Replies to Reviews of Familiar Objects and Their Shadows

Some of the objections raised in reviews of Familiar Objects and Their Shadows have required me to do fresh philosophical thinking. I have found these new thoughts interesting, and in case they might be of interest to others, I summarize them here.


Wherever common sense attributes causal efficacy to an event involving a familiar object, causal exclusionists want instead to award causal efficacy to a complex “group” event at the level of microparticles. My complaint about such “group” microparticle events is that contrariety is not defined over them. That is, for any one such complex event, there is in general no fact of the matter as to which variant complex events contrast with it more and which contrast less. This claim is equivalent to a claim about similarity: my position, as Nathan Wildman rightly reports it, is that there is no fact of the matter as to which variant microparticle events are more similar to a given one, and which less similar. But judgements about similarity—and hence about comparative similarity—are notoriously sensitive to context, as Wildman points out. I appear to be making a claim about context-independent similarities. If such a claim makes sense at all—more on this in a moment—it may “stack the deck” unfairly against the causal exclusionist. Why not suppose that in certain contexts, there is a fairly clear-cut fact of the matter as to which variant group events are more similar to the event that actually occurs at the level of the microparticles, and which are less similar—and why not suppose that such context-dependent degrees of similarity are all that is required for contrariety, for invariance, and hence for causation?

I do agree that if we are talking about complex microparticle events in a context in which we are treating the microparticles involved in them as jointly composing a familiar object, judgements about greater and lesser difference from the given complex event line up fairly neatly. In such a context, it even is plausible to claim that some so-called “variants” on a given complex microparticle event are silly, made-up alternatives to it, and should not be assessed for degree of similarity at all (pp. 110-111). But this won’t be the sort of context to which a causal exclusionist can appeal. The exclusionists aim to use Alexander’s Dictum to deny the reality of familiar objects; yet to speak of microparticles as composing one or another familiar object is to speak as if familiar objects exist.

What sort of shadow-free context might the exclusionist draw upon, to generate an intuitively plausible similarity-space? (For “shadow-free”, see next comment.) As I see it, the variant microparticle events that must be assigned locations in this space are all (and only) those that have the same sort of unity as does the complex group event with which we begin. And what sort of unity is that—just what is required, in order for an individual microparticle to be added to the sort of complex group event with which we begin? The event with which we begin is the instantiation of a complex structural property. To enlarge that event so as to include an extra individual microparticle, we need only add a conjunct to the conjunctive predicate which picks out the structural property in question: “…and contains a microparticle of such-and-such sort, located at thus-and-so location, characterized in the following way:…” Inclusion, then, into a complex microparticle event of the sort we are dealing with is always effortless, for any extra microparticle: all that is required is one more iteration of “and”. But that is to say that at root, the complex group events that we are considering, at the level of the microparticles, have only the thin and watery unity of a mereological sum. Consequently any putative variant event, that has this same sort of unity—and this will include any and every group event that one can think of or conjure up—will be a relevant alternative to the group event with which we begin.
That is why we will get failures of contrariety. The argument does not in fact assume that there is context-independent similarity. It merely notes that the context is one in which a complex event can qualify as a cause, even though its components are unified in no more substantive way than are the components of a mereological sum.

Or so I believe. And Nathan Wildman has made me wish very much that I had said all this.


To “project a shadow downwards”, from the level of familiar objects onto the level of microparticles, is to group microparticles together, or otherwise characterize them, in ways that are arbitrary or fictitious from the standpoint of microphysics itself. I claim that metaphysicians do this often, and that it is a bad thing—provided one is going to deny that the sources of these shadows really exist. Daniel Korman asks us to think about the microparticles that jointly occupy the volume of a baseball moving, with varying rates of speed, towards the microparticles that jointly occupy the volume of a window. There is an invariance, he says, between rate of speed and severity of window-shattering, and hence the claim that the baseball-microparticles cause the window-shattering is vindicated.

Korman’s scenario is supposed to show how a causal exclusionist might award causal efficacy to the many baseball-microparticles; thus putting in doubt the causal efficacy of that one big object, the baseball; thus putting in doubt, because of Alexander’s Dictum, the very idea that that one big object really exists. But on the face of it, Korman’s description of the case appears to be a pretty blatant example of “projecting a shadow downwards”. (If the point doesn’t seem obvious—which I certainly hope it does!--see my Real Natures and Familiar Objects (Cambridge, Mass.: MIT, 2004), 3.3 and 4.3). But let’s ask whether the references to the baseball and to the window can be removed from the description of Korman’s scenario.

On the side of the putative cause, then, we have an event which consists in the instantiation of a complex structural property, specified by a host of conjuncts. Each such conjunct depicts some microparticle within the volume of the baseball—this is how common sense would confusedly conceive the matter—moving in the direction of some microparticle within the volume of the window. Now what is crucial here, for the microphysical description? That each baseball microparticle is moving towards this or that particular spatial location? Or that each is moving towards some microparticle of this or that particular sort? Whichever answer the exclusionist may give, the prospects will be poor for establishing an invariance. That is, the exclusionist will not be able plausibly to contend that variations in the putative cause, whether small or large, would entrain corresponding variations in the “effect” event (which common sense reports as the shattering of a window). (Cf. Familiar Objects and Their Shadows, pp. 134-36.) For even exact replication of the “cause” event itself might well result in no impact whatever.

Here’s why. If, on the one hand, the exclusionist has each conjunct speak of movement towards numerically this or that spatial location, he leaves open the possibility that the location targeted is not occupied by any microparticle, or not by a microparticle of the right kind. If, on the other hand, the exclusionist writes each conjunct as depicting motion towards a microparticle of this type or that, he still provides no guarantee that all the targeted microparticles will lie in a common plane, appearing (to common sense) to constitute a single object that undergoes impact.

An account of allegedly microphysical causation had better not advert to familiar macroscopica.