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IN DEFENSE OF EMERGENT INDIVIDUALS: A REPLY TO MORELAND

Joshua Johnson

J. P. Moreland has recently raised a number of metaphysical objections to the theory of Emergent Individuals that is defended by Timothy O'Connor, Jonathan Jacobs, and others. Moreland argues that only theism can provide a sufficient explanation for human consciousness, and he considers the theory of Emergent Individuals to offer a competing naturalistic explanation that must be refuted in order for his argument to be successful. Moreland focuses his objections on the account of emergence advocated by the defenders of the theory, as well as what he considers to be the theory's problematic commitment to panpsychism and the causal powers metaphysic. I respond to Moreland's objections and argue that they are unsuccessful largely due to his misunderstanding of the theory of Emergent Individuals.

Introduction

In his argument that theism provides the best explanation for human consciousness, J. P. Moreland has recently raised a number of metaphysical objections to the theory of Emergent Individuals (hereafter EI)¹ that is primarily defended by Timothy O'Connor and Jonathan Jacobs (as well as others).² These objections can be sorted into three broad categories: (1) the EI account of how individuals emerge faces serious problems with respect to individual identity and endurance, (2) EI is committed to a version of panpsychism that is implausible given the theory's commitment to naturalism, and (3) the account of causal powers employed by EI fails to allow for a contingent relationship between the mind and body. I argue

¹J. P. Moreland, "The Argument from Consciousness" in *The Blackwell Companion to Natural Theology*, ed. William Lane Craig and J. P. Moreland (West Sussex, U.K.: Wiley-Blackwell, 2009). His arguments can also be found in his 2008 book, *Consciousness and The Existence of God: A Theistic Argument* (New York: Routledge). Moreland also raises methodological and epistemological objections against EI that I do not address in this paper.

²See O'Connor, *Persons and Causes: The Metaphysics of Freewill* (Oxford: Oxford University Press, 2002); O'Connor and Jacobs, "Emergent Individuals," *The Philosophical Quarterly* 53, no. 213 (2003), 540–555 and "Emergent Individuals and the Resurrection," *European Journal for the Philosophy of Religion* 2:2 (2010), 69–88; O'Connor, and Wong, "The Metaphysics of Emergence," *Nous* 39 (2005), 665–666; and O'Connor and Churchill, "Nonreductive Physicalism or Emergent Dualism? The Argument from Mental Causation" in *The Waning of Materialism*, ed. Robert C. Koons and George Bealer (Oxford: Oxford University Press, 2010).



that Moreland's objections are unsuccessful largely due to a fundamental misunderstanding of the theory that he is criticizing.

Moreland's objections against EI are constituents of a larger argument for the existence of God, an argument for the conclusion that a theistic explanation is the only sufficient explanation for human consciousness. Hence, Moreland argues that competing "naturalist" accounts of human consciousness fail to provide a sufficient explanation, and he considers EI (along with Searle's "Biological Naturalism" and McGinn's "Mysterian Naturalism") to be one of these unsatisfactory accounts. Moreland takes EI to be committed to a position that he calls the "Harmony Thesis"; that is, "the emergence of agent-causal power may be plausibly located within a widely accepted naturalist ontology, including a physicalist depiction of the agent."³ Thus, given his commitments to the larger argument he is defending, Moreland considers it to be important to eliminate EI as a viable competitor for explaining human consciousness.

I. The Theory of Emergent Individuals

As will become clear in the second section of this paper, Moreland's criticisms are of a rather severe misinterpretation of EI. Hence, it is important that we first examine the contents of the theory in order to demonstrate how it is misinterpreted by Moreland. Before explaining how EI accounts for the emergence of individuals, it will be helpful to examine two other metaphysical systems to which the theory is committed: the ontology of immanent universals and a powers theory of causation.

1.1 The Ontology of Immanent Universals and the Powers Account of Causation

Defenders of EI hold to the ontology of immanent universals that is most notably defended by D. M. Armstrong.⁴ According to Armstrong, all that exists are "facts" or "states of affairs" and their constituents.⁵ A state of affairs (SOA) is a thin particular (non-qualitative individuator) and its instanced universal(s) that are non-mereologically composed to form a thick particular. Universals are multiply instantiated, which means that the same universal F, if instantiated by both *a* and *b*, is wholly located in both *a* and *b*. Neither the thin particular nor the universal can exist on its own, although they can be conceptually distinguished. Universals, considered alone, are what Armstrong refers to as "states of affairs types" or unsaturated entities.⁶ For example, the SOA "*a*'s being F" may be conceptually abstracted into the SOA type of "__'s being F." There can be no uninstantiated universals and universals can exist *only* as constituents of SOAs. This will be important to keep in mind when considering Moreland's interpretation of EI.

³Moreland, "The Argument from Consciousness," 312.

⁴See D. M. Armstrong, *A World of States of Affairs* (Cambridge, U.K. and New York: Cambridge University Press, 1997)

⁵Ibid., 19

⁶Ibid., 28–29

Armstrong holds to a sparse notion of universals and a restriction of fundamental particulars to basic physical entities. Indeed, he holds that the best candidates for SOAs and natural properties (universals) would probably be those physical simples, and their properties, that a future, perfected physics demonstrates to be the fundamental constituents of reality. For Armstrong, everything else supervenes upon these fundamental entities. According to EI, however, the existence of ontologically emergent properties—especially in certain biological organisms—means that, along with the fundamental physical entities, *persons* exist as emergent individuals with their own particularity and emergent mentality.

Besides being committed to the framework of immanent universals, EI is also committed to a particular sort of realism with respect to causation, namely the “powers” theory of causation. Rather than regarding causation as mere counterfactual dependence (as Lewis does) or as nomic necessitation (as Armstrong does), the advocates of the powers theory hold that causation is the manifestation of the powerful qualities of particulars.⁷ With respect to the theory of emergence advocated by EI, physical simples are disposed, in the proper circumstances, to cause the existence of ontologically independent emergent properties. These emergent properties also have dispositions, among which is the tendency to cause the existence of further emergent properties.⁸

1.2 *The Emergence of Individuals*

Now that we have established the basic metaphysical background to EI, we may examine how the theory explains the emergence of individuals. According to EI, when fundamental physical simples reach a certain threshold of structural complexity, an emergent individual is brought into existence along with its own unique emergent properties. It is important not to view the use of “emergence” here as being merely epistemological. It is also important not to view the emergent person and properties as being nothing over and above the mere structure of the physical simples. Rather, the person and her properties both exemplify genuine *ontological* emergence. Defenders of EI hold that emergent individuals and their properties are as ontologically “basic as electric charge now appears to be, just more restricted in the circumstances of their manifestation.”⁹

Each physical simple that contributes to the emergent individual is itself a non-mereologically composed SOA (or simply, “individual,” as

⁷There is some debate as to whether these are pure powers, the powers of properties, or powerful qualities (or *quiddities*). At least one of the defenders of EI holds to the latter view. For a defense of this account of powers causation see Jacobs’s “Powerful Qualities, Not Pure Powers,” *The Monist* 94:1 (2011), 81–102.

⁸See O’Connor and Jacobs, “Emergent Individuals,” and “Emergent Individuals and the Resurrection,” as well as O’Connor and Wong, “The Metaphysics of Emergence.” It should be noted that this disposition may be deterministic or indeterministic.

⁹O’Connor and Jacobs, “Emergent Individuals,” 54.

defenders of EI prefer).¹⁰ These entities each possess a disposition to cause the existence of emergent properties when they are arranged in a particular way. An emergent individual also possesses “a distinctive particularity and distinctive fundamental properties” and, thus, the ontology employed by defenders of EI “has two basic sorts of genuine objects: simples, and emergent composites.”¹¹ While the emergent person, like ontological simples, possesses non-mereological structure in that she is an individual that instantiates universals, what makes these individuals unique is that they are also *mereologically* composed of the physical simples that cause the emergent individual to exist. Thus emergent individuals have *both* mereological parts (the simples of which they are physically composed) and non-mereological parts (a particularity and universals of which they are ontologically composed). After the emergent individual is brought into existence, its emergent and basal properties engage in an incredibly complex set of causal relations that include the causing of new emergent properties.¹²

For a more formal statement of the central thesis of EI, consider the following:

Emergent Individual: There is a thing x that has simples as mereological parts and there is a thing y that has non-mereological parts (a thin particular and emergent properties), and $x = y$.

Now that we have a reasonably clear understanding of EI, we may proceed to examine and reply to Moreland’s objections to the theory.

II. Moreland’s Objections Stated and Examined

2.1 Problems with the EI Description of the Agent

Moreland provides a number of objections against EI’s account of emergent individuals:

- a. The agent described by the theory is not a purely physical particular.
- b. There is no baseline conscious state that is apt for grounding the endurance of the individual.
- c. EI implausibly requires that the thinker is dependent on thinking.
- d. EI’s account of diachronic causation entails that the “very first mental state” of an individual’s life is ownerless.

¹⁰Since the term SOA tends to be more associated with Armstrong and his strict naturalism.

¹¹“For unlike other complex ‘objects’ recognized only as a courtesy, an emergent entity has a distinctive particularity and distinctive fundamental properties. This ontology has two basic sorts of genuine objects: simples, and emergent composites.” O’Connor and Jacobs, “Emergent Individuals,” 548.

¹²See O’Connor and Wong, “The Metaphysics of Emergence,” 665–668 for an account of this.

In order to properly understand these objections, it is important to understand how Moreland interprets EI. First, as stated above, Moreland claims that EI is committed to the “Harmony Thesis.” That is, EI is compatible with naturalism and the agent that it describes is a physical substance. Second, while Moreland is largely correct in his description of EI with respect to its incorporation of the ontology of immanent universals and a powers account of causation, he unfortunately misinterprets the theory’s account of emergence. According to Moreland’s description of the theory, holistic mental states emerge when underlying physical particles reach a specific threshold of structural complexity. These emergent mental states, in turn, bring an individual agent into existence as a new particularity in a process that Moreland refers to as “composition-conferred-by-holism”:

[S]ubvenient entities are always trying to bring about the emergent individual, but it is only when a certain threshold level of complexity is reached that conditions are right for that base to cause the emergent individual to come into being. When emergent mental properties appear, they constitute holistic mental states—perhaps enduring baseline mental states—and these in, in turn, confer on persons their substantial unity as thinking biological substances, presumably by bringing about through top/down causation a new particularity over and above that of the series of subvenient mereological aggregates that are in a constant state of flux. This “composition-conferred-by-holism” view produces an emergent individual that is somehow composed by its parts but has a new thisness all its own.¹³

Moreland’s claim that emergent mental states diachronically *cause* the existence of a new particularity is due to a crucial misinterpretation of EI, and it is the basis for his objections, b–d, listed above. In fairness to Moreland, he appears to be basing his interpretation of EI from the following passages found in O’Connor and Jacobs (2003) and O’Connor and Wong (2005) respectively:

Turning now to persons, their holistic mental states (or perhaps certain enduring “baseline” states in particular) *confer on them a substantial unity* as thinking biological substances, requiring one to treat persons as wholes in any adequate characterization of the dynamics of the world.¹⁴

Emergent properties are basic properties, token-distinct in character and propensity from any microphysically structured properties of their bearers. If their appearance in certain systems is to be explained at all, they must be explained in terms of a causal, not purely formal, relationship to underlying, immediately preceding structures.¹⁵

As for the first passage, it appears that Moreland understands the phrase “mental states confer on them a substantial unity” as “mental states *cause* a new particularity”; however, this reading of O’Connor and Jacobs is

¹³Moreland, “The Argument from Consciousness,” 316.

¹⁴O’Connor and Jacobs, “Emergent Individuals,” 548 (emphasis mine).

¹⁵O’Connor and Wong, “The Metaphysics of Emergence,” 664.

not what the authors intend, since immediately following the above passage, they are careful to point out that this “functional unity does *not* itself constitute a particularity as an enduring thing, but it plausibly implies it.”¹⁶ That is, O’Connor and Jacobs regard the presence of a substantial or functional unity as a clear *indicator* that a composite entity possesses its own particularity, and that entities that possess ontologically emergent mental properties are “natural candidates” for the sorts of things that exhibit such unity.¹⁷ They are not claiming that emergent mental states cause particularities. With respect to the above passage from O’Connor and Wong (2005), the causal relationship that they describe is diachronic causation between physical properties and emergent mental properties, and not one in which emergent mental properties cause new, non-qualitative particularities.¹⁸

Finally, although we have seen that there are places in which the advocates of EI might be misunderstood, it is important to highlight the fact that Moreland’s interpretation of EI *cannot* be correct given the ontology endorsed by the defenders of the theory. Remember that, according to the Armstrongian ontology endorsed by EI, universals when considered apart from particulars are mere “SOA types” and not actual SOAs. Given this, universals can exist only as constituents of SOAs. Yet Moreland’s interpretation has the emergent mental properties of the individual existing *temporally prior* to the existence of the individual since he thinks that the emergent properties are causally responsible for bringing the individual into existence.¹⁹ But if the emergent states of the individual exist temporally prior to the existence individual, then these universals must exist *separate* from the individual. Given the ontology of universals employed by advocates of EI, this cannot be correct since this theory explicitly states that universals can exist only as constituents of SOAs (which requires that they exist along with a particular and not prior to it). Thus, Moreland is attributing a position to the defenders of EI that they cannot hold given their ontological commitments.

2.1a. The agent is not a purely physical particular

We can now proceed to explaining and replying to Moreland’s objections to EI. Moreland believes that EI fails in its commitment to the Harmony Thesis partly because the emergent agent that it describes is not a purely physical particular. Remember that a portion of Moreland’s Argument from Consciousness is devoted to disqualifying competing naturalist explanations of human consciousness. Thus, if he can show that the EI is not compatible

¹⁶O’Connor and Jacobs, “Emergent Individuals,” 548 (emphasis mine).

¹⁷Ibid., 547.

¹⁸The same can be said for the diagram that appears on p. 666 of O’Connor and Wong, “The Metaphysics of Emergence.”

¹⁹Indeed, as we shall see in sections 1.1b, c, and d below, Moreland is quite explicit about this.

with naturalism, then that theory cannot qualify as a naturalistic explanation of consciousness. I will bracket these concerns about the Harmony Thesis for now, and simply explain why Moreland thinks that EI is mistaken in claiming that the individual that it describes is a physical being.

According to Moreland, the agent described by EI—when described qua agent—is essentially mental in nature; however, when the agent is described from the perspective of a naturalistic ontology, it is described as a physical system or substance.²⁰ Moreover, Moreland expresses strong skepticism as to whether any substance with essential mental properties can be considered a physical substance:

It is not clear how [O'Connor] can hold that the agent self is a physical substance necessarily characterized by emergent mental properties. If the agent self is essentially mental, and if we recognize that a particular's actual and potential properties are both relevant for characterizing the kind of entity the particular is, then the agent self would seem to be essentially a mental/physical particular, and not simply a physical particular with emergent mental properties attached to it.²¹

It is difficult to know what to make of this objection. O'Connor and Jacobs freely admit that they are offering a "qualified" form of the thesis that persons are material substances.²² Further, defenders of EI are neither committed to a strong notion of physicalism nor do they wish to be.²³ Finally, there is some debate over how to define the term "physicalism" or what exactly constitutes a physical object. For example, Andrew Melnyk's *realization* physicalism is a version of physicalism in which every property is either physical or physically realized (brought about by a physical property), and this account of physicalism appears to be consistent with the emergent entities described by EI:

But if current physics is construed broadly, as I have proposed, then even if some branches of physics do turn out to deal with phenomena that are emergent in the relevantly strong sense, realization physicalism will not have been refuted; for the strongly emergent phenomena will in that case count as physical in their own right.²⁴

However one understands physicalism, it is important to keep in mind that EI *does* endorse the notion that human persons are physical systems that have fundamental emergent properties. Whether or not such persons are "purely physical particulars" largely depends upon what one means by "purely" and "physical." Moreland believes that the only way that one

²⁰Moreland, "The Argument from Consciousness," 314. In a related note, Moreland argues along with Galen Strawson that free agency intuitively requires a *mental* subject (see Strawson, *Freedom and Belief* [Oxford: Clarendon Press, 1986]).

²¹Ibid, 315

²²O'Connor and Jacobs, "Emergent Individuals," 540.

²³O'Connor asserted this in conversation.

²⁴Andrew Melnyk, *A Physicalist Manifesto* (Cambridge, U.K. and New York: Cambridge University Press, 2003), 16.

can be a consistent naturalist is to hold to a version of physicalism that does not allow for the existence of ontologically emergent properties.²⁵ Thus, his objection to EI is that it fails as a naturalistic explanation for human consciousness since it does not endorse strict physicalism. Again, it seems that defenders of EI can simply reply that, if this is the notion of naturalism that Moreland insists upon, then EI is not consistent with it (nor would defenders of EI wish their theory to be consistent with such a strong form of naturalism). Of course, Moreland thinks that the only viable form of naturalism is strong naturalism, and we shall examine this claim in more detail in sec. 2.2 below.

2.1b. There is no baseline conscious state to ground the endurance of the individual

Moreland thinks that, given his “composition-conferred-by-holism” interpretation of EI, it appears that there can be no basis for individual endurance through time, since he believes that emergent conscious mental states exist temporally prior to the particular individual which they cause to exist. Since conscious mental states are in perpetual flux, there appears to be no enduring, baseline conscious state to confer individual existence over time.²⁶ Moreover, given his account of how the emergent individual is caused to exist along with EI’s commitment to diachronic causation between physical states and emergent states, Moreland claims that EI implies that *new* emergent individuals are continually coming into existence over time. Here is how Moreland states the objection:

Beyond the very first conscious state, the following would seem to hold: for all C_{N+1} (for N greater than zero) at t_{N+2} , the individual I_{N+1} conferred by and, thus, ontologically tied to C_{N+1} exists at t_{N+2} . I see no further relevant ontological relationship between a conscious state and an emergent individual other than the conferral relation. If this is correct, then it is hard to see how a continuing “self” can exist since there just is no single, ongoing “baseline mental state” throughout one’s life (e.g. in sleep or surgery). Since conscious states are in flux, so are the instantaneous individuals upon whom they confer existence. In this case, for any time t greater than one, there may be an emergent individual that exists while a particular conscious state obtains, but it is the wrong one.²⁷

I concede that the above would be quite damaging to EI *if* this were what the theory actually implied. However, as we have seen, EI does not recognize the “conferral relation” mentioned by Moreland as being a causal relation, and thus it does not entail that emergent mental states are constantly bringing about the existence of new individuals.

²⁵Moreland, “The Argument from Consciousness,” 286–294.

²⁶Moreland says that this is due to the fact that EI holds that the causal relation between basal and emergent states is *diachronic*. See O’Connor and Wong, “The Metaphysics of Emergence,” for an account of this.

²⁷Moreland, “The Argument from Consciousness,” 317.

2.1c–d. EI entails “ownerless” mental states and thinkers being dependent on thinking.

The following objections are both closely related to 2.1b given above; indeed, both of them may simply be considered different ways of framing b. Given the “composition-conferred-by-holism” interpretation of EI, emergent mental states bring about the existence of particular individuals via “top/down” causation and therefore exist temporally prior to the particular individuals. Thus the very first mental state of a person would be ownerless. Moreover, this ownerless objection implies that EI is mistaken with respect to the ontological priority of the mind and its mental states; thus, “thinking” exists before the individual thinker does. Moreland thinks that the priority is wrong here. I agree and so can the representative of EI, because the above is based on a mistaken interpretation of the theory.

2.2 Panpsychism, Naturalism, and EI

Recall that Moreland’s “Argument from Consciousness” attempts to show that only theism can explain the existence of human consciousness and that competing naturalistic explanations are unsuccessful. Also, recall that Moreland argues that EI is committed to the “Harmony Thesis”; that is, its account of emergent individuals is compatible with a naturalistic worldview along with physicalism. Given the above, if Moreland can demonstrate that EI is incompatible with naturalism, then EI can no longer be regarded as a competing naturalistic account of consciousness. One way that Moreland thinks that this can be done is by pointing out the fact that EI is committed to panpsychism (which Moreland considers to be opposed to naturalism).

There are a number of questionable assumptions in the above line of reasoning which I shall address a little later on, but first, let us determine in what sense Moreland thinks that EI entails panpsychism. Generally speaking, “panpsychism” is the view that mind is everywhere. Hence, advocates of panpsychism hold that *everything* (or at least mostly everything) is conscious to some degree or another. Complex organisms like human beings have a much richer conscious experience than fundamental particles, but the latter are still “barely” conscious. None of this is entailed by EI, and Moreland apparently recognizes this by attributing a form of “weak panpsychism” to the theory.

But what is *weak* panpsychism? Moreland borrows the term from Colin McGinn who describes it as physical things having a sort of “protomentality”:

We can hardly suppose that rocks are (sometimes? always?) in mild pain and thinking hazily about dinner, while we feel intense pain and have sharply focused thoughts. No, the idea must be that rocks have what are sometimes called *protomental* states, states that can *yield* conscious states while not themselves *being* conscious states. . . . A protomentality property is defined as

one that is capable of giving rise to mental properties without being *actually* mental—fully, properly, literally.²⁸

Given the above description, it *does* appear that EI would be classified as a form of weak panpsychism (although it is doubtful that EI would attribute protomental states to a rock). In various publications, defenders of the theory have made such claims as “emergent [mental] features are as basic as electric charge now appears to be”²⁹ and “the presence of agent-causal capacities in select complex entities has always been among the potentialities of the world’s primordial building blocks.”³⁰ And, as noted in sec. 1.2 above, EI holds that the fundamental physical entities that give rise to the emergent individual do so by virtue of certain causal dispositions intrinsic to them. Thus it appears there is a sense in which basic physical entities possess protomentality.

Moreland describes positions like the one characterized above as “hard sayings” for naturalists and that the weak panpsychism entailed by EI is “closer to theism than to naturalism.”³¹ As for the former concern, it seems that the force of the objection would depend largely upon what one means by “naturalism”; with respect to the latter statement, one would think that those defenders of EI who are theists would be puzzled as to the force of such an accusation.³² This leads us, once again, to Moreland’s insistence on EI’s commitment to the “Harmony Thesis.”

At the beginning of his article, Moreland goes to great lengths to establish the fact that “strong naturalism” is the only plausible form of naturalism that can be endorsed by someone committed to naturalism. Strong naturalism, as opposed to the weaker version, endorses “a strict version of physicalism” that holds that everything that exists is entirely physical and, thus, rules out emergent entities (including entities brought into existence by the protomental dispositions of physical entities).³³ Moreland thinks that strong naturalism may permit what he refers to as “Emergence₀” and “Emergence₁” (where the former refers to features that may be deduced from a subvenient base and the latter refers to ordinary structural properties), but holds that “there is an increasingly heavy burden of proof on a naturalist ontology” that posits progressively higher forms of emergence

²⁸Colin McGinn, *The Mysterious Flame: Conscious Minds in a Material World* (Basic Books, 1999).

²⁹O’Connor and Jacobs, “Emergent Individuals,” 541.

³⁰Timothy O’Connor, “Causality, Mind, and Freewill” in *Soul, Body, and Survival*, ed. Kevin Corcoran (Ithaca, NY: Cornell University Press, 2001), 58.

³¹Moreland, “The Argument from Consciousness,” 316, 318. It should be noted that there is at least one other well-regarded philosopher (David Chalmers) who claims both a commitment to naturalism and a marked sympathy for some form of panpsychism (*The Conscious Mind* [New York: Oxford University Press, 1996], 293–299).

³²O’Connor related to me in conversation that, if EI is to be regarded as a naturalistic theory, it could only be so in a restricted sense due to his commitment to theism.

³³Moreland, “The Argument from Consciousness,” 286.

(ranging from *sui generis* epiphenomenal properties to emergent souls).³⁴ Moreland holds that this “burden of proof” arises from the “location problem” of naturalism expounded by Frank Jackson.³⁵ Moreland explains the location problem as stating that problematic entities (like emergent mental properties) must either be located in a physicalist description of the world or eliminated. An example he provides (following Jackson) is the property of macrosolidity which can be wholly explained by simply describing the atomic structure of a macrowhole.³⁶ On the other hand, the emergent properties brought about by the weak panpsychism espoused by EI are “completely unique” and “intrinsically characterizeable, novel propert[ies] different from and not composed of the parts, properties, relations, and events at the subvenient level.”³⁷ Thus these emergent properties cannot be located in a strong naturalist ontology and EI fails to deliver on the Harmony Thesis.³⁸

What is the defender of EI to make of all of this? I believe that at least two responses are in order. First, it is not clear that EI is as committed to the Harmony Thesis as Moreland claims (especially given his insistence on the ontology of strong naturalism). While it is true that defenders of EI are puzzled by accusations that the theory “blatantly contradicts ‘the scientific facts’”³⁹ and that they seek to defend the theory from such charges, I can find no place in the literature in which EI is explicitly said to be committed to a naturalist ontology. Indeed, at least some of the defenders of EI acknowledge that the theory is consistent with the notion that God is uniquely involved with the creation of individual human persons.⁴⁰ Moreover, advocates of EI are *critical* of the theories that result from a strong naturalist ontology (along with rejecting a number of the principles that the ontology entails).⁴¹

This leads to my second response. The consensus concerning naturalism and the emerging scientific picture of the world that Moreland appeals

³⁴Ibid., 290.

³⁵Frank Jackson, *From Metaphysics to Ethics: A Defense of Conceptual Analysis* (Oxford: Clarendon Press, 1998), 1–5.

³⁶Moreland, “The Argument from Consciousness,” 286.

³⁷Ibid., 288.

³⁸Moreland also holds that a strong naturalist ontology requires the causal closure of the physical (which is another principle denied by EI).

³⁹Timothy O’Connor, *Persons and Causes: The Metaphysics of Freewill* (Oxford: Oxford University Press, 2002), 108.

⁴⁰O’Connor and Jacobs, “Emergent Individuals and the Resurrection,” 87n.

⁴¹“There is, then, positive evidence that strongly favors a dualist direction at least as strong as the emergentist property dualism envisioned here. All evidence is defeasible, of course, and some will contend that the whole conception of mind on which this is based, deeply entrenched as it is, is but an illusion which must give way to reductive, third-person theories. To that we say: believe it if you can. And do not neglect to develop an epistemology—anti-skeptical, lest you saw off the limb on which you stand!—that shows how our ordinary empirical knowledge may comfortably rest on a radical and pervasive cognitive illusion at its very source.” O’Connor and Wong, “The Metaphysics of Emergence,” 674.

to is far from general. Indeed, there are a number of well-respected philosophers who have advocated a revolutionary revision of fundamental physics in order to accommodate the phenomena of consciousness.⁴² Thus it does not appear that Moreland's claim that strong naturalism is the only viable option for the would-be naturalist is substantiated. In the end, defenders of EI can simply reply that, if a commitment to naturalism *requires* a commitment to strong naturalism, then so much the worse for naturalism. Hence I consider Moreland's objections stemming from the Harmony Thesis to be irrelevant.

2.3 EI and Causal Necessitation

A final objection that I will consider here is that the account of causal powers endorsed by EI does not allow for what appears to be a plausible contingent relationship between the mind and body. Unfortunately, Moreland couches much of this objection within the context of the Harmony Thesis, and in the light of what has already been said about this above, I will simply choose to focus upon Moreland's metaphysical objections to EI's account of causation and forego any more talk about the Harmony Thesis.

As noted in section 1.1 above, EI is committed to a theory of causal realism often referred to as the "powers" theory of causation. According to this view, causation is the manifestation of certain dispositions intrinsic to the nature of substances. A common illustration is that part of the nature of salt is "solubility," and that this power is manifested when salt is placed in the proper circumstance (being immersed in water).⁴³ Within the context of EI, fundamental physical particles have, as a part of their nature, the tendency to cause the existence of ontologically emergent mental properties when a certain threshold of structural complexity is achieved. Thus there is some sense of a necessary connection between underlying physical entities and the emergent properties to which they give rise.

It is this necessary connection between the base properties and emergent properties to which Moreland objects:

Since an emergent property is the actualization of causal potentialities in the right circumstances, the emergent property seems to be a part of its causal property's identity as well. Thus, an emergent property seems to require its base property to exist.⁴⁴

⁴²See Chalmers, *The Conscious Mind* (Oxford University Press, 1996); Searle, *The Rediscovery of the Mind* (MIT Press, 1992); Strawson, "Why Physicalism Entails Panpsychism," in *Consciousness and Its Place in Nature*, ed. Galen Strawson (Exeter, U.K. and Charlottesville, VA: Imprint Academic, 2006); and Nagel, *Mind and Cosmos* (Oxford University Press, 1986) for just a few examples of philosophers who—along with a commitment to naturalism—either explicitly endorse or at least allude to a need for a revolutionary revision of fundamental physics.

⁴³Although it should be noted that many powers theorists would not actually agree that the "solubility" of salt is a fundamental property of the world.

⁴⁴Moreland, "The Argument from Consciousness," 320. One minor quibble here; Searle's Chinese Room thought experiment is an objection to the notion that the brain is nothing more than a digital computer. The Chinese Room is not an objection to the necessary con-

Unfortunately . . . the link between mental properties and the relevant physical circumstances seems utterly contingent. Grounded in strong conceivability, thought experiments that provide strong justification for this claim proliferate throughout the literature. For example, inverted qualia and Chinese Room scenarios seem to be coherent and entirely possible. No strictly physical proposition of [naturalism] employing solely physical terms for particulars, properties, relations, or laws renders these thought experiments broadly logically impossible, even in worlds that resemble ours in every physical respect.⁴⁵

Moreland's objection is that the relation between the mind and the body (or brain) is contingent and not necessary. Thus EI, with its necessary relation between the physical and the mental, cannot be correct. In responding to this concern, it might be helpful to begin by clarifying the notion of necessity in play here. It appears that Moreland holds EI to entail that specific physical states cause specific emergent states necessarily.⁴⁶ Defenders of EI, however, would simply deny this claim. Given indeterminism, there is an objective probability that a physical state will *not* cause the existence of an emergent state. Moreover, an indeterministic physical state might bring about the existence of one of two *different* emergent states, and "[i]n such a case, it is possible for there to be two physically and nomically indiscernible worlds which nonetheless differ with respect to their emergent properties."⁴⁷

But perhaps there is another way to frame Moreland's objection (at least with respect to the problem of inverted qualia). Suppose that there is a physical entity B whose nature is to be disposed to bring about *only* the experience of a certain shade of blue to the subject.⁴⁸ Given the essentialism of causal powers, could B have been disposed to bring about the qualitative experience of red in another world? It seems that the causal powers theorist would have to reject this possibility given the nature of the entity in question. Given this extremely simple scenario, perhaps we can get a feel for Moreland's concern.⁴⁹ Couldn't we at least *conceive* of a world in which B causes the experience of redness rather than blueness?

Moreland appears to be leaning heavily on the notion of strong conceivability with respect to these concerns. But is there any good reason to think that conceivability entails possibility? One problem here is that just because we *think* that we can imagine something does not mean that

nection between the body and the mind. It is not clear to me why Moreland pairs it with the inverted qualia thought experiment.

⁴⁵Ibid., 320.

⁴⁶"Since most philosophers identify the supervenience relation with the causal relation in the case of emergent properties, it is in this causal sense that in the right circumstances, the instantiation of a subvenient property necessitates the instantiation of its associated emergent property." Moreland, "The Argument from Consciousness," 320.

⁴⁷O'Connor and Wong, "The Metaphysics of Emergence," 668.

⁴⁸I realize that defenders of EI would probably reject the idea that a single physical entity is causally responsible for a specific emergent qualitative experience. I am merely using this radically simplified scenario to try to get at what Moreland is thinking here.

⁴⁹This is a rather common objection to neo-Aristotelian essentialism and causal powers.

we actually can. For example, in one of the Star Trek movies (*The Voyage Home*), some of the crew of the *Enterprise* are trapped in the past and in desperate need of some plexiglass. Since the crew has no money, chief engineer Scott trades the design schematics of transparent aluminum (a metal from the future) for the desired plexiglass. The actual possibility of the existence of transparent aluminum is lost in some comedic banter about the dangers of disturbing the past. But is this *really* possible? Can we actually conceive of transparent aluminum or do we merely *think* that we can? The answer to this question isn't obvious.⁵⁰ Moreover, even if such a thing *is* conceivable, it is not clear that this entails its possibility.⁵¹ Thus, given the workings of EI in an indeterministic world, as well as the questionable status of strong conceivability, I find Moreland's objections to EI's account of causation to be weak at best.

III. Conclusion

As I hope to have demonstrated above, many of Moreland's objections to EI are unsuccessful due to his misinterpretation of the theory. EI is not the thesis that individuals are brought into existence by previously existing emergent properties. Rather, EI holds that individuals—having both mereological and non-mereological parts—are brought into existence when fundamental physical simples reach a threshold level of structural complexity. This means that, contrary to Moreland's objections, emergent individuals are not dependent upon temporally prior emergent properties for their identity or existence; neither are there new emergent individuals constantly being brought into existence via diachronic causation. Rather, EI entails that the emergent individual endures due to its own thisness that is part of its non-mereological structure.

Hence the theory of emergence criticized by Moreland is not the one espoused by EI, his concerns about EI's weak panpsychism and commitment to the Harmony Thesis are unsubstantiated, and his objections to the causal powers theory endorsed by EI don't take into consideration what the defenders of the theory have to say about the implications of indeterminism. Moreover, at least some of the defenders of EI are in considerable agreement with many of Moreland's basic assumptions about human persons, agent causal power, and the existence of God. Thus, it would seem that Moreland, in misunderstanding the theory at which he has taken aim, may be guilty of a bit of friendly fire.⁵²

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⁵⁰This is a different version of an original thought experiment of Peter van Inwagen's in his "Modal Epistemology," *Philosophical Studies* 92:2 (1998), 67–84.

⁵¹For an interesting account of modality within the framework of a causal powers theory see Jonathan Jacobs's "A Powers Theory of Modality," *Philosophical Studies* 151:2 (2010), 227–248.

⁵²Special thanks are due to Jonathan Jacobs and Robert Hartman for their helpful feedback on an earlier draft of this paper.