reality</b>	Consciousness primary reality, matter not primary reality ⇒ Spiritualistic Monism	<u>Neither matter nor consciousness primary, but are aspects of entities, which are the primaries ⇒ Aspect Dualism, Substance Monism</u>

The tetrachotomy in Diagram 4 graphically represents the false

dichotomy between Dualism and Monism—or, rather, a false *trichotomy*, since Monism is fundamentally split into the Materialist and Spiritualist versions—along with the other logically possible view, the view advocated by this essay, which is both a Substance Monism in regard to *entities*, but an Aspect Dualism in regard to the conscious and material *attributes* of entities.<sup>43</sup>

Now, the question is: how would Materialist Monism’s embracing of “the basic”—i.e., the idea that matter is “more real” than consciousness—lead it away from discovering the correct mind-body relationship? In parallel with Atomism, the answer lies in the fact that viewing matter as an ontological primary leads one to look for causal power and explanation in the stuff that constitutes entities, rather than in the entities themselves.

As a result, the Monist methodological orientation—“*toward analysis of a system’s components as manifestations of a single factor*” (Sciabarra 2000, 169)—leads Materialist Monists to posit a one-way causality flowing from material entities to immaterial, causally impotent byproducts such as consciousness. For this reason, Materialist Monism is frequently associated with Epiphenomenalism, the view that consciousness is causally powerless.<sup>44</sup> Similarly, Spiritualist Monism, in embracing consciousness as “the basic,” tends for methodological reasons to look for causal power and explanation in consciousness per se, rather than in conscious entities. Turning the tables on Materialism, this view regards not consciousness, but *matter* as a causally inert “epiphenomenon.”

It is common to hear not only Spiritualist Monists, but also non-Materialist philosophers (including Objectivists) speak of the “causal efficacy of consciousness,” as though consciousness were able to engage in actions, to exercise some kind of power over matter. Such talk seems to spring from the desire for consciousness to have (at least) equal metaphysical status with matter, and the conviction that if matter has causal efficacy, then so, by God (or otherwise), does consciousness!

What seems to have eluded nearly all such commentators is that—equal metaphysical status or not—while “causal efficacy of consciousness” is a category error, so is “causal efficacy of matter.” *Neither* consciousness *nor* matter is the kind of thing that has the power to enact causes.<sup>45</sup>

For this reason, resorting to Substance Dualism is no solution to the impasse between the competing forms of Monism. With its methodological penchant for positing a two-way causal relationship between matter and consciousness<sup>46</sup>—a consequence of the “*orientation toward analysis by separation of a system’s components into two spheres . . . [characterized by] mutual exclusivity and hostility*” (166–67)—Substance Dualism merely compounds the error.

It is a basic tenet of Objectivist philosophy, gratefully adopted from Aristotle, that causality is the relationship between an entity and its actions. By virtue of their attributes, including matter and consciousness, it is *entities* that have causal power or efficacy. Neither matter nor consciousness *has* causal efficacy. Instead, matter and consciousness *are* causal efficacies *of entities*, and it is the *entities* that *have* causal efficacy. It is *by virtue of* their matter and consciousness that those entities are able to cause their actions.<sup>47</sup>

**Diagram 5**

What is the causal relation between consciousness and matter?	Consciousness has causal power over matter	Consciousness does not have causal power over matter
<b>Matter has causal power over consciousness</b>	Matter and consciousness behave as if they were entities (and parts), having causal power and interacting ⇒ Cartesian Substance Dualism	Matter behaves as if it is an entity with causal power, consciousness is causally inefficacious ⇒ Materialistic Monism aka Materialistic Epiphenomenalism
<b>Matter does not have causal power over consciousness</b>	Consciousness behaves as if it is an entity with causal power, matter is causally inefficacious ⇒ Spiritualistic Monism aka Spiritualistic Epiphenomenalism	<u>Neither matter nor consciousness interacts or has causal efficacy, but are aspects of entities (and parts) having causal efficacy and interact ⇒ Accident or Aspect Dualism with Substance Monism</u>

This view, highlighted in the bottom right corner of Diagram 5, is again an amalgam of Substance Monism and Aspect Dualism. It is

*entities and their parts* that *have* causal efficacy and interact with one another. Matter and consciousness are *attributes* of entities, and as attributes, they do not *have* causal efficacy per se, but instead *are* the causal efficacies (powers) of entities to interact with one another.

### **Neutral Monism (Rand’s “Little Stuff”) and “The Basic”<sup>48</sup>**

Commenting on the origin of a certain tenet of the Objectivist philosophy (viz., the doctrine of the “arbitrary assertion”), Campbell<sup>49</sup> (2007) shared this insight:

Parts of Objectivism, as it’s come down to us, are Brandenite or Peikovian. We may never fully know which parts, because when someone else wrote about an idea, it may or may not have already been worked out in roughly those terms by Rand herself.

That is a very good point, and it also applies to parts of Objectivism *as it hasn’t* come down to us—i.e., to parts of Rand’s thinking to which Branden and Peikoff were privy, but which have, to this day not made it into print. (As such, these ideas may reasonably be considered “Randian,” but not part of official, canonical Objectivism.) In particular, there is the notion of “little stuff,” which apparently pre-dates the 1968 Rand-Branden Split.

Exhibit A comes from a private email from Nathaniel Branden to William Dwyer, 25 September 1997, written as a reply by Branden to a post by Dwyer on the Objectivism-L Internet discussion group, under the title “More on Branden’s ‘Underlying Reality.’” The discussion had focused on Branden’s (then-)recently published book *The Art of Living Consciously*, in which he talked about matter and consciousness being “manifestations” of an “underlying reality.” When Dwyer and others (including myself) objected to this notion, Branden replied (in a private email, quoted here with permission):

Rand shared my view, as expressed in the brief passage in *Living Consciously*, and she called that “underlying reality” by the name of “*little stuff*.” . . . We regarded consciousness as radically different from matter . . . (emphasis added)

Exhibit B comes from a passage in a Peikoff lecture (1996b) entitled “Knowledge as a Unity.” He said:

[Parmenides] denied that there was any void, any vacuum. . . . The universe, he said, was a plenum . . . in other words, it was full, solidly packed. Ayn Rand and I used to speculate, you know, just armchair, knowing we were speculating: what is it that’s in all the places where nothing isn’t? And we gave it the name “*little stuff*.” The “little stuff” was the ultimate ingredient that . . . filled all the things that today are called “vacuum.” Now, you don’t have to believe in that. It’s beyond philosophy to go any further, to discuss the type of ultimate constituent. (emphasis added)

These closely timed references to “little stuff” may nonetheless seem to be referring to radically different cosmological or ontological issues—Branden in *Neutral Monist* form to the ultimate nature of matter vs. mind, Peikoff in a quasi-Parmenidean manner to the ultimate nature of matter vs. vacuum—Branden to something underlying matter and mind, Peikoff to something that fills in the gaps where matter exists. However, a later reference by Peikoff (2002, lecture 1) removes all doubt that they are talking about one and the same theory: that “little stuff” underlies *everything else*, that not only “empty space,” but also matter and consciousness are covertly packed with, even generated from, some more primitive kind of stuff.

Ayn Rand had the theory that, since she didn’t believe in a vacuum, that the whole universe was solidly packed with something. But she didn’t know what the something was, so she just gave as a humorous definition, she called it “*the little stuff*,” because it’s the stuff that fills all the interstices, and it’s obviously too small for us to see. And she defined it as, “*Little stuff* is that which is where nothing isn’t.” . . . A physicist used to call the same thing “ether” in the nineteenth century. Let us suppose that physics reached the stage of the ether, which is the irreducible, ultimate constituent, and *the various combinations of ether led to matter or life and mind and whatever* . . . (emphasis added)

So, here, fifteen years or so after Rand had passed away—with not a whiff of such ideas appearing in Rand’s published journals or letters, not to mention her essays, novels, lectures, or Q&A comments—are both of the chief spokesmen for her philosophy revealing that she had indulged in armchair cosmologizing with each of them over the same speculative idea! “Little stuff” is everywhere—it’s the fundamental reality underlying (i.e., combining in various ways to create) matter and consciousness, and filling up apparently empty space, including all that space between the atoms in physical objects that appear to our physical senses to be solid!

The technical name for this kind of view is Neutral Monism, and it has been associated, correctly or not, with thinkers ranging from Spinoza to Ernst Mach, William James, and Bertrand Russell. Like Materialist Monism and Idealist Monism, it holds that “ultimate reality is all of one kind” (Stubenberg 2005). Unlike the other forms of Monism, however, it holds that ultimate reality is neither mental nor physical in nature, but instead is *neutral* with regard to matter and consciousness. Whatever it is, whatever its nature, it *isn’t* matter or consciousness.<sup>50</sup>

Neutral Monism is motivated, in part, by a desire to explain how mind and body interact with one another, despite the fact that they seem to be fundamentally different from one another.<sup>51</sup> However, the presuppositions of Neutral Monism tell us only that the ultimate reality is *somehow* neutral (neither mental nor physical), and that matter and consciousness are *somehow* related to (constructible from and reducible to) the neutral ultimate reality. Knowing the details of the latter are a precondition for explaining how matter and consciousness could possibly interact, as many philosophers (including some Objectivists) maintain. Yet, despite the imaginative positing of ontologically neutral entities, evidence to support such positing, evidence to clarify the manner of combination of neutral entities to produce matter and consciousness, and evidence to clarify the manner of mind-body interaction are all in short supply. We are thus left with a long chain of unproved hypotheses and more mysteries than ever.<sup>52</sup>

Now, think about the anti-Objectivist implications of this notion. Throughout the history of philosophy, there have been two distinct approaches to deciding how much or how little should be included within philosophy as a whole—and within each of the branches of

philosophy, such as metaphysics, epistemology, and ethics—as against the special sciences, such as physics, biology, and psychology.

One approach, the “minimalist” approach, sees philosophy as providing only the most general outlines of a worldview and way of living. The other, the more “robust” approach, more or less allows philosophy to expand into every nook and cranny of human intellectual concern, including philosophy of education, cosmology, philosophy of law, etc.

In metaphysics, the “minimalist” approach is exemplified by Aristotle’s science of being *qua* being, and by Rand’s and Peikoff’s insistence that metaphysics should be limited to the Law of Identity and its immediate implications, such as the Law of Contradiction, the Law of Causality, etc.<sup>53</sup> On this view, such topics as the nature of matter and energy, or the ultimate constituents of the universe, or the origin of the universe would be off-limits to metaphysics. Instead, the basic nature of matter is regarded as properly being the subject matter of physics.

A clear formulation of this approach is stated by Rand ([1966–67] 1990), when she comments about what philosophers may or may not legitimately conclude about the ultimate constituents of the universe:

The only thing of which we can be sure, philosophically, is that the ultimate stuff, if it’s ever found—one element or ten of them—will have identity. It will be what it is. . . . But for a philosopher to attempt to define what kind of particle it has to be, or how we will determine its properties, that is unwarranted and Rationalistic. That is the province of science, not philosophy. You see, it isn’t the job of philosophy to tell us *what* exists, it’s only to tell us what has to be true of everything that exists [identity] and what are the rules by which you can claim knowledge. And in regard to the constituent elements of the universe, all we can say is that they would have to have identity. *That* we can prove. Any other conclusions we cannot draw philosophically. (293)

In other words, on the “minimalist,” Objectivist view, metaphysics has nothing positive to say about the content of physical theories. It only has what Rand calls a “metaphysical veto” over any scientific

theories that involve a contradiction, since nothing that exists (and thus can be studied by science) can be contradictory.<sup>54</sup>

What, then, of the more “robust” metaphysical theories which have dealt with the very subjects that Rand et al. admonish metaphysicians not to ponder, such as the nature of matter and energy? Why not ponder them? As Campbell (2000a, 305–6) notes:

In the sketches for her treatise on Objectivism, she derided such efforts; if they are legitimate, “then philosophy is worse than a useless science, because it usurps the domain of physics and proposes to solve the problems of physics by some non-scientific and therefore mystical means” (Rand 1997, 698). By poaching on the territory of physics, Rand was convinced, philosophers merely guaranteed that their theories would periodically be “blasted...sky-high” (698) by new scientific discoveries.

In other words, it would appear, Rand is enjoining us from engaging in physical ontology because of the possibility that our speculations or theories may end up not being correct, and we may have to revise them. Corrigibility is an attribute of the special sciences, but metaphysics is, presumably, supposed to be locked-in to a timeless model of the truth, a certainty that can only be achieved by restricting the content of metaphysics to fundamental axioms and their corollaries.

Now comes the rub. If incorrigibility and timeless truth are the desideratum for theoretical philosophy, then Rand’s minimalist approach, applied consistently to the rest of philosophy, would lead, first and foremost, to a minimalist *epistemology*. Such an epistemology would eschew philosophizing about such questions as the nature of mental processes, the constituents of minds, the functioning of perception, the nature of concepts, the basic forms of knowledge, the relationship between knowledge and action, the rules for logically valid arguments, etc. As Campbell (2000a) points out, every one of those issues “has a metaphysical component. But the component isn’t *physical* ontology (at least, not directly); it’s *psychological* ontology” (306)—and if physical ontology is verboten for metaphysics, then psychological ontology should be equally off-limits for epistemology.<sup>55</sup>

Instead, as Campbell argues, a minimalist epistemology, following the pattern of Rand's strictures for metaphysics, would be something simple, along the lines of: "Whatever human minds are exactly, and however they work in detail, they're able to acquire knowledge and make rational arguments" (306). At the very most, it would, Campbell (2002) says, include only a sparse set of core tenets that function within "the widest possible context of knowledge"; this core epistemology would provide "a reaffirmation of our capacity to know" (323).

However, if that is the case, then what are we to make of the *actual* Objectivist epistemology, as developed by Rand, Branden, and Peikoff? Rand's epistemology is replete with psychological ontologizing, a great deal of which is apparently based not on experimental or observational psychology, but instead on introspection. A particularly glaring example is Rand's theory of concepts, which Campbell (1999, 107–34) shows is heavily reliant on psychology.

From the very outset of her *Introduction to Objectivist Epistemology*, in fact, Rand was doing psychological ontology. One wonders why, in the name of consistency, she didn't worry that, by poaching on the territory of psychology, she was merely guaranteeing that her theories would periodically be "blasted . . . sky-high" by new scientific discoveries (or observations perennially available to countless observant parents and caregivers).<sup>56</sup>

Other than its inconsistency with how Rand approaches physical ontology, however, her psychological ontology and its thorough embedding in her epistemology are not a problem. Indeed, it is only by maintaining a two-way channel of communication between psychology and epistemology, via psychological ontology, that a robust epistemology such as Rand's can stay current with the science of psychology, on which it depends.<sup>57</sup> And if an error is made, the appropriate thing to do is to admit it, correct it, and go on.

The question then arises: why shouldn't this same policy govern how metaphysics is done? In other words, why barricade oneself behind the impenetrable axioms and corollaries of metaphysics, foregoing speculation on mind and matter, space and time, (apparently) just because one may have to revise one's ideas, as science triumphantly marches on?<sup>58</sup> Instead, why shouldn't we do as the

Spanish proverb so beloved by Objectivists says: “Take what you want, and pay for it”?

In other words, why shouldn’t philosophers, especially in their role as philosophers of science, be welcomed to make creative guesses or hypotheses, based on the best information and thinking they can muster, as to the nature of some aspect of the world, so long as they are willing to revise their ideas as necessary? This is the approach adopted in this essay, supplemented by the potent tool of the “metaphysical veto” that allows philosophers to reject philosophical and scientific theories and concepts that embody or entail contradictions.<sup>59</sup>

Ironically, this is also what Rand was doing with Branden and Peikoff, albeit in a very private, unofficial context. After hearing for years about what an important doctrinal point of Objectivism it is to avoid Rationalism, and specifically to keep metaphysics lean and mean, and leaving the details to science, we now see that the Randian “little stuff” was being entertained speculatively as the “underlying reality” that “manifests” as matter and consciousness—presumably to explain how two fundamentally different kinds of “stuff” could possibly interact (as well as to explain what exists in apparently empty space).

Yet, as we will see in the next section, the official Objectivist (and Aristotelian) view is that it is *entities* that act and interact, not their attributes and/or the “stuff” that constitutes them. Further, this implies both that consciousness and matter *cannot* interact, and that mind can only interact with the body if mind, too, is an entity.

As to what kind of entity mind is, there are two possibilities. Either (1) mind is a non-physical, spiritual entity that somehow cohabits with the human body and somehow interacts with it—a view that Objectivism officially rejects as “ghost in the machine” Cartesianism; or (2) mind is a physical entity, the brain, which only *appears* to be non-physical because our introspective mode of access to it does not display attributes possessed by physical entities (other than duration)—in which case, mind-body Interactionism is really brain-body Interactionism, which is no problem at all, either physically or philosophically.

The latter is the position argued for in this essay as most consistent with Objectivism, both from the standpoint of its view of

causality and causal interaction and its view of mind as having causal efficacy. Unfortunately, as will be shown in Part III of this essay, both the causal efficacy and interaction tenets are *inconsistent* with the Objectivist view that consciousness or mind is an *attribute* of human beings.

Either mind has causal efficacy, in which case it is some kind of entity—or it is an attribute, in which case it does not have causal efficacy. The tension between these two strands of Objectivist thinking will be thoroughly analyzed and resolved in the remainder of this essay.

In any case, barring a breakthrough discovery in physics that uncovers evidence of the hypothetical, ultimate whatever-it-is that is purported to generate both matter and consciousness, the “cash value” of Rand’s Neutral Monist “little stuff” is nil with respect to the mind-body problem. Further, Neutral Monism is riddled with mysteries: (1) It posits an undetected ultimate form of existence that (2) combines in unspecified ways to generate different kinds of material that are fundamentally dissimilar, yet (3) in some unspecified, undetected way nonetheless manage to interact. Speculation is one thing, but this is speculation on stilts. “Little stuff” (and Neutral Monism in general) is yet another example of the seductive power of “the basic” to lead otherwise good thinkers off into philosophical dead-ends.

### **Part III. Are Mind-Body Interaction and Causal Efficacy of Mind Consistent with Objectivism? (It all depends!)**

If, as argued in Part I of this essay, mind is the *form* in which we are introspectively aware of the brain (or a part of the brain), i.e., if the mind is the brain (or part of it) as it *appears* to our introspective awareness, then mind is indeed an entity,<sup>60</sup> viz., the brain (or part of it), *as we are aware of it introspectively*. A consequence of this view is that two Objectivist tenets argued for vigorously by Branden, Efron, Peikoff, and others are preserved: the causal efficacy of mind and mind-body interaction.

However, the *standard* Objectivist view of mind is not that it is an entity, but rather the *capacity* of human beings to engage in conceptual functioning. Among the generally unrecognized consequences of this

viewpoint are its inconsistency with the firm insistence by Objectivists that the mind has causal efficacy and is capable of interacting with the body and initiating actions.

The next few sections will explore the contrast between the Neo-Objectivist<sup>61</sup> model proposed by this essay and the standard Objectivist view, highlighting the problems of viewing mind as anything *other* than the brain (or one of its parts) and recommending a fairly simple solution.

### **Some Basic Aristotelian-Objectivist Tenets, with which any Objectivist Theory of Mind must be Consistent**

Whatever kind of thing mind is, or body is, its nature must be consistent with the most basic axioms and corollaries, as well as the metaphysical categories and their implications. Although Rand has a leaner set of categories than Aristotle (four to his ten), her discussion of them is very much in the spirit of Aristotle's philosophy, and her concept of "causality" is essentially Aristotelian, as well.

One of the metaphysical presuppositions of any valid Objectivist or Neo-Objectivist theory of mind is the Aristotelian model of causality: *causality is the relation between entities and their actions*. This corollary of the Law of Identity implies that only entities act (or at least, only entities act causally), and that attributes, for instance, do not act.<sup>62</sup> As Rand (1957, 1037) writes:

The law of causality is the law of identity applied to action. All actions are caused by entities. The nature of an action is caused and determined by the nature of the entities that act; a thing cannot act in contradiction to its nature.<sup>63</sup>

A second metaphysical presupposition of an Objectivist theory of mind is a corollary of the first: just as only entities act, *only entities interact*. Attributes do not interact with entities. To repeat: actions are actions *of entities*, and interactions are interactions *between entities*. Attributes (such as consciousness) do not act, and attributes (such as consciousness) do not *interact* with entities (such as human beings or their body parts).

A third metaphysical presupposition of an Objectivist theory of

mind is the relationship between attributes and actions: powers, i.e., capacities and potentialities of entities for action, are what attributes of entities are. Branden ([1969] 2001, 54) says that “[W]hat a thing can *do*, depends on what it *is* (54), and Rand [(1966–67] 1990, 284) agrees with “Professor E’s” comment that “The so-called ‘dispositional property’ [power] is simply a package-deal term to cover a certain structure and its consequent potentialities for action.” Thus, *an attribute is a power, which is the capacity of an entity to act, the potentiality of an entity for action.*

This implies a fourth, and crucial, metaphysical presupposition of an Objectivist theory of mind: since powers *are* attributes of entities considered from their potential for action, it is *entities* that have powers. Thus, it is incorrect to speak of *attributes* as having powers.

For instance, it is not the redness of the apple that reflects the light waves, but *the apple*. Its redness (i.e., the reflective property due to the atomic structure of its surface) is the attribute or power *by virtue of which* it *must do* so, but it is the apple that *does do* it. Can an apple’s attribute of redness make it reflect light waves? No, not literally. *The apple* reflects those light waves, *by virtue of the power* it has to do so.

Similarly, we may ask: can my mind cause me to cause my actions? No, not literally. *I* cause my actions, *by virtue of the power* I have to do so.<sup>64</sup>

A fifth and final important metaphysical presupposition of an Objectivist theory of mind follows from the preceding: efficacy is power. Causal efficacy is the power to make something happen (i.e., to act). Entities, and only entities, have the power to act. Entities have causal efficacy—and *only* entities have causal efficacy. Causality is the relationship between an entity that has the power to engage in some action or other, and the action that it engages in. *It is a category error to refer to something other than an entity as having causal efficacy.*

These five tenets together indicate how this essay’s Neo-Objectivist model of mind and the standard Objectivist model, respectively, answer the question: *are mind-body interaction and causal efficacy of mind consistent with Objectivism?*

Either mind is an entity (or part of an entity)—or it is some kind of attribute of an entity, whether considered in its potential mode as a capacity or power of an entity, or in its actual mode as an active state of an entity. If mind is an entity or part of an entity, then mind-body

interaction and causal efficacy of mind are at least logically possible—but if mind is an attribute, whether a capacity or an active state, of an entity, then mind-body interaction and causal efficacy of mind are logically impossible. The next two sections will explore each of these alternatives.

### **Yes—Mind as a *Physical Part* of Human Beings, and its Implications for Causal Efficacy and Interaction**

The Neo-Objectivist thesis of this essay is that mind as we are aware of it introspectively is an *objective* phenomenon, the *form* in which we are aware, first-person (using our brain, or one part of our brain, introspectively), of what some other part of our brain is doing—i.e., our brain (or some part of it) as it *appears* to us introspectively. How does this thesis accord with our experience?

We introspectively experience ourselves as having minds that are powerful and cause us to do things and are affected by things. Mind-body interaction *seems* to involve a real interplay between a spiritual thing and a physical thing that are somehow conjoined or intimately interwoven. It *seems* that the mind-body “Interactionism” view captures a real aspect of our experience, not an illusion.

How, then, does it *work*? What *things* interact in order to produce our awareness of having a mind—moreover, a mind that is interacting with our bodies? The obvious answer, as the foregoing discussion has tried to argue, is that it must be two parts of the same, one, conceptually conscious organism—most likely, two parts of the brain. In other words, one part of the brain engages in a physical process which is also mental, thereby causing another part of the brain to engage in a physical process (which may or may not also be mental).

But it is all too easy and misleading to abbreviate this in Humean terms as follows: a physical brain *process* or *event* that is also mental causes another physical brain process or event that may or may not also be mental—giving the impression that the latter physical *process* or *event* is caused by a previous process or event that is mental (but also physical).

It’s misleading, first of all, because it sounds as if it is the mentalness per se of the former process that is causing the latter process, when it’s really the unified physical-mental nature of the former that is involved in the cause. And further, we have to remember that it is

an *entity* (the brain, or part of it) that is *enacting* the process that has a unified physical-mental nature.

It seems to be a natural tendency to slip into the Humean mode of talking of processes or events as causing things, and it can be confusing. We should remember, though, that regarding actions or processes or events as causes is really a form of abstraction from the entities that are the causes. Actions, processes, and events don't cause other actions any more than attributes do. *Only entities* cause actions.

A decision, for instance, is not an entity. Thus, our decisions do not cause our actions. A decision is *my* (referring to the entity now writing this sentence) action, a conscious action *I* (the entity) am taking—not an action of *my consciousness* (my attribute). It is *I* who decides and *I* who then takes the action that follows that decision. It is not my *decision*, but *my having decided* (i.e., *I*, who have decided) that causes my subsequent action.

This is the *only* way to make sense out of human decision and action that *also* squares with both (1) the Aristotelian-Randian concept of entity⇒action (not Humean action⇒action or Moorean attribute⇒action) and (2) the Randian view that consciousness is not an entity, but an attribute of entities.

To discard the entity⇒action model, or to discard the premise that consciousness is not an entity, is an unacceptable departure from Aristotelianism and Objectivism and a move toward either Hume's action⇒action model of causality—or Descartes' interactionist, dual-substance (consciousness as a non-material entity) model.

As for “*parts of the brain*,” this does not necessarily refer to an easily localizable chunk of the brain. Instead, it is more likely that a network of sensitive brain cells work together in interaction with whatever *other* brain cells are involved in a particular thought, emotion, etc. And it may not be the *same* network of cells involved from one occasion of brain part⇒brain part causality to the next.

A commonplace of the computer age may be a helpful analogy here. A RAM-disk is a *functional entity* or opportunistically forming-unforming-reforming integration of various parts of a larger system in a computer, which arises “emergently” to perform certain higher-level functions when the system requires it to. Thus, it's sort of an itinerant electronic “organ” that coalesces and functions wherever in the computer it's needed, and subsides into quiescence when not

needed, according to standing orders in the computer's hard drive.

*That* is what our mind is most like, if we are to think of it as being some kind of actual physical entity other than the brain in its entirety. We are cobbling together, from within our brains and nervous systems, whatever component cells and cell groups and modules are needed for a certain function or series of functions. Our *capacity* to do this is our “mental capacity,” and our capacity as activated at any point in time is experienced as a “mental *action*.” And our awareness of the mind-in-action is made possible (we hypothesize) by there being, all through the brain, cells that neighbor the ones used by the brain for its mental activities, and these neighboring cells are sensitive to the goings-on and allow us to be aware of those goings-on.

However, apart from viewing the mind as a RAM-disk-like part of the brain—more like a traveling wave than a stationary entity—there seems to be no rational way to think of the mind as some kind of physical entity. This proposal, furthermore, is merely a way of specifically suggesting the means of operation of what we already know as a fact: that mind is an *objective* phenomenon, the *form* in which we are introspectively aware of (some part of) the brain—the brain (or some part of it) as it *appears* to us.<sup>65</sup>

It might further be objected that mind *seems* to be a different kind of thing from brain cells and tissues, and that claiming that it is *just* a physical entity, despite appearances to the contrary, is a claim that our introspective experience is illusory. The reply to this is in pattern with replies to claims that our *sensory* experience is “illusory.” Color, for instance, *seems* to be a different kind of thing from the reflectivity of the surface structure of a physical object, and to claim that it is *just* the reflectivity of the surface structure of a physical object, despite appearances to the contrary, is a claim that our perceptual experience is illusory.

However, Perceptual Realism does *not* claim that color is “just” the reflectivity of the surface structure of a physical object. Instead, Perceptual Realism recognizes that color is *a form in which we are aware of* a physical object—viz., the reflectivity of the surface structure of an entity in the physical world as it *appears* to us visually. Similarly, Mental Introspective Realism does not claim that mind is “just” a physical entity (the brain). Instead, Mental Introspective Realism recognizes that mind is *a form in which we are aware of* the brain—the

brain as it *appears* to us introspectively.

Suppose, on the other hand, that mind is a completely non-material, *spiritual* entity. If so, then it must be composed of some other, non-material kind of stuff that interacts *somehow* with and integrates *somehow* with the brain.<sup>66</sup>

However, there is no *evidence* for this view that mind is a non-material entity, nor for the idea of non-material stuff that allegedly constitutes it. Either mind is a physical entity—and specifically, the brain as it appears to our direct, introspective awareness—or it is no entity at all. As Rand held, there is no mind-body dichotomy. They are not two separate things, of one sort and another. They are a *unity*, and as Pols (1998) has said, the union of functions in human action with the “billionfold multiplicity” of the elements in the infrastructure is so intimate that the standard conception of a mind-body *relation* does not fully capture the embodiment of mind (100). Body and mind are *aspects* of the one, unified entity, the human organism, as it appears to our perceptual and introspective awareness, respectively. Body and mind are *so* unified that to even speak of the *relationship* between them misses the point.

To repeat: as Rand herself said (but did not fully elucidate—and thus left a trail of disciples who did not get it right), there is no mind-body dichotomy. The mind *is* the body, considered from the perspective of its being the body (brains) cognizing, evaluating, and guiding a human organism’s actions toward its chosen goals. The body *is* the mind, considered from the perspective of its being the indispensable physical infrastructure of the human organism’s mental functioning.

Mind and body, to summarize, are not two Cartesian entities somehow coexisting in the same space and time, but complementary, inseparable aspects of one unified entity, a human being. At the very least, trying to assimilate into Objectivism the idea that mind is some sort of entity other than the body (or a part of the body) would entail jettisoning one (or more) of the major insights and tenets of Rand’s philosophy.

So, if Dualism as the view that there is an interaction of mind and body is to be valid at all, it must be in terms of the interaction of two *entities*, for only entities can interact. If, as this essay argues, mind is a *physical* entity, then mind must be the brain, or some part of the

brain, as we are aware of it introspectively. (And as we have seen, the fact that thoughts and memories do not resemble perceived neurons no more disproves their identity than does the fact that colors and shapes do not resemble configurations of atoms and molecules disprove *their* identity.)

Having sketched out how causal efficacy and causal interaction obtain when mind is conceived of as an entity, let us now consider instead how orthodox Objectivism is unjustified in laying claim to these concepts, when it conceives of mind as an attribute or process. As we will see, however, even if Objectivism's current theory (such as it is) of mind qua attribute or process is stripped of the claim that mind has causal efficacy and causally interacts with the body, there is no danger of lapsing into Epiphenomenalism, the view that human consciousness is irrelevant to human life and human history.

### **No—Mind as an *Attribute* of Human Beings, and its Implications for Causal Efficacy and Interaction**

The standard, canonical Objectivist view of mind is that human consciousness, or mind, is not an entity, but instead an *attribute* of human beings—either an active state of conceptual-level awareness they are in, or the capacity to be in such a state. Each of the three principal representatives of the Objectivist philosophy defined “mind” or human “consciousness” in this way—though each of them, curiously, also made remarks suggesting another perspective, viz., the Neo-Objectivist view, presented in the previous section, that mind is some sort of entity or body part.

For instance, Rand ([1966–67] 1990) states: “Consciousness is the faculty of awareness—the faculty of perceiving that which exists” (37). But she also states: “Man’s consciousness is his least known and most abused vital *organ*” (1; emphasis added).

Branden ([1969] 2001, 26) similarly writes:

“Consciousness,” in the primary meaning of the term, designates a state: the state of being conscious or aware of some aspect of reality. In a derivative usage, “consciousness” designates a faculty: that faculty in man by virtue of which he is able to be conscious or aware of reality. . . . “Mind” designates specifically *man’s* consciousness (or form of

consciousness—in contradistinction to the forms of consciousness exhibited by lower animals.

But he also writes in the same work: “His mind is an *organ* over which man has a specific, delimited, regulatory control. . . . [M]an can choose to focus, to aim his cognitive faculty in a given direction” (61; emphasis added).

Then there is Peikoff (1972), who says in reply to a question about whether mind was an entity: “Mind is a *faculty* possessed by an entity whose essence is to perform a *process* whose nature is to be conscious of existence” (lecture 12). Also, in his book on Objectivism (1991), Peikoff writes:

Consciousness is an attribute of perceived entities here on earth. It is a faculty possessed under definite conditions by a certain group of living organisms. It is directly observable (by introspection). It has a specific nature, including specific physical organs, and acts accordingly, i.e., lawfully. (33)

Yet, earlier in the same book, he also writes: “The basic fact implicit in such observations is that consciousness, like every other kind of *entity*, acts in a certain way and only in that way” (18; emphasis added).

There is a glaring inconsistency in the above remarks that is not accidental. Clearly, there is an emphasis by Rand, Branden, and Peikoff on the idea that consciousness or mind is a faculty, i.e., an inherent power of an organism for doing something. Equally clearly, however, there is also a persistent undercurrent of thinking of mind as a kind of entity or thing that performs certain processes and acts in a certain way. Why?

The reason for this latter strain within Objectivism, viewing mind or consciousness as an entity, I suggest, is the (at least) subconscious realization that some of Objectivism’s most cherished tenets about consciousness and mind are unviable except on the view that mind is an entity (or part of an entity), rather than an attribute of an entity. The tenets in question are “causal efficacy of mind” and “mind-body interaction.”

Indeed, exploring that Neo-Objectivist perspective was the entire point of the preceding section. And this essay’s view is quite

compatible, for instance, with Peikoff's comment that the nature of consciousness "includes specific physical organs," and that "consciousness is directly observable through inspection." It is, in fact, entities—specifically, the physical organs Peikoff refers to (the brain and nervous system)—that we are observing when we introspectively observe their attribute, consciousness.<sup>67</sup>

For the purpose of drawing out all of the implications of the canonical Objectivist view of mind, however, we will set aside all of the peripherally encroaching entity-language about mind, and we will set aside all of the points developed in the previous section. Instead, we will now focus solely on what it would mean for causal efficacy and interaction, if—as Rand, Branden, and Peikoff appear to want to maintain—mind were merely an attribute of human beings, and not an entity in its own right.

First of all, if mind is an attribute of human beings, rather than an entity, then mind does not *have* the attribute of consciousness. Instead, it *is* the attribute of consciousness possessed by human beings. (Analogy: The color red does not *have* the attribute of redness; it *is* the attribute of redness possessed by certain entities.)

Secondly, if mind is an attribute of human beings, rather than an entity, then *mind does not act*. An entity is the *cause* of its actions. Its actions are the *effects* of an entity. The mind, being an attribute—viz., the *capacity* of a human entity to act in a certain way, to be conscious of reality—is no more the *cause* of an action than is digestion, which is another such capacity (viz., whereby the human entity converts food to usable energy). Instead, it is that by virtue of which a human entity acts in a certain way. As Wedin (1994) points out: "Aristotle cautions that we should say not that the mind thinks, but that the person thinks in virtue of his mind" (113).<sup>68</sup>

The *ability* or capacity of one to do something is *not the cause* of one's doing it, for we have many unactualized capacities at any given point in time. It is the entity that actualizes its capacity to do something, that is *what* is doing something, and *that entity is the cause* of its doing something. Once that fact is recognized, it is then no problem to acknowledge that *what* action is taken by an entity depends on what *capacity* is being actualized—and the *nature* of the action depends on the nature of the *capacity* being actualized.

Mind or consciousness is a way the *body* can act, or an active state

the body is in. Consciousness is *not a thing* or an *entity*. It is an *attribute* of entities. Thus, mind and consciousness *cannot* do things, such as causing changes in entities. It is *entities* and in particular human beings and their component entities (organs, tissue groups, cells, etc.) that do things, such as causing changes in each other. Such changes are, of course, changes in each other's attributes and their measurements—and among those changed attributes and measurements are consciousness and its scope and intensity.

Also, remember the Primacy of Existence. Existence gives rise to consciousness. Consciousness does not give rise to existence. The task and function of consciousness is to *be aware* of existence, not to do things to it and *cause changes* in it. That is (to follow the entity terminology that is essential to causality), consciousness is the attribute by virtue of which *we* are aware of existence and by virtue of which *we* direct our actions so as to cause changes in existence. It is *we* and our physical body parts that do things, such as those that begin the chains of cause-effect relationships that result in our learning things, remembering things, perceiving things, and affecting things through the physical actions of our bodies.<sup>69</sup>

Thirdly, if mind is an attribute of human beings, rather than an entity, mind does not *have* causal efficacy. Instead, mind *is* a causal efficacy *of the body*. *Entities* (viz., the human body and its physical parts) are causally efficacious. Mind, on the orthodox Objectivist view, is not an entity, but a *capacity* of human beings. It is *entities*—and, specifically *human beings*—that *have* causal efficacy and thus *are* causally efficacious.

To *have* causal efficacy is to *be* causally efficacious. If mind cannot *have* causal efficacy, if it can only *be* a causal efficacy of an entity, it cannot *be* causally efficacious. However, human beings *have* causal efficacy (including their having the capacity of mind), and they *are* causally efficacious (in being able to make things happen by the actualization of their capacity of mind).

A further clarification: although mind is not itself causally *efficacious* (human beings and their physical parts being the causally efficacious entities involved), mind *is* the causal *efficacy* (capacity to make things happen) of human beings. Human beings *have* the causal efficacy we call "mind." And mind *is* the causal efficacy of human beings.

But mind does not *have* causal efficacy. A causal efficacy such as mind cannot *have* causal efficacy, any more than an attribute such as redness can have the attribute of redness. Redness just *is* an attribute of some entity, and mind just *is* a causal efficacy of human beings.

Fourth, if mind is an attribute of human beings, rather than an entity, then *mind does not interact with the body*. Interaction *is* essential in the integration of our entities as healthy, efficacious organisms. But it is the integration of the various functions of our bodies by the proper interactions between our various body parts that is the key. It is our body parts that interact—not our attributes.<sup>70</sup>

Our attributes are the *powers* by virtue of which our body parts interact, and our overall entity (organism, self) carries out actions. Powers do not *interact*; they *enable* entities (including body parts) to interact. (And “enable” simply means that they are the power by virtue of which entities and body parts interact.) The error is in thinking that consciousness interacts with the body.

Given the impossibility of causality apart from an entity and its actions, interaction cannot exist apart from two (or more) entities and *their* actions. It is (by Aristotelian/Randian standards) nonsense to speak of an entity interacting with its attributes (including its capacities or faculties) or its actions (including its active states or processes).

It is *not* nonsense, however, to speak of an entity interacting as whole-to-part with one of its *organs*, or an organ similarly interacting with one of its parts or modules, or one part of an organ with another. In all of the latter, we are taking a part of an entity to be functioning *as* an entity, as when the liver secretes bile to help break up a morsel of food, or when a neuron sends neuro-transmitting chemicals to another neuron to cause it to “fire.”

So, the question of how or whether the mind interacts with the body *must* arise because we *experience* our minds as being a kind of thing that is affecting and being affected by our bodies. Also, we are only *directly* aware of our minds in a way that presents them as being radically different from our physical bodies. So different, in fact, that it is not at all clear *how* they can interact—but *that* they do seems introspectively undeniable.

This, I take it, is the position of a number of Objectivists, and we may label it “common sense interactionism.” However, it’s only possible, *in a derivative sense*, to say that the mental causally “interacts”

with the physical, because the mental is a necessary coexistent to the physical entities and their parts, where the actual causal interrelations take place.

Since mind is not an entity, and since only entities interact, mind and body cannot literally be a "mutually interactive system." Mind is a *capacity* of the human nervous system, which consists of interacting cells, tissue groups, etc., and which itself interacts with other systems in the body. Like the capacity of digestion, and the processes that various parts of the body's digestive system carry out when we actualize that capacity, the capacity of mentality (i.e., mind) is *integrated* with the body and its conscious processes that the various parts of its brain and nervous system carry out when we actualize *that* capacity.

*All* capacities, and all attributes in general, are integrated with the entities that possess them. But that does not mean that those capacities *interact* with the entity that has them—and, in particular, it does not mean that mind the attribute interacts with the body, let alone that it clashes with the body. This is a totally illogical notion that should have been dead and buried with Descartes. It is part of "yesterday's philosophy."

None of the preceding is anything other than a straightforward consequence of the Aristotelian-Randian concept of "causality" as the relationship between an entity and its actions—and the canonical Objectivist view that mind or consciousness is not a thing or entity, but instead merely an attribute of certain things (namely, animals, including human beings). Following this logic, there seem to be only two appropriate alternative courses for Objectivist theory of mind to follow.

On the one hand, it should now be clear that those wishing to retain the orthodox Objectivist view of mind as an attribute of human beings, rather than adopting the Neo-Objectivist view that mind is an entity (the human brain, or part of it), should abandon all talk of the "causal efficacy of mind," as well as the notion that the mind interacts with the body. This stern, almost draconian, measure, though dictated by the logic, will probably be more than most Objectivists can abide.<sup>71</sup>

On the other hand, it should also be clear that those wishing to retain the orthodox Objectivist view of mind as causally efficacious and as interacting with the body should expand their thinking a bit and adopt the Neo-Objectivist view of mind as an entity (the human

brain, or part of it). This latter suggestion, however, leaves us in the somewhat confusing situation of having *two* distinct referents for the concept of “mind”: the entity, the mind-brain (as per the Neo-Objectivist view)—and the attribute, the conscious power, of the mind-brain (as per the orthodox Objectivist view).

Such confusion is easily remedied, however. As a means of clarifying further discussion of Objectivist theory of mind, I hereby propose the following simple expedient (which has no apparent downside): that we retain the term “mind” to refer to the mind-brain entity as we are introspectively aware of it, and cease using the term “mind” when referring to the conscious power of the mind-brain, and use instead the term “mentality.”

Henceforth, in other words, when we speak of the “causal efficacy of mind” and of “mind-body interaction,” we would be speaking of *mind qua entity only*, and when we speak of the *attributes* associated with mind qua entity, we would instead use the terms “consciousness” and “mentality.” Above all, we would eschew the illogical expressions: “causal efficacy of consciousness” and “interactions between consciousness and matter.”

#### **Part IV. Mind qua Attribute: Its Role in History, and its Status as a Cause—How Might the Current Objectivist Theory of Mind be Salvaged?**

In what way might it be possible to reconcile the preceding implications about the orthodox Objectivist view of mind qua attribute (i.e., mentality) with the role of ideas in history, and further, to somehow defuse the threat that Objectivism’s theory of mind might devolve into some form of Epiphenomenalism?

#### **The Role of Mind in Human History: The Bogus Spectre of Epiphenomenalism**

The suggestion—clearly implied by the orthodox Objectivist view of mind as attribute—that mental processes and mind have no causal efficacy has led some thinkers to protest in the following manner: if mind has no causal efficacy, then consciousness is irrelevant to human history, merely a superfluous accident. This is Epiphenomenalism, they say, and it reduces mind to having an influence on the world of

less consequence than the smokestack from a steam locomotive.

Just how is saying that mind has no causal efficacy different from projecting a world in which consciousness (or mind) never existed at all? Isn't claiming that consciousness has no causal efficacy tantamount to saying that consciousness is superfluous, and that it has no role to play in the course of human events? Doesn't this boil down to a claim that human history would have been the same without consciousness or mind?

One of the errors in such an objection is what I call the “what if” fallacy, or the fallacy of “logical possibility.” Its proponents ask us to imagine what a phenomenon would be like without certain of its attributes, and they even project dire consequences if those attributes were absent. The reply is that there simply is no evidence that it is possible for conscious-level brain processes to exist without the brain also having the attribute of consciousness.

Brain processes and the brain's attribute of consciousness are metaphysically inseparable. Consciousness is a necessary aspect of a brain engaging in processes at a sufficiently high level of complexity and/or intensity. It can no more exist apart from those processes than can the color, mass, or volume of the human body, or the incandescence of an iron rod of certain high temperature; nor can those brain processes exist apart from consciousness.

Thus, to speculate on how such brain processes might proceed without the brain's attribute of consciousness is an exercise in futility. Consciousness is a natural, necessary attribute of those brains engaging in processes at or above that particular level of complexity and/or intensity. Those brain processes would not be those brain processes, were those brains not also possessed of their attribute of consciousness. Had consciousness never existed, it would be because brains engaging in processes of a sufficiently high level of complexity and intensity had never existed—otherwise, consciousness would *have* to have existed.

Without consciousness, human history could not have been the same, simply because humans would not have been able to carry out brain processes of a sufficiently high level to direct actions we would characterize as “human” (let alone, as “animal”). But the course of human events is not directed by consciousness per se. It is directed by *conscious human beings*, i.e., by human beings whose brains have the

power or potential, the causal efficacy, by virtue of which they are able to engage in processes possessing the attribute of consciousness.

Thus, Epiphenomenalism's erroneous view that consciousness is irrelevant to the history of the universe *cannot* be the consequence of its premise about the causal inefficacy of consciousness, but instead must be due to its premise about the historical irrelevance of anything that is causally inefficacious. (A false conclusion cannot logically result from a true premise, unless it is combined with a false one.)

In its simplest form, the basic argument of Epiphenomenalism is: (1) consciousness does not have causal efficacy—which is correct, in my view, as I have already argued; and (2) anything that does not have causal efficacy is irrelevant to history—which, as I will show, is false. The logical conclusion, therefore, is that consciousness is irrelevant to history, which is also false.

As already noted, consciousness qua attribute does not *have* causal efficacy, but instead *is* the (or a) causal efficacy of the living entities that possess it. It is *those living entities* that *have* the causal efficacy that consciousness *is*. And since the causal efficacy that consciousness *is*, and that those conscious entities *have*, is an *inseparable attribute* of those entities, and is the attribute in virtue of which those entities *have* that causal efficacy—and since those entities *are* causally relevant to history—then the attribute *in virtue of which* they are causally relevant *cannot* itself be causally *irrelevant*. Failing to realize this fact is the root of the Epiphenomenalist's false conclusion.

Another, more fundamental reply addresses the underlying fear that causal inefficacy of mind amounts to “Materialism,” the view that only matter is causally effective in the world, and that consciousness, by contrast, is nothing but a causally impotent epiphenomenon. In other words, it may seem that arguing for the causal inefficacy of mind amounts to a demotion of consciousness in relation to matter. This fear is misplaced, because (again, as already noted) matter is no more causally efficacious than is consciousness. It is *material entities* (including *conscious* material entities) that have causal efficacy.

Matter is not a thing or entity, any more than consciousness is. It is only the careless *reifying* of matter, the *treating* of matter as a kind of entity that can explain the pervasiveness of references to matter doing things, including interacting with consciousness. Typical textbook and dictionary definitions of “matter” reveal that this is so:

“matter: that which occupies space and possesses rest mass” (*The New Oxford American Dictionary*).

This definition, which is virtually identical to the one I learned 45 years ago in general science in high school, is a perfect definition (or description) of a physical or material *entity*. A physical entity is something that does things, including occupying space and possessing rest mass. A physical entity’s matter is that aspect of its nature, i.e., that set of attributes, *by virtue of which* it occupies space and possesses rest mass.

Just like consciousness, matter is not an entity, but a set of attributes of entities. In particular, matter, like consciousness, is an attribute of human beings. “Body” simply refers to the human being as an entity, considered from the perspective of its *physical* attributes. It is human beings that, by virtue of their physical, bodily attributes, are able to engage in physical actions.

Human beings also have *mental* attributes. The mind is not an *entity* distinct from the human organism. Instead, “mind” simply refers to the human being as an entity (or to the human brain as a part of that entity), considered from the perspective of its *mental* attributes. Mind is the capacity *of human beings* (i.e., their brains) to engage in actions that are not only physical but also mental. It is not “the mind” that engages in “mental actions,” nor “the body” that engages in “physical actions,” but the *conscious, physical human being* that engages in both mental and physical actions.

We, as conscious human beings, i.e., entities, engage in mental actions and physical actions, by virtue of our mental and physical powers. There is thus *no* interaction between a part of the human entity that is *only* mental in nature and a part of the human entity that is *only* physical in nature. This is because there is no part of the human entity that is *only mental* in nature. There is no basis for thinking that there is, other than a misinterpretation of one’s data of introspection.

Body parts are all physical. The body as a whole is also characterized by consciousness. The fact that body parts cannot be separated from the body as a whole without jeopardizing the human entity’s survival is one issue. The body parts are not *powers*, but *component entities*, which *themselves* have powers (material and sometimes also conscious) to do things.

However, there is a quite different sense in which it is true that consciousness cannot be removed from the human entity, and this is equally true in parallel with the fact that *matter* cannot be removed from the human entity. Consciousness and matter are not spiritual or physical body parts. They are *metaphysical* parts, i.e., *attributes*, without either of which human entities cannot survive, for they *are* the *powers* of human entities to *do* things. But the crucial thing to realize is this: neither consciousness nor matter is the kind of thing (namely, an entity) that *has* the power to do things.

Thus, the concern about how history could possibly have unfolded the way it did without consciousness is completely misplaced. One may as well wonder about how history could have happened the way it did without *matter*!

Indeed, in pattern with my previous argument, although matter does not *have* causal efficacy, it *is* the (or a) causal efficacy of the living entities that possess it. It is *those living entities* that *have* the causal efficacy that matter *is*. And since the causal efficacy that matter *is*, and that those living entities *have*, is an *inseparable attribute* of those entities, and is the attribute in virtue of which those entities *have* that causal efficacy—and since those entities *are* causally relevant to history—then the attribute in virtue of which they are causally relevant cannot itself be causally *irrelevant*.

What this points to, therefore, is a non-Epiphenomenalist, non-Cartesian, *non-Materialist* view of mind qua attribute (i.e., *mentality*) as a causal efficacy/power of human beings—not of *having* causal efficacy, but of *being* a causal efficacy of human beings. It is inaccurate and a philosophical error to speak of mentality or consciousness as doing things, insofar as they are not actually entities, but rather *attributes* by virtue of which *we*, as conscious entities, do things.

It may be thought that those who speak of mental activity as causally effective are not committing some basic philosophical error, but are just using different terminology to describe the same fact. Without being able to talk in terms of mental causation, they say, we couldn't make any predictions about how entities will act and would thus be unable to understand their nature.

I disagree. It's simpler and clearer to consider mentality or consciousness as the *means* or *power* by which *some living entities* regulate and direct their actions, than to claim that it is *consciousness itself* that is

regulating and directing those actions. The former view avoids the Cartesian error of reifying consciousness into a kind of immaterial entity that “somehow” coexists and interacts with the human body and acts in a way that makes the body do certain things.

Aristotle didn’t have *all* the bugs worked out of his ontology, but one of his finest contributions was the basic principle that *nothing acts except entities*—and that *nothing causes except entities*. Thanks to the neo-Heracliteanism of David Hume, we have been struggling for several hundred years to dig out from under the fundamentally flawed and misleading event-event model of causality—and are just now (thanks to Rand, Branden, Peikoff and other neo-Aristotelians) perhaps turning the corner back to the entity-action model.

Owing greatly to the enormous resistance of the religious community to de-spiritualizing the soul and regarding the soul/mind as a physical entity (the brain, as we are aware of it introspectively), we are not yet out of the woods. But at the very least, we should take care to strip such vestiges of the Cartesian, religious worldview from our *own* thinking and writing.

We instead should adhere to the idea of mind-body *harmony*, which is not a harmony between a spiritual-mental entity and a physical entity, but between one entity, the human being, and its most relevant part, the mind-brain, with its material and conscious powers to act. All interaction in human beings is between their physical parts, some of which are also engaging in conscious processes. There is no spooky “action-at-a-distance” between mind and body, no mysterious interaction between two fundamentally different realms of existence, but only the physical interaction between one body part (engaging in a conscious process or not) and some other body part (engaging in a conscious process or not).

All of this needs to be recognized and held in mind (so to speak), before moving on to grapple with issues like free will vs. determinism and exactly in what way (if at all) human beings (and other living things) are “free from the laws of physics.” The history of philosophy, including much discussion of mind and will in the Objectivist movement, is littered with writers who fail to get clear about the basic categories of entity, attribute, action, power, etc.

## The Causal Role of Mind in Human Action: Mind or Consciousness as “Formal Cause”—*Being* (not *Having*) an Efficacy

Suppose, in trying to salvage the orthodox Objectivist doctrines of mind as an attribute and as having causal efficacy,<sup>72</sup> we were to try a more radical approach. Suppose we broadened our perspective beyond the Aristotelian-Objectivist doctrine of cause as the relation between an entity and its actions. Suppose, in other words, we explored the possibility that causal efficacy involves more than just entity-action causation which, in Aristotelian parlance, is the “efficient cause” of an action. Perhaps we would then find that some aspect of Aristotle’s four-cause analysis might help us more fully understand the nature of mind as an attribute (i.e., *mentality*) in relation to human choice and action.<sup>73</sup>

It may be that an attribute such as mentality could legitimately be viewed as “playing a role” in an entity’s actions, even though it is not the “efficient cause,” the *agent* of action (which is the entity itself). In other words, suppose that “mind” and “consciousness” are concepts of *attributes* that, while existing and “playing a role” in causal processes, do so only *as attributes* of entities. The capacities of mentality and consciousness, then, would be the factors in a human being’s state of awareness that Aristotle would have called the “formal cause” of awareness, rather than the “efficient cause,” which is the conscious human entity itself.

Some philosophers have suggested that the role of mind or mentality in human action may best be understood in just this way, as a kind of “formal causation.” Pols (1998) points in that direction in a plausible way, as does Dretske (1995), who contrasts a “triggering” (efficient) cause with a “structuring” (formal) cause (159). But what should be avoided, in any case, is the catch phrase “causal efficacy of mind” that some Objectivists use when arguing against Materialism and Epiphenomenalism.<sup>74</sup>

It is difficult to make sense of the term “efficacy” outside the context of *efficient* causation. When people speak of mind-body interaction, surely this is what they mean, the efficient causal interaction of two entities. Nor is it in any way clear that Objectivists mean something different than efficient (entity⇒action) causation by the term “causal efficacy.”<sup>75</sup>

Is there any intelligible sense to referring to *formal* causation or a Dretsian “structuring” cause—whether by the mind or by any other attribute—as a kind of “causal efficacy”? Is there any clarity to be gained by regarding *formal* causation by mind (i.e., mentality) as being a form of “interaction” with the body? “Causal efficacy” and “causal interaction” just don’t seem to make a lot of sense apart from the concept of *efficient* causation. The notion that a *formal* cause is “efficacious” and involves “exerting” and “interaction” is perhaps a bit *too* novel, even for an iconoclastic approach such as Objectivism.

That is also the problem with talking about the “role” mind or mentality “plays” in human action. It smuggles in entity-action language and has the effect of reifying attributes. It treats them as if they are actually entities doing something, rather than being *that by virtue of which an entity does something*.

Instead, when we say that attributes “play a role” in an entity’s actions, what we are really pointing to is the fact that entities are finite and that, by virtue of their attributes, they have a specific nature and, thus, specific limits on their actions, and that a given attribute is one of those limits. Regarding attributes in this way does not, however, open up a way in which attributes can legitimately be said to *act*, let alone *interact* with entities—and specifically it does not open up a way in which mind *qua attribute* (i.e., mentality) can be said to act, let alone *interact* with the brain or body.

Thus considered as the formal cause of awareness, mentality or consciousness is efficacious only in a certain derivative sense—not in itself *having* efficacy to do certain things, but only in its *being* an efficacy by virtue of which *we* do certain things. In terms of Aristotle’s four-cause (four-factor) analysis, mentality or consciousness is not the “efficient cause” of awareness, not *that entity* which is conscious of reality, but the “formal cause” of awareness, *that aspect of our nature* by virtue of which *we* are conscious of reality.

Consciousness or mentality, like all of our attributes in general, is an aspect of our nature by virtue of which we have the potential to do certain things. It is not our *attributes* that *have* that potential or power or efficacy to act and cause things to happen, however, but *we*, the acting, causally efficacious *entities*. Our attributes *are* the potential or power or efficacy that *we have*.

Our attributes, including our minds (mentalties), do not *have*

causal power; they *are* our causal powers, powers which *we have*. (A simple analogy: an apple's redness does not *have* color; red *is* the color of the apple; it is the *apple* that *has* color.) This is precisely what is meant by this essay's assertion that mind qua attribute (i.e., mentality) and consciousness are not, in the primary sense of the term, "causally efficacious." The correct way to express the "role" of mentality and consciousness in human action is that they are the *formal cause* of human action—the means by which, the attributes by virtue of which, *we* as conscious, minded organisms are causally efficacious.<sup>76</sup>

The sense in which either a material or formal cause can "do" or "cause" anything is, thus, much different from that of an efficient cause. When we speak of human agency, then, however important it might be to understand the specific character of the other factors involved in an action (what information did he have? did he reflect long-range? etc.), what we are talking about is the *efficient* cause. If we want to speak of anything other than an efficient cause as "doing" or "exerting" etc., we ought to tread *very* carefully!

How, in other words, could a non-efficient-causal factor—especially the material or formal cause—intelligibly be said to be "at work" or "exert" anything? It makes a certain kind of sense to say, for instance, that the sculptor's clay, considered as the material cause of a statue, *determines* what can or cannot be made from it, if understood in the sense that its nature is the *limit* of what can be done with it. But to say that the material cause, the clay, or the formal cause, the plan of the sculptor, *exerts* an influence on the statue seems strained and unnatural. "Cause," a word with almost inescapable connotations of "efficient causation" is being stretched to an application that confuses more than it clarifies.

We speak of human "agency" in terms of efficient causation, i.e., in terms of ourselves as agents who carry out actions. I reach out, as an agent, and turn off the light switch. Certainly it is true that: my hand made the actual contact with the light switch—my perception guided the physical motion—my desire to have the room be dark guided the overall action. All of these things are factors, "causes," of the light switch being turned off. But the *agent* involved is not my consciousness, but *I*, who am an integrated unity of matter and consciousness—i.e., an entity possessing both physical and conscious powers. And this is so because while consciousness does not *have*

causal efficacy, it *is* the causal efficacy that *I* have, as a conscious living entity.

So, at best, my consciousness is the *formal* cause of my action, i.e., the power and manner of activation of my agency. However, it is also true that my consciousness is the power I employ in gaining knowledge and forming values, which are a part of the *material* cause of my action. It is further true that my consciousness is the power I employ in arriving at an awareness of what I most prefer to do in a given circumstance, which is the *final* cause of my action.

In all of these respects, mentality or consciousness as an attribute and power of human beings has a definite “role to play” in human action. In no case, however—contrary to both the mainstream dualist and the orthodox Objectivist views—does consciousness *act*. My mentality or consciousness—on the canonical Objectivist view that consciousness is an attribute, not an entity—is the means by which *I* act, the power by means of which *I* perceive and evaluate reality, choose goals, and cause and direct my actions.

Certainly, there are actions we take that seem very much in the moment, while others are carefully thought out as to long-range implications. One’s agency could be considered to be quite different in form in each case, since the consciousness activated is quite different from the one to the other. In all cases, however, the agent, the efficient cause, of our actions is neither mind nor will, but *ourselves*:

It is not the mind, nor will, which chooses man’s actions. These are merely man’s capacity to act mentally and to choose those actions. The cause of man’s actions . . . is *man*, as a minded, willing organism. (Bissell 1974, 37)

And that is really the best that can be done to salvage some semblance of the orthodox, canonical, Objectivist theory of mind and the mind-body relationship, where mind is seen as an attribute that is crucially important to human action and the course of human history. Mind qua attribute (i.e., mentality) is the key to human action and history, not because *it* acts, but because it is that by virtue of which *human beings* have the power to act.

As argued in the positive sections of this essay, however, the more accurate view of mind is the Neo-Objectivist perspective. Mind,

the entity, is ObjectiveE: the human brain as it *appears* to our direct, introspective awareness—and our awareness of mind is ObjectiveC: the *form* in which we are directly, introspectively aware of our human brain and its processes of cognition, evaluation, and choice.

The mind has causal efficacy and acts because it is an entity: the brain. Because the brain has causal efficacy and acts, the mind (which the brain introspectively *appears* to us to be) also has causal efficacy and acts. Mind and brain as a unity—the nervous system of the human organism—act and, in so acting, enable humans to control their actions and the course of history.

### **Conclusion: Mind as a Real, Objective Phenomenon and Introspection as a Real, Objective Form of Awareness**

A growing number of philosophers and scientists have questioned the traditional, dualistic notion of a mind that is an entity distinct from the human brain or nervous system, and that does things other than what the brain or nervous system is doing. This essay has attempted to provide a home for such thinkers, in arguing that mind is the *form* in which each human being directly experiences his brain as being conceptually aware and as directing his awareness—each human being’s brain as it *appears* to his direct experience to be conceptually aware and directive of his awareness. That is, the mind is the form in which a conceptually conscious being is aware of his brain as having conscious capacities and as carrying out conscious functions.

The most important objection to this view is that it amounts to holding that mind is in some sense “unreal” or “just an illusion”—that this *philosophical view* that mind is not a distinct entity, but instead is the brain as viewed introspectively, is at odds with our *experiencing* it as an entity able to do things very much *unlike* the brain as viewed in surgeries and experiments. This essay’s reply to such a charge has been to show how Peikoff’s explanation of the reality of sense data can be adapted to solving the problem of the metaphysical status of the data of our inward focused, introspective awareness of mental processes and choices.

Just as sense data (including entities as we perceive them) are the real, non-illusory way in which physical objects appear to our perceptual awareness, so are mental data (including mind as we

introspect it) the real, non-illusory way in which the brain appears to our introspective awareness. Just as we are capable of extrospective awareness of an apple as being a solid and red object, we are capable of introspective awareness of our brains as mind.

The course of human events is not directed by consciousness *per se*. It is directed by conscious human beings, i.e., by human beings whose brains and nervous systems engage in certain processes by virtue of possessing the attribute of consciousness. We are *not* ghosts in the machine. Mind and brain are a *unity*, and there is no spooky interaction between a non-material mind and a material brain. Mind, from the objective perspective, *is* the material human brain *experienced as acting and making choices on the conceptual level of consciousness*. It is the form in which we are directly aware of the intrinsically existing mind-brain.

Or, to put it more simply, introspection is ObjectiveC, and mind is ObjectiveE. Introspection adheres to reality, and the reality adhered to is the mentally functioning brain (mind). Mind is an objective phenomenon—and introspection is an objective form of awareness.

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## Notes

1. Thus, the mind and brain are only distinct from the objective point of view; intrinsically, they are a single entity (and its parts). For this reason, this essay can be seen as arguing for a view that is both a dual-aspect theory and an identity theory of brain and mind. From the objective perspective, it is a dual-aspect theory saying that introspected conscious mind and perceived physical brain are distinct aspects of one and the same entity; and from the intrinsic perspective, it is an identity theory saying that mind and brain are one and the same entity. Seeing the mind-brain from these

two perspectives thus resolves the long-standing question over whether the mind-brain relationship is better clarified by a dual-aspect or by an identity theory.

2. This part of the present essay is essentially an elaboration of the dual-aspect view of mind-body originally presented in Bissell 1974, but integrated with the dual-aspect view of the objective presented in Bissell 2007. Both Bissell 2007 and the present essay are substantially revised versions of parts of Bissell 2003. The portion of the latter that deals with the problem of free will vs. determinism will be re-addressed in a subsequent essay as a further sequel to Bissell 2007.

3. See Peikoff 1970, lecture 11; 1972, lecture 12; 1976, lecture 3; and 1991, 45–46.

4. See Kelley 1986, 3.

5. What are here referred to as “naive Scientific Realism” and “enlightened Scientific Realism” are described more rigorously by Adler (1965) as the combinations of a Realist view of science with, respectively, an Instrumentalist view of philosophy or a Realist view of philosophy. (Instrumentalism is a form of Pragmatism developed by John Dewey. See Conant 1952, 54–57; Popper 1962, 107–14; and Adler 1965, 208–10 and 212–15.) While the latter view regards experienced physical objects and the fundamental particles that constitute them as equally real, the former view, Adler notes, holds that: “Atoms and their elementary particles are the ultimate realities; men, cats, roses, and chairs are . . . ‘philosophical constructions’ or ‘theoretical entities,’ which may be useful as convenient fictions” (215). In other words, naive Scientific Realism, aka Scientific Realism-plus-Perceptual Instrumentalism, holds that our concepts of experienced physical objects “are not to be interpreted as referring to any existent reality” (209), but instead are merely useful in some respect. As an example of this viewpoint, Adler cites Smart (1963), who says that because “the atoms which compose [a] table are like the solar system in being mostly empty space . . . science gives us a ‘truer picture’ of the world” (47). (It should be noted that all references herein to “naive Scientific Realism” are not to be taken as equivalent to “naive Realism,” which is a theory of perception, and which, in any case, is typically at odds with Instrumentalism.)

6. The term “objective” designates a *relational attribute* that pertains to *each* pole of a relationship between consciousness and reality. As discussed in Bissell 2007, an aspect of existence is *existentially objective* (ObjectiveE) “insofar as it is held as the object of an act of consciousness”; and an act of consciousness is *cognitively objective* (ObjectiveC) “insofar as it holds as its object an aspect of existence” (65).

7. Efron delivered a pre-publication version of this essay to a meeting of an Objectivist student organization just before the Rand-Branden split in 1968. See also Kelley 1986.

8. “Discriminated” means “isolated and treated as a ‘unit’ [a “separate, distinct existent”]” (Efron 1969, 145). An existent is “that which exists,” whether it be a physical object, a sound, a shadow, or an odor or taste (144). (Efron avoids the terms “object” and “entity,” since these more narrowly apply to “spatially cohering collections of matter” (145).)

9. A “gradient” or “pattern” here means “any spatial and/or temporal variation in the quantity or quality of energy impinging on a specific group of receptors” (144–45).

10. See Part I, Section 3 below.

11. Interestingly, this is the same criterion by means of which philosophers such as Blanshard (1939) fallaciously argue that mind and brain cannot be *identical*. See Note 16.

12. “We” and “our” are not references to anything ethereal or mysterious, but simply to ourselves, the conscious living organisms that we are, and the capacities and processes of those organisms, respectively. Such reflexive and related terms are replete in philosophy, especially philosophy of mind, and they often, though unnecessarily, generate confusion about their referents. The granddaddy of such terms, of course, is “self,” and as I wrote in my initial foray (1974) into this topic:

The concept of “self” *per se* does not necessarily imply a self-conscious being. It merely implies a being which is the *object* of some action which that same being has taken. When the action is introspection, a mental brain process that is cognitively directed toward another mental brain process in the same organism, then that organism is being *aware* of its self. It is aware that, as an organism, it is introspectively viewing *that same organism* while it is carrying out another mental brain process. So self is not some mysterious personalizing accompaniment of the human organism. It *is* the human organism, considered insofar as it is both the agent and the object of some action. Self-awareness (awareness by an organism of that same organism) occurs when that action is introspection. One’s conscious self is the human organism which one is, considered insofar as it is both the agent and object of consciousness (mental brain processes). (33)

Nathaniel Branden (1983) similarly states “Sometimes when we speak of ‘my self,’ we mean ‘my person, the totality of my being, including my body’” (29). In the same vein, Schwartz (2007) writes:

Though I am hesitant to claim innovation on this point, I have yet to discover a philosopher who explicitly advocates conceptually identifying, in a principled way, the self with the organism. . . . What is likely novel, then, in the approach presented in this essay, is the injunction to *explicitly differentiate the self from the sense of self*, in the context of a *consistent conceptual identification of self with organism*, as a crucial key to developing objectivity and clarity in the realms of philosophic/psychological theory and self-understanding. (104–5)

13. Apart from its apparent acceptance of the diaphanous model of awareness, as well as the idea that introspective awareness is a direct form of grasping the intrinsic, a similar view is offered by Lockwood (1989): consciousness “provides us with a kind of ‘window’ onto our brain, making possible a transparent grasp of a tiny corner of a materiality that is in general opaque to us” (159). Lockwood more recently (1998) has elaborated on this idea:

Do we therefore have no genuine knowledge of the intrinsic character of the physical world? So it might seem. But, according to the line of thought I am now pursuing, we do, in a very limited way, have access to

*content* in the material world as opposed merely to abstract casual *structure*, since there is a corner of the physical world that we know, not merely by inference from the deliverances of our five senses, but because we *are* that corner. It is the bit within our skulls, which we know by introspection. . . . In awareness, we are, so to speak, getting an insider's look at our own brain activity. (88)

14. If mind, as we are aware of it, is what is coexistent with some roving high-level patterns of neural activation, like a RAM-disk in a computer hard drive, mind then *is* that traveling center of activation (which is a *part* of the brain) *as we are introspectively aware of it*, and not the brain as a whole.

15. In an interesting parallel to the orthodox Objectivist view of “the causal efficacy of mind,” Watkins (2002) outlines and defends a view he calls “the causal efficacy of colors” (107):

First, we identify a color by appeal to the causal powers it necessarily contributes to anything having it; second, the causal power that a color necessarily contributes to anything having it is the power to look colored; third, colors are *intrinsic* features of objects—an object's color is not some relational or modal feature of that object; and fourth, since those powers are necessarily contributed by colors, to know what those powers are is to know the nature—the essence—of colors. (xi)

Watkins says that this amounts to “a return to what might be thought a central insight of Aristotelian metaphysics. For Aristotle, if we know something's causal features, then we know its nature. We know the thing (in) itself” (xi). The central Aristotelian metaphysical insight, however, is that *entities* cause actions, *entities* have causal efficacy. Their attributes do not *have* causal efficacy. Those attributes *are* the causal efficacies that the entities *have*. They are *that by virtue of which* the entities engage in certain actions. Thus, it is *not* an improvement over saying “the apple's redness reflects light of certain frequencies” to say instead, as Watkins would, that “the apple's redness ‘contributes’ to the apple the power to reflect light of certain frequencies.” The reformulation, every bit as much as the original, has the apple's attribute engaging in some kind of action, whether reflecting light or contributing power to the apple to reflect light. Instead, it is most accurate and least misleading to say that “the apple's redness is that aspect of the apple's nature, that aspect of the apple's causal powers, that the apple activates in reflecting light of certain frequencies—that aspect of its nature and causal powers in virtue of which the apple reflects light of certain frequencies.” The same is true for the issue of the causal efficacy of consciousness. Consciousness neither does things, nor “contributes” to us the power to do things. Instead, it is that aspect of our nature, that power we have to do certain things. If the causal power of attributes is merely “shorthand” for the causal power of entities, it would be good to explicitly acknowledge it, and to stop using language that suggests otherwise.

16. This indicates precisely the manner in which Blanshard (1939) misrepresents the nature of mind-brain identity. He writes:

We speak of an idea as clear or confused, as apposite or inapposite, as witty or dull. Are such terms intelligible when applied to those motions of electrons, atoms, molecules, or muscles, which for [the reductive materialist] are all there is to consciousness? Can a motion be clear, or cogent, or witty? What exactly would a clear motion be like? What sort of thing is a germane or cogent reflex? Or a witty muscular reaction? These adjectives are perfectly in order when applied to ideas; they become at once absurd when applied to movements in muscle or nerve. . . .

On the other side, movements have attributes which are unthinkable as applied to ideas. Movements have velocity; but what is the average velocity of one's ideas on a protective tariff? Movements have direction; would there be any sense in talking of the north-easterly direction of one's thoughts on the morality of revenge? (336–37)

In briefest reply: thoughts, for instance, are *not* the motions of electrons, atoms, molecules, or muscles, but the actions of networks of neural structures in the brain; and those actions can, indeed, be clear, or cogent, or witty, if they are the actions of a thinking brain. They have detectable physical attributes when perceived with the aid of scientific instruments, and they have detectable mental attributes when introspected. Similarly, considered from “the other side,” it is not the movements of atoms, etc. that are ideas, but the actions of networks of neural structures. Those structures do not have velocity, because they do not engage in physical motion. Yet, they *do* have a measurable speed at which they occur, and so do the correlative ideas. “Processing speed,” for instance, is considered to be the neurological basis of measurements of intelligence through I.Q. testing.

17. See Part I, Section 3 and Note 25 below.

18. See Jones 2007, Haynes et al. 2007, and Hoover 2008.

19. Those more attuned to the terminology of mainstream philosophy of mind will perhaps better appreciate the main arguments of the preceding discussion if phrased in terms of “qualia.” The two most important points to understand are, first, that qualia are dual-aspect phenomena of our awareness of reality; they reflect both the form of awareness of reality and some aspect of reality of which we are aware—and second, that we have both physical qualia and mental qualia, and the proper understanding of them helps a great deal in understanding the solution to the mind-body problem. Physical qualia are (1) forms in which we are perceptually aware of some aspect of an entity, whether a red apple or our own throbbing tooth, and (2) some aspect of an entity (e.g., apple or tooth) as we are perceptually aware of it. Mental qualia are (1) the form in which we are introspectively aware of some aspect of our brain (or nervous system) functioning, and (2) our brain (or nervous system) as we are introspectively aware of it. Just as redness or pain is not some spiritual entity distinct from the apple or diseased tooth, neither is mind (as we experience it) some spiritual entity distinct from our brain (nervous system). They are all just the form in which we are aware of certain entities—and they are those entities as we are aware of them. Perhaps this still seems a bit tautological, but when a nagging, perennial problem about consciousness has been reduced to the fact that the relationship between existence and consciousness has two poles—the thing in reality

that *appears in a certain way* to one's awareness and one's *form of awareness* of the thing in reality—one has reached the limit of explanation. (An earlier version of the comments in this note was posted online to Objectivist Living on 6 September 2007.) Also see Lockwood 1998: "In being aware, for example, of the qualia that seemed so troublesome for the materialist, we glimpse the intrinsic nature of what, concretely, realizes the formal structure that a correct physics would attribute to the matter of our brains" (88).

20. Another mainstream issue is whether the externalist model of consciousness can accommodate a theory of introspection, such as the present one, that makes the brain the object of awareness. Externalism claims that the nature of our experience is determined at least partly by the nature of the object of awareness, i.e., by facts that lie outside of the mind/brain. Clearly this seems to be the case for our experience of the external world, which consists of things that exist outside of the human body. But what about introspective awareness? If the object of introspection is the brain/mind, wouldn't our experience of the brain/mind be determined by facts *internal to* the brain/mind? This suggests that there is a weakness in externalism as typically formulated and a need to modify it so that it applies equally well to the problematic case of introspection. The best "fix" for externalism may lie in the distinction made in Bissell 2007 between mind/brain as subject of awareness and mind/brain as object of awareness—i.e., between "viewing consciousness" and "generating consciousness" (69). The nature of our experience of one aspect of mind/brain, the *object* of introspection, the *generated* conscious process that one is introspectively viewing, is determined in part by facts that lie *inside that part* of the mind/brain, but at the same time lie *outside another part* of the mind/brain, the subject of introspective awareness, which is consciously *viewing* the generated conscious process. The former (the object of introspective awareness, the observed part of the mind-brain) is still "external to"—in the sense of other than distinct from—the latter (the subject of introspective awareness, the viewing part of the brain). Considered in this manner, our awareness of mind/brain is compatible with a suitably modified externalist theory of mind.

21. "Manifestation" is the term referring to its *objective* status as a phenomenon of awareness, a thing as it *appears* to us. "Aspect" is the term referring to the *intrinsic* phenomenon (as in the formulation "an existent is an aspect of reality"), i.e., to that which is an integral part of the brain, whether or not we are aware of it.

22. Or, paraphrasing Kelley 1986 (111): my mind is my brain as it *appears* to me introspectively, i.e., an aspect of the way my brain appears to me in respect of its conscious properties; and it is the *form* in which I am introspectively aware of my brain, an aspect of the means by which I am directly aware of those properties. (Kelley, of course, is not responsible for this or any other paraphrases I have made of his views.)

23. There is some evidence that these tissues are spindle cells and similar specialized neurons. See Note 25 below.

24. It may be objected that introspection does not reveal a mechanistic universe of billiard ball-like entities (ideas, values, etc.) that interact with one another in a manner analogous to the external world of physical objects. This is true, but then neither does perception reveal physical objects to be composed of tiny sub-microscopic objects that somehow cause other tiny objects (photons) to hurtle

through space toward our sense organs, interacting with still other tiny objects (receptor cells). Yet, that’s exactly what happens, as we discover in acquainting ourselves with the findings of physics and physiology and psychophysics. Similarly, as we are finding, and at a recently accelerating pace, various seemingly “mental entities” are physically located and locatable in the brain, even though we are not directly, *introspectively* aware of them in physical form. (Again, refer to Jones 2007, Haynes et al. 2007, and Hoover 2008.)

25. If human neurological development is any indication, it seems that this is exactly what happens in young children, beginning about age 18 months. Crisp and Turner (2007, 3) write that “at around this time, children show a rapid growth of spindle cells, specialized neurons in the anterior cingulate, an area of the frontal lobe in the cerebral cortex of the human brain thought to be responsible for monitoring and controlling intentional behavior (Allman and Hasenstaub 1999). There is also evidence among adults that this area of the brain is activated when people are self-aware (Kjaer et al. 2002). In sum, although it is not likely to be the only area of the brain that contributes to self-awareness, the anterior cingulate appears to play an important role.” In other words, rapidly accumulating evidence is revealing that the human brain does something very marvelous, something that other animals’ brains have not yet managed to do, something that allows us to be aware of its conscious functioning. It develops, beginning in early childhood, an organ of introspection that functions as the cranial equivalent of sense organs. By means of this crucial evolutionary advance, one part of the brain is thus able to receive direct patterned energy input from another part of the brain that is engaging in a conscious process, and from yet another part of the brain that is regulating the actions we take—and thus able to monitor those processes and actions, allowing us to better consciously guide them.

26. In other words, considering mental data or mental qualities as something other than the attributes of the brain as we are directly aware of them through introspection may be the same error as considering sense data or sensory qualities as something other than attributes of physical objects as we are directly aware of them through sense-perception. This suggests that the typical dualist view of mind-body is akin to the error of Moore (1953, 28–51) and Russell (1929, 67–103) in their views of our awareness of objects in the physical world.

27. For an earlier statement of this view, see Bissell 1974, 21–22. See also Kelley 1981, 5 or 1986, 36 for a similar view.

28. An important aspect of Sciabarra 2000 (see especially pp. 156–77) is the discussion of four such one-sided perspectives or “methodological orientations,” viz., Strict Atomism, Strict Organicism, Dualism, and Monism, as well as dialectics, the approach that transcends the limitations and pitfalls of excessive reliance on these methods. As Sciabarra defines it, “*a methodological orientation (or research orientation) is an intellectual disposition to apply a specific set of broad ontological and epistemological presuppositions about objects of study and their typical relationships to particular fields of investigation*” (143). It is thus not a surprise that various methodological orientations such as Atomism and Monism (especially when they take themselves too seriously and presume to legislate on the fundamental nature of the world, rather than simply to study it) frequently carry with them cosmological doctrines, such as the idea that the smallest constituents of nature are the desired focus for explaining causal regularities in the world, or

that one particular kind of constituents of nature is causally dominant over others, or that a certain size or kind of constituents of nature is “more real” than others.

29. The classic critique of “the given” was stated by Sellars 1956 and 1963 (esp. chapter 5) and also argued by Rorty 1979, who denied that our knowledge is grounded by anything “before the mind” as an “immediate” item of awareness. Also see Barnes 1944–45. For a sustained defense of the position taken by Addis and by this author, see Fales 1996, who discusses (122–35) Sellars’ “widely influential attack on the given” and the dilemma he poses “for those who would take perceptual givenness as a foundation stone for empirical knowledge.”

30. Also see Rand [1966–67] 1990: “Percepts, not sensations, are the given, the self-evident” (5).

31. It is clear that what both Addis and Peikoff are referring to is epistemic vs. causal primacy, i.e., what is the originating source of our knowledge vs. what is the originating source of the things in the universe. Peikoff’s expression for the latter might seem to be a problem, if it is taken to suggest that certain things, by virtue of their being “metaphysical primaries,” are “more real” than others. However, we have already seen that he denies that the causally primary is the “more real,” so if all he means by “metaphysically primary” is *causally* primary, there is no problem. Similarly, for Addis’ use of “the basic.”

32. As for the epistemological primacy of entities, Peikoff’s explanation, that entities are what we are first perceptually and experientially aware of, is a more plausible explanation of the fact that, as Rand observes, we first form concepts of entities. It has even more weight when combined with the fact it is particular entities—family members and household objects—for which we first learn *names*, the first linguistic step in forming concepts that are symbolized by words.

33. This particular tetrachotomy was adapted from a diagram by Smith (no date), posted on the Internet at <<http://aristotle.tamu.edu/~rasmith/Courses/Ancient/predication.html>>. For tetrachotomies in general, see Bissell 2007: “A tetrachotomy is the restatement, as a disjunctive proposition, of the logical conjunction of two dichotomies, i.e., two disjunctive propositions of the form  $a \vee \sim a$  (a or not-a). Thus we may express the conjunction of the two dichotomies  $(a \vee \sim a) \wedge (b \vee \sim b)$  equivalently as the tetrachotomy  $(a \wedge b) \vee (a \wedge \sim b) \vee (\sim a \wedge b) \vee (\sim a \wedge \sim b)$ ” (85). A tetrachotomy is a particularly useful tool for analysis of false dichotomies, which pervade the history of philosophy in general and especially the various issues pertaining to the relation between consciousness and existence in particular, as noted by Rand [1966–67] 1990, 53.

34. Aristotle also, here, indicates something that is primal about particulars: unlike universals or concepts, they cannot be predicated of something in a proposition. Another important issue relating to the mind-body problem—viz., whether entities are more primary than their parts, or vice versa—is addressed by Aristotle in *Metaphysics* 1034b20–1036b30 and will be discussed in the next section of this essay.

35. Interestingly, this infatuation with “the basic,” which is a central tenet of naive Scientific Realism, is also prominent in many spiritual movements. As Branden (1997) notes: “One of the conclusions at which the great mystical traditions of the world tend to arrive is that the ultimate ‘stuff’ of reality is not matter but consciousness or mind” (200). Even if someone can demonstrate the truth of this claim,

however, that would not warrant his telling you that your experience of thoughts, feelings, memories, imagination, perception, etc. is not “truly real,” and that he knows the “true reality” of your consciousness. Furthermore, even if there were somehow a spiritual equivalent to Peikoff’s meta-puffs of energy underlying our basic modes of awareness, those spiritual quarks would not be “more real” than our basic modes of introspective experience. Instead, those modes of experience would simply be a real effect of the underlying cause, be it spiritual quarks, Leibnizian monads, or whatever. Naive “Spiritual Realism” is no more a royal road to “the only true knowledge” than is naive Scientific Realism. In both extrospection and introspection, “the given” is no less real than “the basic.”

36. Whether the smallest components of physical entities are themselves recognizably particle-like things or instead something more like the fields of quantum mechanics, it is clear that such components are, in a very general sense, entities—things that have attributes and engage in actions—so long as the term is not construed in a too stereotypically billiard-ball-like manner.

37. Sciabarra (2000, 53) also cites Hobbes, the Logical Atomists, the Analytics, and French Enlightenment philosophers as having at least tendencies toward Atomism.

38. Pols (1998) similarly notes: “The acceptance of atomism by Galileo introduced into precise science . . . the possibility of regarding commonsense entities themselves as ontologically secondary when contrasted with the primary ontological status of the atoms” (64).

39. For a seeming rejection of this view, see Adler (1965, 222), who argues that:

[T]he reality of the elementary particles of nuclear physics cannot be reconciled with the reality of the chair [that they constitute] as an individual substance if both the particles and the chair are asserted to have the same mode of existence or grade of being. The same can also be said about the nuclear particles and the atoms of which they are component parts. *The particles are less real than the atoms*; that is they have less actuality.

I disagree with this. The particles are just as real, *qua parts of the chair*, as the chair is as a physical object. What is true, however, is that, as Adler further points out, while parts of the chair, the particles are not a multiplicity of individual things, and that they only become such if the chair were to be “exploded into its ultimate material constituents” (223). His error is in equating being real with being an individual, as against a part of an individual. Parts and causal consequences are just as real as wholes and causal origins. (Note that this criticism applies equally to the Atomists who believe that there is some kind of most-real fundamental particle(s) underlying everything and those Corpuscularists who believe that physical reality is indefinitely divisible into ever smaller particles, each of which is more real than those of which they are components. It also applies to Aristotle who argues in *Metaphysics* 1034b20–1036b30 that wholes are metaphysically “prior” to parts with respect to “the power of existing apart from each other.” While a whole can exist apart from one of its parts, that part can also exist apart from the whole. Also, the whole cannot exist apart from its parts in toto, i.e., apart from some set of parts or other. To put it in more Randian terms: a thing *must* have *some* parts, but it *may* have *any* parts.)

40. See especially Sperry 1987, who takes a very dialectical approach to part-whole causality in saying:

It needs to be remembered in this connection that microdeterminism in itself is very valid. It is not contradicted by the acceptance of emergentism and downward control; neither is the value of the analytic, reductive methodology of science. It is only the *exclusion* of macrodeterminism that is claimed to be in error, and science has not excluded macrodeterminism in *practice*, only in its philosophy, theory and outlook. . . . The controls work both ways, upward and downward as well as sequentially. (19)

41. Historically, Materialist Monism or Materialism has been represented by the Ancient Greek Atomists (excluding, perhaps, Epicurus) and by Hobbes (seventeenth century), LaMettrie (eighteenth century), Darwin and Huxley (nineteenth century) and Place, Smart, Feigl, Feyerabend, and Armstrong (twentieth century). Spiritualistic Monism or Idealism or Immaterialism has been represented historically by Leibniz and Berkeley (pre-Kant) and McTaggart (twentieth century).

42. This view of conscious beings, pejoratively characterized by Ryle (1949) as a “ghost in the machine” (see especially chapter 1) is predominantly a religious conception. An early controversy broke out among Substance Dualists as to how and whether mind and body could interact with one another, as Descartes claimed. Malebranche, whose position is referred to as “Occasionalism,” held that “mind-body interactions required the direct intervention of God . . . the appropriate states of mind and body [being] only the *occasions* for such intervention, not real causes” (Robinson 2007, section 1). Leibniz, on the other hand, advocated “Psychophysical Parallelism,” because he saw no warrant for claiming that, and no way of explaining how, mind and matter interact, instead regarding them as acting in a “harmony” that has been “pre-established” by God (Robinson 2007, section 3.3). Substance Dualism also continues, however, to be surprisingly robust and insidious in its penetration of the minds of non-religious thinkers, such as the neurologists Sherrington (1940) and Eccles (Popper and Eccles [1977]), who “defend dualism as the only theory that can preserve the data of consciousness” (Robinson 2007, section 1). See also Note 46 in regard to the views of the Objectivist philosopher Binswanger and the Neo-Objectivist psychologist Branden.

43. Certain entities have both material and conscious attributes and, following Aristotle, entities are seen as being metaphysically primary to their attributes. In contrast to Leibniz’s Psychophysical Parallelism, this view might best be characterized as Psychophysical Tandemism, where, from the objective perspective, mind (mind-brain) and body are not two different kinds of coexistent entities, but instead two coexistent, co-acting aspects of the same one intrinsically existing entity, each aspect being accessible by a different mode of awareness.

An anonymous reviewer suggested a similarity between this view and what Schopenhauer wrote in *The World as Will and Idea*:

The body is given in two entirely different ways to the subject of knowledge. . . . It is given as an idea in intelligent perception, as an object among objects and subject to the laws of objects. And it is also given in

quite a different way as that which is immediately known to everyone, and is signified by the word will. Every true act of his will is also at once and without exception a movement of his body. The act of will and the movement of the body are not two different things objectively known, which the bond of causality unites; they do not stand in the relation of cause and effect; they are one and the same, but they are given in entirely different ways,—immediately, and again in perception for the understanding. (31–32)

If this were all there were to Schopenhauer’s perspective, that the object of introspection is the body (or brain/nervous system), we could simply interpret this passage as saying: “The will is the body as it appears to our immediate awareness.” However, Schopenhauer goes much further. He takes this dual perspective on the body and will as a model for the nature of everything in reality, including non-conscious and inanimate things:

The double knowledge which each of us has of the nature and activity of his own body, and which is given in two completely different ways, has now been clearly brought out. We shall accordingly make further use of it as *a key to the nature of every phenomenon in nature*, and shall judge of all objects which are not our own bodies, and are consequently not given to our consciousness in a double way but only as ideas, according to the analogy of our own bodies, and shall therefore assume that as in one aspect they are idea, just like our bodies, and in this respect are analogous to them, so in another aspect, what remains of objects when we set aside their existence as idea of the subject [i.e., as object of awareness], must in its inner nature be the same as that in us which we call will. . . . [I]f we hold that the material world is something more than merely our idea [i.e., the object of our awareness], we must say that besides being idea, that is, in itself and according to its inmost nature [i.e., intrinsically], it is that which we find immediately in ourselves as will. (37–38; emphasis added)

In this respect, Schopenhauer and I certainly part ways. If I were to similarly speculate that every object in the world is not only an existing thing but also a conscious thing, this would amount to panpsychism, a gross overgeneralization from the nature of conscious living organisms to all entities in nature. Schopenhauer’s own perspective is a variant of panpsychism that might best be thought of as panwillism. He is saying that everything that exists is not only the (actual or potential) object of our awareness, but also a sort of urge to act (will) *in itself*. Various similar panpsychist models still abound; cf. Freeman 2006, which cites Schopenhauer as one of a number of “dual-aspect monists” who have reached panpsychist conclusions (155).

44. See Sciabarra 2000, 169.

45. For somewhat different treatments of the competing Materialist and Spiritualist forms of Monism, see Peikoff 1991, 30–35 and Machan 1999, 13.

46. Certain Objectivists unexplainably argue for Dualism, even while rejecting the “soul-body dichotomy.” For instance, Binswanger (1998) replied to a question

about Dualism as follows:

What's called dualism is the bogey of philosophy. . . . The mind exists and the brain exists—and neither is the other. . . . But if the mind really is something in its own right, then how could it interact with the body? . . . how could a non-spatial, non-physical thing, consciousness, causally interact with a physical, spatial thing, a brain? And the answer is: Why not? It does. There's no principle of philosophy that says: One entity that's a cause has to resemble another entity that is acted upon. . . . There's absolutely no reason why a non-spatial thing can't interact with a spatial thing, or a non-conscious thing interact with a conscious thing, or any non-X interact with an X. So, yes, I'm a dualist.

Delving more deeply, Branden (1997) suggests that we “[posit] some underlying reality of which both matter and consciousness are manifestations” (201). The advantage of this hypothesis, Branden says, is that:

[I]t provides a means to resolve a problem that has troubled philosophers for centuries—“the mind-body problem,” the problem of accounting for the interaction of consciousness and physical reality. If they have a common source, then they do have a point of commonality that makes their ability to interact less puzzling. (202)

See also Note 50.

47. In what respect *being* a causal efficacy, i.e., being a power of an entity, qualifies consciousness (or matter) as being, in some sense, a “cause,” will be discussed in Parts III and IV of this essay. But suffice it to say here that it is entities that act and interact with one another, not their attributes/powers/causal efficacies, which are *that by virtue of which* entities act and interact with one another. If mind is an attribute/power/causal efficacy of the human entity, rather than a distinct entity in its own right (as per Cartesian Dualism or as per the viewpoint of this essay), then mind is not the kind of thing that *can* act and interact with the body. See also Note 50.

48. Portions of this section, including Campbell's comments, were posted on the Internet to Objectivist Living on 4 September 2007.

49. Campbell has, within these pages and elsewhere, contributed much of value to the understanding of the structure and content of Objectivist philosophy, especially from the perspective of psychology and the philosophy of science. See especially Campbell 1999; 2000a; 2000b; 2001; and 2002.

50. There are serious problems, too numerous to detail here, with this Neutral Monist kind of dual-aspect theory entertained by various thinkers, including (albeit informally) Rand, Branden, and Peikoff. See Shaffer 1967 and Stubenberg 2005. In particular, as Stubenberg notes, “the number of philosophers whose classification as neutral monist has gone unchallenged is probably zero,” and that thinkers such as William James took pains to distinguish their forms of Neutral Monism from the “double aspect theory” of Spinoza and others. Indeed, Spinoza's rather pithy comment ([1677] 1955) that “The object of the idea constituting the human Mind is

the Body” (Part II, Proposition 13), puts him rather closer to the view argued for in this essay than any of the other thinkers referred to herein. See also Damasio (2003), who cites Spinoza approvingly in this regard and says, “The mind is built from ideas that are, in one way or another, brain representations of the body” (204).

In contrast, the canonical Objectivist view, developed largely by Branden himself (and discussed further in Part III of this essay) is much less problematic, simply seeing matter and consciousness not as kinds of “stuff,” but as attributes, viz., as capacities for, powers to engage in, different kinds of action—and us as being aware of these capacities and their activation through different channels of awareness (perception and introspection, respectively). What they are attributes of is not some mysterious “underlying reality,” but simply a conscious, living, material entity—i.e., a human being. Further, since they are capacities, not entities, there is no need to seek after a will-o-the-wisp explanation of how they interact. They do not interact, because they *cannot* interact. They are not the kinds of existents that interact. Instead, they are attributes, powers, causal efficacies of *the things, and their parts, that interact*. This view of consciousness is only a difficulty to those Objectivists and other dualists who cling to the ideas that the attributes of consciousness and matter interact, and that consciousness has causal efficacy.

51. See, for instance, Note 46.

52. We are instructed by Rand [1966–67] 1990, 291–93, and Peikoff 2004, lecture 6, for instance, to wait for physicists to discover the fundamental nature of matter, and then we will (perhaps) have our explanation. But this assumes that there is something at the base of reality that generates both matter and consciousness, an unwarranted assumption that is motivated by the difficulty of explaining matter-consciousness interaction in terms of fundamentally differing kinds of “stuff,” itself an unwarranted assumption. See Notes 47 and 50 and Part III of this essay.

53. See Rand 1997, 698, and Peikoff 1991, 37. It is not widely known, but even as recently as 1976, Peikoff was advocating a broader, more muscular brand of metaphysics—albeit, only on recorded lectures, not in print. When an attendee to lecture 2 of *The Philosophy of Objectivism* asked: “Since metaphysics is the science of being qua being, how can the proposition ‘consciousness is conscious’ be a metaphysical axiom? Since consciousness is an attribute of only living entities, not of all of existence?” Peikoff replied:

Well, that depends on your conception of metaphysics. If you took metaphysics in the medieval sense that it could include *only* those propositions that were true of everything which exists, then metaphysics reduces only to the proposition that A is A, or what is is. But we are here using “metaphysics” in a somewhat broader sense, not simply as the science of being qua being. Remember, I defined it as the branch of philosophy which studies the universe as a whole, and that includes as I used the term two different kinds of questions: (1) the fundamental ingredients or constituents which make up existence—and that’s, you see, where consciousness and matter come in—and (2) the fundamental laws which are true of everything—and that really is the Law of Identity and its implications.

Now, note the timing of all this. Until at least 1969–71, Rand advocated a minimalist metaphysics. Then in 1976, Peikoff, with Rand’s supervision and approval, advocated a broader metaphysics. Finally, at least by 1991, Peikoff returned to the minimalist metaphysics. If it weren’t for the fact that Branden and Rand split in 1968, and that Branden reports having discussed “little stuff” with Rand, it would be most likely that Peikoff’s discussion with Rand of “little stuff” would have dated from sometime *after* Rand’s 1969–71 comments on minimalist metaphysics in her epistemology seminars. Instead, it appears that *both* models of metaphysics were in contention for the better part of a decade, at least; and that only by the publication of Peikoff’s book on Objectivism in 1991 was the issue finally resolved in favor of minimalism. Unfortunately, the above-quoted questioner has a very good point, one that is extremely problematic, not back in 1976 for Peikoff’s more robust metaphysical model, but *now*, for the minimalist version of Objectivist metaphysics, which has been the officially sanctioned model since at least 1991. On such a minimalist model, the Objectivist axiom “consciousness is conscious,” which has been a central element in Peikoff’s discussion of metaphysics and the axioms for over four decades, *cannot* be an axiom of metaphysics! Even on the more robust (and presumably abandoned) model, however, it is a bit odd to advocate an axiom about consciousness as a constituent of reality, when there is no parallel or equivalent axiom about *matter* as a constituent of reality. What actually seems to be true of the consciousness axiom is that it identifies not a fundamental fact of *all* reality, or a fundamental fact of one of the fundamental ingredients or *basic constituents* of reality, but instead a fundamental fact of *all experience*. As Peikoff and others point out, every experience, every state of awareness, is characterized by existence, consciousness, and identity. Yet, no Objectivist, to my knowledge, has suggested that metaphysics is “the study of the basic facts of experience.” This suggests that there is a need for a good deal of reframing or recontextualizing of the Objectivist axioms, whichever model of metaphysics is finally decided upon.

54. To be sure, as part of their exercise of this “negative veto” power, Rand, Peikoff, Harriman and others have waxed indignant against what they regard as contradictory aspects of modern physical theory, especially quantum mechanics. See, for instance, Rand [1966–67] 1990, 293, and, especially, Peikoff 2004, lecture 6.

55. Aside from the wielding of the “negative veto” power, of course, which stands ready to allow metaphysicians to reject concepts and theories of consciousness that run afoul of the Law of Contradiction, the Law of Causality, etc., just as it does with physical concepts and theories that don’t make sense. (And granted that even a minimalist epistemology could be quite busily engaged, swatting down logically incoherent psychological theories.)

56. Note, for instance, Rand’s psychological ontologizing in her epistemology: following William James ([1890] 1950, 456, 502), who claimed that babies have only a primitive, sensation-level awareness (colorfully described as a “bloomin’, buzzin’ confusion”), Rand claimed that babies have no perceptual awareness of entities: “As far as can be ascertained, an infant’s sensory experience is an undifferentiated chaos” ([1966–67] [1990], 5). To any minimally attentive parent of a newborn, this claim by Rand (who never had children whose cognitive processes she could observe up-close and first-hand) is a total howler. Unfortunately, furthermore, Rand reiterates this view of early infant cognitive awareness in her speculations on music (see Rand

[1971] 1975, 55, 57, 59). I have rewritten previously in these pages (Bissell 1999b, 62–68) about how this faulty bit of psychological ontology probably hampered Rand’s ability to produce a valid explanation of the nature and emotional effects of music.

57. Campbell (2002) writes: “[I]f we seek to characterize how we perceive, or how we think, or how we feel, how any of these capabilities develop within the individual, how such capacities evolved over the eons, then we cannot avoid drawing on the findings of the ‘human sciences,’ including psychology” (323).

58. Rand might have agreed with this, although it appears that she left herself a loophole. The standard pattern has been for philosophy to subsume all knowledge at first, and then for sciences to split off and become areas of study distinct from philosophy. And although Objectivists acknowledge the fact that physics and astronomy have been firmly established sciences for several hundred years (using Galileo as the rough starting-point), they also repeatedly make dismissive comments to the effect that psychology is “in its infancy,” or in some sense not really a full-fledged or fully competent science as yet. (See, for instance, Rand [1971] 1975, 56–57, where she refers to “the shrinking scale of modern psychology and philosophy.”) So, the implication runs, while it is reasonable to cede the theory of matter and energy or space-time to physics, psychology can’t yet be trusted to correctly handle perception theory or concept-formation theory, because it’s not really a science yet! So, while psychology has not yet become a mature science, the job of positive theory-formation needs to be shepherded along (i.e., aggrandized) by epistemology. But when the time is right, we are assured, epistemology will let go the apron strings and draw back into merely exercising the negative, veto role that Rand already envisions for metaphysics. (The reader may now wish to gently allow his raised eyebrow to return to its normal position.)

59. There seems to be a strong tendency among Objectivist thinkers not to take such intellectual risks—certainly not in print. Peikoff (1996c) sheds some light on the reasoning behind this reticence: “[T]his is the greatest danger, and why if I ever wrote on this topic, which I never will, because I haven’t thought it out properly; I mean, you know, it’s OK for a lecture, but to write it out you have to do that for eternity . . .” Peikoff seems to be saying not just that he’s not going to write on something that he hasn’t thought out properly (which is fine), but that he never will write on it (implying that he may never get around to thinking it out properly). In the meantime, listeners have no option but to pay for lectures (live or recorded), where they listen to him expound *non-properly-thought-out* ideas. Of course, the recordings are “for eternity,” too, but audio lecture material is considerably harder to examine and critique than hard copy. Perhaps that’s the point of sharing one’s metaphysical speculations in recorded lectures, rather than committing them to print.

60. Binswanger (1998, lecture 3) develops a Dualist view of mind as entity that assumes (takes as self-evident) the causal efficacy of mind and mind-body interaction, but regards mind as something distinct from the brain—i.e., not just as the introspective form in which we are aware of a physical entity, the brain, but as a non-physical entity that is dependent upon, while coexisting with, the brain. Since Binswanger does not regard the mind as something that can exist independently of the body, this is a non-Cartesian Dualist view of mind, but it suffers from the same fatal problem as Cartesian Dualism and Neutral Monism: the absence of any

evidence of a common underlying property, in virtue of which the mind and brain can interact.

61. I hesitate to label myself or my views (or Branden and his views, as in Notes 42 and 46) in this manner, in light of the various significant differences I have with other writers who describe themselves or their ideas as “Neo-Objectivist,” yet the term best seems to capture the revisionist nature of much of my thinking and writing, within the context of the Objectivist movement. (Following standard usage, which Objectivists seem to eschew, the proper term would probably be “Neo-Randian,” for the same reason that numerous philosophers refer to themselves as “Neo-Kantians,” “Neo-Scholastics,” or “Neo-Aristotelians,”—i.e., to label oneself as working within the general intellectual framework and “tradition” established by a certain philosopher(s), while not being completely in agreement with all of the conclusions derived from the most basic propositions of that framework.)

62. To answer a technical objection—if an entity is its attributes, and if an entity is the cause of its actions, then why can’t its attributes be the cause of its actions?—it must be underscored that an entity is *all* of its attributes. So, while you can (if you want to be needlessly wordy) say that “causality is the relation between all of an entity’s attributes and its actions,” or “every action is the action of all of an entity’s attributes,” there are certain things you *cannot* say. You cannot say that “causality is the relation between one (or another) of an entity’s attributes and its actions.” *That* would be a split of existence and identity. The entity is indivisible from *all* of its attributes, so it cannot be referred to as if it were *just one* of its attributes. (That is the fundamental reason why a categorical proposition such as “My car is red” is actually more accurately rendered as “My car is a red object.” In logical texts, we are simply enjoined to put propositions in “standard form” by making sure that the subject and predicate are in the same category—in the example just given, the category of “entity,” with no more illuminating justification than the need for deductive clarity. Another sequel to Bissell 2007 will explore this and related issues that tie together the three branches of logic: concepts, propositions, and arguments.) Thus, you cannot say that mind (an attribute of humans) causes actions of humans. And you cannot say that “every action is the action of one (or another) of an entity’s attributes.” Again, that would be a split of existence and identity. So again, for the same reason, you cannot say that every mental action of a human is the action of mind (an attribute of humans).

63. Also see Joseph 1906, 400–25.

64. The reflective property of the apple does not *make* the apple do what it does, in the sense of efficient causation and interaction, which is always between entities, whereby one entity makes another entity do such and such. Instead, this “by virtue of which” power of the reflective property to determine what the apple does is best thought of as another kind of “causation,” sometimes referred to in Aristotelian terms as “formal causation.” And the specific group of molecules and atoms that activate when the apple reflects a certain range and amount of light particles is yet another kind of “causation,” a sort of “constituent” causation, sometimes referred to as Aristotelian “material causation.” Similarly, the mental properties of a conscious human being do not *make* the person do what he does. Instead, his mental properties are the “by virtue of which” power *he* has to carry out conscious actions, the formal cause of his actions. And the molecules, neurons, etc.

in his brain are the material cause of his actions, the constituents or parts of the person that activate when he does what he does.

65. Recall the parallel to Peikoff’s kind of analysis, which views a red sense datum as an objective phenomenon, being the way in which we are perceptually aware of (a physical attribute of) an apple.

66. A report, which I cannot confirm, has it that several years ago, one of the members of Rand’s Inner Circle shared his opinion (in private conversation) that Rand definitely regarded consciousness as “a nonmaterial entity.” If this report is correct, that would go a long way toward explaining the persistence of the idea among Objectivists that consciousness has “causal efficacy” in a way that is consistent with the Objectivist tenet that all actions are caused by entities. See also Notes 46 and 60.

67. We could easily run a clarifying analogy based on a favorite comparison of Objectivists: the parallels between consciousness and digestion: the nature of digestion includes specific physical organs, and digestion is directly observable through inspection (via enteroception). It is, in fact, entities—specifically the esophagus, stomach, and intestines—that we are observing when we enteroceptively observe their attribute, digestion.

68. Aristotle himself puts it thusly in *De Anima*: “. . . it is obvious that the affections of soul are enmattered formulable essences. Consequently their definitions ought to correspond, e.g. anger should be defined as a certain mode of movement of such and such a body (or part or faculty of a body) by this or that cause and for this or that end” (I. 4. 403a 24–27), and “to say that it is *the soul* which is angry is as inexact as it would be to say that it is the soul that weaves webs or builds houses. It is doubtless better to avoid saying that the soul pities or learns or thinks and rather to say that it is the man who does this with his soul” (I. 4. 408b 11–14).

69. If we were to identify consciousness with our bodies or our organismic selves, then yes: consciousness can do things, can cause changes in physical reality. But that would be because consciousness is a physical entity in its own right—whether the brain or part of it—not because it is only one of the attributes of the brain or its parts. That was the whole point of the preceding section.

70. This, I take it, is the point of Goodell’s (2007, 24) comment, “Ultimately, volition is actualized as our interacting with ourselves.” Goodell further argues that “if the mind is an attribute/efficacy of the body [rather than an entity],” then mind is not “able to affect body” (18).

71. This is, in fact, the view argued for in Bissell 1974.

72. Recalling, of course, that there is no conflict between the Neo-Objectivist view of mind *as an entity* and the orthodox Objectivist view of mind *as having* causal efficacy, and bearing in mind that even if it were possible to show how or in what sense mind as attribute has causal efficacy, this does not avoid the other logical problem of explaining how an attribute such as mind can interact with an entity.

73. A full Aristotelian four-cause analysis of human action (especially as it pertains to the problem of free will vs. determinism) is beyond the scope of this essay and will be the focus of a further sequel to Bissell 2007.

74. See Locke 1966, Rand [1966–67] 1990, Efron 1968, and Binswanger 1998.

75. See Note 50.

76. Similarly, to say, as Peikoff does (1976, lecture 2) that consciousness is metaphysically “passive” and to refer to its being “epistemologically active” gives the impression that *consciousness* is doing the acting in our seeking of knowledge. This is the same error as referring to the “causal efficacy” of consciousness. Consciousness does not *have* causal efficacy. It *is* a causal efficacy—a way an entity has of being causally efficacious. By the same token, consciousness does not *act*, not even epistemologically. Instead, consciousness *is* an action—a way of acting *of certain entities*. It is not consciousness that thinks, but *I* who (being conscious in a certain way) think or (being conscious in another certain way) imagine, etc. Thus, the point about the “metaphysical passivity” of consciousness is still valid, but it has to be clarified. As a conscious living organism, I have the power to be aware of reality. In being aware of reality, I am acting *epistemologically* in the sense of cognitively grasping (knowing) reality, but I am not acting *metaphysically* in the sense of molding, creating, or changing reality. Understood in this way, as a conscious being, it is *I* who am epistemologically active, but not metaphysically active. (This shifts the attribution of action from consciousness to where it should be: the conscious person.)

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