On the Origin of Objects

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Brian Cantwell Smith offers us no less than a new metaphysics that can serve as a foundation for practically everything: the logical, the scientific, the artistic, the political and the rest. Smith, who spent 15 years at the Xerox Palo Alto Research Center, started his ambitious project from a more modest task: to formulate a theory of computation that respects computational practices and that provides foundations for cognitive science. But after almost 20 years Smith recognized that he was ‘running up against an ontological wall’. He realized that we can get to the heart of computation (and representations) only after: ‘the ontological wall is scaled, penetrated, dismantled, or in some other way defused’.

Smith then goes on to develop his successor metaphysics; one that retains the realist’s healthy intuition that there is a world beyond our fingertips, but that also honors the constructivist’s idea that we have a part in making this world. Smith’s idea is that everything ontological lies in the middle ground – halfway between what we often call the physical world and the intentional world. At the most basic level, the world, with everything present in it, is one and an all-enveloping flux. Representations, objects, subjects and other ontological categories are then understood via the notion of ‘registration’: patterns of separation and engagement through which subjects (‘regions’) stabilize patches of the flux.

Smith’s account is of interest to both scientists and philosophers. The scientist has a rare opportunity to read about deep metaphysical issues without drowning in the philosopher’s jargon. The account is explicated with lively examples from computational technologies, excellent diagrams and helpful sidebars. Here, the philosopher will find a novel perspective on familiar issues, as well as other genuine insights: especially the distinctions between particulars and individuals, and the distinctions between the three realms of physics, which leads to Smith’s intriguing claim that there are no physical objects – physics is about particularity. Still, the scope and depth of Smith’s original account can be assessed fully only after the crucial claims are worked at in more detail (Smith himself admits that he: ‘barely scratches the surface of a positive proposal’). In particular, the implications of Smith’s account for cognitive science are unclear. All in all, Smith does not demonstrate clearly that his successor metaphysics gives rise to a better conception of computation. Nor does he offer a clear alternative to the computational approach itself. But without such alternatives, we have hardly any motivation to adopt Smith’s metaphysics. The computational approach in cognitive science has been criticized repeatedly. But, as Thomas Kuhn has taught us, as long as we do not see an alternative, there is hardly any chance that the computational approach will go away.

The more immediate important consequences of the book are found in the first (the computation) chapter. This chapter is an important contribution to the current discussion over the question of: ‘what is computation?’ (see, for example, Refs 1–4). And, apparently, Smith has much more to say on this subject elsewhere. Here, Smith uses his expertise as a computer scientist to the full. He demonstrates that the ontological status of computation is in disarray and that this situation has its toll (see, in particular, the debate between McMath and McPhysics over the physicality of programs, and its effect on the soundness of Searle’s Chinese room argument). And he reveals, very skillfully, some of the complex relations between computation and semantics.

What I find less convincing is Smith’s argument for his more radical claim that a theory of computation requires a full theory of metaphysics and ontology. In the crucial step in his argument Smith shows that what a computing system represents is underdetermined, and infers from it that what we take this system to represent depends on the way we individuate the system. But I’m not so sure about the inference. Smith’s examples can be taken to show that the way we carve up the system depends on what we take the system to represent. This alternative interpretation, however, does not lead to the revisionary metaphysics that Smith offers. For example, John takes the detector emitting 0–5 volts to represent dogs and the detector emitting 5–10 volts to represent cats. Mary cares things differently; she takes the same detector emitting 0–10 volts to represent pets. Driven by semantic considerations, John says that here we have two types of representational objects; Mary says we have one. But the underlying (‘old-fashioned’) metaphysical categories are not affected: the detector is the same (token) object in both cases, and the detector emitting x volts in time t is a different (token) event for different t values.

Overall, On the Origin of Objects has much to commend it. It advances provocative theses about the nature of computation. It challenges the traditional thinking about metaphysics. And it may even be the basis for the next century’s metaphysics.

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