Fields Nominalism and the Concept of an Object

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In this paper I present a challenge to Hartry Fields nominalism, based on the "notion of an object" that is at work in his philosophy of mathematics. Although Field admits that the axioms of Peano arithmetic and of NBG set theory describe logical possibilities, he denies that there are such objects as numbers and sets. But this position is incompatible with a famous view of mathematical objects, according to which all that is required for the existence of mathematical objects is that the theory that describes these objects be a coherent logical possibility. I sketch an account of one such notion of an object. This account holds (a) that the notion of an object is given content only in the context of modern quantificational logic, (b) that what is correct use of this notion should be assessed by naturalistic or scientific criteria, and (c) that there may be different criteria of existence associated with different kinds of objects. This position allows for mathematical objects that are very thin in the sense that their existence amounts to nothing more than the coherence of the mathematical theory describing them. I then argue that Field is unable to reject this notion of an object and that he thus is forced to accept this thin form of platonism. For (c) can be rejected only by accepting a Quinean form of holism which is unappealing to Field. And to reject (b) would be incompatible with Fields naturalism. So Fields most promising response would be to reject (a). But I argue that doing so would amount to adopting an unexplicated and inexplicable notion of an object, and that doing so would be incompatible with Fields naturalism.

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