Epiphenomenalism

Emerson Green hosts a podcast called Walden Pod. On one episode of his podcast, Green discussed the topic of epiphenomenalism. That's a big ugly word, the kind of word I really don't like. The first time I encountered the word epiphenomenalism, I struggled to pronounce it. No luck. So, I tried again and I failed miserably. Eventually, I learned to pronounce the word.

Unfortunately, epiphenomenalism is much easier to pronounce than it is to understand. What does it mean?

Most people believe that our conscious thoughts arise from our brains; in other words, our thoughts are the product of the web of neurons inside our skulls. Neurons generate consciousness. We don't know how neurons generate consciousness, but most people accept that they do. It is not especially controversial to say that neural firings have a causal influence on our mental states.

Many people believe that our thoughts, in turn, causally influence our neurons. Epiphenomenalists do not go along with the dominant view that our conscious thoughts affect our brains. An epiphenomenalist believes that our thoughts are inert. They don't influence our brains.

Consider an example. If you decide to raise your arm, and then your arm rises, the epiphenomenalist will say that the thought "I want to raise my arm" and the raising of your arm are both caused by the firing of nervous tissues in your body. According to the epiphenomenalist, the thought "I want to raise my arm" and the raising of your arm have in common that they are effects of neural activity. The movement of your arm may trigger neural firings in the arm and can thereby provide feedback to the rest of your nervous system. Arm movements can therefore have a causal influence on neurons in your brain or other parts of your body in addition to your arm.

But the epiphenomenalist interpretation does not accept that your thought "I want to raise my arm" can causally influence neurons anywhere in your brain or body. The flow of causes is strictly from body to mind, with no feedback from the mind to the body.

This epiphenomenalist perspective flies in the face of our intuitions. It feels to us, intuitively, as though our brain caused the thought "I want to raise my arm" and that this thought, in turn, caused the nerves in the arm to elevate your arm. Emerson Green embraces this intuition. He therefore rejects epiphenomenalism. His podcast was intended to explain why he thinks epiphenomenalism is wrong.

I really enjoyed Green's podcast. He's a smart fellow. I agree with most of the opinions he expresses. But I did not believe his case against epiphenomenalism was compelling. So, I emailed him. He responded to my email. Then I responded to his email. What follows are the three emails we exchanged.

Emerson Green,

I have listened to many of your podcasts. They're great. Fantastic. Well made. I really enjoy them.

So, pardon me for waiting until I listened to episode 24 at https://audioboom.com/channels/4990493 before sending you a thanks.

Thanks. Thanks. Thanks.

Okay, now that I've caught up on my thanks, it's confession time. This will probably make me sound like an unpleasant character (which I am), but I didn't feel adequately motivated to email you until I heard you saying things that I believe to be incorrect. It's my nature to stay silent until I think someone goofs up, and then I try to set them straight. Maybe that's why I don't have many friends. But I truly respect you and the effort you put into these excellent podcasts, so here goes…

I am an epiphenomenalist. I don't go around wearing an epiphenomenalist uniform and cap, and I am quite willing to abandon my tentative alignment with epiphenomenalism, but for the time being it strikes me as the most plausible position to hold.

When I say "plausible," I say it a little tongue-in-cheek. Epiphenomenalism is horrendously counter-intuitive. It's so counter-intuitive that the whole structure of our language seems to assume it is false. In fact, that's being too generous. Our ordinary language never even acknowledges that epiphenomenalism is a thing at all.

We constantly say, for instance, that we performed actions because we WANTED to. We say that we fetched a glass of water because we were thirsty. This linguistic presumption against epiphenomenalism makes it difficult to translate our ordinary descriptions of our beliefs and actions into epiphenomenalist language. Anyone who tries to make the case for something as counter-intuitive as epiphenomenalism, and does so with all the linguistic contortions inherent in such a project, is embarked on a daunting (bordering on foolhardy) task.

Folk wisdom holds that if I decide to perform an action, perhaps pick my nose, my conscious desire to pick my nose, through a labyrinthian chain of causal events, culminates in my arm reaching up toward my nostril and my finger being extended. Epiphenomenalists say that, to the contrary, my decision to pick my nose and my limb motions are both dictated by neural architecture. My "decision" was a side-effect of my neural firings, much as heat emanating from my skin is a side-effect of my being warm-blooded. This analogy between consciousness and body heat brings us to the first objection often raised against epiphenomenalism.

Evolutionary objection

Natural selection is frugal, breeding out talents or traits that don't contribute to survival. If consciousness is merely incidental, why has it been bred into so many species? The first thing to notice

about this question is that it presumes that it would be biologically more efficient to eliminate consciousness. That may not be so. Consider heat radiating from our skin, which might be beneficial or detrimental, depending on environmental circumstances. Body heat is subject to selective pressure, giving rise to different body shapes, subcutaneous fat layers, sweat glands, and hair. But if consciousness doesn't influence brain states, it has no such implications for our fitness; it's beyond the reach of natural selection. Critics of epiphenomenalism seize on this to say, "Traits not subject to selection typically drift. If natural selection can't apply its filtering activity to mental states, they ought to drift untethered like a balloon departing from the circus." But I would propose that consciousness is stabilized indirectly by natural selection operating on the brain itself. Natural selection sculpts our neurons with exquisite precision. If consciousness is the product of neurons, it must be sculpted with equal precision. As an aside, let me say something about dreams. Dreams don't seem, as far as we know, to influence our behavior. Indeed, our bodies are paralyzed during sleep to prevent any motor responses to our dreams. During sleep, our brains (in addition to performing numerous housekeeping functions) replay/store memories: snippets of scenes that occurred during the day. The brain's left hemisphere narrator shoehorns the apparent nonsense into a wacky story. Dream narratives thus appear to be epiphenomena. Our consciousness might be the daytime counterpart (not exactly equivalent, but operational counterpart) of nightdreams.

Placebo effect

Suppose B is the belief that a pill is healthful and that NS-B is the neural state of holding such a belief. Notice that the "placebo" objection assumes that the NS-B cannot influence other neural states. It assumes, in other words, that it must be B rather than NS-B that is essential to the placebo effect. This is begging the question. If the critic were to protest, "No, the placebo effect requires conscious awareness," then my response is that this is count two of begging the question. Obviously, one must excite the neurons involved in NS-B through some means. The epiphenomenalist might explain how this could be achieved through auditory stimuli (telling the patient about the cure-all pill). The critic of epiphenomenalism might object that this method of exciting NS-B entails that the patient is conscious; exciting NS-B via a conscious interaction between doctor and patient violates the whole notion that consciousness is an unnecessary link in this causal chain. If that criticism sounds plausible to you, then you're appealing to the next objection to be discussed.

Talking about consciousness

Critics say that the mere fact that we can discuss conscious states and form beliefs about them means that these conscious states are causally influencing downstream beliefs. This objection to epiphenomenalism arises from a failure to grasp that brain wiring produces all thoughts directly, without a feedback loop that traces from consciousness back to neurons and then back to consciousness.

What we call a conscious thought is merely one property of the underlying event. Another property is the neural activity. Epiphenomenalism holds that the neural wiring must be complex enough, featuring enough feedback mechanisms, to generate conscious thoughts that are mutually intertwined. Therefore, this criticism of epiphenomenalism is easily defeated. In the case of the doctor speaking to her patient about a placebo pill, the doctor's brain is causing her vocal cords to make particular sounds, which enter the ears of the patient and stimulate a series of neural firings. At no point in this process is there evidence of any causal loop that extends out of the neural realm into the mental realm and then back into the neural realm. The evidence of mental correlates for these neural states is just that, evidence of mental correlates, nothing more.

Pain motivates avoidance behavior

Epiphenomenalists hold that the consciousness of pain is a product of a neural state. The neural state also causes the physical reactions to pain. The physical reaction need not be a mere reflex motor action. The neural state may incorporate higher brain functionality (say, in the frontal cortex), causing not only complex and sophisticated reactions to the pain, but also complex and sophisticated conscious ideas about the pain. Neural states, as responses to stimuli, can evolve not merely for avoidance of a present pain, but even for potential or (neurologically) anticipated pain. There is no need to presume that consciousness of pain itself has any causal influence on the cascade of neural states involved in the processing of pain or avoidance of pain. Therefore, this objection against epiphenomenalism misses its mark. Moreover, any objections against epiphenomenalism derived from pleasure-seeking would be liable to the same defects as are objections derived from pain-avoidance. A critic might propose that, from an epiphenomenalist perspective, the psychological aspects (the feeling of pleasure or pain) could have been reversed, so that we felt pain when having sex and felt pleasure when having our noses thumped. But this proposal surely cannot be intended to suggest that the neural and mental states are dissociated. No epiphenomenalist holds that to be the case. On an epiphenomenalist view, we would expect consistent mental responses to pleasure or to pain, even among nonhuman species, and that's precisely what we find. These correlations are not, as critics of epiphenomenalism maintain, "products of mere chance." That complaint, a complaint often lodged by creationists and anti-evolutionists, is rooted in a failure to comprehend the theory being critiqued. Which sensations we choose to identify as "pain" and which as "pleasure" may be as arbitrary as which pole of a battery is labeled as positive and which is labeled as negative, but this doesn't alter the ontology. It reduces to a mere word game. The actual sentiments of aversion and attraction, like their neural correlates, are not arbitrarily associated with detrimental and beneficial environmental stimuli.

Unfalsifiable

The critic might sigh, "Epiphenomenalism is inherently unfalsifiable. From a scientific perspective, what good is a hypothesis that can't be experimentally confirmed or disconfirmed?" This criticism, if it has force, would seem to be aimed against all speculation on the frontiers of science as well as all philosophy. Epiphenomenalism may not be testable until we discover how brains cause consciousness. That discovery may shed light on whether causation can run in the opposite direction, from the mental to the neural. In the meantime, both the proponents and the critics of epiphenomenalism are equally restricted to the realm of philosophy, where science is pertinent but not always determinant.

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I am not a philosopher. The topic of this email is one on which I have no credentials to speak. Please forgive me if I have mangled or misunderstood the criticisms raised against epiphenomenalism. My objective in writing on this topic is not to win a debate, but rather to explain why my opinions on this topic differ from yours. You may be right to reject epiphenomenalism, and you may even be able to clarify where my thinking has run off track. If so, I would be grateful for the correction. But I am not so presumptuous as to assume you have time to reply to every fan (and I do consider myself a fan).

Again, I appreciate your fascinating podcasts. I highly recommend them to others who enjoy contemplating philosophical quandaries.

Sincerely,
Daniel K. Chaney

Hey Daniel,

I was delighted to read your thoughtful email. I think you raise some interesting points. We're certainly in agreement that epiphenomenalism is counter-intuitive, but I'm open to anything when it comes to consciousness.

My first evolutionary argument only works if experience is metabolically expensive. If it is (which seems like a safe assumption, though it is merely an assumption), then I don't see why it would evolve, and evolve so many times. Natural selection wouldn't be so inefficient. On the other hand, if consciousness is a freebie, or the energetic cost is negligible, then I don't have an argument here.

But there's a second evolutionary argument, which I think you slightly mischaracterize here:

"But if consciousness doesn't influence brain states, it has no such implications for our fitness; it's beyond the reach of natural selection. Critics of epiphenomenalism seize on this to say, 'Traits not subject to

selection typically drift. If natural selection can't apply its filtering activity to mental states, they ought to drift untethered like a balloon departing from the circus.'"

The Jamesian evolutionary argument isn't that epiphenomenal conscious states should merely drift from brain states, it's that there's no reason to expect phenomenal states and brain states to line up at all. It's not that they would start off tethered and gradually drift; there's simply no reason in the first place to expect pain to be tethered to avoidance and repulsion, pleasure to attraction, neutral phenomenal states to inactivity. (These are "the correlations" that need explaining.) So yes, there might be drifting, but the real problem is why the correlations would line up *exactly as we would expect* if phenomenal states did have a causal effect. Whether you find James and Mørch's argument convincing is one thing, but it is a sound inference to the best explanation. On non-epiphenomenalism, we should expect these correlations. On epiphenomenalism, there is no reason to expect them.

If conscious states are beyond the reach of natural selection but brain states are not, the correlations must be the result of laws of nature that are simply brute. But why shouldn't these brute laws have produced different correlations?

Your response to the second evolutionary argument is that "consciousness is stabilized indirectly by natural selection operating on the brain itself. Natural selection sculpts our neurons with exquisite precision. If consciousness is the product of neurons, it must be sculpted with equal precision." Sure, but why would that precise sculpting produce the correlations we witness and not other correlations? Why shouldn't consciousness be "stabilized" in a different correlational scheme? On epiphenomenalism, it's just as likely that we'd find ourselves in a universe where our neurons are being sculpted with exquisite precision by natural selection, but producing correlations quite different from the fortuitous correlations we experience. The epiphenomenalist must posit brute laws of nature to explain our correlations. But again, why should we expect these brute laws and not others? It's quite a fortunate coincidence, on epiphenomenalism. Why not take the better explanation, which is that phenomenal states are capable of producing causal effects?

That's one issue I'd be interested in hearing more about. What are the benefits of epiphenomenalism? I don't quite understand the appeal. It doesn't seem to be the best explanation of the data, and it seems to be produced by dualistic assumptions that we can simply reject in favor of different assumptions that don't lead to the same problems. Though I'll concede that dreams are an interesting datum that fit more neatly into an epiphenomenalist scheme. But beyond that, I'm not sure what the advantages of epiphenomenalism are.

I also concede that the placebo effect and other psychosomatic phenomena are compatible with epiphenomenalism.

My argument was:
(1) If mental states have a causal effect on physical states, epiphenomenalism is false.
(2) Mental states have a causal effect on physical states.
(Conclusion) Epiphenomenalism is false.

But it's impossible to prove (2) one way or the other. If an epiphenomenalist can give a logically coherent account of psychosomatic phenomena, there's no way to prove him wrong. I was simply appealing to the conventional understanding of psychosomatic phenomena, which could very well be a product of our linguistic bias against epiphenomenalism. The same goes for any appeal to mental causation, like talking

about consciousness, pain avoidance, etc. It's ultimately question-begging to assert these definitely are or are not examples of mental causation.

As I said in the episode, James and Mørch's evolutionary argument is the main reason I'm a non-epiphenomenalist. Additionally, I find Mørch's specific non-epiphenomenalist view, the "phenomenal powers" view, deeply persuasive. I also think it's capable of making sense of other problems in philosophy. So my main reasons are (1) the abductive evolutionary argument, and (2) the fruits borne by non-epiphenomenalism. Here's the paper, if you're interested: https://pdfhost.io/v/K6jNJzQ~H_The_Evolutionary_Argument_for_Phenomenal_Powers_Mrch.pdf

I agree wholeheartedly with what you say here: "The critic might sigh, 'Epiphenomenalism is inherently unfalsifiable. From a scientific perspective, what good is a hypothesis that can't be experimentally confirmed or disconfirmed?' This criticism, if it has force, would seem to be aimed against all speculation on the frontiers of science as well as all philosophy. Epiphenomenalism may not be testable until we discover how brains cause consciousness. That discovery may shed light on whether causation can run in the opposite direction, from the mental to the neural. In the meantime, both the proponents and the critics of epiphenomenalism are equally restricted to the realm of philosophy, where science is pertinent but not always determinant."

Unfalsifiability has its limits. And when we're talking about phenomenal consciousness, which is only observable from a first-person perspective and unobservable from a third-person perspective, falsifiability has no relevance. For the same reason I can never know if you're conscious, and we'll never know if HAL from Space Odyssey was conscious, we cannot possibly confirm or falsify materialism, property dualism, panpsychism, or subjective idealism. They are all metaphysical hypotheses, attempting to make sense of a phenomenon that we know is real and yet cannot observe. Materialism is a metaphysical view that is utterly unfalsifiable and is not implied by science, even if it is popular with scientists (at this particular moment in time). Most metaphysical views of mind and matter are empirically equivalent. Conceptual arguments over theoretical virtue are the only arguments we *can* have on this topic.

"I am not a philosopher. The topic of this email is one on which I have no credentials to speak." Well, I have no credentials of any kind, so that doesn't matter much to me. :)

Thanks again for your kind and thoughtful message.

Emerson

Hi, Emerson,

I enjoyed reading your reply. You raised some interesting and pertinent issues. Below are my responses to those issues. I abbreviated epiphenomenalism to E.

Issue #1: On E, natural selection should eliminate conscious experience. After all, it "seems like a safe assumption" that "experience is metabolically expensive."

Response #1: Suppose consciousness is indeed metabolically expensive. This alone would not be sufficient to cause natural selection to eliminate it. Consciousness may be an essential and inherent effect of neural activities. Even if the neural activity is, due to its seemingly fruitless generation of consciousness, metabolically expensive, all that is required for natural selection to generate consciousness is that the underlying neural activity be sufficiently advantageous. In way of analogy, consider that the totality of an organism is one huge metabolic expense, yet our planet teems with living organisms.

Response #2: It is not a safe assumption that conscious experience is metabolically expensive. We can measure neuronal energy consumption, but no measurable energy is consumed by consciousness itself. There may be no metabolic cost to conscious experience beyond that of the neurons. If there is any additional metabolic cost, it is too small to detect even with our most sensitive scientific instruments.

Response #3: It might be suggested that the energy expended to generate consciousness is of some form not currently recognized by physics. But if that is the case, it would cast doubt on whether that energy is effectual within the physical realm. If it is not, then it has no influence on the physical process of evolution.

Issue #2: On E, there's no reason "to expect pain to be tethered to avoidance and repulsion, pleasure to attraction, neutral phenomenal states to inactivity...On E, it's just as likely that we'd find ourselves in a universe where our neurons are being sculpted with exquisite precision by natural selection, but producing correlations quite different from the fortuitous correlations we experience…"

Response #1: This criticism of E arises from the presumption that on E the actual conscious experience does not matter, so the conscious experience could be anything, whereas on non-E, the tenor of the experience does matter because it must give rise to the attractive behavior. I do not think the critic is arguing that it is LOGICALLY impossible for a sense of revulsion to produce attractive behavior. Perhaps the critic is arguing that it is PHYSICALLY impossible for mental revulsion to causally produce attractive behavior. But given that the critic lacks the ability to prove that any mental state, whatever its tenor, is required to produce any behavior, the critic a fortiori lacks the ability to prove that a particular mental state is required to produce a particular behavior.

Response #2: Suppose X is the necessary and sufficient cause of Y. If X occurs, Y must occur. If Y has occurred, X must have occurred. We cannot alter the nature of X without altering the nature of Y and vice versa. Okay, let us consider this tight causal relationship from the perspective of E and from the perspective of non-E. On E, X is a specific neural state and Y is a specific mental state. On non-E, X is a specific mental state and Y is a specific neural state. The direction of the dependency differs on E as compared to non-E (namely, their order of dependency is reversed), but the fact that there is a firm and

unalterable dependency between a specific neural state and a specific mental state is identical in both cases. The natures of X and Y are bound together regardless which is the cause and which is the effect. On E (as on non-E), Y cannot be dissociated from X.

Response #3: Imagine a creature that lacks consciousness, yet it has the physical/mechanical ability to be attracted to food and to be repelled by temperature extremes. As the creature evolves to have more refined interactions with its environment, it will likely grow more neurons, eventually developing a primitive brain. Suppose the increasing complexity of the brain's neural networks leads to what neural network experts refer to as "representative tokens", which correspond to stimuli such as different kinds of small edible animals in this creature's environment. The creature is differentially attracted to some kinds of prey animals more than others. If this creature were to evolve any consciousness, the conscious state of attraction would be necessarily a product of the neural state of attraction. The qualities of a conscious state of attraction are not arbitrary; they are strictly dictated by the neural state. Whatever the conscious features of that state may be, there's no reason to believe that there would be any degrees of freedom in those features. This is true whether those features have any effect on the neurons or not. The fact that a given experience "feels" like attraction or "feels" like revulsion is not mere happenstance. For an experience to feel any other way—that is, to be described as misaligned with our neural state—would require an external reference by which we could gauge the proper alignment of our experience with the neural state. But if such an external reference were to become available to us, it must enter our consciousness and thus would be, not something external, but an internal experience.

Response #4: The argument that, on E, the correlations between mental and neural states would be unstable and variable is based on the assumption that mental states are not determined by neural states. A similar but less ambitious anti-E argument holds that the correlations might be stable, yet different from what they are observed to be. This less ambitious objection to E fails for the same reason the more ambitious argument fails; for, how could the correlations be other than they are if they are strictly determined by neural states? On E, the particular qualities of experiential states are not inexplicable brute facts. On E, it is not only the fixity of these states that is explicable by the neural states, but also the content. If the critic wishes to ask why the particular content is produced by a particular neural state, let us invert the question: Does it make sense to suggest that an experience rigidly determined by neurological revulsion would have any characteristic other than what we would perceive as revulsion?

Response #5: If neural states do not strictly determine mental states, mental states would be unpredictable and to some extent dissociated from the underlying neural states. Mental states might similarly lack an ability to strictly determine neural states. In any case, mental states, due to their own unpredictability, would produce unpredictable effects on downstream neural states. Any argument against mental states being precisely determined by neural states undermines the non-E view.

Response #6: This response, though perhaps a bit tangential, may be worth stating explicitly. The question as to "why" specific conscious states exists, if such a question seeks the purpose of conscious states, is malformed. We might inquire into the mechanics of how consciousness came into being (i.e., the process by which neurons cause consciousness), but asking the purpose of conscious states is like

asking the purpose of life. Life is subject to causal explanations, yet that does not indicate that life has any purpose or intended role. Likewise for conscious states. They have no identifiable purpose—or even any identifiable functional significance.
Response #7: Although reams of neurological experiments corroborate the causal dependency of mental states on neural states, no one can explain the process by which a specific neural state gives rise to a specific conscious state. This, I believe, is conceded by advocates of E and non-E. So, they are on equal footing, at least in this one respect. However, the advocate of the non-E view suffers a unique disability, namely that there is no evidence whatsoever that mental states produce neural states. There isn't merely a lack of explanation for HOW mental states influence physical states; there is no evidence that the physical states are in any way dependent on mental states.

Issue #3: E "seems to be produced by dualistic assumptions..."

Response #1: Perhaps you can explain where you see an incompatibility between E and monism. I see no incompatibility.
Response #2: Non-E is founded on the notion that consciousness resides somehow within the architecture of the brain and causally influences the brain, like a ghost in the machine. The intuition that consciousness controls neural matter, it seems to me, is a lingering shadow of dualism.

Issue #4: "I find Mørch's specific non-E view, the 'phenomenal powers' view, deeply persuasive."

Response #1: In the PDF you sent me, Hedda Hassel Mørch describes the phenomenal powers view (PPV) as the view that mental phenomena (experiences) are intrinsically efficacious as causes. Mørch contrasts PPV with the "governing laws" view, which holds that a cause brings about its effects not due to something intrinsic in the cause, but rather "in virtue of external irreducible laws." I am aware of no modern philosopher who believes natural laws are efficacious. Natural laws don't dictate what happens. They describe what happens. The consensus among philosophers of science is that natural laws are inferred from observing the regular patterns in nature. So, in contrasting PPV with the "governing laws" view, Mørch seems to be challenging a dead horse to a race.
Response #2: Mørch also contrasts PPV with the regularity theory, which she [mis]characterizes as the view that "causes do not necessitate their effects but are merely contingently followed by them." Mørch seems to conflate two different ideas here. A plurality, if not a majority, of philosophers embrace the regularity view (first advanced by Hume) that we infer cause-effect relationships rather than directly observing them. The regularity view does not hold that cause-effect relationships are not ontologically real or necessary. Hume himself said (J. Y. T. Greid, ed., The Letters of David Hume, Oxford University Press, NY, 1932, vol. 1, p.187), that his view does not require that one deny the ontological reality and reliability of cause-effect relationships. Nor does the regularity view deny that an event can have some

inherent characteristic that allows it to cause some other event. Mørch conflates Hume's (and subsequent philosophers') epistemic stance with an unrelated ontological stance.

Response #3: Many epistemologists follow Hume's lead in suggesting that our belief in the uniformity of nature is instinctual or, in modern nomenclature, properly basic. Again, this is a question of epistemology, not ontology.

Response #4: For the reasons given above, I reject Mørch's positioning of PPV as one of the participants in a three-way contest to interpret the nature of causation. PPV does not even proffer an explanation of causation. It merely asserts, based on an appeal to our intuitions, that mental states can operate as causes.

Response #5: When modern physicists speak of causes, those causes are reducible to the transfer of force carrier particles such as photons and W and Z bosons. But if mental causes are real, they certainly are not reducible to force carrier particles—otherwise, they would be detectable by physicists. This puts Mørch's notion of causation in tension with (or at least in distinction from) our physical notions of causation. I don't suggest that this is a problem unique to PPV; no one (whether they are champions of E or non-E) understands how causation operates between neurons and consciousness.

Response #6: Mørch sets out to "argue that the evolutionary argument supports that the phenomenal powers view is true for at least pain and pleasure." Perhaps I am missing something in the pages that follow, but it appears to me that Mørch reiterates what PPV holds without showing how it is superior to E. The only apparent exception is that PPV, unlike E, would allegedly explain our intuition that our emotions and other mental states have causal powers. But if intuitions have neurological causes (which seems to be the case), then this quandary is subsumed by the larger question as to whether all conscious experiences, including our intuitions, have any causal efficacy. In the end, Mørch's entire argument boils down to our intuition that consciousness effects neurons. If you think I have missed some poignant insight presented by Mørch, I would be grateful if you paraphrased her insight in a clear and simple form that I may be able to more fully comprehend and appreciate.

Response #7: I could not find any justification for the comment on page 4: "epiphenomenalism is also compatible with the correlations, but gives them lower probability than non-epiphenomenalism." This alleged advantage of PPV was, I think, sufficiently debunked in the discussion of issue #2 (above).

Response #8: Describing Mørch's argument as an appeal to intuition, as I have done, is neither an insult nor a refutation. Intuitions are vital components of our philosophical meditations. All our inferences are built upon foundational (properly basic) beliefs, which are our deepest and most unshakable intuitions. Rationality incorporates and depends upon these intuitions. And yet, ironically, the willingness to challenge our intuitions lies at the core of the scientific endeavor. Copernicus challenged our intuition that the sun revolves around Earth. Einstein challenged our intuitions about space and time. We use our intuitions (and the scaffolding of higher reasoning built upon them) as tools to scrape the floor of our intuitions, attempting to deconstruct as many intuitions as possible and to reduce our inventory of presuppositions to a bare minimum. Our quest to discredit our intuitions brings us to the benefits of E, which I will briefly mention next.

Issue #5: What are the benefits of E?

Response #1: E is the more parsimonious view. We should not postulate causal influences where none are required to account for what we observe and where none are detectable. Dispensing with the intuition that thoughts cause actions creates no novel gaps in our explanatory framework.
Response #2: E appears to conform with what we know about dream states.
Response #3: E allows us to avoid the notion that neurons and conscious states just happen to coincide, which is a problem that arises from a dualist mindset.

Thanks again, Emerson, for your interesting and challenging reply. I have enjoyed the opportunity to re-evaluate my opinions on this topic in light of a thoughtful contrary perspective. I am glad we met.

And thanks again for your wonderful podcasts.

All the best,
Daniel