Craig Callender, What Makes Time Special? Oxford: Oxford University Press, 2017. xvii + 336 pp.

Craig Callender's *What Makes Time Special?* is a special book in at least four dimensions. It is the most original work on the philosophy of time for many years. It has a good claim to be the best recent book on the physics of time, too, if we read the phrase to stress Callender's title question: What is it *in physics* that distinguishes time from space? It is wonderfully clear. And—most remarkable of all, given the subject matter—it is often fun. (Callender has an endearing inability to take things too seriously—himself included.)

The book is framed by the Sellarsian distinction between the "manifest" and "scientific" images of time—time as it appears to us, *versus* time as science, especially physics, reveals it to be. So physics plays a big role, and Callender is an able and plain-speaking guide to the relevant technicalities. But the philosophy and psychology of time get plenty of attention, too. No one interested in any of these issues can afford to ignore it.

I'm so sympathetic to Callender's conclusions that I find it hard to find an interesting way to push back. So I'll push forward, encouraging Callender further in a direction he seems to be heading anyway. My point concerns his answer to the question what makes time special, but I'll begin with some broader issues—issues close to the surface in Callender's discussion, I think, but deserving more attention. They deserve more attention elsewhere in contemporary philosophy, too, but this is an especially interesting place to be raising them. In a sense I'll explain, time makes *them* special.

The issues concern the connection between time and modality—causation, chance, laws, and the like. As Callender notes, his instincts about modality are Humean, so he is suspicious of attempts to say what is distinctive about time by appeal to primitive modalities such as causation: "Reducing time to causation has always seemed to be a case of explaining the obscure in terms of the obscurer" (139). He offers a highly original alternative, based on David Lewis's Humean account of laws. More on this in a moment, but let's begin by stepping back—back to Sellars, whose distinction between manifest and scientific images Callender takes to frame his entire project.

Sellars thought of himself as a Humean about modality, too, in some respects. In "Counterfactuals, Dispositions, and the Causal Modalities" (1958) he endorses the "core truth" of what he takes to be a Humean empiricist view of both normative and causal language: that it is simply *not in the same line of work* as core scientific language, that of describing the world. What Sellars takes issue with, in both cases, is the empiricists' claim that this status is incompatible with a Kantian view of normative and causal discourse as "a mode of rational discourse":

We have learned the hard way that the core truth of 'emotivism' is not only compatible with, but absurd without, *ungrudging* recognition of the fact, so properly stressed (if mis-assimilated to the model of describing) by 'ethical rationalists', that ethical discourse as *ethical discourse* is a mode of rational discourse.

It is my purpose to argue that the core truth of Hume's philosophy of causation is not only compatible with, but absurd without, *ungrudging* recognition of those features of causal discourse as a mode of rational discourse on which the 'metaphysical rationalists' laid such stress but also mis-assimilated to describing. (1958: sec. 82)

Sellars thinks the empiricists' mistake is to assume that nondescriptive language is second-rate. He recommends "ungrudging recognition that many expressions which empiricists have relegated to second-class citizenship in discourse, are not inferior, just different." (1958: sec. 79)

Sellars gives his own accounts of the distinctive *nondescriptive* function of normative and causal expressions in the lives of creatures like us. The details needn't concern us; what matters is the stance. For Sellars, the right approach to an understanding of modality and norms is to ask not about the nature of normative or modal *properties* but about the role of normative and modal *vocabulary*, or *concepts*, for creatures in our situation. He offers an account of the *ascription* of modal properties, in other words, not of the properties themselves. So Sellars is a *pragmatist* about modality, in contemporary terminology. In his own terminology, he locates modality in the manifest image, not the scientific image.

Seen this way, the problem of explaining the modal aspects of the manifest image is bound to be closely related to that of explaining the temporal aspects. Arguably, it is a central part of the same project. Ramsey saw it this way. He proposes to explain the intuitive distinction between fixed past and open future and the apparent direction of causation in the same package: "That I cannot affect the past, is a way of saying something quite clearly true about my degrees of belief. Again from the situation when we are deliberating seems to me to arise the general difference of cause and effect" (1929: 158). And Ramsey is clear that the project is "psychological analysis," not "metaphysics" (1929: 153). Whether

1. Again, Sellars differs from those he sees as orthodox Humeans in insisting that this stance does not commit him to noncognitivism about norms and modality. His view compares in this respect to Simon Blackburn's (1993) Humean "quasi-realism", and also to Frank Plumpton Ramsey. Ramsey argues that law-like generalizations do not express propositions but insists that they are nevertheless cognitive: "Many sentences express cognitive attitudes without being propositions; and the difference between saying yes and no to them is not the difference between saying yes or no to a proposition" (1929 [1990]: 147–48).

or not he got the details right, it seems a reasonable bet that our own temporal character will play a central role in any plausible pragmatic theory of modality. That's the sense in which time makes these questions about modality special.

For the pragmatist, then, modal thinking becomes part of the *explanandum*—part of the manifest image of time, broadly construed, which it is Callender's project to explain. Why does this matter? First, because it is a pity not to have the possibility of a pragmatist approach to modality in view explicitly, in such an insightful treatment of other aspects of our ordinary temporal perspective. But second, and more important, Callender wants to put a different kind of Humean account of modality (specifically, of laws) to work in answering his title question. So the question whether laws belong in the *explanandum* or the *explanans* takes on a particular urgency, in his case.

Callender takes his version of the Humean view from Lewis. For Lewis the Humean's task is to provide truth-makers for modal propositions constructed from the sparse raw materials that Hume allows. Call this *metaphysical* Humeanism—its focus is on the world, not on our language or psychology. Nevertheless, as Callender notes, our own practices play a big part in Lewis's answer: "The Humean thinks explanations and predictions and good theory are **constitutive** of modality. The non-Humean, by contrast, doesn't ignore good explanations, predictions, and theory. Rather than *constitutive* of modality, they are viewed as *symptomatic* of it" (156, emphasis in bold mine). In contrast to both the options Callender has in mind here, the pragmatic Humean thinks that the *constitution* of modality is simply the wrong question. The right question is about the function of *ascriptions* of modal properties. This question, too, is likely to look to our practices of explanation, prediction, and deliberation, but not in search of *constituents* of anything—in search, rather, of *explanations* of the role of modal concepts in the lives of creatures embedded in time as we are.

It might be argued that this distinction doesn't amount to very much, if both approaches appeal to the same considerations about prediction, deliberation, and the like. Isn't Lewis's metaphysics close to pragmatism in any case, at least compared to its non-Humean rivals? However, Callender's project seems to force the distinction to the foreground, in virtue of the use he makes of Lewis's account of laws.

- 2. This parallel might encourage caution about regarding the manifest image of time as simply "mistaken," as Callender does: "Despite its importance, our best science of time suggests that manifest time is more or less rubbish. We don't know the true nature of time, but we do have strong hints from the physical sciences that manifest time may portray a deeply mistaken picture" (2). The Sellarsian option would be to say that the manifest image is not inferior, but just different. It looks inferior if we confuse it for science.
- 3. Jonathan Schaffer (2015) argues that, at least in the case of knowledge, Lewis should be read as talking about knowledge *ascriptions*, not about knowledge itself.

In the case of laws, the Humean's task is to explain what distinguishes laws from other sorts of regularities without appealing to the kind of primitive modality that Hume disallows. Lewis proposed to do this in terms of the idea that laws are the axiomatic regularities of our best theories, where "best" is cashed out in terms of a trade-off between simplicity and strength. Callender suggests that this provides a criterion to distinguish time from other dimensions: "Time is that direction on the manifold of events in which we can tell the strongest or most informative stories" (142).

It is a nice idea, but what it means depends on how we understand the Humean view of laws. For the metaphysical Humean the best theory account is an analysis of a difference in status between true regularities in the world. For the pragmatic Humean it is something more modest—an account of the origins and function of the distinction between laws and regularities drawn in our own scientific practice.

Roughly, the metaphysical view finds nomic structure in the scientific image, the pragmatic view puts it in the manifest image. But this seems to mean that Callender's proposed distinction between time and other dimensions also goes one way or the other, depending on how we understand the account of laws. Understood pragmatically, the upshot is that there is no distinction between time and space in the scientific image, strictly speaking. It is a distinction that we bring to the picture.

That's why it would be helpful for Callender's project to mark this distinction between two ways of being Humean, in my view. Still, I don't want to overstate this conclusion. As I noted, Lewis's metaphysical Humeanism doesn't ignore the pragmatic factors, it just makes different use of them. Callender is very conscious of their implications for his view. As he often puts it, he is proposing an account of what makes time special *for creatures like us*.

At one point, Callender considers the objection that his proposal is therefore "up to its neck in relativism." Not at all, he replies, "the proposal is knee-deep in relativism, but this is a virtue not a vice"! "If Martian scientists cared about an alternative carving of nature into kinds, then presumably they might devise a different system than we do. Let's suppose the direction of strength in that system is orthogonal to ours, so the two temporal directions don't line up. The Martians think that a direction we consider spatial is temporal. Is one of us wrong?" (154). Callender says that his own instinct is to say no to this question: "The Martian 'time' should count as time for them if that set of directions plays the time role in their vocabulary, just as ours should count as time for us if it plays that role in our vocabulary. Radical? Yes, but not unmotivated" (154).

Even without the pragmatic version of a Humean account of modality, then, Callender reaches similar conclusions. This puts him well to the left of mainstream metaphysics of time. It is a good place to be, in my view, but a lonely

one. Callender should welcome the company of giants such as Ramsey and Sellars, who came here already from a different direction.

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