

TWO CONCEPTIONS OF EXPLANATION AND THE ‘POSTMODAL’ APPROACH TO METAPHYSICS

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[Word Count: 7295]

In recent years there has been a striking shift in metaphysics from formulating metaphysical theses in modal terms to formulating them using other tools, like *grounding*, *essence*, or *fundamentality*.¹ For example, while it was, and in some philosophical circles still is, common to formulate the thesis of physicalism in modal terms (in the spirit of Davidson (1970)) — for example, as the claim that everything supervenes on the physical — nowadays the thesis is often formulated in other terms. For example, as the claim that that the world, fundamentally, is physical, or the claim that all non-physical facts are grounded in physical facts (e.g. Schaffer (2009, p. 364), Dasgupta (2014, p. 557)). Sider (for example, in his 2016 Locke Lectures) has called this shift away from modal tools the *postmodal revolution*.

There are a variety of reasons for this shift. Much focus has been paid to the way in which modal formulations of metaphysical theses often fail to capture the intuitive force of the theses (see Berker (forth, section 3) for a particularly good discussion of this). Take, for example, the simple modal formulation of physicalism — that everything supervenes on the physical. This is consistent with the claim that

¹For example, Fine (2001), Fine (1994), Rosen (2010), Schaffer (2009), Sider (2011) and Dasgupta (2014), among many others defend such a shift.

everything supervenes on the mental. So the physicalist supervenience claim doesn't capture the idea – that is key to physicalism – that the mental, if it exists, *depends upon* the physical. In fact, certain types of clearly non-physicalist views (like dualist views where there is necessary pre-established harmony between the mental and the physical) satisfy the physicalist supervenience claim.

Relatedly, the supervenience formulation doesn't seem to capture the physicalist idea that the other facts, the mental facts, for example, are nothing-over-and-above the physical facts. All it claims is a kind of modal covariance between the non-physical facts and the physical facts. It doesn't capture the idea that the world is, ultimately, just physical.

Further, there is a sense in which modal formulations of metaphysical theses take us away from the thing that we really care about. When we are thinking about theses like physicalism we typically want to know about our world — whether there is more to it than just the physical. The thing we really care about, typically, is not modal space — it's our world. Of course, sometimes claims about modal space can sometimes be revealing about our world, but formulating theses like physicalism in modal terms seems strangely indirect, only obliquely addressing our core interests.

But in this paper, I'm going to be considering another possible motivation for the postmodal turn. There is a somewhat common thought that many modal facts — like the supervenience formulation of physicalism, or the claim that the moral facts supervene on the physical facts, or the claim that if an object instantiates a determinate, then it cannot instantiate another determinate of the same determinable — are not appropriately taken as basic and unexplained. Those modal regularities should be explained by something else, like facts about grounding, or essence or something similar – they are merely symptoms of those underlying facts. And so, the postmodal metaphysician thinks, those underlying grounding, or essence, or what have you, claims are the right focus of metaphysical investigation (Schaffer (2009, p. 364), Kim (1993, p. 167), Wilsch (2017, section 3)).

I'm going to investigate this line of thought. In particular, I'll claim that whether it is reasonable to take modal facts like the ones mentioned in the previous paragraph as basic depends upon the conception

of explanation that you hold. More specifically, I will argue that if you want to take such modal facts as basic and unexplained then you are pushed towards a *pattern subsumption* conception of explanation.

It's important to be clear, though, that I'm not making an argument that we should reduce modality to ground or essence or so on. My project is more modest. I'm just going to argue that — unless we have a pattern subsumption account of explanation — then we have a reason not to take particular modal facts as unexplained when there is a possibility of doing so.

Of course, not taking modal facts as unexplained could involve giving a reduction of modality to some postmodal notion. But it also might not – we might take modal facts to be explained even without reducing the notion of modality (see Wilsch (2017, section 3) for an example of how this might be done). (Just as for example, we might take mental facts to be explained by physical facts without any reduction of the mental to the physical.)

Further, I'm not going to defend any particular account of how postmodal facts might explain the modal facts. Rather the aim is, again, to say that unless we accept a pattern subsumption conception of explanation (or possibly develop some other conception of explanation that does similar work) then we should think that there is some such explanation of the modal facts.

The upshot of this is that those who want to reject the postmodal approach and take certain modal regularities as basic have to take on substantial commitments in their theory of explanation. Depending on your views on explanation this might well constitute a powerful argument in favor of the postmodal approach.

1 NON-MODAL REGULARITIES AND TWO TYPES OF EXPLANATION

However, I'm going start in a somewhat different place, by considering non-modal, actual world regularities. The considerations will turn out to relevant for modal case too.

Imagine that, over the course of a few months you see, in different locations, three ravens. You notice something interesting — all those ravens are black. You know nothing about ornithology so, you think, perhaps this is a coincidence. Later, you learn a more general fact — all ravens are black.

Question: has learning this general fact made the putative coincidence disappear?

In asking this question I'm not relying on any particularly technical notion of coincidence here, I'm just using an everyday notion of a coincidence. In particular, a coincidence, as I'm understanding it here, is some striking pattern or matching between events that seems to call out for explanation, but doesn't have one. (Apart, that is, from any explanation of the pattern that just explains each of the component events separately – for example, the fact that there is an explanation for each particular raven of why it is black doesn't, on its own, imply that *all ravens are black* is not a coincidence.)²

An obvious and natural answer to the question seems to be no. In fact, the coincidence appears to have intensified. If it was coincidental that the three ravens you saw were black surely it would be even more of a coincidence if you, in addition, saw another raven that was black. Increasing the number of relevant instances – increasing the generality of pattern – doesn't seem to make the situation less coincidental. So, presumably, taking into account all of the relevant instances — all of the ravens in the world — and finding that all the ravens are black would be more coincidental than only seeing three of the ravens and finding that they are black.

Of course, it's similarly natural to answer differently. If you see three black ravens perhaps that is a coincidence, but as we see more and more black ravens you might come to think that it can't be a coincidence — there must be an explanation for the ravens you see all being black. And certainly, when you come to learn that every raven in the world is black you are likely to think that there is some explanation for this.

But notice the structure of the reasoning in this case. The reason that you think that there must be

²In fact, the accounts of coincidence in the literature (for example, Owens (1992), Lando (2017)) agree on that much. Sometimes further conditions are added to create a more restrictive notion of coincidence – but our project can continue happily with just the simple sense of coincidence just described.

an explanation of why all ravens are black is because if there were no explanation then it would be a massive coincidence that all ravens are black. There are so many ravens in the world, and so many possible colors birds can be, so it would be an incredible coincidence if all of them happened to be black. Further, notice that there is a general theoretical pressure against accepting significant coincidences. If a theory of ours says that something is a significant coincidence then that is a mark against the theory. Consequently, we are very unwilling to accept that there is no explanation for the fact that all ravens are black.

It's not the case that the increasing the number of relevant instances *on its own* makes the situation appear less coincidental. Seeing three ravens that are all black seems to you like it might be a coincidence. Learning that all ravens are black only makes it seem like an even bigger coincidence — such a big coincidence, in fact, that we might feel like we can't accept it and so assume that something else must be going on, that there must be an explanation. Again, increasing the number of relevant instances intensifies the coincidence.

Now we've answered the initial question, time for a second question: What would make the regularity that all ravens are black not a coincidence? The first, and most obvious, answer, we have already mentioned — the regularity would not be a coincidence if there was an explanation of it.

An explanation of this regularity could work in lots of different ways. In the case of ravens being black the explanation we would be inclined to give a causal explanation — we might tell a story about how ravens evolved to become black, presumably to do with a certain kind of adaption to their environment, and then about how this trait of blackness was passed down to future ravens.

But, at least in principle, there are other types of explanations that could have been given. We could have given a covering law explanation of the regularity, if there was a relevant law. It is often thought that laws explain their instances, and so if it is a law that all Fs are Gs that explains why all Fs are Gs (for example, Hempel and Oppenheim (1948), Armstrong (1983, p. 40), Maudlin (2007a, p. 172)) So, if it were a law of nature that all ravens are black then this could explain why all ravens are black.

Or alternatively, we could have explained the regularity by appealing to the facts about the concepts involved. Perhaps, we could have said that blackness is part of the concept of ravenhood, and that explains why all ravens are black, just as the concepts of bachelor and marriage explain why all bachelors are unmarried.

Or perhaps we could have explained the regularity by appealing to essences (Koslicki, 2012; Glazier, 2017). For example, perhaps all ravens share an essence, and this essence guarantees that the raven is black.

Again, the explanation we are inclined to appeal to in the raven case is the causal one. But any of these types of explanations would explain why all ravens are black, and so dispel the coincidence.

However, perhaps there is another way we could argue that all ravens are black is not coincidental. Perhaps it is possible that some regularities can have a different explanatory status which leads them to be non-coincidental, even if there is no explanation of them. That is, perhaps some regularities are non-coincidental not because they are explained but because they are *not in need of explanation*. (Again, we are thinking of a coincidence as some striking pattern or regularity that seems to call out for explanation, but doesn't have one. So it is possible to argue that something is not a coincidence by arguing that it doesn't call out for explanation.)

Maybe an example will help fix the idea. Imagine that we believe in primitive laws of nature (for example, along the lines of Maudlin (2007b, ch. 1)) and our theory of scientific explanation is based on laws — we explain by showing how something follows from the laws.³ Then it is natural for us to say that the laws, or at least the fundamental laws, have a different explanatory status from other facts. They are our explanatory starting points — they are the things doing the explaining and are not themselves explained. It's not problematic, one might think, that these laws are not explained — there's no coincidence, or anything like that here — rather these fundamental laws are appropriate starting

³Of course, there have to be some further conditions on explanation in order to avoid the classic problems with the Deductive-Nomological approach to explanation (see, for example, Salmon (1989, pp.46-50)).

points and are just not in need of explanation.

To be clear, I'm not committing to this line of thought, but it is a somewhat natural one. And someone might attempt to apply this kind of thought to the regularities — like all ravens are black — we have been considering. They might claim that such regularities are not in need of explanation. In fact, there is a certain conception of explanation which would make this view seem somewhat natural.

To see this, let's take a step back for a second and consider a couple of different ways that you might think about explanation.

We can, in a very rough and unnuanced way, place most of the accounts of explanation into one of two categories. The first, and most populous, category is made up of views which say that to explain something we show what that thing *depends upon*. Causal accounts of explanation are obviously of this form. To explain an event we might cite the causes of the event, doing this shows what the event in question depends upon (e.g. Woodward (2003), Strevens (2008a)). But also law-based explanations, as given by people who believe laws govern particular events, have this form. It is common to think that laws, for example the law that $F=MA$, govern their instances and hence the law can explain the instances (see the discussion in Beebe (2000a) although she rejects the governing conception). Governing seems to be a species of dependence, and so this type of explanation fits into this category. Similarly, the influential 'mechanistic' approach to scientific explanation is based on the idea that explaining a phenomenon involves showing what mechanisms 'give rise to' the phenomenon (e.g. Craver, 2006). This 'giving rise to' relation seems to be a species of dependence relation. Plenty of other types of explanation are driven by a dependence intuition.

The other category, a small but forceful undercurrent in contemporary discussions of explanation, consists in views which take explanation to be fundamentally to do with fitting the event in question into a *larger pattern*. Unificationist views of scientific explanation, like those given by Kitcher (1981) and Friedman (1974), fit into this category. As does Hempel's version of the D-N account (at least on some interpretations), where he takes explanations to show how something follows from the laws, but where

laws are merely general patterns. (In fact in some moods, e.g. Hempel (1965, p.488) explicitly commits to a pattern subsumption conception.)

And perhaps law-based explanations given by Humeans about laws of nature fit into this category too. The Humean takes laws to reduce to the patterns of particular events. Consequently, the Humean doesn't take the particular events to depend upon the law in any robust way. If anything, the dependence is the other way round. Consequently, it looks like Humean law based explanation is naturally interpreted in a pattern-subsumptionist way (see Loewer (1996, p.113) Bhogal (forth, section 2.1)).⁴

So we have two conceptions of explanation, the *dependence* conception, and the *pattern subsumption* conception. Adherents of these two different conceptions of explanation will differ in what is appropriately taken as basic and unexplained (if anything is appropriately taken as such). For the dependence-theorist the basic facts will be those that everything else depends upon. For the pattern-subsumption-theorist the basic facts will be those that cannot be subsumed to a larger, more general, pattern. So, the most general patterns themselves will be taken as basic and not in need of explanation. (At least not in need of this type of explanation, perhaps they will be in need of some other type of explanation. For example, maybe the unificationist about scientific explanation will say that the most general patterns are appropriately taken as scientifically basic, but they could also consistently accept that those patterns are metaphysically explained by, or grounded in, specific events, as long as they accept that there are these two distinct types of explanation.)

It would be in keeping with their view, then, for a pattern-subsumption-theorist to take some generalizations to be basic and not in need of an explanation. Of course, the generalization we have been considering — all ravens are black — is not the most plausible case for this claim. No one thinks that this generalization is one of the most general patterns of the world. Instead they might think that cer-

⁴Of course, there is much more to say about this issue. It's controversial whether Humean law-based explanation explains via pattern subsumption or unification. And some Humeans, like for example, Lewis (1986), give accounts of explanation where the laws don't play a central explanatory role. But since Humeanism won't be especially important in the rest of the paper I'm not going to discuss these issues further, just assuming that Humean law-based explanation works in a pattern subsumptionist way.

tain physical generalizations, like ‘in every physical interaction energy is conserved’ are basic and not in need of explanation. But for now let’s ignore this and continue with the fiction that all ravens are black is one of the most general patterns of the world.

So, the pattern subsumptionist might have a different reaction to our initial question. They might think that the initial coincidence — that we saw three ravens that are all black — does disappear when we find out that all ravens are black. Because we explain the blackness of those three ravens by subsuming it to the general pattern that all ravens are black. And the fact that all ravens are black is not itself a coincidence because it has a different explanatory status — it is legitimately taken as basic and unexplained.

Let’s summarize where we’ve got to so far:

Prima facie, when we have a generalization like all ravens are black, this is more of a coincidence than some particular instances of the generalization, like the fact that the three ravens you saw are all black. The generalization would not be coincidental if we have an explanation of it — this explanation can come in a variety of forms.

The generalization also would not be coincidental if it has a different explanatory status — if it is not in need of explanation. This view fits naturally with a pattern subsumption approach to explanation.

So, it looks like there are three options with respect to a generalization like ‘all ravens are black’: (1) it is a coincidence, (2) it is not a coincidence because there is an explanation, or (3) it is not a coincidence because it is not in need of explanation.

In the particular case of ‘all ravens are black’ it seems clear that the right option to take is (2). But (1) and (3) might be more plausible when we consider other cases. If for example, we were considering a basic physical generalization, like ‘in every physical interaction energy is conserved’, then it might be reasonable for a pattern-subsumptionist to take option (3). And although it seems very unattractive to take option (1) in most cases, presumably there are some generalizations which are just coincidences.

2 MODAL REGULARITIES

How does this discussion relate to the issues about the postmodal approach to metaphysics that we started out the paper by discussing? That will become clear in this section by asking some questions about modal regularities that are analogous to those we asked in the previous section.

Imagine you find out that all ravens are black. Not knowing anything about ornithology, you are worried that this might be a coincidence. Later, someone tells you that necessarily all ravens are black.

Question: has learning this more general fact made the putative coincidence disappear?

An obvious and natural answer seems to be no. In fact, the coincidence appears to have intensified. If it seemed coincidental that all ravens are black then surely it would be more of a coincidence if you found out that, in fact, this pattern is even more general — it holds in other possible worlds as well as this one. In the non-modal case, making the pattern more general — moving from three ravens who are each black to ‘all ravens are black’ appears to intensify the coincidence. *Prima facie*, the same thought should apply to generalizing this pattern to the modal case too — just making the pattern more general just makes the coincidence even more intense.

(Perhaps this talk of ‘patterns’ is slightly misleading — if we are not modal realists then we don’t think that necessity facts are ‘patterns’ in exactly the same way that actual world universal generalizations are naturally described as patterns. We might, for example, just take there to be primitive necessity facts, without thinking that there is some trans world pattern of events that such facts represent.

But still, I don’t think the talk is too misleading. Modal regularities, like *necessarily, all ravens are black*, imply actual world regularities, and they also imply regularities about counterfactual and other possible situations. So describing the modal regularity as a general pattern, and in particular, a pattern that is more general than the mere universal generalization that all ravens are black, seems reasonable enough and I will continue to do it.)

Of course, in the non-modal case we discussed previously, there is another natural reaction to the situation. If we find out that all ravens are black as opposed to just the three ravens we saw being black, we might be inclined to think that it can't be a coincidence, there must be some explanation for why the generalization holds.

But this isn't because generalizing from the three ravens we saw being black to all ravens are black takes away the appearance of coincidence – rather it intensifies the coincidence. So much so, in fact, that we find the coincidence unacceptable and so think that there must be some explanation for why the generalization holds.

Similarly, it is very natural to think that it can't be a coincidence that necessarily all ravens are black. In fact, this seems even more forceful in the modal case than the non-modal case. Perhaps it could be a coincidence that all ravens are black, however unlikely this might seem, but surely it can't be a coincidence that *necessarily* all ravens are black.

This seems totally reasonable, but again, it's not the case that merely generalizing to the modal case, moving from 'all ravens are black' to 'necessarily, all ravens are black' removes the coincidence. Rather, it appears to intensify the coincidence, and countenancing such a huge coincidence is unacceptable.

(Some people might worry that it is conceptually impossible to have a coincidence that holds necessarily. This worry seems misplaced. There is nothing in the conception of coincidence that we are working with – the idea of a striking pattern or regularity that seems to call out for explanation, but doesn't have one – that makes it impossible for necessary facts to be coincidental. And furthermore, there is a good case to be made that there are *mathematical coincidences* and hence there are some necessities which are coincidences (see, Lange (2010)).)

To reiterate: in the non-modal case, learning that all ravens are black doesn't, on its own, remove the coincidental nature of the situation, though it might give you reason to think that something else — like a relevant explanation — holds that would remove the appearance of coincidence. Similarly,

learning that necessarily all ravens are black doesn't, on its own, remove the coincidental nature of the situation, even though it might give you reason to think that something else holds that would remove the appearance of coincidence.

Given this we can ask a second question – What would make the modal regularity that necessarily all ravens are black not a coincidence?

Just as in the non-modal case there seem to be two possibilities, either there is an explanation of the modal regularity or it has an explanatory status where it doesn't need explanation.

Take the first possibility — how might this modal fact be explained? Modern metaphysical theorizing has a variety of tools that we might use to explain such modal facts.

For example, we might explain why necessarily all ravens are black by appealing to facts about *essence* — perhaps it is part of the essence of ravenhood that ravens are black (e.g. Fine (1994), Dorr (2004, section 3), Koslicki (2012)).

Or perhaps there is a relevant *grounding* relation that explains the modal generalization. It is widely accepted that if A fully grounds B then necessarily if A then B (though notably Skiles (2015) and Leuenberger (2014) disagree). We might naturally go further and claim that it is *because* A fully grounds B that necessarily if A then B (Wilsch, 2017; Blackburn, 1987). For example, if there being a table is fully grounded in there being atoms arranged tablewise then this explains why necessarily whenever there are atoms arranged tablewise there is a table.

In the particular case at hand such a grounding explanation seems implausible — to explain the fact that necessarily all ravens are black it would have to be that something being black is grounded in the fact that it is a raven. But we can see the possible strategy.

Another possible option is to accept that there are metaphysical laws (see Sider (2011, section 12.4), Wilsch (2015, section 4.1), Glazier (2016)). Perhaps it is a metaphysical law that all ravens are black, and this law explains that necessarily all ravens are black.

As I mentioned earlier, I'm not going to discuss in detail how these explanations might work. But we can see how it is possible to claim that the modal regularity is not coincidental because it depends on such postmodal facts – *necessarily, all ravens are black* might depend upon essence, or grounding facts, for example.

The second possibility is that the modal regularity is not explained, but its explanatory status is such that it is not in need of explanation. What could motivate this? Well, just as in the non-modal case a pattern subsumption view of explanation could do the job. Perhaps we can explain a generalization — all ravens are black — by subsuming it to a more general pattern — necessarily, all ravens are black. If we are happy with this type of modal pattern subsumption then this provides a reason for saying that the modal regularity is not in need of explanation — it is one of the most general patterns that other patterns are subsumed to.

If we do not accept such a pattern subsumption view, or some similar conception of explanation, then it is hard to see why the modal regularity would not be in need of explanation. As we noted, it's not the case that the simply moving to the modal regularity — that necessarily all ravens are black — from the actual world regularity — that all ravens are black — removes the coincidence on its own. Rather, in order to say that the modal regularity is not in need of explanation we need some conception of the structure of explanation which has this as a result. It hard to see what this would be if not the pattern subsumption view.

Of course, this is not to say that it is impossible that there is some other conception of explanation that could make sense of modal regularities like *necessarily, all ravens are black* being appropriately unexplained. But again, it's not easy to see what that would be. It's a challenge, then, for those who want to resist this line of argument to develop a such a different conception. (For example, maybe someone who wanted to resist the argument here could appeal to the dependence conception of explanation again, saying that the actual facts depend upon, and thus are explained by, modal regularities. And, so, they could claim, it is reasonable to take those modal regularities as the basic explainers and not themselves

in need of explanation. This would avoid the argument here, but the claim that the actual facts depend upon modal regularities seems unattractive.)

I anticipate a certain objection to the argument at this point. The objection is as follows: ‘Surely it is possible to accept that modal facts are unexplained without accepting the pattern subsumption view or anything like that. After all, every theory needs to start from somewhere — they need things that are taken as unexplained. It’s not as if saying that modal facts should be explained does away with unexplained elements of the theory, rather it just replaces them with unexplained facts about grounding or essence or so on. So why can’t I just choose to take certain modal regularities as unexplained parts of my theory, regardless of anything to do with pattern subsumption or conceptions of explanation?’

Of course, it is certainly the case that every theory needs its starting points, but not every starting point is on a par. Some are more plausible than others, especially when combined with other elements of your theory. In particular, the elements of your theory that you take as unexplained should fit with your theory of explanation. If your theory of explanation is based on laws explaining, then it is reasonable to take certain laws as unexplained. And if your theory of explanation is based on causation then your starting points should be causally productive.

Similarly, we shouldn’t take modal facts to not require an explanation unless our theory of explanation allows us to see why they don’t need to be explained. And as we have noted, the most natural way to do this is to argue that (certain) modal facts are the ultimate explainers, and so are not themselves explained. The pattern subsumption view allows us to say this — explanations involve fitting things into general patterns so the most general patterns are not themselves in need of explanation.

Just as in the non-modal case, then, it looks like we have three options. Either (1) the modal fact is a coincidence, (2) the modal fact is explained, or (3) the modal fact is not in need of explanation.

(1), I take it, is unacceptable. There is theoretical pressure against coincidences, especially such a massive modal coincidence. (2) is the postmodal option. Modal facts are explained in terms of grounding

or essence or metaphysical laws or something similar. The modal fact is a mere symptom of the underlying metaphysics. (3) is an interesting and perhaps plausible option but it involves commitment to the pattern subsumption view. (Again, perhaps there are options other than the pattern subsumption account for those who want to say that the modal fact is not in need of explanation – it's a challenge to those who want to resist this line of argument to elucidate these. For simplicity, I'm going to stop noting this possibility for the moment.)

So, we are now in position to see the main point of the paper: If we want to reject the postmodal approach — that is if we want to deny that the modal formulations of metaphysical theses are typically just symptoms of underlying facts about grounding or essence or so on — then we are pressured towards a pattern subsumption view of explanation.

For example, imagine that we discover a (non-modal) covariance between ethical facts and physical facts — actual differences in ethical facts are accompanied by actual differences in physical facts. This seems to require explanation. Noting that there is a more general pattern — necessarily, differences in ethical facts are accompanied by differences in physical facts — doesn't take away the need for explanation unless we accept a pattern subsumption conception where the more general modal pattern explains the particular, actual world pattern, and does not itself need to be explained. So, we have a choice between explaining the modal fact (by appeal to essence or ground or so on) or the pattern subsumption conception.

Another example: Imagine we discover that everything in the actual world that possesses a determinate of some determinable doesn't also possess a different determinate of the same determinable. This seems to require explanation. Noting that there is a more general pattern — necessarily, everything that possesses a determinate of some determinable doesn't also possess a different determinate of the same determinable (that is to say, determinate exclusion is necessary) — doesn't take away the need for explanation unless we accept a pattern subsumption conception where the general pattern explains the particular, actual world pattern, and does not itself need to be explained. Again, we have a choice be-

tween explaining the modal fact (by appeal to essence or ground or so on) and the pattern subsumption conception.

Clearly we can multiply examples further. The same type of reasoning will suggest to us that other modal formulations of metaphysical views should be explained by underlying facts, or that we should accept the pattern subsumption view. (For example, we can invoke the same reasoning with respect to the physicalist claim that the mental supervenes on the physical, or the claim that necessarily if A is a part of B and B is a part of C then A is a part of C or the claim that necessarily an object is located exactly where its parts are located.)

So this is the main point of the paper: someone who rejects the pattern subsumption view of explanation should think that modal regularities, like those traditionally used to formulate philosophical theses, require explanation — an unexplained modal regularity of this kind would be a coincidence. And so they should look to explain such modal facts — presumably in postmodal terms.

3 INTERACTIONS BETWEEN THE MODAL AND NON-MODAL

So, we have a choice between two options — the pattern subsumption approach where certain modal facts are taken as appropriately unexplained, and the postmodal approach where the modal facts depend upon underlying postmodal facts. But of course, we started out by considering an analogous non-modal case, and we face a similar choice there, between pattern subsumption and dependence explanation, with a similar implication — the pattern subsumption approach motivates taking certain regularities as unexplained.

There is an interesting question, then, about how these two choices interact. To finish I'm going to briefly consider the possible options with respect to these two choices and look at a couple of considerations about which option we should take. This is all somewhat exploratory though, nothing here will force us to make one choice over another.

There are four options with respect to the two choices we have:

(i) We could accept dependence based explanation in both cases. That is, we accept that explanation works via robust dependence relations — causal or nomic or something similar — in the non-modal case, and we accept a post-modal approach in the modal case – the modal regularities depend upon facts about essence, or ground or so on.

(ii) We could accept the pattern subsumption explanation in both cases. That is, we accept unificationist, or Humean explanation, or some other pattern subsumption view, in the non-modal case, and accept pattern subsumption explanation and unexplained moral regularities in the modal case.

Those are the two ‘pure views’. But we also have two possible ‘mixed views’:

(iii) Accept dependence based explanation in the non-modal case, but pattern subsumption in the modal case.

(iv) Accept pattern subsumption explanation in the non-modal case but accept dependence-based explanation and the postmodal approach in the modal case. (This view is pretty clearly accepted by some modern Humeans who explicitly reject modal formulations of Humeanism in favor of formulations using postmodal tools (Loewer, 2012; Hall, 2010; Bhogal, fort).

Out of these four options the two mixed views are somewhat strange. They require us to accept a different conception of explanation in the modal and the non-modal cases. This is particularly strange since many of the reasons to reject the pattern subsumption view of explanation apply equally to the the modal and the non-modal cases. So it’s somewhat hard to see why we would accept the pattern subsumption conception in one case but not the other. Let’s look at a few such concerns with the pattern subsumption conception.

The first concern with the pattern subsumption view is that it makes explanation deeply non-local. Take some typical everyday explanation. Imagine I want to explain why the window broke. You might naturally think that such an explanation should be local, in the sense that it is about what is going on in the vicinity of the window-breaking. So, for example, I explain the window breaking by citing the

fact that it was hit with a rock – this is a good explanation and is local in the relevant sense.

Of course, we might be able to extend the explanation so that it tells us about things that are not in the vicinity of the window. Perhaps the reason that the rock hit the window is because it was thrown by a protestor, and the reason that they threw the rock in protest might have to do with complex features of the global economy. But still, in this case there is a chain of local interactions that lead to the rock breaking the window.

Things work differently in a pattern subsumption explanation. Imagine I explain the breaking of the window by appealing to the rock and also the the relevant general pattern of rocks hitting windows leading to breaking. I explain the breaking by subsuming it to this general pattern. What this means, though, is that the explanation is dependent upon this general pattern holding. So, for example, if events across the other side of the world, or events in the past or future, are such that the pattern does not hold then the explanation fails to hold. So, the explanation of the window breaking here is dependent upon windows and rocks that are very distant (and not via any intermediate steps, rather, there is a immediate, non-local dependence between those distant windows and this explanation).

This non-locality is, for many people, a deeply unattractive feature of the view. What's going on across the other side of the world or in the far future is intuitively just irrelevant for the explanation of the window breaking *here* and *now*.

Analogous things can be said about pattern subsumption explanation in the modal case. Imagine we try to explain why all actual differences in ethical properties go along with actual differences in physical properties in a pattern subsumption way, by fitting it into the more general pattern that differences in ethical properties necessarily go along with differences in physical properties. Again, there is a concern that the putative explanans is intuitively irrelevant to the explanandum — we are trying to explain an actual world phenomenon, what goes on in other possible worlds is just irrelevant. If we are concerned about non-locality of pattern subsumption explanations in the non-modal case, then this concern seems even stronger in the modal case — what could be more non-local to us than distinct possible worlds?

A second worry with the pattern subsumption conception is that it involves a strange kind of discontinuity. Fitting a phenomenon into a more general pattern doesn't explain unless the pattern is maximally general. So, for example, it doesn't explain why this raven is black to note that most ravens are black, or that all ravens round here are black. In fact, as we noted earlier, this just makes the situation seem even more coincidental. It is only when we appeal to the most general pattern, that all ravens are black, do we get an explanation. It's somewhat hard to see, though, why there should be this discontinuity — why fitting a phenomenon into a more general pattern is not explanatory until it suddenly is.

A third worry, and perhaps the most forceful for some people, is simply that pattern subsumption is not dependence. People's dependence intuitions run deep — how could anything that is not dependence genuinely be explanatory? Relatedly, it's common to object to pattern subsumption or unification approaches that they might allow explanations that run contrary to the direction of dependence (e.g. Barnes (1992),Strevens (2008b, section 1.4.7)).

All these worries apply equally to the modal and the non-modal case. So, for those who feel the force of any of these worries taking either of the mixed views seems unattractive. And of course, if you feel the force of these worries then taking view (i) — that is, accepting pattern subsumption in both the modal and the non-modal case — seems unattractive too.

Of course, though, these are not the only considerations relevant to our choices. There are pressures away from dependence-based approaches, towards pattern subsumption approaches too. These pressures typically come from suspicion with the existence of the relevant dependence relations leading us to fall back on. For example, Humeans reject the relevant nomic dependence relations for metaphysical reasons — they think we can do without such strange additions to our ontology (e.g. Beebe (2000b)) — and for epistemic reasons — they worry about how detectable such parts of the ontology would be (e.g. Earman and Roberts (2005)). Similar concerns are raised against the postmodal approach.

There is no reason to think that these types of considerations against dependence structure are equally forceful in the modal and the non-modal case. So, if we take these considerations to have different

weight in the two cases then we might reasonably accept one of the mixed views. And if we take them to be forceful in both cases then we can reasonably accept (i). So, I think, each of the views (i)-(iv) may well be viable — but clearly there is some more pressure on the two mixed views.

But in any case, I'm not going to adjudicate between these views any further. We have seen some relevant considerations, and the reader can decide for themselves which way to go. Again, the key point is just that we are faced with a choice between taking a pattern subsumption view of explanation in the modal case — allowing for the possibility of taking certain modal regularities as unexplained — or rejecting such a conception which forces us to say that the modal regularities are in need of explanation — pushing us towards the postmodal approach.

4 CONCLUSION

Many philosophers are resistant to the postmodal approach to metaphysics. Although talk of grounding and the like has grown in popularity over the past couple of decades anyone who has had even cursory conversations on the on these issues with philosophers today will know that there is a huge amount of resistance to these notions.⁵ An alternative option for those who reject such postmodal notions is to fall back on modal formulations of philosophical theses. For example, formulating the thesis of physicalism in supervenience terms rather than in grounding or fundamentality terms.

But, I have claimed, this fall back isn't costless — in fact it involves serious commitments that many might be uncomfortable with. Taking a particular modal regularity as basic and unexplained either involves either accepting that it is a coincidence or claiming that it doesn't need explanation. The former is not acceptable while the latter, I argued, involves commitment to a pattern subsumption conception of explanation. (Or, perhaps, to some other conception of explanation that can do similar work.)

⁵David Mark Kovacs (2017; fort) and Jennifer Wang (2016) are two metaphysicians who have pushed back, to some degree, against the postmodal revolution in print. And of course, many philosophers have done so not in print.

Of course, the option is still open to reject the postmodal approach. Nothing here will force people to embrace grounding or essence talk or anything like that. But not doing so comes at a cost.

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