Chapter 8

EMPirical versus THEORETICAL EXISTENCE AND TRUTH∗

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Abstract On the basis of an analysis of everyday experience and practice, criteria of legitimate assertions of existence and truth are offered. A specific thing, like a newspaper, can be asserted to exist if it has some invariant characteristics and is present in actual perception. A statement, like “This newspaper is black and white”, can be accepted as true if it is well-established in some empirical domain. Each of these criteria provides a sufficient condition for acceptance of existence and truth, respectively, at the empirical level. Following Hermann Weyl, it is argued that they can be extended to the scientific theoretical level to support a selective and moderate version of scientific realism according to which entities like the electromagnetic and gravitational fields, but not crystalline spheres or some topological manifolds, can legitimately be asserted to exist.

Keywords: Existence, truth, scientific realism, constructive empiricism, underdetermination.

1. Existence and truth in ordinary experience

Everyday experience and our sensory presence to ordinary objects are the starting point of any knowledge. On this, I agree with logical and constructive empiricists (and also with Aristotle and Aquinas). An examination of the use of the terms “existence” and “truth” in the context of everyday experience must reveal the criteria of their legitimate ap-

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lications. I am allowed to say that this newspaper in front of me, for example, exists when I am visually acquainted with it. Some empiricists tried to analyse statements like “This newspaper exists” in terms of more elementary statements about “immediate” sense data. I do not intend to discuss this question. Let me just point out that the “myth of the given” has been widely criticized, including within the empiricist tradition, by Quine (1953) and van Fraassen (1980) among others, and I deem these criticisms successful.

Why am I entitled to assert the existence of this newspaper? In the first place because I see it, and not because I am making some kind of (justified?) inference from data (or, more accurately, from statements on data). Actual presence in sensory perception is the first condition for the legitimacy of an affirmation of existence. But it is not sufficient on its own. A second condition is the permanence or invariance for some time of some characteristics of the perceived object. These two conditions of presence and invariance constitute jointly the sufficient condition, the criterion of existence that will be used.

An affirmation of existence goes usually beyond actual presence. Its acceptance calls, at least implicitly, for other possible experiences, by myself or other people. When I say that this newspaper exists, I also implicitly say that I will be able, for some (even very short) time, to perceive its shape, its colour, its texture, etc. In other words, I assert the permanence in time of some properties of the object. The Cartesian notion of “punctual” (durationless), vanishing existence seems unintelligible and, moreover, does not seem to find any correlate in ordinary experience.

But an affirmation of existence also calls for possible perceptions by other observers, at different spatiotemporal locations. Nobody doubts (except perhaps lunatics and some — very rare — philosophers...) that, in the usual contexts, several people can see the same, unique, object, even if their visions differ, precisely because these perceptions also have constant, invariant, aspects, and because the observed variations show a systematic character. This point is stressed by phenomenologists when they say that the object presents itself through a variety of profiles

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4A connection between objectivity and reality on the one hand, and invariance on the other has been discussed by phenomenologists, espoused by Einstein and Weyl and revived more recently by Michael Friedman (1983, p. 321).
5I do not propose a definition of existence. In accordance with a philosophical tradition which goes back to Aristotle and includes Aquinas, Kant and Carnap, I think that existence is not a property. Moreover, I want to leave open the possibility of the existence of metasensible entities even if they may be cognitively inaccessible to us.
6Even Sextus Empiricus, the “sceptic”, did not put the existence of ordinary objects into question, unlike the radical sceptic fabricated by Descartes.