Identity Panpsychism and the Causal Exclusion Problem.

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Abstract: Russellian panpsychism is often regarded as a theory of mind that bears promise of integrating conscious experience into the physical causal order. In a recent article by Howell, this is questioned. I will argue that failure to address Howell’s challenge properly has deeper consequences than it might initially appear; epiphenomenal micro-qualia means that we have lost a unique opportunity to gain insight into necessities in nature. In order to make use of this opportunity, however, some initial assumptions commonly made must be dropped: most crucially, the assumption of mind-body distinctness. In what follows, I try to provide a sketch of how a slightly different version of Russellian panpsychism can be formulated that builds around identity instead of mind-body distinctness. This version of panpsychism can meet Howell’s challenge, but what is more, it can be met in a way that fully makes use of the special place occupied by panpsychism regarding the mysterious nature of the “necessary connection” between cause and effect.

Introduction

Consciousness is puzzling. On the one hand, there is no knowledge more secure than the fact of our own consciousness; we have direct, first-hand experience of being conscious creatures, and in having that, there is a fundamental sense in which we know exactly what it is to be conscious. On the other hand, consciousness seems entirely different from the rest of the physical world as it is known to us through the natural sciences and from everyday contact with standard physical objects such as tables and stones.

The rejection of dualism, together with growing disaffection with traditional, physicalist accounts of consciousness, has opened the doors for a re-flowering, in philosophy of mind, of the ancient doctrine of panpsychism; the view that nature itself, at some fundamental level, is somehow awake and endowed with a rudimentary form of consciousness. One of the main attractions of the version of panpsychism known as Russellian panpsychism is that it bears promise of preserving a robustly realist view on consciousness, whilst at the same time, properly integrating it into the causally interconnected natural universe. Dualism, the view that mind and body are fundamentally distinct, faces the problem of causal exclusion; if conscious states are indeed distinct from the physical, they are in competition with physical states for causal efficiency, and thereby threatened with being epiphenomenal. Standard physicalist accounts, on the other hand, might achieve causal efficiency, but for many, this is done at the cost of distorting beyond recognition the very thing that
It is here that Russellian panpsychism seems to offer a way forward. Russellian panpsychism combines panpsychism with the insights of a widely accepted theory of scientific knowledge known as structural realism. According to structural realism, the knowledge we get from the physical sciences is, and can only be, knowledge of the spatio-temporal structure and organisation of the causal relationships obtaining at the fundamental level of the physical world (Strawson 2008a, 2008b, 2017, 2019, 2021a; Goff 2015, 2016; Morch 2020, 2021; Seager 2006; Bruntrup 2016; Chalmers 2016). This knowledge explains the great achievements and predictive power of science despite theory change; what is preserved throughout the changes are equations that model and predict behaviour. What science does not, and cannot, tell us is what the nature is of the underlying substance that displays the behaviour. Science tells us what the physical does, but not what it is. The categorical, intrinsic properties of fundamental physical entities remain unobserved and unknown, as far as science is concerned. The Russellian panpsychist here points out that consciousness, of course, is the intrinsic property par excellence. He is then free to make his crucial move; to posit that the categorical properties that constitute the ground for physical dispositions are some form of experiential properties: properties that constitutes what-it-is-likeness. Russellian panpsychism is thus able to integrate consciousness into the causal network; the experiential properties are clearly causally relevant, since they are what grounds the physical dispositions studied by science. The causal efficiency of our own experiences can inherit causal relevance from the underlying micro-levels. In this way, causal efficiency can be preserved for un-reduced consciousness without having to deny the causal closure of the physical; physical effects still have physical causes, in a way fully compatible with physical science and the commitments of standard physicalism (Chalmers 2016b, 2002; Goff 2015; Howell 2015b).

The question is whether Russellian panpsychism, as it is standardly conceived, really succeeds in preserving this rosy picture. In a recent article, Robert Howell (2015b) argues that the exclusion-problem for dualism has not been avoided, but has merely changed location; it now re-occurs at the microlevel. Even if the experiential properties posited by the Russellian panpsychist might have achieved some sort of causal relevance, this is not enough; arguably, the experiential properties still end up threatened with being ephiphenomenal.

This is the problem I will focus on in this essay. In the first section, I will give a brief sketch of “standard” Russellian panpsychism as it is usually formulated, and explain the re-formulated version of the exclusion problem given by Howell. I will argue that this problem, if not properly
addressed, has special implications in the case of panpsychism, and that failure to answer it therefore constitutes a distinct loss for the panpsychist. In section two, I will present a slightly different form of panpsychism based on the identity metaphysics of Galen Strawson (2021a, 2021b). Together with a positive proposal of my own concerning how to conceive of experientiality at the microlevel, this type of panpsychism has the resources to meet Howell's challenge, and in doing so, it might have the potential to present us with a more plausible overall metaphysical picture, with greatly increased explanatory power.

1 Standard Russellian Panpsychism

1:1 Zombie-arguments and the commitment to distinctness

The most common form of panpsychism is a type of Russellian panpsychism that starts out with accepting zombie style arguments that purport to show that physical truths do not entail anything about conscious experience, thereby refuting traditional physicalism.

The zombie argument is a conceivability argument. It starts with stating that zombies are conceivable. Zombies are exact physical duplicates of ourselves, that nevertheless completely lack conscious experience. The argument then goes on to infer, from the fact that zombies are conceivable, that they are metaphysically possible. The conclusion of the argument is that physicalism is false; if exact physical duplicates of human beings, lacking any conscious experience, are metaphysically possible, then conscious experience must be something over and above the physical (Chalmers 2016, 2002). The panpsychist who takes the zombie argument as the foundational argument for his view is thus committed to the following; we can conceive of the physical and the experiential, respectively, sufficiently well to know that they are distinct; i.e., mind-body dualism (or better; experiential-physical dualism) obtains.

The next move is to note the truth of structural realism, and to posit experiential properties as the intrinsic, categorical properties that ground the physical dispositions studied by physics. So, for example: physics tells us that an electron is the smallest measurable unit of negative electric charge. The electron is known to us via its behaviour; it is something that attracts positrons and repels other electrons. But the electron, arguably, must be something more than behaviour, there must be something that instantiates, or realizes, the behaviour; something that behaves. The entities
postulated by the physical sciences need “a carrier” that gives them concrete existence. On Russellian panpsychism, the intrinsic property that realizes the behaviour is a _phenomenal_ property of some sort; a property that constitutes what-it-is-likeness (Chalmers 2016b; Strawson 2008a, 2008b, 2017, 2019, 2021a; Goff 2015, 2016; Morch 2020, 2021; Seager 2006; Bruntrup 2016).

If we couple this with the initial commitment to mind-body (or experiential-physical) distinctness, we get the following picture; _the experiential is distinct from the physical disposition it serves to ground._

1:2 Howell’s Exclusion problem for Russellian panpsychism

The modal separability of the experiential property and the disposition it grounds is precisely what leads to the problem that Howell raises for the causal efficiency of the experiential. If the experiential property is indeed modally distinct from the physical disposition it grounds, it is not clear what role the experiential plays in the causal network. For it appears that, even if the experiential property is what grounds the physical disposition, the physical disposition does not have its causal powers _in virtue_ of the experiential, and surely, when we talk of causal integration, this is what we are aiming for?

Howell (2015b) asks us to consider the following scenario of _swapped-quiddity worlds._ (Where “quiddity” is the name used by Alter and Coleman, 2021, for the experiential categorical nature. In what follows, I will sometimes use this name instead of “experiential grounding property” or “experiential intrinsic nature”). Let us say that there is a quiddity, experiential redness _R_, and that _R_ grounds the physical disposition of electric charge in our world, _w_1. In _w_1, the laws are such that they connect _R_ with the disposition of electric charge. However, we can easily conceive of different world, _w_2, in which the laws are different, such that they instead connect experiential greenness, _G_, with the behaviour of electric charge, and instead connect _R_ with the physical disposition of spin. And there might also be a third world, _w_3, in which both _R_ and _G_ are connected by the same laws to negative charge (Howell 2015b).

The scenario described above seems clearly conceivable and therefore possible. But now, the exclusion problem threatens. What we want, of course, is for the experiential property to ground the physical dispositions _in virtue of_ its experiential character. But this does not seem to be the case, because it looks like there must be _two_ grounding relations on the table: one grounding experiential
similarities and differences, and one grounding differences and similarities in causal profile. $R$ in $w_1$, and $G$ in $w_2$, are clearly different in some respect, and similar in other respects. They differ in their experiential profile, but are similar in their causal profile. $R$ in $w_2$, one the other hand, is similar in experiential profile to $R$ in $w_3$, but different in causal profile. And so on. There must therefore be different relationships of grounding here, in virtue of which these differences and similarities hold. If we then go on to ask *in virtue of what* the physical disposition has its causal power, surely, the answer must be that it has it in virtue of whatever it is that grounds the differences and similarities between the causal profiles, rather than that which grounds the differences and similarities in experiential character. The experiential aspect ends up being epiphenomenal; whatever sort of “grounding” it can be said to do, it is not the case that the physical disposition has its causal powers *in virtue of* its experiential intrinsic nature (Howell 2015b).

Coleman and Alter (2021) discuss ways in which the Russellian panpsychist can escape this problem. They note that Howell's formulation leaves the modality of the swapped-quiddity worlds unspecified; is the possibility of swapped quiddity-worlds metaphysical or nomological? If we interpret the scenario merely as a metaphysical possibility, it does not have to follow that the quiddities are epiphenomenal. A metaphysically possible world does not have to be nomologically possible. The Russellian panpsychist can argue that there are contingent, natural laws, that, though not metaphysically necessary, are nevertheless the laws in our world. Even though swapped quiddity scenarios might be nomologically (and metaphysically) possible in other worlds, it is nevertheless the case that here, in our world, the laws are such that they connect the quiddities to the various dispositions, and that being the case, the quiddities are causally efficient. In this world, the laws are such that they connect a certain physical disposition to a certain quiddity, and the quiddity thereby helps the disposition to cause whatever it causes, by way of grounding it. For Coleman and Alter, “physical causation does not in general require metaphysically necessary connections” (2021 p.5) and there is no reason why this should be an exception.

On the other interpretation, Howell's swapped quiddity scenario is also a nomological possibility; a possibility given the metaphysically contingent laws of nature holding in our world. In that case, it is indeed hard to see how the quiddities could be causally efficacious. If, given our laws of nature, any other quiddity, or none at all, would be able to ground the same behaviour, it seems clear that the quiddity in question plays no role in the causal process. But again; the Russellian panpsychist can reject that the swapped quiddity worlds are a nomological possibility. The fact that we can conceive of such worlds only entails that they are a *metaphysical* possibility. But that they
are metaphysically possible does not mean that they are actual; there can be metaphysical possibilities that nevertheless do not obtain in our world, due to the laws of nature in our world. Again, the metaphysically contingent laws of nature in our world are such that they connect a certain grounding property with certain disposition, and the grounding property is causally efficient in virtue of those laws (Coleman and Alter 2021).

This is clearly one way in which the Russelian can respond to Howells challenge. However, this response depends on the assumption that there are two kinds of necessity, metaphysical and nomological, and secures causal efficiency for the quiddities by connecting the quiddity to metaphysically contingent, nomological necessity, as supposed to metaphysical necessity. Below, I will argue that this solution to Howell’s problem is mistaken. The problem is not that it does not work; the problem is rather that this kind of answer fails to pay attention to the bigger picture, and in doing so, it sacrifices one of the very distinct advantages that comes from accepting a view like panpsychism. This is because of two interconnected things; first, because causal realism, i.e. the view that natural laws are metaphysically necessary, is highly plausible, and second: because Russelian panpsychism stands in a unique relationship to causal realism, in that it is perhaps the only view that allow us to form a positive, descriptively contentful conception of necessities in nature.

1:3 The Case for Causal realism

Causal realism is the view that the metaphyscial necessity underlies the causal regularities in nature. Causality involves more than just contingent regularities, and more than metaphysically contingent laws of nature. On causal realism (or “necessitarianism about laws”), causal relations are metaphysically grounded in the things themselves; there is something in the nature of things that necessitates the regularity of behaviour. In order to see the plausibility of this view, the best thing to do is to consider the alternatives. There are two; the regularity theory of causation, and the view that causal regularities are the result of nomological, metaphysically contingent laws of nature. Both views, I will argue, are difficult to make sense of.

On the regularity theory of causation, there are no such things as necessities in nature; all there is to the regularities are just that; constant regularities. But this view is deeply problematic. The problems are both epistemological and metaphysical, and they are, as usual, interrelated.
Starting with the epistemological aspect: if all there is to causal relations are contingent, constant regularities, it becomes very hard to justify our inferential practices (Wilson 2005; Howell 2009; Crawford 1994). If we really believe that this is all there is to it, past regularities cannot constitute evidence for what will occur in the future. Most of science, on this view, seems to be invalidated. This leads straight to the metaphysical aspect of the problem; the physical sciences enjoy a tremendous instrumental success; a success that is part of the motivation, for many, of physicalism. This success, however, is hard to explain if the inferential practices that the success is based on are in fact unjustified. It certainly does not look like those practices are unjustified, in that they are so successful. In other words: it looks like we are right in taking past regularities as evidence for regularities in the future, and of course, if we are, that could only be because there is more to causal relations that contingent, constant regularities.

To make the point more vivid, consider what must be true, if the regularity theory is true. As far as we want to retain a realist view of external reality, the constant regularities, and with them, the instrumental success of science, must be somehow coincidental; if there is no reason why \( a \) is constantly followed by \( b \), that means that every time \( a \) is in fact followed by \( b \), something else could just as well have occurred in its place. But something else does not occur - ever. The universe, on this picture, is an outrageous run of luck, a giant cosmic level coincidence that keeps happening every single time an instant of regularity occurs; like a random number generator generating the natural numbers in the right order over and over again, for every second, over aeons of time (Strawson 2008c). This, I think, highly unlikely. The posit of necessities is thus a case of an inference to the best explanation: arguably, it is the strongest, most evidentially supported case there can be. Nature displays constant, exceptionless regularities, so, there must be something in the nature of things that makes it the case that this is so (Strawson 2008c). Constant regularities are evidence of necessity; they give us reason to believe there is necessity. But necessity, of course, is precisely what the regularity theory denies.

It might initially appear as if there is another option; a reasonable middle ground between outrageous fluke and metaphysical necessity. The regularities could be due to metaphysically contingent laws of nature; laws that hold with nomological, as opposed to metaphysical, necessity. Though this might seem plausible at first, I think that some reflection on the idea makes it very hard to see how this would work. The law, supposedly, imposes necessity on physical entities, but it does so without this necessity itself being necessitated; it does so, as it were, for no reason. But if this is the case, we have no reason to believe that the law should continue to hold. When we say that \( x \)'s regular behaviour is a matter of “metaphysically contingent law” one easily get the impression
that all that is being asked of us is to accept one brute fact; the fact of the holding of this law. We might think that we are in a situation of “give me one free miracle and I will explain the rest”. This seems reasonable enough; at some point, explanation has to come to an end. But this is not the situation we are in with contingent laws. If the law is metaphysically contingent, it is contingent always; the fact that those necessities have held in the past can be no guide to the future. Since them holding in the past was a matter of contingency, there is no reason to believe they should hold now. Contingency is just that; contingent. If the constancy of the regularities appears fluke-ish on the regularity theory, this flukishness now attaches itself to the contingent laws; given the contingency of the law, it seems miraculous that this law nevertheless contingently holds for each and every time a regularity obtains.

What is needed in this situation is a clear account that preserves both the necessity and the contingency, an account that can show how, on the one hand, the regularities in this world are necessary, but on the other hand, those regularities could have been different. We need an account that separates that which makes it true that \( x \) is bound to behave like this, from that which makes it true that \( x \) is not bound to behave like this, not bound to behave like this tout court, and an illustration of how both of these scenarios are real (Crawford 1994). Absent such an account, we have no reason to believe that there is indeed two sorts of necessity, no reason to believe that even though \( x \) behaves like this with necessity, it is at the same time true that \( x \) behaving like this with necessity is a fact that could have been otherwise.

Lewis' possible world scenario is by far the most influential attempt at giving such an account. On this account, contingent necessities are made true by the fact that there are possible but non-actual worlds which are such that in all nearby worlds, \( x \) is contingently but regularly followed by \( y \), whereas in more distant worlds, things work differently, and \( x \) is not followed by \( y \) at all (Crawford 1994).

It is most unclear how this works. It is hard to see how facts about contingent regularities can be the truthmaker for facts about necessities, regardless of where such regularities are located. Claims about necessity are stronger than claims about regularities; you can derive a weaker claim from a stronger claim, but not a stronger claim from a weaker claim. Intuitively, facts about regularities can be made true by necessities, in the sense that necessities can give rise to regularities. But the other way around seems very odd; regularities do not give rise to necessities. The very problem with contingent regularity is precisely that it lacks the ingredient of necessity; this is why we feel such things are implausibly fluke-ish. The necessity is thus a needed, further fact, a fact about what sustains the regularities, a fact that cannot, I believe, be made true by more regularities. If we think it can, it looks like we must after all be thinking that there is nothing more to the

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regularities than that: constant, contingent regularities. But it was the insufficiency of such an answer that made us look for alternatives. The possible world-analysis therefore fails to address what makes the problem a problem in the first place: how something can be both necessary and contingent. It fails to do so because it has taken the “necessity” out of the necessities, and reduced them to regularities.

One thing should be clarified; the problem here is not that the possible worlds scenario fails to explain what necessities consist in; this is a different issue. It is rather that we need to be shown that they are necessities in the first place. The possible worlds scenario is offered as an analysis of how there can be contingent necessities; how it can be that $x$ followed by $y$ is necessary, but at the same time, not necessary tout court. It fails in doing this, because whatever the necessities are, it is very hard to see how they could be made true by uniformities in other non-actual worlds. The “necessity” part of the analysis is missing, and therefore, the possible worlds scenario does not show what it purports to show; how contingent necessities are possible. What it shows is rather that constant regularities may or may not obtain in different worlds variously removed from ours. But this is not what is being disputed.

The second reason to be doubtful is the related point that possible worlds, by stipulation, are causally isolated from each other. Even if we were to accept that regularities in one world can make true necessities in another, it is very hard to see how they could do so when the different worlds are causally isolated from each other. How can uniformities in non-actual, from us causally isolated nearby possible worlds be the truth makers for the necessities in our world (Crawford 1994)?

The problem is more acutely evident, perhaps, if it is framed as an epistemological issue. Recall the problem for the regularity theory; the problem with justifying our inferential practises, and thereby, justifying scientific knowledge. We might now ask; does the possible world scenario offer an improvement of this situation? It hard to see that it does. On this model, the reason why the physical sciences are justified in, for example, inferring that future electrons will attract future positrons, is that there is a nearby possible world where electrons regularly but contingently attract positrons. However, there is no causal contact between our world and that world. How can this situation justify our beliefs about what will happen in our world? Our world has nothing to do with the possible world; the two worlds are not in causal contact. On this score, the regularity theory might in fact do better than the possible worlds scenario: on that picture, we are at least in contact with the flukes that are supposed to justify our inferences.
The most plausible way to understand the operation of necessities or “laws” must surely be to posit that they exist right there in the object; as part of what it is to be that object. This, indeed, seem to be how most scientist understand them (Wilson 2005). Here, for example, is David Bohm, an eminent physicist who also, helpfully, is philosophically informed;

Causal laws are not like externally imposed legal restrictions that, so to speak merely limit the course of events to certain prescribed paths...rather, they are inherent and essential aspects of these things... Likewise, the general mathematical laws of motion satisfied by bodies moving through empty space (or under any other conditions) are essential properties of such bodies, without which they could not even be bodies as we have known them. Examples of this kind could be multiplied without limit. They all serve to show that the causal laws satisfied by a thing are inextricably bound up with the basic properties of the thing which helps to define what it is (quoted in Wilson 2005).

In other words, laws are constitutive of a things nature. But if this is correct, the difference between metaphysical and nomological necessities collapses; if “laws” are essentially bound up with what it is to be that specific thing, then causal dispositions are necessitated by the nature of that thing, and there is no such things as metaphysically contingent laws (Wilson 2005). If it is simply part of what it is to be en electron to be attracted to positrons, it makes no sense to say that the electron could have behaved differently in a different world whilst remaining an electron. Nomological necessity is subsumed under metaphysical necessity.

Some philosophers seem to think that metaphysical necessities commits one to the view that the very existence of this very universe is a metaphysical necessity, and therefore conclude that causal realism is deeply implausible. But this is mistaken. Causal realism does not entail that other universes than ours are metaphysically impossible. It might well be a contingent fact that this universe, with this kind of stuff, came into being, as opposed to another one. Perhaps, the universe could have been made by other things; electrons and tropicons, with different natures from electrons and positrons, and therefore (the same thing) with different behaviour. What causal realism does entail is that we cannot have the same stuff, our stuff, whilst changing the behaviour of that same stuff. Given what we got; electrons and positrons, it is not metaphysically possible that they behave other than they do, in any world. Because you do what you are, and are what you do. This is, I think, very plausible(Strawson 2021b).
Let’s grant then, that we want to be realists about causality; causal regularities are metaphysically necessary, a matter of the essential nature of the things themselves. There must then be something, in the nature of things, that is such that it metaphysically necessitates that things stays constant over time, ie; that necessitates the regularity in behaviour. There must, for example, be something in the nature of the electron that makes it the case that it is by necessity attracted to positrons. The question is immediately: what?

Here, of course, we run into one of the oldest problems in the book, and the reason why otherwise thoughtful philosophers have felt it necessary to reject realist causality. We have no idea what such things as “necessary connections” in nature might be. As Hume saw, the nature of necessary connections is not knowable deductively, nor by observation. We seem unable to form any positive, descriptively contentful notion of what such things might be like. But to conclude therefore that they do not exist is an overreaction; one can be amply justified in positing things without having any positive knowledge of what that thing might be like, if the theoretical advantage is great enough, and the alternatives to so doing so are much worse. This is, I think, plausibly the case with causal realism. That said, it would nevertheless be a good thing if one did have some sort of grip of what these necessities might consist in.

1:4 Causal realism and panpsychism

This is where panpsychism enters the picture. Panpsychism stands in a unique relationship to the problem of physical causation. This is because the intractability of physical causation is based on a premiss that the panpsychist rejects: the premiss that fundamental physical matter is non-experiential. Philosophers have long been aware that, in our experience of our own agency, we do have a positive conception of causal power:

“...of the manner in which a cause may exert its active power, we can have no conception but from consciousness of the manner in which our own active power is exerted” (Reid 1788, quoted in Morch 2021, p.272).

“...the recesses of feeling, the darker, blinder strata of character, are the only places in the world in which we catch real facts in the making, and directly perceive how events happen, and how work is done” (James 1902, quoted in Morch 2021, p.271).
“in so far as we apply notions of causation to the understanding of events in nature, we must conceive these events under the general notions which apply to occasions of experience. For we can only understand causation in terms of our observations of these occasions” (Whitehead 1933-1964, quoted in Morch 2021 p.271).

What does a physical state need to be like in order to have causal power? Well, obviously, it needs to have power; it needs to be such that it already, in virtue of being in that state, has the power to reach out and effect other things. Initially, it might look as if this question poses no problem at all: this power comes from “energy” or “forces”. But this is not the answer, but the question; granted that physical entities are partly made up from forces or energy, what is being asked is precisely the nature of this energy. An electron is associated with a certain force; where does this force get its “oomph” - its powerfullness - from? At the most fundamental level, the power cannot come from someplace else; the intrinsic being of energy must somehow be such that it supplies its own fuel; it is a self-propelling state. How does this work?

Further; the most mysterious feature of causal powers is what might be called, somewhat clumsily, their “necessitating-abilities”. A causal power exert its influence by necessity. It should be noted that this influence is defeasible; other causal influences might interfere, and the effect will be the net-result of all the causal powers operating in a given situation and under given conditions. Nevertheless, the influence of causal powers is necessary: an electron attracts positron by necessity, even if circumstances are such that the result of this causal influence fails to be that of the positron actually being drawn towards the electron. Where in nature can we turn to get a grip on this sort of thing? Arguably, as things stand, the answer is nowhere. But then again, there is something in nature that enables us to make sense of necessities. Some experiential states seem able to motivate our will necessarily. Absent defeaters, feelings such as strong pain, or strong pleasure, are conceivably such that just by having them they make us want to avoid or pursue. States like this are intrinsically motivating states; states that determines our will on their own, just by being what they are (Morch 2020). We can thus get some sort of grip on both that self-propelling nature of energy or power, and the necessity resulting from that power; the powerfullness of a state like pain consist in the fact that it is like something to be in such a state, and this what-it-is-likeness is powerful in and of itself; it has the power to determine (ie; necessitate) our will in virtue of how it feels, in virtue of what-it-is-like to be in that state;

“I found then that the nature of all substances consists in force, and that from this
there follows something analogous to sensation and appetite, so that we must conceive them on the model of the notion we have of souls” (Leibniz 1695, quoted in Morch 2021, p270)

“Only from a comparison with what goes on within me when my body performs an action from a motive that moves me, with what is the inner nature of my own changes determined by external grounds or reasons, can I obtain an insight into the way in which those inanimate bodies change under the influence of causes, and thus understand what is their inner nature” (Schopenhauer 1859, quoted in Morch 2021, p.270).

and Schopenhauer continues:

“from the law of motivation I must learn to understand the law of causality in its inner significance. Spinoza (epist 62) says that if a stone projected through the air had consciousness, it would image it was flying of its own will. I add merely that the stone would be right” (Schopenhauer 1859, quoted in Morch 2021, p.270).

Note that the connection made here by Schopenhauer is not between our will and our actions. Schopenhauer had read his Hume; if our willings necessitated successful actions, life would be pretty easy (Morch 2020, 2021). The connection is instead between some experiential states and the state of willing; between motives and wants, as discussed above. Schopenhauer pointed out that even if we might be free to choose whether or not we act on our willing, we cannot choose what we will. If I feel like eating beefsteak for dinner, I might well be able to choose whether I go with my desire for beef or ignore it and eat something else. But the fact that what I feel like eating is beefsteak is not something I can choose; my will is already set. It would be quite bizarre if I said something like; “well, today I really feel like eating beefsteak, but that is too expensive, so therefore I have decided to feel like eating salad”.

Another component of causal power is that they are directed. Causal powers are not just any random “bursts” of activity, but such that they are aimed at certain things and actions. A pain is about the part of me that hurts. An electron has the power to attract positrons; it does not have the same power to attract other electrons; the power to attract is about positrons, not electrons. Several philosophers have noted the (in their view, unfortunate) strong resemblance, on this score, between
causal power and intentionality, the manner in which mental states are about other things, they represent and point beyond themselves. Here is Armstrong:

“... dispositions (i.e. causal powers) must remind us of the intentionality of mental states and processes, the characteristic that Brentano held was the distinguishing mark of the mental, that is, their being directed upon objects or states of affairs that need not exist. But for physicalists such as myself it presents a prima facie problem. If the mental has intentionality, and if, as Brentano thought, it is also ontologically irreducible, then there is something here that would appear to falsify physicalism. Physicalists about the mind are therefore found trying to give some ontologically reductive account of the intentionality of the mental. But if irreducible dispositions and powers are admitted for physical things, then intentionality, irreducible intentionality, has turned up in everything there is” (Armstrong 1997, quoted in Morch 2021, p.275)

Panpsychism offers a way in which we could make sense of necessities in nature. If fundamental physical reality is experiential, the power, necessity and directedness of the fundamental causal connections could be understood as constituted by the the intrinsically powerful, motivational and intentional states of, for example, feelings of pleasure and pain. Experiential states, precisely because it is like something to have them, are powerful in virtue of how they feel; their power consist in their power to determine our will, and the intentionality of such states accounts for how that will is directed.

The case for being a realist about metaphysical necessities in nature is, I think, very strong, but without panpsychism, those necessities – even if we are right in positing them – are utterly mysterious. The question of grounding physical dispositions should therefore be massively important for a panpsychist view. The real loss for the panpsychist, if he fails to answer Howell's challenge, or if it is answered by way of positing metaphysically contingent laws, is that we have lost an opportunity for gaining insight into physical causation.

Howell is well aware that a view embracing causal realism evades his problem of ephiphénoménalism. But, as he rightly points out, the move to metaphysical necessity is not a move the Russellian panpsychist can make easily, given how Russellian panpsychism is usually formulated. Why so? Because of the initial commitment to zombie-style arguments. This commits the Russellian to holding that that the quiddity and the physical dispositions are modally distinct,
which is of course the same as saying that there is no metaphysically necessary connection between them. If, on the other hand, she tries to go the other way, and claim that even though zombies are conceivable, they are not metaphysically possible, she gets into different trouble: making this move is to allow the same move for a posteriori physicalists. Necessitarian views, Howell concludes, are “coherent, but unmotivated” (Howell 2015b, p.37). But we now see that this is not entirely true; if there are good reasons to accept causal realism, panpsychism stands as the perhaps only view that offers a clear way to understand necessities in nature. That is a reason in its favour.

In the next section, I will argue that there are other reasons, independent of the discussion above, for why we should consider rejecting zombie-arguments. After that, I will present a different version of Russellian panpsychism that affirms physical-experiential identity instead of distinctness.

2 Panpsychism without zombies

2:1 Rejecting the conceivability of the physical

Initially at least, there seems to be a tension between accepting the zombie argument, on the one hand, and the truth of structural realism, on the other hand. The insight of structural realism is that we know nothing of the underlying nature of whatever it is that displays the organisational structure and behavioural dispositions that physics uncovers. The zombie argument, on the other hand, is premised on that our conceivability abilities regarding the nature of the physical are secure. But if we know nothing about the categorical inner nature of the physical, it is not clear how we can have the knowledge necessary to conceive of the physical in such a way that our conceptions are relevant. It would seem to follow, from the truth of structural realism, that our powers of conceivability are simply not up to the task; if physical dispositions are grounded in something categorical of which science cannot tell us, then how can I know that I am really conceiving of a perfect physical duplicate as I conceive of my zombie twin?

Leaving structural realism aside, it is a rather plain fact, known by scientist and philosophers long before structural realism was formulated as a theory of scientific knowledge, that nature works in ways which are not conceivable to us. It has been known at least since Newtons work dealt the
death blow to mechanistic natural philosophy. Before Newton, inquiry into the workings of nature
was animated by a conception of nature in close analogue to a giant machine or a clockwork.
Nature, so understood, was taken to be intelligible to the human mind. Physics was intuitive,
underpinned by our common sense experience of interaction with physical objects; causality
worked through direct contact, objects were solid and inert, persisting through time and space.

Newton’s discoveries put an end to this picture. The most basic phenomena of nature, motion,
turned out to be working in ways entirely inaccessible to us, to such a degree that Newton’s critics
accused him of re-introducing the “occult forces” of the Aristotelians into the natural sciences. The
fact that objects at rest can and do exert forces on other objects in which they are in no physical
contact is not something derivable from first principles, and it is not a phenomenon that we can
understand in terms of pushes and pulls and the mechanics of human artefacts. The whole concepts
of matter and motion, the principal subjects of of enquiry of the physical sciences, had to be
abandoned. Science had to take on an entirely new course.

Through the work by Einstein and onward into the “absurd” discoveries of quantum physics, it
seems quite clear that human conceivability is not relevant when it comes to understanding the
workings of the natural world. We now have block universes, black holes, and quantum
entanglement. As we descend further down into the fundamental levels of physical reality, our
intuitions about what it is for something to be “physical” in the first place are deeply violated; solid
objects, the paradigm of physicality, turn out to consist mostly of empty space. Particles are point-
like concentrations of energy, engaged in constant, violent activity. We have no inkling of how the
classical world of middle sized physical objects somehow emerges from the quantum world. I think
it is fair to say that today, questions of conceivability and intelligibility regarding physical nature
are taken to demonstrate nothing except reflections of our own cognitive limits, and progress is
determined by explanatory depth and empirical support (Chomsky 2009).

It is important, here, to be clear about what it is that is being rejected; it is not the inference
from conceivability to metaphysical possibility as such that is under question. Many present day
physicalists, taking their cue from Kripke’s a posteriori identities, reject this premiss. I do not think
this is the right move to make, but I will not have time to discuss this here (see Howell 2015a, for
nice discussion). The point I am making is different: it is that in order for conceivability arguments
such as the zombie argument to get off the ground in the first place, we need to at least approach the
status of “ideal reasoners.” We must, as Descartes knew, have a “clear and distinct idea” as to what
it is we are conceiving of. To clarify, it might here be helpful to introduce an idea from Goff (2016,
p7): The transparency conceivability principle; conceivability entails possibility when a concept is
a fully transparent concept. For a concept to be transparent, it is possible for someone possessing the concept to completely understand – or, is in principle able to reason his way to a complete understanding of – the situation being conceived of. The concept “water” is, for example, not transparent; it is fully possible to have the concept of water without being able to know, or reason one’s way to, the situation of the chemical composition of water.

I think the same can reasonably be said about the concept of “The physical”. Like “Water,” “The physical” is a (the!) natural kind term. It refers to the concrete stuff of fundamental physical reality – whatever that is, or turns out to be. As for the intrinsic, structure transcendent nature of this stuff – this physical stuff – we simply do not have any positive conception, as the insights gained from structural realism make clear. When the zombie argument asks us to conceive of a perfect physical duplicate, we are therefore not up to the task. Discoveries of modern physics, rather than making the concept more transparent, only worsen the situation as far as conceivability is concerned; how can we form a “clear and distinct idea” of a physical duplicate, when such a thing involves having a “clear and distinct idea” of wave particle duality, of which we very clearly do not have any kind of clear and distinct idea – if any idea at all (Strawson 2019)? Indeed, in conceiving of a wave and a particle being somehow the same thing, we might well find that we are contradicting ourselves. Being a particle involves features that are irreconcilable to features of being a wave, and vice versa. If this is right, a conceivability argument concerning wave-particle duality would rule that wave particle duality was metaphysically impossible. Going by our best theories in physics, however, wave particle duality is a fact about the natural world, however hard to stomach from the point of view of common sense and conceivability. The development of physical science, as well as the truth of structural realism, shows that “the physical” is not a transparent concept. That being so, we cannot draw metaphysical conclusions from what we can, or cannot, conceive.

Again, this is not to deny that conceivability entails metaphysical possibility. Presumably, if God exists, all things denoted by our concepts are fully transparent to him. It is just that we are not him.

This has clear implications for the so called the mind-body problem. For on reflecting on what we know, and do not know, about physical nature, it is no longer clear that there is a problem. One side of the alleged dichotomy – body – is unknown to us, and being thus unknown, it is not clear what to make of dualist intuitions that mind and matter are somehow opposed. Efforts of reducing mind to body are similarly misguided, given that we have no clear idea what the reduction base – the physical - might turn out to be. Gilbert Ryle's expulsion of “the ghost in the machine” has the situation exactly the wrong way around, and twice over; it is the machine that has been expelled,
leaving the ghost entirely intact, and it is body, not mind, that has become “as ghostly as anything in a spiritualist seance” (Russell, quoted in Strawson 2008a, Chomsky 2009). If we had been able to conceive of the physical, zombies might well be inconceivable.

2:2 The Physical

‘my panpsychism … is only a revised materialism’ (C.A Strong, quoted in Strawson 2017 p. 4).

Howell is not the only one who believes that panpsychism without zombie arguments is unmotivated. Without appeal to zombies and a priori arguments to the effect that the physical is distinct from the experiential, why not stick to traditional varieties of physicalism?

I think this is a mistake. To the extent that physicalism in philosophy of mind fails to be robustly realist about experience, they are trading the certain for the uncertain, and getting our epistemic priorities the wrong way around. It would seem to make far better sense to start with that of which we have the surest, safest knowledge and proceed from there. Though there might indeed be things about the mind that we are completely in the dark about (it would be very surprising if there were not) there is an immovable sense in which we cannot be wrong about the existence of our own conscious states in their experiential, qualitative aspect, taken just as they are, as they appear to us as we have them, when we have them. There is no space, here, to open up between seeming and being; in the case of experience, it seeming to me as if I have an experience of red just is for me to have an experience of red. The reality of our experiences consist in the very fact that we have them; the having is the knowing. On the other hand, we do not know anything about the structure-transcendent, intrinsic nature of fundamental physical entities that licence us to claim with any confidence that those entities are not experiential.

To use zombie arguments in order to motivate panpsychism is a bit like a quick patch fix on a bicycle tire; it gets us on the road quickly, but we don't stay moving for long. Appeals to conceivability are inappropriate when it comes to the nature of the physical, and though dualist intuitions get panpsychism off to a quick start, soon enough, the position becomes untenable.

A robustly realist understanding of conscious experience and proper appreciation about our state of ignorance regarding the inner nature of “the physical,” provides us with enough reason to take panpsychism seriously.³

Instead of basing the case on conceivability and dualism - or at least, modal distinctness - this
version of panpsychism bases its case on identity. It is a form of physicalism; panpsychist
physicalism. For many, panpsychist physicalism is a contradiction in terms, because it is simply part
of what they mean, when using the word “physical” that it is non-experiential. It is true that there is
a natural, common way of thinking and talking, that take “the physical” to stand in some sort of
opposition to consciousness, in such a way that it is true more or less by definition that the one
cannot be the other. This way if looking at things might work fine for its purposes; nobody, and
certainly not the panpsychist, claims that curtains and chairs are conscious. But to take this usage of
the term as a guide to the nature of fundamental reality is, I think, to apply it way out of its proper
range. It would be the same as dismissing the claims of fundamental physics with the statement that
the hammer in my hand is hard and solid, and that there therefore can be no space in the hammer
that is not occupied by a particle (Strawson 2017). When engaging in metaphysical speculation
about the ultimate nature of things, we have no entitlement to put such a constraint on a concept
such as “the physical”.

This leads us to another common mistake; to conflate physicalism with physics-alism.
Physicalism is the view that everything concretely existing in our universe is physical. Physics-
alism, on the other hand, is the view that “the nature or essence of all concrete reality can in
principle be fully captured in the terms of (human) physics” (Strawson 2019, p.4). But physics-
alism is provably false, if structural realism is true (Strawson 2008a, 2008b, 2017, 2019, 2021a;
Goff 2015, 2016; Morch 2020, 2021; Seager 2006; Bruntrup 2016). It is therefore a mistake to think
that ones commitment to physics as the fundamental science of concrete reality offers some sort of
support for the view that the “physical” is non-experiential. This is what David Lewis had in mind
when he made the remark that; “a thesis that says that panpsychist materialism....is impossible...is
more than just materialism.” (Lewis 1983, p.36)

What, then, do we talk about when we talk about “the physical” ? To fix the referent, a few
things might be said:
\[ x \text{ is physical} = x \text{ is concrete.} \]
\[ x \text{ is physical} = x \text{ is a spatio-temporal entity} \]
\[ x \text{ is physical} = x \text{ is the subject matter of physics, } x \text{ is what physics refer to in its theories.} \]
\[ x \text{ is physical} = x \text{ is not just something that physics talks about, but also something that physics has}\]
\[ \text{uncovered many true things about (Strawson 2021a).} \]
I also take it that physicalism is a monist position; it holds that all stuff in this universe is made of
the same kind of fundamental stuff; a type of stuff whose stuff-nature we denote with the term
“physical” (Strawson 2021a). With these things in place, I think we have attached enough to the
term “physical” so that we know what we are talking about, without making question begging assumptions about what the physical can, or can not, be.

To be a physicalist is to hold that everything concretely existing in this universe is physical, in line with the conditions above. We might then, as physicalists, ask; what is the intrinsic, structure transcendent nature of this stuff, this concrete, spatio-temporal stuff that physics refers to and tells us many true things about? On this matter, physics is silent. The physicalist panpsychist answer is that the intrinsic, stuff-nature of matter is experience.

If this seems outlandish, we need to think again. As physicalists, we are already committed to the view that experience is physical, after all. This is deeply puzzling, but it is what the commitment to physicalism entails. Which also means that we are not wholly ignorant about the intrinsic nature of physical stuff. Because in one case, we know it directly. Experience is part of concrete physical reality and in this case, we have direct access to it; “We know nothing about the intrinsic quality of physical events except when these are mental events that we directly experience” (Russell, quoted in Strawson 2021, p.328).

2:3 Identity panpsychism

According to the zombie argument, the physical and the experiential comes apart. The zombie-motivated panpsychist holds that physical dispositions are grounded in something intrinsic and categorical; experiential properties. But he is also committed, crucially, to them being metaphysically distinct – they are modally separable. The view I am proposing agrees that the categorical, intrinsic natures that ground physical dispositions are experiential. But it disagrees with the claim that these two are distinct. The claim made by this version of panpsychism is that the physical disposition cannot come apart from the categorical nature that grounds it; the relation between them is one of identity.

In this section I will present the identity view in more detail; first I will defend the claim that categorical and dispositional are identical, the same thing, and propose the fusion of the various categories of energy-force-power-laws with the category of substance or, as I will say: “stuff” (following Strawson, 2021b). I will show how this is connected to causal realism, i.e, the view that there are metaphysical necessities underlying the causal relations in nature. Having done that I will bring this together with the panpsychist thesis that fundamental physical matter is experiential, and
suggest how to make sense of the claim that, at the most fundamental level of physical reality, physical dispositions are identical to their experiential categorical grounds.

2:4 Categorical - dispositional identity

Discussion on this topic is usually done in terms of properties; the categorical grounds are thought of as “experiential properties”. The view I will be introducing now, however, rejects that there is a fundamental distinction to be made between the intrinsic, categorical properties of an object and the concrete, fully existing object itself (Strawson 2021b, Schneider 2010). It is, however, not clear that this makes any difference in this case, since it is unclear what exactly the difference would be, if it exists. In what follows I am going to use the more neutral term “being” or simply “nature” (example; categorical being, intrinsic nature).

We talk about “stuff” or “matter” on one hand, and “power” or “forces” or “energy” or “laws” on the other hand, as if they are separate things. But the fact that we can talk and think in this way does not have to mean that there is a real distinction between them. “Energy” “power” and “forces”; are on this view not things that exists apart from matter. As suggested earlier, power and forces are right there in the object itself, they are what the object is. To be powerful is part of what it is to be matter; it is part of what it is to be real. There is only one thing; “stuff”, and stuff is essentially already active, humming, powerful; an atom consist in the energetic interaction of the subatomic particles that makes it up. Stuff is always already in a state of constant powerfulness and activity.

Relatedly, when we talk of laws of nature, this is a way of expressing the manifest fact that nature is regular; things have natures which stay constant over time. Things behave as if they were following a law. But this is not due to “laws” that somehow exist as abstract entities, independently of the things themselves. Surely, this is a mistake; a mistake of reifying convenient ways of talking and thinking and projecting these onto external reality, where they really do not belong. Again, in line with the earlier discussion, I think the right thing to say is that laws are constitutive of a thing’s nature. Things have natures, and having that, they behave as it is in their nature to behave. (Strawson 2021b, 2008d)

Perhaps one reason why we think that we can separate matter from energy and activity is
because we do not take properly into account the temporal dimension of physical objects; we think, mistakenly I believe, that the full nature of a thing can be given in a frozen instant. If we analyse \( x \) as a time-slice, \( x \) will appear inert. But that is simply because there is no time for \( x \) to do his buzzing, no time for \( x \) to be active in! But time is a dimension of the concretely real as much as space, and we can no more understand physical objects in separation from time than we can understand them in separation from space. And when we consider objects as they actually exist, as temporal being as much as spatial being, I think it becomes clear that to act so-and-so, to be displaying a certain energetic state and pattern of activity, is part of what it is to be that object, as much part of the “categorical” nature of that object as its weight or form (Strawson 2021b).

Another way of talking about this is in terms of categorical and dispositional. The claim is then that categorical and dispositional nature are identical; the same thing. How a thing behaves is wholly a matter of what a thing is; wholly a matter of a thing’s categorical nature. Dispositional nature cannot exist without categorical nature; a thing does what it does because of what it is. Better yet; a thing is/ does what it is/does. (Strawson 2021b) Equally, the categorical is wholly a matter of acting-power; the actual and permanent activity-pattern that is simply \textit{what it is to be} that particular stuff. \( X \) being \( x \) essentially and crucially involves \( x \) doing what one does when one is the sort of stuff \( x \) is: \( x \) doing so and so is \( x \) being stuff. All being is “power being.”

If categorical and dispositional cannot exist apart, then I think that the best thing to say is that they are in fact the same thing (Jacobs 2011, Strawson 2008d, Heil 2010). There is no “real distinction” between them; we can make a distinction “in our minds” as Descartes observed, but, as he further observed, that does not mean that this distinction is a “real distinction”; a distinction that reflects what reality is like. (Strawson 2006) “Thought takes apart what is really one” (Nietzsche, quoted in Strawson 2021b, p1).

Dispositions can manifest in many different ways, depending on what the circumstances are. We can thus talk about object \( o \)’s power in terms of conditionals; “if this billiard ball were to be placed on an inclined plane, it would roll down, if it were exposed to light, it would reflect it so as to look spherical, if it were placed in soft clay, it would make a concave circular imprint” (Heil 2010). It might seem as if this means that the billiard ball has many different dispositions, but I think this is confused. The different conditionals are all the result of the same thing, the shape of the billiard-ball, and the power of that intrinsic feature of the billiard-ball. The list of conditionals are really descriptions of \( o \)’s power or disposition, descriptions of how \( o \)’s power would manifest given so and so circumstances. But \( o \)’s powerbeing itself is an entirely intrinsic, non-relational feature of \( o \); it is just \( o \) being what \( o \) is (Strawson 2008b, 2021b).
Thought experiments to the effect that we can hold the categorical nature of a thing fixed, whilst varying “the laws of nature” and thus, having object \( O \) behave in a different manner, are doubtful on two accounts. Firstly, the idea that we can change “the laws of nature” whilst keeping the nature of a thing constant, makes no sense; we are not dealing with two different things. Laws are constitutive of a things nature, as remarked. There are no worlds where “salt” remains salt but does not dissolve in water due to different “laws.” To dissolve in water is constitutive of what it is to be salt; changing this would be to change what salt is, and thus, there is nothing to be held fixed.

The second reason to be doubtful is that, even if we allowed the thought experiment the existence of “laws” as separate from the existence of natures, this line of thinking is superficial; Lets grant object \( O \) behaves in one way in world 1, where law \( x \) holds sway, and in a totally different way in world 2, where law \( y \) instead is the rule of the day. What is it, with \( O \), that produces \( this \) behaviour given \( x \), and \( that \) behaviour given \( y \)? Well what can it be, if not \( O \), which is to say, what \( O \) is, the “categorical nature” of \( O \), which could better simply be called “\( O \)’s nature” or even better, just “\( O \)”. \( O \) clearly is such that in world 1 he behaves like \( this \), and in world 2, he behaves like \( that \) (Strawson 2008d).

Consider an object, \( O \), that has the power to do \( z \) to \( y \). Of course, \( y \) has to be around for this to happen, so there is a clear sense in which this power of \( O \) is not manifest until \( y \) comes along. In cases like this, we sometimes talk about \( O \) having the \textit{potential} to do \( x \) to \( y \). But this invites confusion, because it then seems as if this “potentiality” was somehow merely latent, or passive, in \( O \), as if this power of \( O \) to do \( z \) to \( y \) is not “really there” until \( y \) arrives on the scene. But this makes no sense; it makes no sense that \( O \) should somehow have a power to do something that was not there all along. Where would the power come from? It is not a matter of potential-as-opposed-to-actual. Potentialities should be understood in the other sense, as \textit{potencies}; powers to do something. And that power-to-do is already wholly part of and present in \( O \), a matter of something that \( O \) already possess, ie, an \textit{actual} state of \( O \). \( O \) was already in possession of all its power, was already doing his thing, was powering away as \( O \) always is. Then \( y \) came along, and \( O \)’s powering away as usual \textit{resulted in} \( z \) being done to \( y \). But \( O \) was not thereby doing something different than it was already; it was just doing it’s thing all along, doing the \( O \); thing, which is to say, being an \( O \) (Strawson 2021b).

I take it that the fusion of matter with energy and power is not only philosophically motivated, but also the correct conclusion for those who wish to remain in line with modern physics (Wilson
2005; Strawson 2021b). Times are long gone when we could think of inert matter, corpuscular and dense stuff one the on hand, and forces and energy that somehow “makes” the stuff do things, on the other hand. Energy and matter are interconvertible, as Einstein showed. In quantum field theory, a “particle” is the name for the point like excitations in a field which has the highest concentration of energy quanta. According to many physicists, what matter is, in the final analysis, is energy of some sort. Thus, we have Heisenberg: “energy is substance”, “all particles are made of the same substance; energy” (Quoted in Strawson, 2021b p.4). Matter, on this take, is not well thought of as something that has energy but is itself something apart from it; matter is,in essence, in its “categorical being,” crucially energetic, active. Matter is humming, buzzing, be-ing.

2:5 Categorical-dispositional identity and Causal realism

To claim that categorical and dispositional natures are identical is to claim that what a thing is is connected with necessity to how that thing behaves; if they are the same thing they cannot co-exist contingently, but must do so necessarily. Categorical dispositional identity therefore entails causal realism; the regularities in nature are metaphysically necessary. An electron could not have behaved in any other way than it does, on pain of not being what it is (Wilson 2005). The challenge, then, is to make sense of the necessity that underlies the proposed identity; what can it be that makes it so that being an x is to behave in a certain way with necessity? Or better, what is it that makes being an x identical to certain behaviour? This question is the same as the question of the “necessary connection” between cause and effect: How can it be that being – the cause – is connected by necessity to behaving – the effect? We return to the issue that has made philosophers abandon the idea of realist causality; the seeming impossibility of making sense of necessities in nature.

I mentioned earlier that causal realism is very plausible; nature displays constant regularities, and it seems reasonable to assume that this is not a fluke, a coincidence each time it happens. I also claimed that panpsychism has the resources to make sense of these necessities; to make sense of what it is, in the nature of things, that grounds the fact that having a certain nature is connected with necessity to behaving in a certain way. In the next section, I will try to show how, by making a positive proposal for how the panpsychist can model the experientiality of fundamental physical entities.
It is generally accepted that the causal powers of higher level phenomena are supervenient on the underlying levels (though there is great unclarity in exactly how this works). The causal powers with which a billiard-ball displaces another another billiard ball supervenes on, or is constituted by, the underlying level. The necessity at the higher level thus comes along for free. The problem of understanding necessities in nature is therefore a problem that needs to be addressed at the fundamental level of reality. Put in terms of categorical dispositional identity: the necessity with which being an x is to behave like an x is a result of the necessities of the underlying level. To understand categorical dispositional identity, we must look at the most fundamental level, and find something that is such that being an x is identical to the having of a certain disposition to behave. The fact that this problem concerns the fundamental level of physical reality is convenient, because it is, of course, at this level that the panpsychist posits the experientiality of matter; stones and curtains do not have a unified, stone-, or curtain-level subject of experience. But the fundamental physical dispositions that underlie them, and which they finally reduce to, might.

I have suggested that matter, in the final analysis, is energy; they are the same thing. So, my first suggestion is that this is where the panpsychist should locate micro-level experientiality; matter consists in energy, and energy is a form of experience; a quanta of energy is is a buzz of experiential episode, a buzz of what-it-is-likeness.

Energy-as-experience hopefully helps to undermine some of the resistance to the idea of experientiality-as-concrete physical reality. For one of the big blockers to physical-experiential identity is perhaps that we tend to ascribe, to concrete reality, features that appear to be inapplicable to consciousness – namely, that concrete physical stuff is solid, dense, bumpable-into, in a way that does not apply to experiential phenomena. However, we are quite happy to accept that matter is energy, and intuitively, energy is not solid and dense either. However, energy occupies space nonetheless, and solidity and density is in fact a form of energy: electric charge. The intuition that consciousness could not be physical substance, because it lacks the appropriate kind of bumpable-into physicality, is thus laid at the wrong door: it might be mysterious to us just how energy can give rise to (or better, perhaps: be) the phenomena of solidity and density, but once we accept that it does, the further step – that the inner nature of energy is experiential - should not be so hard to take.

But what kinds of experiences are energy? Discussion about the micro-experiences posited by the panpsychist is often held in terms of “qualia”; experiential properties constituting the “what-it-is-
likeness” of seeing green and smelling roses and hearing violins playing, and so on. This is unfortunate. Talk of “what-it-is like to see green” and such is perhaps initially helpful, as a way of making the point that there is something it is like to have an experience, and that this what-it-is-likeness is left out by any standard physical description of brain states or behaviour or function; indeed, not subject to any form of objective knowledge at all.

After this initially good point, however, the term “qualia” seems to have taken on a life on its own, apparently resulting in the panpsychist feeling obliged to populate microphysical reality with “feels of green” and “feels of hearing violins” and so on. Of course, this sort of talk is a placeholder for whatever the experiential properties are, but I think that there is also another reason lurking in the background; the idea that micro-experientiality needs to be like little pieces of a human level experience, and that adding them together in some as yet unknown combination is how we get a human experience (Chalmers 2016a). But it is implausible that the contents of our experiences are divided up and distributed throughout the physical microworld. Indeed, apart from exposing the panpsychist to the infamous “incredulous stare”, such a posit would put the physical brain out of work; if the what-it-is-likeness of green came to us from a particle having this experience as its intrinsic nature, then why should our brains have complicated perceptual equipment for processing colour experiences? The content of our experiences clearly are heavily dependent, not only on our brains, bodies and nervous systems, but on such radically contingent facts as what is outside my window when I look out of it.

What needs to be explained is not what experiences we are having, but the fact that there is any experience at all in the first place. We need to posit experience to get experience; this is the crucial move. Once that move is made, we can leave it to nature to work the experiential raw-material into our full blown, brain-level experiences – presumably, that is one of the reasons why we have brains.

A different rationale for how to conceive of experience at the microlevel is needed, and such a rationale can be had from what has been discussed above; considerations of causality and the grounding of physical dispositions. The posited experientiality should be such that it might be possible to get a grip on what it is, in the nature of things, that makes the behaviour of the physical at the most fundamental level both possible and necessary; what it is that makes being something necessarily connected to – indeed, identical to – the having of dispositions to act so and so.

We have taken the hint from physics, in that matter is energy. So what we are looking for is the sort of experiences that could possibly be the categorical, experiential inner nature of energy. My second suggestion is that that micro-experiences be understood as primitive feels of attraction and repulsion. The smallest quanta of the fundamental forces might then be understood as little
“buzzes” or “bangings” of attraction and repulsion. Experiential states of attraction and repulsion are intrinsic, categorical states that are also powerful. They have their powers to motivate us essentially, just by being what they are. A feeling of repulsion, for example, seems to make us try to avoid, or want to pull back from, the object that we are repulsed by. In the same way, feelings of attraction make us want to try to pursue that which attracts us. Further, these feelings have their motivational powers solely in virtue of how they feel, they motivate our will in virtue of what it is like to have them (Morch 2020, 2021).

As an illustration, we can posit something like the following; the electron, the smallest unit of negative charge in the electromagnetic force, is a buzz of experientiality which is such that it is an experience of attraction toward positrons, and repulsion towards other electrons. In the presence of a positron, an electron is a “buzz” of experiential attraction – it feels attracted, drawn towards, the positron. In the presence of another electron, it is a buzz of repulsion. Presumably, this is all; this is the intrinsic, inner nature of the electron. It can only register a small number of physical qualities, it has no mind or space for deliberation. It might be plausible that, in such a scenario, where there are no interfering causes, and certainly no second thoughts, such an experience would make the effect of trying-to-pursue or trying-to-avoid immediate and, as it were, automatic. (In analogy with human level motor skills, perhaps). Thus, we can imagine how it is that to be an electron (a buzz of attraction towards the positron) connects with necessity to the dispositional behaviour of an electron. The disposition is had wholly in virtue of the intrinsic nature of the electron. One could not exist without the other.

This suggestion is a plodding, actually literal and deeply uncreative suggestion of how to understand what is going on. It should be noted, however, that this argument is not based on conceivability. Philip Goff, for example, in considering Hedda Morchs (Morch 2020, 2021) similar proposal, reasons that he can find “nothing contradictory” in someone enduring strong pain without the pain necessitating any “tryings to avoid” (Goff 2020). Even if he is right in that, it is not the point. We must remember where we started out; we started out in a position where physical causation and necessities was a total mystery, something which was not intelligible to us. We have strong reason to believe that such necessities exist, but we have been unable to form any positive, descriptive knowledge of what they might consist in. On this suggestion, the problem is more tractable, in that we can start to see how causal necessity could be possible in the first place. We might get some sort of grip on how it can exist. This is all about reasonableness and potential explanatory power, not about conceivability. To suggest that something like “feels of green”
necessitates the behaviour of electric charge is not reasonable. To suggest that experiences of being attracted to a positron necessitates the behaviour of being attracted to the positron is. This holds whether or not we can engage in thinking where there is “nothing contradictory” in supposing otherwise.

Another point to make in this connection is that it is not at all clear that we really can conceive of them coming apart. Brilliant philosopher as he is, Philip Goff is, after all, a human being, not an electron. This is a case of “what it is like to be a bat” magnified – or shrunk, rather – to the subatomic level. To be sure, we have a perfectly fine sense of what experience is, in general, and we have an equally good sense of what it is to experience attraction, in particular. This is something we must hold onto; it won't do to talk about “experience” and expect it to do the job we want it to do, without acknowledging this. So, we do know what it is for the electron to be a buzz of experiential attraction. But what I suspect that we are unable to conceive of is what it would be like to undergo this buzz of attraction and nothing else whatsoever. The conscious fields of human beings are immensely complex and many layered; think of the complexity of the brain as compared to that of the electron. Even while we are focused very hard on just one thing, there is still a lot more going on. Experiences are had against a background of moods and the feelingness of our bodies, against a background of other sensory information, against a background of memories and belief, and so on. The electron-experience, it is posited, will have none of that. There is nothing else going on at all, except for a flickering, a buzz, of strong attraction. Can we conceive of what it would be like to undergo this combination of nothingness and attraction? We can surely understand it as an idea, but that is not what is asked of us. What is being asked of us is to conceive of a situation that is lacking in all of those things which are always present, in one way or another, as we are having an experience, in order to experience only that one thing: a buzz of attraction. And since what we are conceiving of is an experience, we must be able to undergo this as an experience in order to be able to make the claim that the two – the experience and the disposition – can come apart.

I cannot really see how this can be done. My bet is that we cannot conceive of what it is like to experience attraction-in-a-void, but that if we could, we might well see that this experience triggered the attempt to behave immediately and necessarily.

2:7 Identity panpsychism and Howell’s exclusion problem re-visited

Let’s now go back to the previous discussion of Howell’s swapped quiddities scenario. On the view I have sketched here, this scenario cannot arise. Categorical and dispositional nature
are the same thing; they are identical. They are therefore not modally separable, and we cannot vary how a thing is disposed to behave whilst holding the categorical nature of that thing constant. If an electron was disposed to act differently than it is, its categorical nature would have to be different; which is just to say it would be a different thing.

This is the quick answer. Identity panpsychism is based on premisses which block Howell's problem; it affirms necessitarianism. But more needs to be said. It is one thing to claim that the two are identical and therefore the connection between them one of necessity, and quite another to make the suggestion feasible. It would be cheating to answer Howell's challenge by just insisting to define things in such a way that “being a dog” just entails “barking at strangers” and refusing to engage with those who claim that dogs can do otherwise. Similarly, it would be unsatisfactory to posit brute identities or necessary connections between, say, phenomenal yellow and the behaviour of electric charge; such bruteness is precisely the reason why we feel that the modal scenario suggested by Howell is initially plausible, and why, at a more general level, necessities in nature appear contingent to us. Brute identities and brute necessary connections would fail to take advantage of the special place occupied by panpsychism with regard to realist causality.

But hopefully, the view I have outlined does a bit more that that. On identity panpsychism, the physical is essentially active, humming, powerful: it is energy, in various forms and arrangements. At the fundamental level, this energy is experiential in nature; the intrinsically powerful states of feeling attracted, and feeling repulsed. The electron, for instance, is a tiny buzz of experientiality, such that it is an experience of attraction towards positrons, and repulsion away from electrons. The disposition of the electron to be attracted by the positron is thus nothing but the having of this intrinsic nature; an experiential buzz of attraction for the positron just is to have the disposition to be drawn towards the positron. The identity is not brute, and it goes some way towards explaining the necessity involved. Other things being equal, perhaps it is possible, in this way, to make sense of how the behaviour of the electron is necessitated by what the electron is.

And of course, on this scenario, the experientiality at the fundamental level is anything but epiphenomenal: its presence is what explains the regularity of the natural world; feelings of attraction and repulsion are the intrinsically motivating, self-propelling states that necessitate the connection between cause and effect, between being and behaving.

Concluding discussion

Identity panpsychism claims that all that fundamentally exists is experience; matter is energy,
and the inner nature of energy is experiential. Experience is the substance that makes up the concretely existing, physical universe. Evidently, this is not how the world appears to us. But neither is it apparent to us that physical objects consist of mostly empty space, or that a particle is a wave. Physics tells us that matter is not what it seems – we should by now be familiar with this point. Philosophy, too, can be a revelatory practice; and any view which is robustly realist about external reality must accept a gap between our experience of objects in external reality and the objects themselves.

The panpsychist can take this logic one step further. Some short discussion on this might be useful for seeing how causality, the mind-body problem, and the proposed identity between dispositional and categorical nature are related on this view.

It is an inescapable, elementary fact that different subjective realities are “logically private”. I cannot know the subjective reality of another subject without ceasing to be the subject that is me, in which case, it is no more intelligible to talk about me knowing the experience of you, a different subject. If I am to know what it is like to be a bat, I have to be the subject-of-experience that is the bat-subject. In that case, I am no longer the Emma-subject-of-experience, so there is no Emma-subject to be the knower of the bat-experience. If, however, I was to remain the Emma-subject of experience, I cannot claim to know what it is like for the bat to be a bat. Instead, I would know what it is like for me, Emma, to have the experience of the bat. But that is not what it is like for the bat to be a bat! Experiential realities, in order to remain separate, must be “metaphysically closed” to each other.

Given that this is so, and given that different subjective realities nevertheless exist and causally interact, where, or how, does this interaction take place? In what, shall we say, dimension, or interface, do we meet and operate on each other, that makes it possible for us to interact while staying “metaphysically closed” to each other? The answer is clear: we know from constant experience in everyday life that first-person, subjective realities are also and at the same time third-person, physical realities: first-person realities function as third-person realities, in that that is how they appear to other subjects, and that is how they causally interact with other subjects. I am a subject of experience, a first-person, subjective reality, but for my boyfriend, I am third-person, physical reality, and crucially, it is as third person physical reality that I am affecting him. If I give my boyfriend a hug, I do so in virtue of my first-person, subjective reality; the fact that I had a desire to do so and therefore decided to do so. But I do not do this as a subjective reality, by somehow entering into his subjective experience, obliterating the difference between my experience and his. I do it as third person, physical reality; by extending and closing my arms around him.
There is no reason to think that panpsychist causality should differ. On this view, fundamental physical reality behaves as it does in virtue of experiences that are intrinsically powerful and motivational. But these subjective realities are by necessity metaphysically closed to one another, and cannot causally interact as such, on pain of ceasing to be separate subjects. Instead, they do so as third-person, physical realities; as energy.

This is perhaps the only way causality could function. If what I have suggested in this essay is true, only experientiality can supply the intrinsically motivating, self-propelling states needed for causal powers. At the same time, however, experiences cannot be causally efficacious as experiences, on pain of ceasing to be separate experiences. A certain duality is thus necessary for a causally interconnected universe. We might say that there is no non-experiential reality absolutely speaking, but there is non-experiential reality relationally speaking (Strawson 2006 p261). Which is the same, on this view, as to say that there is no dispositional nature absolutely speaking, but there is dispositional nature relationally speaking. Dispositional nature is categorical nature - experience – as it is known by other subjects who are not themselves that thing. It is categorical nature known through the effects it has on external reality.

It is no surprise, on this picture, that panpsychism is and remains counter-intuitive. Subjective realities cannot be shared. We know other subjects through the causal effect they have on us; we know them as third person, non-experiential realities, as bodies, as opposed to as minds. The reason I know that the shopkeeper is not a zombie is not because I am somehow able to share in his subjective experience, but because I infer, based on the shared similarities between him and me, that he is a subject of experience just like me. But it is an inference, nevertheless, and as far as my direct experience is concerned, the shopkeeper is a physical object – albeit a physical object of such a kind that the inference to his inner nature as a subject-of-experience comes very easy to me.

As we move further away in similarity, from dogs and dolphins through birds and insects, the tendency to make this inference gets weaker. By the time we have left the biologically evolved world behind us, there is nothing more to base it on. Fundamental physical reality is not in any way accessible or observable to us, but even if it was, there is no reason to think it would appear in any way different from how it does appear; fundamental physical entities being highly insubstantial tiny buzzes of activity, concentrations of energy in a field, or what-have-you. Unless we take the regularity and activity as in itself as a sign of the presence of subjectivity (which, I have argued, is not a bad thing to do) there will be no sign whatsoever of the experiential nature of these entities.
It is in the nature of the case that if panpsychism was true, our intuitions would be exactly the same as if it was not true; panpsychism is counter-intuitive, because there is no way reality could appear to us in a way that would make it appear as true.

This would also explain why necessities in nature have always eluded our knowledge. If those causal powers consist in intrinsic natures that are subjective experiences, we cannot know them directly, on pain of the very logic of what it is to be an experiencing subject, taking the world as an object of knowledge. But if there are no good reasons for thinking panpsychism is false, we might be justified to make the inference that necessities in nature consist in the same thing as they do in our own case; in intrinsically powerful experiences.

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Footnotes;

1. The term “What-it-is-like” was coined by Thomas Nagel, in his famous article “What It Is Like To Be A Bat”.
It refers to the most essential yet at the same time most elusive part of consciousness; the necessarily private, qualitative character of experiential states; the fact that it is like something to have an experience.

2 To avoid confusion given what will follow in this essay, it should be noted that with “sufficient physical causes” is here only meant the scientifically observable physical event A that is the cause of another event B. A deeper understanding of why A causes B, such as whether this is merely constant conjunction, contingent necessity, or metaphysical necessity, and further, in virtue of what this relationship obtains, is left entirely open in the physical explanation.

3 I will not, in this essay, address emergentist views: views claiming that experience somehow “emerges” from the (wholly non-experiential) physical. This is because, to the extent that such views are realist about experience, they seem to be best classified as dualist, (Howell 2015, Wilson 2005) and since the main task in this essay is to defend panpsychism from the re-emergence of the exclusion problem for dualism, it is taken as given that this problem for dualism is reason enough to look for another theory. A further reason why I do not address dualism is that, since such views usually posit contingent psycho-physical emergence-laws, addressing them would involve a repetition of the arguments I have given earlier against contingent necessities, and for causal realism. For a by now near-classical exposition of the great difficulties in making sense of experiential from non-experiential emergence, see Strawson 2008b.