

SEARLE'S BIOLOGICAL NATURALISM AND THE ARGUMENT FROM CONSCIOUSNESS

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In recent years, Robert Adams and Richard Swinburne have developed an argument for God's existence from the reality of mental phenomena. Call this the argument from consciousness (AC). My purpose is to develop and defend AC and to use it as a rival paradigm to critique John Searle's biological naturalism. The article is developed in three steps. First, two issues relevant to the epistemic task of adjudicating between rival scientific paradigms (basicity and naturalness) are clarified and illustrated. Second, I present a general version of AC and identify the premises most likely to come under attack by philosophical naturalists. Third, I use the insights gained in steps one and two to criticize Searle's claim that he has developed an adequate naturalistic theory of the emergence of mental entities. I conclude that AC is superior to Searle's biological naturalism.

In the last few decades, there has been an avalanche of activity in the epistemology of science. I shall apply a set of insights from studies in the conditions of scientific theory acceptance to an assessment of John Searle's biological naturalism. More specifically, an important factor in scientific theory acceptance is whether or not a specific paradigm has a rival. If not, then certain epistemic activities, e. g., labeling some phenomenon as basic for which only a description and not an explanation is needed, may be quite adequate not to impede the theory in question. But the adequacy of those same activities can change dramatically if a sufficient rival position is present. Now Searle's philosophy of mind is a certain sort of naturalist theory and it's claim to superiority is one that countenances only rival naturalist theories. What I hope to show is that irrespective of how his biological naturalism compares to rival naturalist theories of mind, the crucial arguments supporting his position are defective in light of what is sometimes called the theistic argument from consciousness (AC). To make my case, I shall 1) underscore briefly two important issues in theory acceptance that clarify the impact of a rival paradigm on theory adjudication; 2) formulate a general statement of AC; 3) critique the salient features of Searle's biological naturalism in light of AC.

Before I proceed, it is important to state the central features of contemporary scientific naturalism.¹ Roughly, scientific naturalism is the view that the spatio-temporal universe of entities studied by the physical sciences is all there is. Scientific naturalism includes 1) different aspects of a naturalist epistemic attitude (e.g., a rejection of so-called first philosophy



along with an acceptance of either weak or strong scientism); 2) an etiological account of how all entities whatsoever have come to be, constituted by an event causal story (especially the atomic theory of matter and evolutionary biology) described in natural scientific terms; and 3) a general ontology in which the only entities allowed are those that bear a relevant similarity to those thought to characterize a completed form of physics.

The ordering of these three ingredients is important. Frequently, the naturalist epistemic attitude serves as justification for the naturalist etiology which, in turn, helps to justify the naturalist's ontological commitment. Moreover, naturalism seems to require a coherence among what is postulated in these three different areas of the naturalistic turn. For example, there should be a coherence among third person scientific ways of knowing, a physical, evolutionary account of how our sensory and cognitive processes came to be, and an ontological analysis of those processes themselves. Any entities that are taken to exist should bear a relevant similarity to entities that characterize our best physical theories, their coming-to-be should be intelligible in light of the naturalist causal story, and they should be knowable by scientific means.

Though Searle would disagree, most naturalists embrace strict physicalism because it seems to be implied by the constraints placed on philosophy of mind by the coherence of these three aspects of naturalism. William Lyons' statement is representative of most naturalists on this point: "[Physicalism] seem[s] to be in tune with the scientific materialism of the twentieth century because it [is] a harmonic of the general theme that all there is in the universe is matter and energy and motion and that humans are a product of the evolution of species just as much as buffaloes and beavers are. Evolution is a seamless garment with no holes wherein souls might be inserted from above."² Interestingly, Lyons' reference to souls being "inserted from above" appears to be a veiled reference to the explanatory power of theism given the existence of the mental. Let us begin in earnest, then, and probe these issues more fully.

Two Issues in Scientific Theory Acceptance

There are two issues involved in adjudicating between rival scientific theories relevant to the debate about consciousness. The first is whether to take some phenomenon as **basic** or as something to be explained in terms of more basic phenomena. For example, attempts to explain uniform inertial motion are disallowed in Newtonian mechanics because such motion is basic on this view, but an Aristotelian had to explain how or why a particular body exhibited uniform inertial motion. Thus, what may be basic to one theory is derived in another.

Issue two is the **naturalness** of a postulated entity in light of the overall theory of which it is a part. A postulated entity should be at home with other entities in the theory. Some entity (particular thing, process, property, or relation) *e* is natural for a theory *T* just in case it bears a relevant similarity to other entities that populate *T* in *e*'s category of formal ontology.³ More work needs to be done on making precise what I mean by "*e*'s category of formal ontology." But I think that I can make this tolerably clear, at

least for my purposes, by noting that if *e* is in a category such as substance, force, property, event, relation, or cause, *e* should bear a relevant similarity to other entities of *T* in that category. This is a formal definition and the material content given to it will depend on the theory in question. Moreover, given rivals *R* and *S*, the postulation of *e* in *R* is ad hoc and question begging against advocates of *S* if *e* bears a relevant similarity to the appropriate entities in *S*, and in this sense is "at home" in *S*, but fails to bear this relevant similarity to the appropriate entities in *R*.

Naturalness is relevant to assessing rivals by providing a criterion for identifying question begging arguments or ad hoc adjustments by advocates of a rival theory. Naturalness can also be related to basicity by providing a means of deciding the relative merits of accepting theory *R* which depicts phenomenon *e* as basic, vs. embracing *S* which takes *e* to be explainable in more basic terms. If *e* is natural in *S* but not in *R*, it will be difficult for advocates of *R* to justify the bald assertion that *e* is basic in *R* and that all proponents of *R* need to do is describe *e* and correlate it with other phenomena in *R* as opposed to explaining *e*. Such a claim by advocates of *R* will be even more problematic if *S* provides an explanation for *e*.

The Argument from Consciousness

Theists such as Robert Adams⁴ and Richard Swinburne⁵ have advanced an argument from consciousness for the existence of God which can be presented as follows:

- (1) Mental events are genuine non-physical mental entities that exist.
- (2) Specific mental event types are regularly correlated with specific physical event types.
- (3) There is an explanation for these correlations.
- (4) Personal explanation is different from natural scientific explanation.
- (5) The explanation for these correlations is either a personal or natural scientific explanation.
- (6) The explanation is not a natural scientific one.
- (7) Therefore, the explanation is a personal one.
- (8) If the explanation is personal, then it is theistic.
- (9) Therefore, the explanation is theistic.

In my view, premises (3) and (6) are the most crucial ones for the success of AC since they are the premises most likely to come under naturalist attack. Let us set them aside for the moment. We are assuming the truth of premise (1) and with a slight modification, Searle's version of biological naturalism entails it. There have been a number of variants on (1) that have been cited as problems which science cannot explain but which can be given a theistic personal explanation: a) the existence of mental properties themselves⁶ b) the fact that mental properties have come to be exemplified in the spatio-temporal world c) the nature of the relation, e.g., causal or supervenient, between mental and physical entities⁷ d) the fact that certain particular mental events are correlated with certain particular physical events e) the fact that the correlations mentioned in d are regular f) the

existence of libertarian freedom and the type of agency necessary for it⁸ g) the aptness of our noetic equipment to serve as truth gatherers in our noetic environment⁹ h) the evolutionary advantage of having mental states as opposed to the evolution of organisms with direct stimulus-response mechanisms that have no mental intermediaries¹⁰.

What about premise (2)? Physicalist treatments of the mental, multiple realization, and the existence/irreducibility of laws in the special sciences are irrelevant here because we are granting the existence of genuine mental events constituted by mental properties. Thus, physicalist attempts to avoid the reduction of psychological to physical laws by denying such laws in the first place do not count against (2).¹¹ For example, both the functionalist account of the mental offered by Fodor and the anomalous monism of Davidson deny the existence of general exceptionless psychological or psycho-physical laws. But both positions depict the mental as being realized by the physical and, moreover, are most naturally associated with token physicalism when it comes to an ontological analysis of individual mental events.¹² But if mental and physical events are what the argument from consciousness takes them to be, then it seems reasonable for individual events of both kinds to be instances of general types of events that could in principle be correlated.

Premise (2) would be accepted by an advocate of supervenient physicalism since there are two desiderata for this position: non-reductive physicalism plus the dependency of supervenient entities on the physical. If one accepts premise (1) but denies (2), then the mental becomes too autonomous for naturalism. An example of such a view is weak dualism according to which the mind is a Humean bundle of mental states that neither belong to nor depend on a specific body but which at best are more or less generally associated with specific physical states. It would seem, then, that given (1), (2) is uncontroversial for a naturalist like Searle.

The main justification for premise (4) is the difference between libertarian and event causal theories of agency. J. L. Mackie rejected (4), claiming that personal explanation is simply a sub-class of event causal explanation. Moreover, divine action, as it figures into Swinburne's account of personal explanation, involves the direct fulfillment of an intention on the part of God. But, argued Mackie, since human action is a type of efficient event causality between the relevant prior mental state, e.g., an intending, and a fulfillment which runs through and depends on a number of intermediate events which are part of a complex physical mechanism, there is a disanalogy between human intentional acts in which intentions are fulfilled indirectly and those of a god in which, supposedly, intentions are directly fulfilled. On Mackie's view, this disanalogy makes alleged divine action and the relevant sort of personal explanation mysterious and antecedently improbable. Thus, (4) is false and, even if it is true, it makes theistic personal explanation less, not more probable.

Is Mackie's argument successful against (4)? I don't think so. For one thing, pace Mackie, it is not at all clear that libertarian agency and the associated form of personal explanation are not to be preferred as accounts of human action to event causal accounts. Obviously, we cannot delve into this issue here, but if libertarian agency is correct, then

Mackie is wrong in his claim that (4) is false.

Secondly, a defense of (4) may only require a **concept** of libertarian agency and personal explanation, even if we grant a causal theory of action for human acts. If we have such a clear conception, then even if human acts do not fall under it, under the right circumstances, it could be argued that a form of explanation clearly available to us is now to be employed. What those circumstances are and whether they obtain are more centrally related to premises (3) and (6) of AC and not (4). But since Mackie criticized (4) on the grounds that if true it would make theistic explanation antecedently improbable, I want briefly to say something about what could justify the claim that a personal explanation of the libertarian sort should actually be used.

There have been a number of attempts to state necessary and sufficient conditions for personal action in event causal terms with John Bishop's account being the most sophisticated to date. But Bishop admits that our concept of agency is different from and irreducible to event causality and is, in fact, libertarian.¹³ For Bishop, the pervasiveness and power of the libertarian conception of agency places the burden of proof on the defender of a causal theory of action. Bishop claims that his own causal theory works only for worlds relevantly similar to ours in being naturalistic worlds. He does not offer an analysis of action true across all possible worlds because he admits that our concept of action is libertarian and there are worlds in which it obtains. His justification of this minimal task is a prior assumption of naturalism, but such an assumption is clearly question-begging against AC. So if we have a clear, powerful and, *prima facie* justified libertarian conception of agency, Mackie's point about the mysteriousness and antecedent improbability of anything answering to this concept is seriously overstated. Since my purpose is to bring AC to bear on criticizing Searle's biological naturalism, it is important to note that Searle agrees with Bishop that our common sense concept of freedom is libertarian, even though he also says that "our conception of physical reality simply does not allow for radical [libertarian] freedom."¹⁴

Now, if we grant the non-physicality of mental states, then a causal theory of action for human acts will boil down to the claim that person P does some act e (raising one's hand to vote) if and only if some event b (the hand going up) which instantiates the type of state intrinsic to e-ing is caused by the appropriate mental state in the appropriate way. Note carefully that, regardless of the details of such an account, it will amount to nothing more than a causal correlation between certain physical states and the relevant mental events. According to premises (2) and (3) of AC, these correlations need and have an explanation. A causal theory of action will not do for the origin, regularity, and precise nature of these correlations, since these are what constitute a causal theory of action in the first place. If a causal theory of action presupposes mental states, then it will be impotent to explain the existence, regularity, and precise nature of those mental states themselves unless, of course, a divine causal theory of action is used. If this is so, and if we possess a clear concept of libertarian agency and personal explanation as Searle admits, then there is no good reason why a theist cannot use this type of explanation in this case.

However, when it comes to defending AC, I think one could deny a libertarian view of agency and personal explanation altogether and still defend (4). After all, some Christian theists, e.g., certain Calvinists, employ a causal theory for divine action. One could argue that there is some difference between normal physical event causality in physics and a causal theory of personal action. At the very least, the latter utilizes appropriately related mental states as parts of causal chains. Since (4) simply notes that there is a distinguishable difference between personal and natural scientific explanation, the alternative we are now considering may be all that AC needs to rebut Mackie. Bishop claims that for a naturalist causal theory of action must be combined with a strict physicalist theory of mental states.¹⁵ I agree. I also reject a causal theory of action. But setting this aside, since we are assuming the reality of mental states, Bishop's physicalist rendition of the causal theory of action simply does not apply here and a suitable statement of the nature and role of mental states in a causal theory could be all that is needed to distinguish personal from natural scientific explanation according to (4).

There are two sides to (5): Is personal explanation different from natural scientific explanation and are there other explanations for the facts mentioned in (1) and (2) besides these two? We have already dealt with the first question in conjunction with (4). Regarding question two, I think it is safe to say that, given the current intellectual climate, a personal theistic or a naturalistic explanation would exhaust at least the live, if not the logical, options. It is true that Thomas Nagel suggested that pan-psychism may be necessary to explain the mental.¹⁶ But it is widely recognized that pan-psychism has serious problems in its own right, e.g., explaining what an incipient or proto-mental entity is or how the type of unity that appears to characterize the self could emerge from a mere system of parts standing together in various causal and spatio-temporal relations.¹⁷ Moreover, pan-psychism is arguably less reasonable than theism on other grounds, though I cannot pursue this point here. Further, it is not clear that pan-psychism is an **explanation** of the phenomena in question. As Geoffrey Madell notes, "the sense that the mental and the physical are just inexplicably and gratuitously slapped together is hardly allayed by adopting ... a pan-psychist ...view of the mind, for [it does not] have an explanation to offer as to why or how mental properties cohere with physical."¹⁸ Interestingly, Nagel's own argument suggestive of pan-psychism turns on a failure to consider a theistic explanation of the mental, coupled with an admission of the inadequacy of a natural scientific explanation:

"One unsettling consequence of such a theory [of mental/physical duality] is that it appears to lead to a form of panpsychism—since the mental properties of the complex organism must result from some properties of its basic components, suitably combined; and these cannot be merely physical properties or else in combination they will yield nothing but other physical properties. If any two hundred pound chunk of the universe contains the material needed to construct a person, and if we deny both psychophysical reductionism and a radical form of emergence, then everything,

reduced to its elements, must have proto-mental properties."¹⁹

Actually, Nagel's statement is a near precis of AC. He accepts (1) and (2) in his denial of reductionism, he accepts (3) in his rejection of radical emergence which, I take it, would amount to the claim that the emergence of the mental from the physical is a brute case of something coming from nothing without explanation, and his whole argument rests on the acceptance of (6) as an implicit premise. Elsewhere, Nagel expresses a view about freedom and personal explanation very similar to Searle's, namely, that libertarian freedom is what we take ourselves to have, yet we cannot have it, given naturalism and the external, scientific point of view.²⁰ Apparently, Nagel would accept some version of (4). That leaves (5) and, so far as I know, Nagel does not argue for the relative merits of theism vs. pan-psychism. At the very least, we may be able to say this: If the other premises of AC are accepted, then scientific naturalism is false and there is an intramural debate left between theists and pan-psychists.

(7) follows from previous steps in the argument and asserts the adequacy of a personal explanation for the facts expressed in (1) and (2). One may reject (7) (or (5)) on the grounds that personal explanation, theistic or otherwise, doesn't give us any real understanding of an explanandum, especially one like (1) and (2). Sometimes this objection assumes that an explanation must cite a mechanism before it can count as adequate. My response to this problem centers on the difference between libertarian and event causality and their associated forms of explanation.

Advocates of libertarian agency employ a form of personal explanation that stands in contrast to a covering law model. To understand this form of explanation, we need to look first at the difference between a basic and non-basic action. Often more than one thing is accomplished in a single exercise of agency. Some actions are done by doing others, e.g. I perform the act of going to the store to get bread by getting into my car and by driving to the store. Basic actions are fundamental to the performance of all others but are not done by doing something else. In general, S's F-ing is basic iff there is no other non-equivalent action description 'S's Y-ing' such that it is true that S F-ed by Y-ing. My endeavoring to move my arm to get my keys is a basic action. A non-basic action contains basic actions as parts which serve as means for realizing the ultimate intention of that non-basic action. To fulfill a non-basic intention, I must form an action plan: a certain ordered set of basic actions that I take to be an effective means of accomplishing my non-basic intention. The action plan that constitutes going to the store to get bread includes the acts of getting my keys and walking to my car.²¹

In my view, an action is something contained wholly within the boundaries of the agent. Thus, strictly speaking, the results of an action are not proper parts of that action. A basic result of an action is an intended effect brought about immediately by the action. If I successfully endeavor to move my finger, the basic result is the moving of the finger. Non-basic results are more remote intended effects caused by basic results or chains of basic results plus more remote intended effects. The firing of the gun or the killing of Lincoln are respective illustrations of these types of non-basic results.

With this in mind, a personal explanation (divine or otherwise) of some basic result R brought about intentionally by person P where this bringing about of R is a basic action A will cite the intention I of P that R occur and the basic power B that P exercised to bring about R. P, I, and B provide a personal explanation of R: agent P brought about R by exercising power B in order to realize intention I as an irreducibly teleological goal. To illustrate, suppose we are trying to explain why Wesson simply moved his finger (R). We could explain this by saying that Wesson (P) performed an act of endeavoring to move his finger (A) in that he exercised his ability to move (or will to move) his finger (B) intending to move the finger (I). If Wesson's moving his finger was an expression of an intent to move a finger to fire a gun to kill Smith, then we can explain the non-basic results (the firing of the gun and the killing of Smith) by saying that Wesson (P) performed an act of killing Smith (I₂) by endeavoring to move his finger (A) intentionally (I₁) by exercising his power to do so (B), intending thereby to fire the gun (I₂) in order to kill Smith. An explanation of the results of a non-basic action (like going to the store to get bread) will include a description of the action plan.²²

By way of application, the adequacy of a personal explanation does not consist in offering a mechanism, but rather, in correctly citing the relevant person, his intentions, the basic power exercised, and in some cases, offering a description of the relevant action plan. Thus, if we have some model of God and His intentions for creating a world suitable for human persons (from revelation or otherwise), we can make reference to God, His intentions for creating a world with persons with mental states regularly correlated with their environment, and the adequacy of His power to bring about the basic results captured in (1) and (2).

Premise (8) seems fairly uncontroversial. To be sure, Humean style arguments about the type, size, and number of deities involved could be raised at this point, but again, these issues would be intramural theistic problems of small comfort to someone like Searle committed to naturalism.²³ And if we take live options only, then it seems fair to limit our alternatives in (5) to theistic or naturalistic. If that is acceptable, at least for the purposes of arguing against Searle and other naturalists like him, then (8) should not be objectionable.

Searle's Biological Naturalism

I hope I have said enough to show that the crucial premises of AC in dispute are (3) and (6). Rather than consider these directly, it will be more profitable to look at them in light of Searle's biological naturalism. Searle has some pretty harsh things to say about the last fifty years or so of work in the philosophy of mind.²⁴ Specifically, he says that the field has contained numerous assertions that are obviously false and absurd and has cycled neurotically through various positions precisely because of the dominance of strict physicalism as the only live option for a naturalist. Searle's statement of the reason for this neurotic behavior is revealing:

"How is it that so many philosophers and cognitive scientists can say

so many things that, to me at least, seem obviously false?...I believe one of the unstated assumptions behind the current batch of views is that they represent the only scientifically acceptable alternatives to the anti scientism that went with traditional dualism, the belief in the immortality of the soul, spiritualism, and so on. Acceptance of the current views is motivated not so much by an independent conviction of their truth as by a terror of what are apparently the only alternatives. That is, the choice we are tacitly presented with is between a 'scientific' approach, as represented by one or another of the current versions of 'materialism,' and an 'unscientific' approach, as represented by Cartesianism or some other traditional religious conception of the mind."²⁵

In other words, philosophy of mind has been dominated by scientific naturalism for fifty years and scientific naturalists have advanced different versions of strict physicalism, however implausible they may be in light of what is obviously known by us about consciousness, because strict physicalism was seen as a crucial implication of taking the naturalistic turn. For these naturalists, if one abandons strict physicalism one has rejected a scientific naturalist approach to the mind/body problem and opened himself up to the intrusion of religious concepts and arguments about the mental.

Searle offers his analysis of the mind as a naturalistic account because, he says, no one in the modern world can deny "...the obvious facts of physics—for example, that the world is made up entirely of physical particles in fields of force..."²⁶ An acceptance of naturalism is constituted by an acknowledgment of the atomic theory of matter and evolutionary biology both of which allow for micro to micro or micro to macro causal explanations, but not macro to micro ones.²⁷ According to Searle, dualism in any form is widely rejected because it is correctly considered to be inconsistent with the scientific world view.²⁸ He also claims that because people educated in the contemporary scientific world view know how the world works, the existence of God is no longer a serious candidate for truth.²⁹ But a commitment to naturalism and a concomitant rejection of dualism have blinded people to the point that they feel compelled to reject what is obvious to experience, namely, the obvious nature of consciousness and intentionality.

Searle's own solution to the mind/body problem is biological naturalism: consciousness, intentionality, and mental states in general, are emergent biological states and processes that supervene upon a suitably structured, functioning brain. Brain processes cause mental processes which are not reducible to the former. Consciousness is just an ordinary, i.e., physical feature of the brain and, as such, is merely an ordinary feature of the natural world.³⁰ Despite the frequent assertions by a number of philosophers that Searle is a property dualist, he denies the charge and seems puzzled by it.³¹ However, in my view, Searle is indeed a property dualist and an epiphenomenalist one at that, though he also denies the latter charge as well.³² To show this, let us consider the charge of property dualism first. Searle's characterization of neurophysiological and mental states are exactly those of the property dualist who insists that mental and physical properties are to be characterized in a certain way and that they are two, differ-

ent types of properties. In light of Searle's descriptions of the mental and physical, it is obvious why most philosophers charge him with property dualism and the burden of proof is on him to show why he is not.

Searle's response to this problem is twofold.³³ First, he seems to think that a property dualist must accept the entire Cartesian metaphysics. Second, he says that dualists accept a false dichotomistic vocabulary in which something is either physical or mental but cannot be both. So biological naturalism is to be distinguished from property dualism in that the former does not include the entire Cartesian apparatus and it rejects this dichotomistic vocabulary. Now if this is how Searle distinguishes biological naturalism from property dualism, then his response is inadequate. For one thing, it is absurd to claim that one must accept the entire Cartesian metaphysics to be a property dualist. Thomas Aquinas was a certain sort of property (and substance) dualist, but obviously he did not accept the Cartesian apparatus.³⁴ Swinburne defends Cartesian property and substance dualism without accepting Descartes' entire metaphysical scheme.³⁵ Moreover, Searle's own view has a dichotomistic vocabulary in which he distinguishes normal physical (e.g., neurophysiological) properties from emergent biological "physical" (i.e., mental) properties. So he has simply replaced one dualism with another one.

But perhaps there is a different and deeper distinction between (at least) Cartesian property dualism and biological naturalism for Searle. For the property dualist mental and physical properties are so different that it is inconceivable that one could emerge from the other by natural processes. However, for the biological naturalist, biological physical properties are normal physical properties in this sense: they are like solidity, liquidity, or the properties of digestion or other higher-level properties that can emerge by means of natural processes. I don't wish to comment further on this claim here except to say that Searle's employment of it to distinguish biological naturalism from property dualism amounts to nothing more than a mere assertion combined with a few undeveloped examples (e.g., liquidity) that are supposed to be good analogies to emergent mental states. But this assertion is simply question begging in light of AC and, as I will show later, it amounts to an abandonment of naturalism. At the very least, one should stop and ask why, if Searle's solution to the mind/body problem is at once obvious and not at all problematic for naturalists, a field of philosophy dominated by naturalists for fifty years has missed this obvious solution?

Searle's response to this question involves a specification of why it is that emergent mental states have no deep implications. We will look at this issue shortly, but for now, I want to show that Searle's biological naturalism implies an epiphenomenalist view of emergent mental states in spite of his denial that this is so. Searle's position is epiphenomenalist for at least three reasons. First, Searle's takes scientific naturalism to imply that there is no macro to micro causation and, on this point, most naturalists would agree. Jaegwon Kim says "a physicalist must, it seems, accept some form of the principle that the physical domain is causally closed—that if a physical phenomenon is causally explainable, it must have an explanation within the physical domain."³⁶ He goes on to say that "Causal powers and reality go hand in hand. To render mental events causally

impotent is as good as banishing them from our ontology."³⁷ For these reasons, Kim claims that a naturalist should be a strict and not a supervenient physicalist because the latter implies a problematic epiphenomenal view of the mental. David Papineau has endorsed the same point.³⁸

Second, Searle distinguishes two types of emergent features. Emergent₁ features are caused by micro-level entities and do not exercise independent causality. Emergent₂ features are caused by micro-level entities and **are** capable of exercising independent causality once they exist. Searle rejects the existence of emergent₁ features because, among other things, they would violate the transitivity of causality. Since he holds that conscious states are emergent₁, it is hard to see how those states could have causal efficacy.

Third, Searle holds to the causal reduction of the mental. In causal reduction, the existence and "powers" of the emergent but causally reduced entity are explained by the causal powers of the reducing, base entities. It is hard to see how he could hold this and avoid epiphenomenalism. I conclude then, that despite protests to the contrary, Searle's biological naturalism is a certain type of epiphenomenalist property dualism.

Why are there no deep metaphysical implications that follow from Searle's biological naturalism? Why is it that biological naturalism does not represent a rejection of scientific naturalism which, in turn, opens the door for religious concepts about and arguments from the mental? Searle's answer to this question is developed in three steps. First, he cites several examples of emergence (e.g., liquidity) that he takes to be unproblematic for a naturalist and argues by analogy that the emergent properties of consciousness are likewise unproblematic.

Step two is a formulation of two reasons why, appearances to the contrary notwithstanding, consciousness isn't a problem for naturalists. First, Searle says that naturalists are troubled by the existence of irreducible mental entities because they are misled into thinking that the following is a coherent question that needs an answer: "How do unconscious bits of matter produce consciousness?"³⁹ Many "find it difficult, if not impossible to accept the idea that the real world, the world described by physics and chemistry and biology, contains an ineliminably subjective element. How could such a thing be? How can we possibly get a coherent world picture if the world contains these mysterious conscious entities?"⁴⁰

For Searle, the question of how matter produces consciousness is simply a question about how the brain works to produce mental states even though individual neurons in the brain are not conscious. This question is easily answered in terms of specific though largely unknown neurobiological features of the brain. However, Searle thinks that many are misled into thinking this question is about something deeper and more puzzling. Setting consciousness aside, in all other cases of entities arranged in a part/whole hierarchy of systems, we can picture or image how emergent features arise because these systems and all their features are objective phenomena. Our problem is that we try to image how consciousness could arise from a system of unconscious bits of matter in the same way, but this is not possible because consciousness itself is not imageable and we can't get at it through a visual metaphor. Once we give up trying to imagine consciousness, any deep puzzlement about the emergence of conscious-

ness, given naturalism, evaporates and the only question left is one about how the brain produces mental states.

There is another reason Searle offers as to why the emergence of consciousness has no deep metaphysical significance.⁴¹ In standard cases of reduction, e.g., heat and color, an ontological reduction (color is nothing but a wavelength) is based on a causal reduction (color is caused by a wavelength). In these cases we can distinguish the appearance of heat and color from the reality, place the former in consciousness, leave the latter in the objective world, and go on to define the phenomenon itself in terms of its causes. We can do this because our interests are in the reality and not the appearance. The ontological reduction of heat to its causes leaves the appearance of heat the same. However, when it comes to mental states like pain, even though an ontological reduction cannot be found, there is a similar causal pattern, e.g., pain is caused by such and such brain states. So why do we regard heat as ontologically reducible but not pain? In the case of heat, we are interested in the physical causes and not the subjective appearances, but with pain it is the subjective appearance itself that interests us. If we wanted to, we could reduce pain to such and such physical processes and go on to talk about pain appearances analogous to the heat case. However, in the case of consciousness, the reality is the appearance. Since the point of reductions is to distinguish and separate reality from appearance in order to focus on underlying causes by definitionally identifying the reality with those causes, the point of a reduction for consciousness is missing since it is the appearance itself that is the reality of interest. Therefore, the irreducibility of consciousness has no deep metaphysical consequences and is simply a result of the pattern of reduction that expresses our pragmatic interests.

In step three, Searle claims that an adequate scientific explanation of mental emergence is a set of very detailed, even lawlike correlations between specific mental and physical states.⁴² Searle rejects an argument by Thomas Nagel which denies that mere correlations amount to a scientific explanation. In terms of AC, Nagel would accept premise (6) and deny that Searle's correlations count as scientific explanations. Searle rejects (6) and believes such correlations count as adequate scientific explanations. Nagel claims that in other cases of emergence like liquidity, a scientific explanation doesn't just tell us what happens, it explains why liquidity must emerge when a collection of water molecules gather under certain circumstances. In this case, scientific explanation offers physical causal necessity: given certain states of affairs, it is causally necessary that liquidity emerge and it is inconceivable that it not supervene. But, argues Nagel, no such necessity and no answer to a why question is given by a mere correlation between mental states and physical states in the brain.

Searle's response to Nagel is threefold.⁴³ First, he says that some explanations in science do not exhibit the type of causal necessity Nagel requires, e.g., the inverse square law is an account of gravity that does not show why bodies have to have gravitational attraction. This response is question-begging against Nagel because the inverse square law is merely a description of what happens and not an explanation of why it happens. Interestingly, Newton himself took the inverse square law to be a mere

description of how gravity works but explained the nature of gravity itself (due to his views about action at a distance, the nature of spirit, and the mechanical nature of corpuscularian causation by contact) in terms of the activity of the Spirit of God. The point is not that Newton was right, but that he distinguished a description of gravity from an explanation of what it is and his explanation cannot be rebutted by citing the inverse square law. Rather, one needs a better explanatory model of gravity. So Searle's own example actually works against him.

Moreover, even if we grant that covering law explanations are, in fact, explanations in some sense, they are clearly different from explanations that offer a model of why things must take place given the model and its mechanisms. Since the argument from consciousness assumes the correlations and offers an answer to the why question, Searle's solution here is not really a rival explanation, but merely a claim that such correlations are basic, brute facts that just need to be listed. In light of what we have already seen, there are at least two further difficulties with Searle's claim.

First, given AC and the nature of theory adjudication among rivals, it is question-begging and ad hoc for Searle to assert that these correlations are basic since the correlations themselves, along with the entities and properties they relate are natural and bear a relevant similarity to other entities, properties, and relations in theism (e.g., God as spirit who can create and causally interact with matter), but are unnatural given the naturalist epistemology, grand story, and ontology. In this regard, Terence Horgan says that "in any metaphysical framework that deserves labels like 'materialism', 'naturalism', or 'physicalism', supervenience facts must be explainable rather than being *sui generis*."⁴⁴ And D. M. Armstrong goes so far as to admit that "I suppose that if the principles involved [in analyzing the single all-embracing spatio-temporal system which is reality] were completely different from the current principles of physics, in particular if they involved appeal to mental entities, such as purposes, we might then count the analysis as a falsification of Naturalism."⁴⁵

Horgan and Armstrong say this precisely because mental entities, the supervenience relation, or a causal correlation between mental and physical entities simply are not natural given a consistent naturalist paradigm. Their reality constitutes a falsification of naturalism for Horgan and Armstrong and, given AC, they provide evidence for theism. It is question-begging and ad hoc simply to adjust naturalism as does Searle, given the presence of AC as a rival explanation.

Second, Swinburne's version of AC points out that a correlation can be either an accidental generalization or a genuine law (which exhibits at least physical necessity) and we distinguish the two in that laws are (but accidental correlations are not) non-circular correlations that fit naturally into theories that 1) are simple, 2) have broad explanatory power, and 3) fit with background knowledge from other, closely related scientific theories about the world. By "fit" Swinburne means the degree of naturalness of the correlation and entities correlated in light of both the broader theory of which the correlation is a part and background knowledge. Now Searle admits that mental phenomena are absolutely unique compared to all other entities in that they "have a special feature not possessed by other

natural phenomena, namely, subjectivity."⁴⁶ Unfortunately, it is precisely this radical uniqueness that makes mental phenomena unnatural for a naturalist world view and which prevents Searle from distinguishing an accidental correlation from a genuine law of nature regarding mental and physical correlations.

So much, then, for Searle's first response to Nagel. His second response is that the apparent necessity of some scientific causal explanations may just be a function of our finding some explanation so convincing that we cannot conceive of certain phenomena behaving differently. Medievals may have thought modern explanations of the emergence of liquidity mysterious and causally contingent. Similarly, our belief that specific mind/brain correlations are causally contingent may simply be due to our ignorance of the brain.

It is hard to see what is supposed to follow from Searle's point here. Just because one can be mistaken in using conceivability as a test for causal necessity, it doesn't follow that conceivability is never a good test for it. Only a case by case study can, in principle, decide the appropriateness of its employment. Now when it comes to things like liquidity or solidity, Nagel is right. Precisely because of what we know about matter, we cannot conceive of certain states of affairs obtaining and these properties being absent. That Medievals would not be so convinced is beside the point since they were ignorant of the relevant atomic theory. If they possessed the correct theory, their intuitions would be as are ours. But when it comes to the mental and physical, they are such different entities, and the mental is so unnatural given the rest of the naturalist ontology, that there is no clearly conceivable necessity about their connection. And this judgment is based, not on what we don't know about the two types of states, but on what we do know. Moreover, a more detailed correlation in the future will not change the situation one bit. There is no non-circular or non-ad-hoc way to formulate such a correlation and we will merely be left with a more detailed dictionary of correlations that will leave intact the same type of problem of causal necessity true of less detailed correlations. Our current lack of belief in such a causal necessity is not due to ignorance of more and more details of the very thing that lacks the necessity in the first place. Rather, it is based on a clear understanding of the nature of the mental and physical, an understanding that Searle himself accepts.

This is why it will not do for naturalists to claim that they are not committed to anything ultimately or utterly brute (like the divine will), just to their being something unexplained at any given time but which can be explained through deeper investigation. No scientific advance in our knowledge of the details of mental/physical correlations will render either the existence of mental entities or their regular correlation with physical ones anything other than utterly brute for the naturalist.

But Searle had another line of defense against Nagel: Even if we grant Nagel's point about the lack of causal necessity in the mental/physical case, nothing follows from this. Why? Because in the water and liquidity case, we can picture the relation between the two in such a way that causal necessity is easily a part of that picture. But since consciousness is not pictureable, we are not able to imagine the same sort of causal necessity. Yet

that does not mean it is not there.

Here Searle simply applies his earlier point that, given naturalism, our puzzlement about the emergence of consciousness from unconscious bits of matter is due to our attempt to picture consciousness. Now it seems to me that this point is just false and egregiously so. I, for one, have no temptation to try to picture consciousness. And other naturalists have put their finger on the real difficulty about the emergence of consciousness. D. M. Armstrong states that

“It is not a particularly difficult notion that, when the nervous system reaches a certain level of complexity, it should develop new properties. Nor would there be anything particularly difficult in the notion that when the nervous system reaches a certain level of complexity it should affect something that was already in existence in a new way. But it is a quite different matter to hold that the nervous system should have the power to create something else [mental entities], of a quite different nature from itself, and create it out of no materials.”⁴⁷

Along similar lines, Paul Churchland says,

“The important point about the standard evolutionary story is that the human species and all of its features are the wholly physical outcome of a purely physical process.... If this is the correct account of our origins, then there seems neither need, nor room, to fit any non-physical substances or properties into our theoretical account of ourselves. We are creatures of matter. And we should learn to live with that fact.”⁴⁸

Churchland puts his finger on two reasons the naturalist should opt for strict physicalism—there is neither need nor room for anything else. Regarding need, I take it he means that everything we need in order to explain the origin and workings of human beings can be supplied by physicalist causal explanations. Regarding room, entities do not come into existence *ex nihilo* nor do radically different kinds of entities emerge from purely physical components placed in some sort of complex arrangement. This is what Nagel was getting at when he rejected radical emergence. What comes from the physical by means of physical processes will also be physical.

Searle is simply wrong about the problem being the imageability of consciousness. The problem here for naturalism is ontological, not epistemological as most naturalists have seen. What is curious about Searle’s reduction of an ontological problem to an epistemological one is that his entire work on biological naturalism is replete with criticisms of other naturalists for doing this very thing in other areas of the philosophy of mind. Could it be that Searle’s own misidentification of the ontological problem here is “neurotic” in just the sense that he applies to his naturalist colleagues: if one takes the emergence of consciousness as an ontological problem, then biological naturalism will, in fact, give cause for introducing religious concepts and explanations for the mental as expressed in AC?

I conclude, therefore, that Nagel is right and Searle is wrong: premise (6) of AC is correct and Searle's correlations are not examples of scientific explanation which count against (6). But what about premise (3)? Why isn't it reasonable to take mental entities and their regular correlations with physical entities to be utterly brute natural facts for which there is no explanation? The answer is provided by the arguments just mentioned about why Searle's correlations are not really scientific explanations. Mental entities are not natural or at home in the naturalist epistemology, etiology, and ontology. Given theism and AC as a rival explanatory paradigm, and given the fact that mental entities and correlations are natural for theism, it is question-begging and *ad hoc* simply to announce that these entities and correlations are natural entities.

Searle could reply that biological naturalism is not question-begging because we already have reason to believe that naturalism is superior to theism prior to our study of the nature of the mental. The only support Searle gives for this claim, apart from a few sociological musings about what it means to be a modern person, is that it is an obvious fact of physics that the world consists **entirely** of physical particles moving in fields of force. It should be clear, however, that this claim is itself question-begging and clearly false. When there is a statement in a physics text about the world in its entirety, it is important to note that this is not a statement of physics. It is a philosophical assertion that does not express any obvious fact of physics. Moreover, it is a question-begging assertion by naturalists prior to a consideration of the evidence and arguments for theism, including AC. If Searle denies this, then he should inform advocates of AC of exactly what obvious fact of physics they deny in their employment of the argument.

Most naturalists have seen this and have opted for strict physicalism in order to avoid abandoning naturalism and legitimizing the introduction of religious concepts and explanations into the picture. It may be "neurotic" to deny consciousness, as Searle points out. But it is far from "neurotic" to be driven to do so in terms of a prior commitment to naturalism, and AC makes clear why this is the case.

But perhaps there is a naturalist rejoinder at this point in the form of a tu quoque against theists and AC. J. L. Mackie advanced just such an argument.⁴⁹ According to Mackie, theists like John Locke admitted that God could superadd consciousness to systems of matter fitly disposed and, therefore, as a result of Divine intervention, matter may give rise to consciousness after all. Thus, Locke leaves open the possibility that a mere material being might be conscious given theism. Mackie then asks this question: "But if some material structures could be conscious, how can we know **a priori** that material structures cannot **of themselves give rise to consciousness?**"⁵⁰ He concludes that this Lockean admission opens the door for the naturalist to assert the emergence of consciousness from fitly disposed matter as a brute fact.

In my view, Mackie's argument carries no force against AC because a main part of AC consists in the recognition that mental/physical correlations exist, they are not explicable within the constraints of scientific naturalism, and they require a personal theistic explanation if they are to be explained at all. In this sense, the idea that, in one way or another, God

could “superadd” thinking or other mental states to matter is required for AC to go through.⁵¹ However, as I have tried to show, it does not follow from this “Lockean admission” that it is a brute, naturalistic fact that material structures of themselves can give rise to consciousness or that adequate naturalistic explanations can be given for this. Indeed, Locke himself constructed detailed arguments to show that mental states like thinkings are not within the natural powers of matter nor could they arise from material structures without an original Mind to create and attach those mental states to matter.⁵² Locke’s view that God could superadd thinking to a material substance just as easily as to a spiritual substance was a conclusion he drew from the omnipotence of God along with the claim that “thinking matter” is not a contradiction and, thus, possible for God to bring about. I am not defending Locke’s way of arguing that God could superadd thinking to matter. In fact, I do not think it is correct as he formulated it but, clearly, Locke would not have believed that Mackie’s naturalistic conclusion can justifiably be drawn from his own (Locke’s) admission of the possibility of Divine omnipotence adding a faculty of thought to a material structure.

Mackie cannot simply assert that material structures have the power to give rise to consciousness and also claim to be operating with a naturalistic depiction of matter. According to David Papineau, matter with emergent mental potentiality is not the sort of matter countenanced by naturalists. This is why, when Papineau attempts to characterize the physical in terms of a future ideal physics, he places clear boundaries on the types of changes allowed by naturalism for developments in physical theory. According to Papineau, the naturalist will admit that future physics may change some features of what we believe about matter, but in light of a naturalist commitment and the past few hundred years of development in physics, future physics will not need to be supplemented by psychological or mental categories.⁵³

Given theism, we cannot say *a priori* just what capacities or states God will correlate with specific physical states. But given naturalism, and the commitment to the role of physics in naturalism, along with a view of the physical that is required by physics, we can say that mental potentiality is just not part of matter. Thus, it is question-begging and *ad hoc* against AC for Mackie to adjust naturalism to allow that material structures of themselves can give rise to consciousness.

There is one final issue in Searle’s defense of biological naturalism that needs to be addressed, *viz.*, his claim that the emergence of consciousness fits a broad pattern of emergence, *e.g.*, cases of liquidity, solidity, digestion, and, therefore, since the latter present no problem for naturalism, neither does the former. I offer three responses. First, if we take liquidity or solidity to be the degree of rigidity, flexibility, or viscosity of a collection of particles, then these properties are not good analogies to consciousness because they turn out to be nothing more than group behavior of particles placed in a relatively compressed, stable, ordered structure for solids or a more viscous, less compact arrangement for liquids. So there is no problem about emergence here since we can easily understand how liquidity and solidity are related to groups of material particles as they are depicted in physical theory.

Second, when we are dealing with genuinely emergent properties that are categorially different from what physical theory takes to characterize subvenient entities, I think that it could be argued that the naturalist has the same difficulty here as with the emergence of consciousness. Recall Searle's point about the pragmatics of reduction: we reduce heat to its causes because we happen to be interested in the objective causes and not the subjective appearances, but in cases of, e.g., pain, we are interested in the painful appearance itself, so we do not reduce pain to its causes. In my view, the decision to reduce heat to its causes is not primarily a scientific matter nor is it a matter of our pragmatic interest. I think it has been a function of two things. First, if we take heat, color, liquidity, or solidity to be identical to the qualia we experience in certain circumstances (e.g., heat is identical to warmth, red is a color not a wavelength, liquidity is wetness), then an ontological puzzle arises analogous to the one about the emergence of mental states: How could warmth emerge in a physical structure as a result of increased atomic agitation? Second, there was a way of avoiding this question in light of a widely held Lockean view of secondary qualities and sense perception. We can locate these secondary qualities in consciousness and identify them as appearances of the real objective phenomena, viz., the objective causes for our experiences of secondary qualities. John Yolton has shown that during late seventeenth and early eighteenth century debates about materialism, immaterialist philosophers (e.g., Ralph Cudworth) regularly argued against the idea that mental entities could emerge from properly structured matter.⁵⁴ A standard rebuttal to this claim was that light and heat were very different from matter but could be generated in material bodies given the right conditions. So mind could likewise emerge. Cudworth and others responded by asserting that light, heat, and other secondary qualities were not in material bodies, but were sensations in minds and, thus, the problem does not arise as to how they could arise in a material structure devoid of such qualities prior to the right conditions obtaining. It is clear from this debate at the very beginning of the emergence of modern materialism that one philosophical motive for locating secondary qualities in consciousness was to avoid a straightforward metaphysical problem: *ex nihilo nihil fit*.

If I am right about this, then the ontological puzzle is really the driving force behind what Searle calls normal naturalist cases of emergence. The problem is that these cases are not natural any more than the emergence of consciousness and that is why they were located in consciousness. For example, both secondary qualities like redness or warmth and painfulness are dissimilar to the properties that constitute an ideal physics. Jaegwon Kim has argued that in Nagel-type reductions, the relevant bridge laws should be taken as biconditionals and not as conditionals, because we need materially equivalent correlations between entities (or terms) in the reduced and base theories in order to assert identities between the entities in question.⁵⁵ Moreover, says Kim, the identity of reduced and base entities is preferable to mere correlations because the latter raise potentially embarrassing questions as to why such precise correlations arise in the first place. Kim's point is not confined to mental and physical correlations. All a naturalist can do with them (if we keep these so-called secondary qualities or

other categorially distinct emergent qualities in the external world) is to offer a detailed correlation to describe regular relations between physical structures and emergent entities. No amount of knowledge whatever of subvenient entities would take us one inch toward predicting or picturing why these particular entities regularly emerge in such and such circumstances and not others. In discussions of emergence over a century ago, it was precisely their unpredictability from knowledge of subvenient entities that was identified as the hallmark of an emergent property. In more modern terms, it is the inability to either image or understand why warmth emerges regularly here and not somewhere else, or why it emerges at all given our knowledge of molecular agitation. Note carefully that Searle himself seems to accept pictureability as a necessary condition for the acceptance of a claim that one entity emerges from another in the "normal" cases, but pictureability is no more available for heat (warmth) emerging from matter than it is for mental states.⁵⁶ Nagel's conceivability test applies here just as it does for mental states.

However, even if I am wrong about this, there is a third response that can be given to Searle. There are two features of mental states that make their emergence disanalogous to, say, the properties of digestion. First, mental states are so unique and different from all other entities in the world, that it is far more difficult to see how they could emerge from physical states than it is for the so-called normal cases. Second, mental states are quite natural in a theistic world view and have a higher prior probability given theism over against naturalism even if we agree that, say, the emergence of the properties of digestion are equally natural and probable on both world hypotheses.

In my view, these two features of mental states make them more analogous to value properties than to characteristics of digestion. Mackie argued that the supervenience of moral properties would constitute a refutation of naturalism and evidence for theism: "Moral properties constitute so odd a cluster of properties and relations that they are most unlikely to have arisen in the ordinary course of events without an all-powerful god to create them."⁵⁷ Presumably, Mackie's reasons for this claim involve some of the points I have just made above: moral properties have the two features that make them natural for theism but unnatural for naturalism. No matter how far future physics advances our understanding of matter, it will not make the emergence of moral properties the least bit more likely, more pictureable, or more natural.⁵⁸ And the same claim could easily be made for mental properties even if features of digestion are granted equally natural for theism and naturalism.

Searle himself admits that of all the entities in the world, mental states are absolutely unique and radically different from all the others. And as we saw earlier, Armstrong is willing to accept that more ordinary physical or biological properties could emerge when the nervous system reaches a certain level of complexity. But he could not accept the natural emergence of mental states from matter because mental states are of "a quite different nature" from states accepted by naturalists. The jump from physical states to mental states was too far for Armstrong's naturalism to allow, so he adopted strict physicalism as the only acceptable naturalist solution. I

admit that the problem with my third response to Searle is that it requires one to weigh the difference between acceptable and unacceptable cases of emergence. But to the degree that mental entities are taken as radically unique and very different from all other types of physical or even biological entities, then to that degree the analogy between the emergence of mental states and other cases of emergence is weakened. And to that degree, the emergence of the mental would be radical as Nagel calls it or unnatural as Adams and Swinburne claim. After all, naturalists have not spent the last fifty years trying to eliminate or reduce solidity or the properties of digestion like they have mental states. This is because the latter are rightly seen as a threat to naturalism even if the former are not.

In any case, I have tried to show that AC is an important rival to Searle's biological naturalism and its presence changes the epistemic status of the latter. As B. F. Skinner noted just before his death, "Evolutionary theorists have suggested that 'conscious intelligence' is an evolved trait, but they have never shown how a nonphysical variation could arise to be selected by physical contingencies of survival."⁵⁹ If that is so, then it may well be that the reality of mental entities provides evidence for theism and counts against naturalism.⁶⁰

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NOTES

1. Cf. Alex Rosenberg, "A Field Guide to Recent Species of Naturalism," *British Journal for the Philosophy of Science* 47 (1996): 1-29.

2. William Lyons, "Introduction," in *Modern Philosophy of Mind*, ed. by William Lyons, (London: Everyman, 1995), p. lv. In context, Lyons remark is specifically about the identity thesis, but he clearly intends it to cover physicalism in general.

3. Actually, there is a slightly different and more detailed characterization of "natural for a theory T" that could be used: e is natural for a theory T just in case either e is a central, core entity of T or e does not bear a relevant dissimilarity to the central, core entities of T in e's category of formal ontology. And entity e is more central or core to T than entity f, just in case e is more deeply ingressed in T than f. I shall continue to use the simpler description since there is no relevant difference between them for our purposes. One further point: I have characterized naturalness in terms of some entity e, but with appropriate adjustments, naturalness could also be cashed out in terms of the vocabulary, methodology, or type of explanation that constitutes a theory.

4. See Robert Adams, "Flavors, Colors, and God," reprinted in *Contemporary Perspectives on Religious Epistemology*, ed. by R. Douglas Geivett, Brendan Sweetman (N.Y.: Oxford University Press, 1992), pp. 225-40.

5. See Richard Swinburne, *The Existence of God* (Oxford: Clarendon, 1979), chapter 9; *The Evolution of the Soul* (Oxford: Clarendon, 1986), pp. 183-96; *Is there a God?* (Oxford: Oxford University Press, 1996), pp. 69-94; "The Origin of Consciousness," in *Cosmic Beginnings and Human Ends*, ed. by Clifford N. Matthews, Roy Abraham Varghese (Chicago and La Salle, Illinois: Open Court, 1995), pp. 355-78.

6. Cf. D. M. Armstrong, "Naturalism: Materialism and First Philosophy,"

Philosophia 8 (1978): 262.

7. Cf. Terence Horgan, "Nonreductive Materialism and the Explanatory Autonomy of Psychology," in *Naturalism*, ed. by Steven J. Wagner, Richard Warner (Notre Dame: University of Notre Dame Press, 1993), pp. 313-14.

8. John Bishop, *Natural Agency* (Cambridge: Cambridge University Press, 1989), 36-44, 74-76. Selmer Bringsjord rejects Swinburne's version of AC because it focuses on the regular correlations of specific types of mental and physical events. But Bringsjord thinks that a version of AC that starts with agent causation is likely to be successful. See "Swinburne's Argument from Consciousness," *Philosophy of Religion* 19 (1986): 140-141.

9. See Alvin Plantinga, *Warrant and Proper Function* (N.Y.: Oxford University Press, 1993), pp. 194-237.

10. Swinburne, *Evolution of the Soul*, pp. 191-95.

11. Howard Robinson has argued persuasively that attempts by Peacocke and Davidson to embrace physicalism but avoid reductionism actually fail because of a confusion about the nature of reduction. See Howard Robinson, *Matter and Sense* (Cambridge: Cambridge University Press, 1982), pp. 22-34. Such accounts do avoid analytic reduction, claims Robinson, but they entail a topic neutral reduction of persons to complexly organized physical entities combined with a token physical analysis of mental events. For an argument that shows that the holism of the mental does not entail a denial of strict psycho-physical laws, see John Foster, "A Defense of Dualism," in *The Case For Dualism*, ed. by John R. Smythies, John Beloff (Charlottesville: University of Virginia Press, 1989), pp. 15-17.

12. For a careful naturalist defense of this claim, see David Papineau, *Philosophical Naturalism* (Cambridge: Cambridge University Press, 1993), pp. 9-51, especially pp. 36-43.

13. Bishop, *Natural Agency*, pp. 58, 72, 69, 95-96, 103-4, 110-111, 114, 126-7, 140-41, 144. Bishop also admits that a causal analysis of agency requires a physicalist view of the mental if the account is to satisfy the constraints that are part of a naturalist theory of agency. See pp. 8, 43, 103.

14. John Searle, *Minds, Brains, and Science* (Cambridge, Mass.: 1984), p. 98.

15. John Bishop, *Natural Agency*, pp. 8, 43, 103.

16. Thomas Nagel, *The View From Nowhere* (N. Y.: Oxford, 1986), pp. 49-53.

17. For a critique of pan-psychism in the process of defending AC, see Stephen R. L. Clark, *From Athens to Jerusalem* (Oxford: Clarendon, 1984), pp. 121-57.

18. Geoffrey Madell, *Mind and Materialism* (Edinburgh, The University Press, 1988), p. 3.

19. Nagel, *ibid.*, p. 49.

20. *Ibid.*, pp. 110-37.

21. There is some debate about whether each of these basic actions requires its own intending. Richard Swinburne argues that in performing actions which take a long time (writing a chapter), we do not exercise a separate volition for each intentional action (e.g., willing to write the first sentence) that is part of the long term act. Rather, we just intend to bring about the long term effect by bringing about a generally conceived series of events and the body unconsciously selects a particular routine to accomplish that effect. See Richard Swinburne, *The Evolution of the Soul* (Oxford: Clarendon Press, 1986), pp. 94-95. I leave the matter open except to note that to the degree that a non-basic action contains sub-acts of a discontinuous nature (picking up keys, getting into a car vs. a series of steps in taking an hour long walk), then it is more likely that sub-intentions are required to characterize adequately those sub-acts.

22. Thus, we see that there are at least three kinds of intentional actions: basic actions with a basic intent (simply intentionally moving my finger), basic actions with non-basic intents (ultimate intents that have other intents as means, e.g. intentionally squeezing my finger to fire a gun to kill Smith), and non-basic actions (those that contain sub-acts—sub endeavors and intendings—as parts, e.g., going to the store to buy bread).

23. Cf. Michael Martin, *Atheism: A Philosophical Justification* (Philadelphia: Temple University Press, 1990), p. 220.

24. John Searle, *The Rediscovery of the Mind* (Cambridge, Mass.: MIT Press, 1992), chapters 1 and 2. Cf. Tyler Burge, "Philosophy of Language and Mind: 1950-1990," *The Philosophical Review* 101 (January 1992): 3-51, especially pp. 29-51.

25. *Ibid.*, pp. 3-4. Cf. p. 31.

26. *Ibid.*, p. 28.

27. *Ibid.*, pp. 85-91.

28. *Ibid.*, pp. 3, 13-16.

29. *Ibid.*, pp. 90-91.

30. *Ibid.*, pp. xii, 13,-19, 25-28, 85-93.

31. *Ibid.*, pp. 13, 16.

32. *Ibid.*, pp. 13, 126.

33. *Ibid.*, pp. 2-4, 13-16.

34. Cf. J. P. Moreland, "Humanness, Personhood, and the Right to Die," *Faith and Philosophy* 12 (January 1995): 95-112; J. P. Moreland, Stan Wallace, "Aquinas vs. Descartes and Locke on the Human Person and End-of-Life Ethics," *International Philosophical Quarterly* 35 (September 1995): 319-30.

35. Cf. Swinburne, *The Evolution of the Soul*, especially chapter 8.

36. Jaegwon Kim, "Mental Causation and Two Conceptions of Mental Properties," unpublished paper delivered at the American Philosophical Association Eastern Division Meeting, Atlanta, Georgia, December 27-30, 1993, p. 21.

37. *Ibid.*, p. 23.

38. Papineau, *Philosophical Naturalism*, pp. 9-32.

39. Searle, *The Rediscovery of the Mind.*, p. 55. Cf. p. 32, 56-57 where Searle considers and rejects as incoherent a closely related question formulated in terms of intelligence and intelligent behavior and not consciousness. If intelligence and intelligent behavior are interpreted from a third person perspective in behavioristic terms (e.g., as regular and predictable behavior), then it is false that bits of matter are not intelligent. If first person subjective criteria are formulated for intelligence, then the question reduces to the one asked in terms of consciousness. So this is the correct question to ask on Searle's view.

40. *Ibid.*, p. 95.

41. *Ibid.*, pp. 118-24.

42. *Ibid.*, p. 89, 100-104.

43. *Ibid.*, pp. 101-104.

44. Horgan, "Nonreductive materialism," p. 313-14.

45. D. M. Armstrong, "Naturalism": 262.

46. Searle, *The Rediscovery of the Mind*, p. 93.

47. D. M. Armstrong, *A Materialist Theory of Mind* (London: Routledge & Kegan Paul, 1968), p. 30.

48. Paul Churchland, *Matter and Consciousness* (Cambridge, Mass.: MIT Press, 1984), p. 21. Cf. Arthur Peacocke, Grant Gillett, eds., *Persons and Personality* (Oxford: Basil Blackwell, 1987), p. 55.

49. J. L. Mackie, *The Miracle of Theism*, pp. 120-121. See also, Clifford Williams, "Christian Materialism and the Parity Thesis," *International Journal*

for *Philosophy of Religion* 39 (February 1996): 1-14.

50. J. L. Mackie, *The Miracle of Theism.*, p. 121.

51. Locke's point about God superadding thinking to matter can be understood as an argument against substance dualism. So understood, Locke is not claiming that thinkings themselves are material or that God is not required to explain their correlation with material states. Rather, he is asserting that there is a parity between material and spiritual substances as fitting candidates to contain the faculty of thought. For an exposition of this understanding of Locke, see Williams, "Christian materialism and the Parity Thesis." I do not agree with this rendition of the parity thesis—it seems to require a topic neutral account of consciousness and thinking and it fails to take into account the fact that the immateriality of the self is known both by first person acquaintance and by reasoning to the precise type of immateriality that constitutes the essence of a substantial soul from the immaterial effects that express its capacities—but, fortunately, this rendition is not relevant to AC per se since property/event dualism is all AC needs to make its case.

52. John Locke, *An Essay Concerning Human Understanding*, 4.10.10-17 (pp. 313-319 of the 1959 Dover edition).

53. Papineau, *Philosophical Naturalism*, pp. 29-32.

54. John W. Yolton, *Thinking Matter: Materialism in Eighteenth-Century Britain* (Minneapolis: University of Minnesota Press, 1983), pp. 4-13, especially 6-7.

55. Jaegwon Kim, *Philosophy of Mind* (Boulder, Colorado: Westview Press, 1996), pp. 214-15. See G. K. Chesterton's claim that the regular correlation between diverse entities in the world is magic that requires a Magician to explain it. See *Orthodoxy* (John Lane Company, 1908; repr., San Francisco: Ignatius Press, 1950), chapter five.

56. Searle, *The Rediscovery of the Mind*, p. 102-3.

57. J. L. Mackie, *The Miracle of Theism* (Oxford: Clarendon Press, 1982), p. 115. Cf. J. P. Moreland, Kai Nielsen, *Does God Exist?* (Buffalo, N. Y.: Prometheus, 1993), chapters 8-10. Mackie found it easy to deny the objectivity of moral properties and opted for a form of moral subjectivism. But he could not bring himself to deny the mental nature of qualia. So he adopted a solution for qualia similar to Searle's. I shall not look at Mackie's case because Searle's is more forceful and better developed. Moreover, part of Mackie's case rests on his critique of AC and I have already discussed some of his major points of critique.

58. It could be argued that the supervenience of moral properties does not imply theism and, thus, they are of no help to AC. I offer two responses to this claim. First, the supervenience of such properties (as depicted by Mackie) would at least entail some form of ethical non-naturalism, e. g., Platonism, and this would count against naturalism. Given that non-theistic and theistic versions of non-naturalism are the remaining live options, each would receive some degree of confirmation from the falsity of a rival paradigm (naturalism), and the debate would be moved to what I take to be an intramural discussion between the other paradigms. Elsewhere, I have argued that theistic non-naturalism gets the better of this dialog. See J. P. Moreland, Kai Nielsen, *Does God Exist?*, pp. 123. Second, in the reference just cited, I use the existence of moral properties as part of an inference to the best explanation, so even if their existence does not *imply* theism, they may still lend support to it, especially vis a vis naturalism.

59. B. F. Skinner, "Can Psychology Be A Science of Mind?" *American Psychologist* 45 (November 1990): 1207. Jaegwon Kim has claimed that substance dualism is to be rejected as deeply puzzling and mysterious but that

property dualism is more acceptable because it does not face this difficulty. See his *Philosophy of Mind*, pp. 211-12. If the thesis of this article is correct, Kim is wrong about this.

60. I would like to thank William Lane Craig, Greg Ganssle, William Wainwright, and an anonymous referee for their helpful comments on an earlier draft of this paper.