

Real Natures and Familiar Objects, by Crawford Elder. Cambridge, MA: MIT Press, 2004. Pp. xii + 204. H/b £20.95.

Some of our contemporary metaphysical puzzles have come about as a result of the astonishing success of the 'corpuscularian hypothesis', culminating in quantum physics in the first half of the twentieth century, coupled with the gradual disenchantment with reductionism, resulting in the demise of logical empiricism in the second half. Together, these two developments have led to the emergence of what may be called the 'layer-cake' model, according to which our knowledge of nature is a multi-level affair including both macroscopic and microscopic things and processes. The metaphysical problems arise because there is no consensus among philosophers whether reality itself comes in layers, or whether that is merely a feature of our way of understanding the world. Those who adopt the latter view insist that the only entities that really exist are the ultimate building blocks posited by microphysics, everything else being merely a matter of describing aggregates of and interactions among these tiny bits of matter and energy. Quarks and gluons are really there, but tables and chairs are just convenient ways of picking out vast aggregates of the former and do not, strictly speaking, exist. From the point of view of metaphysics, they are merely icing on the cake.

Crawford Elder disputes this 'austere' metaphysical position. In response, he has written a defence of the view that the world really consists of common or garden variety objects in addition to the microscopic entities of science. He also endorses the entities of the sciences that study the macroscopic domain, including evolutionary biology, psychology, economics, and so on. But this 'commonsense' view is accompanied by two formidable challenges, as he sees it. The first challenge comes in the form of the philosophical argument that the causal interactions among familiar objects are in fact pre-empted or excluded by causal interactions at the level of the microparticles that constitute those objects (which is a generalized version of the famous argument for the causal exclusion of the mental). The second problem is that many macrophysical objects have vague individuation conditions, as suggested by familiar sorites arguments. Accordingly, Elder sets himself two main tasks in this work: to show that macrophysical entities are not causally inert, and to show that although they are compositionally vague, this problem can be neutralized by maintaining that statements about such objects can be true to certain degrees rather than true *simpliciter*.

Elder's book is divided into three parts. In part one, he defends an essentialist position, which holds that entities (whether microphysical or macrophysical) have some of their properties essentially, that this is an objective feature of reality (rather than of our classificatory practices), and that we have reliable means of distinguishing essential from merely accidental properties. Then, in part two, he sets about vindicating macrophysical entities against the challenges of vagueness and causal exclusion, though he expends by far the greater portion of his efforts in rebutting the latter charge. The task of part three is to

focus more specifically on two kinds of macrophysical entities, artefacts and human beings, arguing that they are real and have essential properties. Elder's most original and distinctive contribution is perhaps to be found in part two, particularly in discussing the problem of causal exclusion. In this review, I will begin by discussing the essentialism of part one, move on to the central argument made in part two, and finally touch on some of his claims in part three.

Elder is not just a realist about the macrophysical domain, he is also an essentialist about many ordinary objects as well as many of the entities discussed in the special sciences. In defending essentialism, in part one, his main gripe is with 'conventionalism', the philosophical position that holds that claims about essences are relative to our classificatory and linguistic practices rather than being claims about objective features of the universe. Elder's argument against conventionalism about essences focuses on the alleged mind-dependence of essentialist judgements. He points out that the existence of human brains is 'logically prior' to the occurrence of human mental events. But these brains have essential properties that determine which changes are mere alterations (changes in non-essential properties) and which are destructions (changes in essential properties). Conventionalists would say that these properties are essential in virtue of our conventions. But human mental events are logically prior to our conventions. So the occurrence of (some) human mental events is logically prior to the existence of human brains, which are themselves logically prior to the occurrence of human mental events. Elder states that this is 'a paradox in the original sense—it is *para doxa*, beyond belief' (p. 13). This argument hinges on the notion of 'logical priority', which is not further explicated by Elder. It cannot imply causal priority, since conventionalists do not generally hold that our conventions cause brains (and therefore minds) to exist. Unless we know more about the relation of logical priority, it is not obvious that one cannot maintain that A is logically prior to B, which is in turn logically prior to A. An analogy might help here. It might be argued that boundaries between nation-states exist only relative to political agreements, treaties, international law, and so on. But nation-states are precisely the parties that create those agreements and ratify them. This does not appear to generate a deep metaphysical problem, though it may seem mildly paradoxical (in the ordinary sense of the word). If Elder's response would be to say that relations of logical priority are not the operative ones in this case, he owes us a clear account of this relation.

Quite apart from this problem with Elder's argument against conventionalism, his own essentialist position may be challenged. At the very beginning of this book, Elder states that counterfactuals beginning, 'If chromium had been present in the United States' may have completions that make them true, whereas counterfactuals beginning, 'If chromium had atomic number 79' are empty and uninformative. However, the judgements that govern such statements do not seem to be uncontroversial. Consider the following statement: 'If carbon 14 had a half-life of 10 seconds, then it would not have been useful in

dating dead organisms'. The antecedent seems to be revoking what Elder (and many other philosophers) would consider an essential property of carbon 14, or a property that follows straightforwardly from one of its essential properties. However, the statement seems far from vacuous and is similar to ones that we often encounter in science and commonsense. Moreover, it does not seem a simple matter to paraphrase it in terms that would be acceptable to the essentialist.

In part two, Elder argues for the claim that when there is a genuine case of causation between ordinary macrophysical entities, the complex microphysical event that corresponds to the cause, which involves a large aggregate of particles, cannot be said to cause the complex microphysical event that corresponds to the effect. He allows that each individual microphysical event within the complex outcome does indeed have a cause but not the complex outcome itself. Elder makes his case on the grounds that the two-place predicate '___ caused it to be the case that ...' is neither agglomerative nor transitive. He argues that since every causal claim depends on a lawlike generalization, and since the conjunction of two or more laws of nature is not itself a law of nature in general, then the agglomeration of two or more causes is not itself a cause in general. Moreover, Elder insists that even if we try to isolate a single microphysical event in the macrophysical cause that is purported to cause many individual elements within the macrophysical outcome, we will not succeed in doing so, since this would require causation to be transitive. On the analysis of causation that he favours, according to which a cause is a necessary component of a set of circumstances that are jointly sufficient to produce the effect, transitivity does not hold in general. On the basis of this analysis, Elder concludes that a macrophysical cause does not correspond in general to a complex microphysical cause that brings about the complex microphysical event that corresponds to the macrophysical effect. In case one objects that the entire argument depends on a certain conception of causation, he suggests that the reader regard it as advancing a conditional claim. Though he leans heavily on one particular analysis of causation, Elder amply demonstrates that claims of causal exclusion have too often been advanced without adequate argumentation. He manages to embarrass the standard causal exclusion argument by a careful examination of its metaphysical presuppositions.

In part three, Elder argues that many ordinary artefacts are real and possess some of their properties essentially. But on closer inspection, his view is that some but not all artefacts are real and possess essential properties. In particular, he isolates a class of objects that he calls 'copied kinds', which include some artefacts as well as some other types of entities. He regards copied kinds to be real and to have the following types of essential properties: (1) a particular qualitative make-up or 'shape' (either literally or metaphorically); (2) a 'proper function' (following Ruth Millikan), as a result of which they are copied and reproduced; and (3) a 'historically proper placement'. Elder holds that the world 'welds together' these three types of properties, arguing that they are

essential because any two of them necessarily implies the third. He goes on to conclude that those entities that qualify as genuine copied kinds are those that derive from the same process of copying, which are especially likely to sustain a rich range of inductive inferences. Thus, the kind *Eames 1957 desk chair* is more likely to be a copied kind than *desk chair*, or indeed *chair* (a position which tends to undermine the author's claim that he has written a philosophical defence of the ontology of commonsense). Moreover, he does not think that such copied kinds have a historical essence (e.g. the allegedly essential property of being derived from the same design), since he denies that such historical properties could ever be essential. According to Elder, historical origin enters into the picture merely because descent from a common origin is more likely to yield certain qualitative similarities. Elder's contention that historical properties cannot be essential conflicts with the view of some other recent writers on essentialism who have embraced historical essences, a fact which should alert us to the instability of philosophical intuitions about essences.

Despite some reservations about its essentialist claims, Elder's book deserves a close reading for the subtle arguments designed to rehabilitate the macrophysical domain, particularly his arguments concerning macrophysical causation, which are a genuine advance over the treatments that one finds in the literature on mental causation. He has also effected a careful and provocative treatment of causal interactions in the special sciences, by using a case study from biology, which I have not been able to explicate in this review. All in all, he has advanced the cause of those philosophers who think that there are more things in heaven and earth than are dreamt of in elementary particle physics.

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Deflationism about truth is the view that the use of the truth predicate carries no substantive metaphysical or empirical commitments—to assert that a claim is true is just to assert the claim itself. But the intuition that there is a relation of correspondence linking propositions to the world, and that this relation is what makes propositions true, incline many to embrace a more robust account of truth and related semantic notions, a *correspondence theory*. The central claim of Christopher Hill's book is that the correspondence intuitions can be respected without abandoning the core commitments of deflationism. This 'third way' is achieved by acknowledging that there are