What is the ontological status of special science laws and higher-level kinds? Are the special sciences autonomous in virtue of featuring genuine laws and natural kinds? Jerry Fodor once wrote that if we disagree about what is a natural kind, then, for the same reason, we will probably also disagree about what is a (genuine) law. For the ontological anti-reductionist, it’s important to demonstrate that at least some special science laws and higher-level kinds are “really there” – that they are something over and above the lower-level kinds that they depend on. A traditional argument suggests that the multiple realizability of higher-level kinds does just this: if there is one higher-level kind that can be realized by several lower-level kinds, then a straightforward reduction does not seem possible, except perhaps to a “wildly disjunctive” set of lower-level kinds. But this argument needs to be supported by a theory of realization that does not already assume the existence of genuine special science laws or higher-level kinds.

Most of us are familiar with this debate from the classic papers by Jerry Fodor (1974, 1997) and Jaegwon Kim (e.g., 1992), where Fodor represents the ontological anti-reductionist (or non-reductionist) and Kim represents the reductionist approach. Much of the debate has taken place in the context of philosophy of mind and hence psychological kinds, but most of the proponents of anti-reductionism believe that the lesson generalises: there are genuine higher-level kinds also in, e.g., biology and chemistry, over and above the (fundamental) level of physics. Indeed, Kim uses the famous case of jade, which he claims to be analogous to the case of psychological kinds: ‘we are told that jade, as it turns out, is not a mineral kind, contrary to what was once believed; rather, jade is comprised of two distinct minerals with dissimilar
molecular structures, jadeite and nephrite’ (1992: 11). So, jade looks to be multiply realizable. But Kim, favouring reductionism, thinks that the special science laws concerning jade are genuine laws, despite having the basic form of a law and being able to support counterfactuals. This is because such laws are not projectible – they do not have ‘the ability to be confirmed by observation of positive instances’ (ibid.). Fodor challenged this result and denied that the case of jade is analogous to the case of psychological kinds. However, this raises questions about the role of multiple realizability in the anti-reductionist argument. I will analyse the case of jade and suggest that there is still some mileage in this classic debate between Kim and Fodor. There are some problematic assumptions in this debate that may have influenced much of the literature on multiple realization.

References

