So if CB is in CS, it must also be in the higher level system CS*, which CCT is in. CCT and CB cannot, therefore, be kept apart in the way required to block the inference from (1) to (3); in CS*, CCT and CB are inconsistent.

In short, internal realism doesn't get CCT off the hook. The simple fact is that CB and CCT can't both be true unless at least one of (a)–(e) is false. So unless someone can show us that one is, we have a choice to make: which shouldn't be too distressing, since the choice is easy.8

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8I am grateful to Nick Jardine, Ilise Lombardo, Mike Martin, Greg McCulloch, Hugh Mellor and David Papineau for helpful remarks.

ALL GOD HAS TO DO

By Tim Crane

I

In the beginning God created the elementary particles. Bosons, electrons, protons, quarks and the rest he created them. And they were without form and void, so God created the fundamental laws of physics — the laws of mechanics, electromagnetism, thermodynamics and the rest — and assigned values to the fundamental physical constants: the gravitational constant, the speed of light, Planck's constant and the rest. God then set the Universe in motion. And God looked at what he had done, and saw that it was physicalistically acceptable.

What more would God have to do to give someone a thought?

Some philosophers will say: nothing. They believe that since the physical facts 'fix' or 'determine' all other facts, all mental facts will
be fixed just when the relevant physical facts are fixed. Jaegwon Kim, for example, argues that there is an

important sense in which the physical determines the mental: once the physical side of our being is completely fixed, our psychological life is also completely fixed. ([8], p. 52)

And John Haugeland claims that the terminology in which the laws of physics are expressed is 'descriptively sufficient to "fix the world" at a time' ([4], p. 98). If Kim and Haugeland are right, then all God has to do to create mental facts — thoughts, experiences, desires etc. — is to create the underlying physical facts. These facts alone will determine the mental facts.1

If the physical determines the mental, it follows that any mental difference in a system, S, will require some physical difference in S. For if there is some mental difference in S without a physical difference, then this mental difference (and hence the mental facts about S) will be determined by something other than the physical facts about S.

The claim that there is no difference without a physical difference is often expressed by saying that the mental supervenes upon the physical (see, e.g. [6], p. 321; [15], p. 67). I shall therefore call the claim that the physical fixes everything 'supervenience physicalism', and I shall argue here that despite the intuitive appeal it has for many people, it is false.

II

To see why this is so, we first need to ask: why do so many people believe in supervenience physicalism?

I conjecture that, in broadest outline, the reasoning behind it is as follows (cf. [7], pp. 150ff.). Suppose we accept a roughly physicalist or naturalist view of the world — we accept that the universe is 'basically physical' ([4], p. 96), whatever this precisely means. And suppose that we are able to rule out Eliminativism and other kinds of Anti-Realism about the mental. How then can we account naturalistically for the mind's place in the physical world?

The tempting answer that mental properties are type-identical with properties of the brain turns out to involve an implausible empirical speculation. For it seems nomologically possible that many physically very different entities could all be in the same type of mental state. The link between mental and physical property-types must be 'looser' than type-identity theory says. But the retreat to the more modest idea that tokens of mental properties

are identical with tokens of physical properties seems to make the link too loose. For what explains why this token pain or thought is identical with this token brain property? Why shouldn’t it be identical with some other token brain property? For the physicalist, token-identity seems to be too much of a happy accident.

The usual solution to this puzzle is to say that although your physical states are not, type-by-type, identical with your mental states, they nonetheless determine, type-by-type, those states. If you and I are in the same type of physical state, then we are in the same type of mental state; but not necessarily vice versa. This is what it means to say that the mental supervenes on the physical. Thus by showing how your mental states depend on your underlying physical states, realism about the mental can be combined with physicalism: a perfect fit.

Notice that to solve this puzzle, the supervenience in question must be what Kim [9] calls ‘strong’ supervenience: that is, it must be a claim about the physical and mental properties of individuals, not just about whole worlds. For it obviously will not solve the puzzle to say that any two worlds that differ mentally must just have some physical difference. As Kim points out ([10], pp. 41–2), this claim allows that a huge mental difference between a given possible world and the actual world may be underpinned by a minute difference in the position of one hydrogen atom. But this isn’t a case of the physical determining the mental. Strong supervenience, by contrast, says that there must be ‘local correlations and dependencies between specific mental and physical properties’ ([10], p. 42). In this paper, when I talk of supervenience, I mean strong supervenience.

Neat as this familiar story is, however, there is an obvious difficulty with the resulting combination of physicalism and mental realism. It may be expressed as a dilemma. Think of the physical facts as instances of physical properties, and the mental facts as instances of mental properties. Then think back to God, and ask yourself: does God, in creating the physical facts, have to create laws linking those facts to the mental facts? If he does, then he has to do more than simply create the physical facts: he has to create laws in which mental properties figure. But if he doesn’t, then the claim that he is creating genuine mental facts loses its bite: for if there are no mental laws, then arguably there are no genuine mental properties either. So the desired combination of physicalism and realism is unstable: the first horn of the dilemma threatens physicalism, while the second threatens realism.

The first horn of the dilemma says that if there are psychophysical laws, there are mental properties. So if fixing the mental facts requires psychophysical laws, then fixing the physical facts alone is not sufficient to fix the mental facts. The second horn says, in effect, that if there are no psychophysical laws, there are no mental properties. So if fixing all the facts does not require
psychophysical laws, then there are strictly speaking no mental facts to fix. The argument, then, depends on a simple biconditional: *there are genuine mental properties if and only if there are psychophysical laws.*

It remains to defend each half of this biconditional.

III

Let's begin with the first horn of the dilemma. It says that if there are psychophysical laws, there are mental properties.

This claim should be quite uncontroversial. Indeed, it is a trivial consequence of certain theories of laws — most obviously the theory that laws are contingent relations between universals (see, e.g. [1]). But we need not accept this strong view of laws to accept the claim. For it is uncontroversial on most other theories of laws too, since it follows from obvious truisms about laws.

We must, of course, distinguish between the statement of a law, and the fact that it states (see [13]). The fact a law-statement states is a general fact — the fact that all Fs are G is a fact about F-ness and G-ness themselves. What makes law-statements true are these general features of the world, and the laws a science discovers tell us what these general features are. Thus, for example, Newton's law of universal gravitation tells us how any body's mass affects it gravitational attraction; Coulomb's law tells us how any body's charge affects its electrical attraction. These laws thus introduce charges, forces and masses into the ontology of physics, just as psychophysical laws should introduce mental properties into the ontology of psychology. I think there are laws, for instance, that underpin the reliability of anaesthetics, and guarantee that when someone takes a certain drug, they will not feel pain (see [2] §4). If there are such laws, then they introduce pains in just the way that Newton's laws introduce masses and forces.

The chief objection to this claim derives from nominalism: the view that there are no universals — no properties nor relations. So laws cannot, *a fortiori*, introduce them into our ontology.

But if nominalism were true, then there would be no physical universals either: no physical properties nor relations. Nominalism therefore owes us an account of all laws such that belief in them commits us only to the existence of particulars (see [11], pp. 365–8). But when this account is offered, then the first horn of the dilemma can be reconstructed as follows: if fixing the (nominalistic) mental facts requires the existence of (nominalistic) psychophysical laws, then if physical laws commit us to the existence of physical particulars, surely psychophysical laws commit us to the existence of mental particulars? (Remember that we are arguing under the assumption of mental realism, so Quinean eliminative scepticism is not being considered.)
So nominalists must account for the generality of laws in whatever way they can; and if they accept psychophysical laws, they should accept mental particulars. Anti-nominalists, on the other hand, should agree that laws do introduce properties into their ontology. They should therefore agree that if there are psychophysical laws, there are mental properties and facts. So whatever the fate of nominalism, the fact remains that if psychophysical laws exist, the physical alone will not determine everything. That's the first horn of the dilemma.

IV

The second horn is more contentious. It says that if there are no psychophysical laws, then there are no mental properties.

This claim is actually stronger than I need, since there could just be 'pure' psychological laws — laws linking mental properties only to other mental properties. Psychophysical parallelism, for example, could be true. But if it were, then we would have a short cut to my conclusion: for no defender of parallelism could consistently claim that fixing the physical facts fixes all the facts. God has to fix the psychophysical facts separately, right from the start. Parallelism is a version of psychophysical supervenience, but a non-physicalist version (see [4]). So since it cannot possibly help the supervenience physicalist to suppose that there are only pure psychological laws, I will talk only of psychophysical laws. But my claim is that the existence of mental properties entails the existence of some mental laws — whether psychophysical or purely psychological.

This may seem to beg the obvious question against supervenience. After all, many supervenience physicalists, inspired by Davidson [3], think that there are no such laws. But if this were true, then the alleged determination of the mental by the physical appears an utter mystery: why, if there are no laws, should we expect there to be no difference without a physical difference?

Those who defend supervenience without psychophysical laws will reply that that there are 'supervenience dependencies' holding between mental and physical properties. But these dependencies are not laws. According to Cynthia and Graham Macdonald, for instance, supervenience dependencies 'do not need to be discovered for . . . materialism to be justified. They are more likely to be stipulated on a priori grounds' ([12], p. 157). Laws, of course, are not stipulated on a priori grounds. So it may seem possible to hold that there are mental properties but no laws in which those properties figure.

However, it would be unwise for these physicalists to rest here, relying on Davidson's general denial of psychophysical laws. For the philosophical arguments against psychophysical laws are weak,
and the *prima facie* evidence for them is overwhelming (see [2], §4). Given this, I say that the burden of argument is with supervenience physicalists. They have to show how there can be real mental properties, objective dependencies between them and physical properties, and yet no laws in which they figure.

Apart from the general denial of psychophysical laws, then, the usual line that the supervenience physicalist takes here is to invoke analogies with other allegedly supervenient properties ([7], p. 155). The two obvious examples are aesthetics: two pictures, it is sometimes said, cannot differ in all their non-aesthetic properties and yet one be beautiful and the other not — and ethics: two actions cannot differ in their non-moral properties and yet one be good and the other not.

Certainly pictures are physical objects — they are subject to the laws of physics. And actions are physical events in an innocuous sense — no action breaks the laws of physics. But *being beautiful* and *being a good deed* are not physical properties — there are no laws of physics in which they figure. Indeed, perhaps there are no laws at all in which these properties figure. Could these provide useful parallels with mental properties? Believers are subject to the laws of physics — they fall when you drop them, and so on — but this doesn’t mean that *being a believer* is a property that figures in a physical law. So perhaps *being a believer* is a property more like *being beautiful* than it is like *having a mass of 5 grams?*

I don’t know whether the supervenience claims about aesthetic and ethical properties are right, but suppose they are. The question is: do the analogies with these supervenience claims support psychophysical supervenience?

I don’t think so, for two reasons. The first is that a big disanalogy casts doubt on the claim that psychophysical supervenience dependencies are not laws. The disanalogy is that while the supervenience of the aesthetic on the non-aesthetic seems to be a necessary truth, the supervenience of the mental on the non-mental seems plainly contingent. Someone who denies that two otherwise identical pictures could differ aesthetically would arguably have different aesthetic concepts from someone who affirms it. But someone who says that two people could be physically identical and yet differ mentally would only be repeating what most supervenience physicalists have always insisted — that it is an empirical contingent thesis ([11], pp. 361–4).

It could be said, as Kim does, that all this shows is that the necessity involved in psychophysical supervenience is not ‘logical’, but ‘nomological’ or ‘physical’ necessity. My reply is that calling the necessity ‘nomological’ gives the game away. For nomological necessity is just a species of contingency — such ‘necessities’ hold true, not at all worlds, but at just those worlds with our laws. So the most natural explanation of the contingency of psychophysical
supervenience is that the supervenience dependencies are in fact laws, and so do not hold at all worlds. If this line were taken, then if all mental properties supervene on the physical, the second horn of the dilemma would be established. There would be no mental properties without supervenience dependencies, and these would be laws. (As we shall see, this is Kim's view.)

This argument, however, only shows why supervenience dependencies, if there are any, are laws. It does not show why mental properties need to figure in laws. But wasn't this all that the analogy with aesthetics and ethics was meant to show — how there could be properties that do not figure in laws?

This brings me to my second objection to the analogy. To answer this question fully would take us deep into the metaphysics of properties, to the question of how we determine which predicates pick out real properties. On some theories of properties, this question is answered by saying that being a property just is being a constituent of a law. According to D. H. Mellor, 'if we stated all the laws there are in a single Ramsey sentence S, the properties S would quantify over are all the properties there are' ([14], p. 175). If this view were right, it would make short work of the analogy with aesthetic properties — for if aesthetic properties do not figure in some law, then they do not exist. So we would not have an example of a property that does not figure in laws.

But, appealing as this view is, fortunately I do not need to defend it to get to my conclusion. All I need is the original motivation for supervenience physicalism: the desire to give a naturalistic account of mentality. I take it that part of what naturalism about the mind means is that mental properties belong to the causal order: they participate in causal interactions. So, for instance, on the most popular current naturalist theory of the mind — Functionalism — mental properties are constituted by their roles in the mind's causal architecture. And most other naturalist views share the assumption that all instances of mental properties have some place in the causal order, even if they are just effects of non-mental causes.

Once we make this assumption, the conclusion of the second horn of the dilemma quickly follows. For it is generally accepted, for reasons we need not go into here, that causes the effects instantiate laws. So if all mental properties are part of the causal order, then they instantiate laws. Since, as we saw, supervenience physicalism is not helped by the existence of purely psychological laws, the laws in question will have to be psychophysical. So if naturalism is right, there are no mental properties without some psychophysical laws.

(It will be obvious that I am leaving open the possibility that the mental could be epiphenomenal; a mere by-product of physical processes. I do not believe this; but our present question is not
whether the mental is epiphenomenal but whether the mental is lawlike. We will need a further argument to show that the mental has effects.)

And it is the causal status of mental properties that undermines the analogies with aesthetic and ethical properties. It is generally agreed that an object's beauty, for instance, is causally inert. Indeed, common sense marks a distinction between the mental and the aesthetic on precisely this matter of causal powers. It was not Helen's beauty that launched the thousand ships, but Melenaus' beliefs about her beauty. It is significant, then, that supervenience claims seem most plausible for properties whose causal status is in dispute.

I conclude that if naturalism — the belief that mental states are part of the causal order — is true, then mental properties must figure in laws. If, on the other hand, naturalism is rejected, then I suggest that mental realism has been abandoned. But this was one of the guiding assumptions of supervenience physicalism, as outlined in section II. And a position that denies realism and yet attempts to maintain supervenience is outside the sights of this argument.

So supervenience physicalism, as Kim rightly says,\(^2\) is committed to psychophysical laws. Once this is realized, the only way to resist the second horn of the dilemma is to deny that asserting a law is committing oneself to the existence of the properties it incorporates — which only takes us back to the first horn. But if that horn is accepted, and if the supervenience dependencies are laws, can an interesting supervenience doctrine be maintained? In the last section of this paper, I shall claim not.

V

Suppose, then, it is accepted that the supervenience dependencies are laws, that they introduce real mental properties. Then it will not be true that all God has to do is to fix 'the physical side of our being'; God has to fix the psychophysical laws too. But won't some version of supervenience still be true? Won't it still be true, as Kim claims, that the physical determines the mental, albeit by means of psychophysical laws?

Not necessarily. For the position I advocate does not entail that there is no difference without a physical difference. My position is consistent with the (nomological) possibility that there are two

\(^2\)See [7], p. 158, and [9] p. 171; see also [6] p. 559. Kim's position here is complicated by the fact that he thinks that 'supervenience seems more fundamental metaphysically and methodologically, than [lawlike] correlation' ([8] p. 56), so that belief in the supervenience dependencies should be 'based on broad metaphysical and methodological considerations' ([8], p. 68; cf. [17], p. 576). But this claim can, I think, be detached from the claim that the supervenience dependencies are laws.
people who share all their physical properties yet differ in their mental properties. Supervenience denies that this is nomologically possible; so my position is inconsistent with supervenience.

The reason why this is a nomological possibility, it seems to me, is that it is very likely that many psychophysical laws are not deterministic. So they may very well entail that there can be two objects that share their physical properties but differ in their mental properties — as a matter of law (see [2], §5). So if this is right, it is certainly nomologically possible that there are mental differences without physical differences.

As a matter of fact, it is unlikely that this possibility will be actualized, because the immense physical complexity of anything capable of having a mind will ensure that there will never be two people sharing all their physical properties. But plainly, this fact should give no comfort to supervenience physicalism. Indeed, it appears that supervenience physicalism can only now be saved by producing an a priori argument against indeterministic laws — an unenviable task.

The proper moral seems to be this. The physical only determines or fixes the mental by means of psychophysical laws. Since a psychophysical law is surely a mental fact, then it is not true to say that the physical facts alone determine the mental facts. But this being said, there would not seem much point in saying that the physical facts plus the non-physical laws determine the mental facts. For this just seems to be another way of putting the unilluminating truth that the totality of facts, including the laws, determine the mental facts. Unilluminating, but at least true: all God has to do to create thought is to create the facts, whatever they may be.

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MORAL AUTONOMY AND AGENT-CENTRED OPTIONS

By Seana Shiffrin

A VARIETY of different approaches to justifying agent-centred options, or moral permissions to choose not to perform the optimal act, have been formulated and defended. Most famously, it has been contended that the requirement that an agent always maximize the good, considered from an impersonal point of view, interferes with that agent’s integrity (Williams [6], [7]). Another powerful account has suggested that failure to allow for agent-centred options inadequately reflects the natural independence of the personal point of view (Scheffler [4]). Both of these accounts have placed emphasis upon the deep importance of an individual’s particular projects to that agent. The resultant criticism of consequentialism has deplored its requirement that an individual sacrifice her projects, should their pursuit conflict with the performance of the impersonally optimal act, as overly demanding of the individual.

A separate line of justification for options, advanced by Michael Slote ([5], pp. 23–34), has contended that options may be grounded not by appeal to integrity or to the natural independence of the personal point of view, but through an appeal to moral autonomy. Although the appeal to moral autonomy is not incompatible with these other approaches, it diverges from them by deriving the justification for options not from the subjective importance of an individual’s projects, but by instead appealing to the value of the agent’s having a range of morally permissible