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Conventionalism and realism in Hans Reichenbach's philosophy of geometry. (English)

Zbl 1042.00004
Int. Stud. Philos. Sci. 15, No. 3, 243-251 (2001).

The author argues against the standard interpretation of Hans Reichenbach's geometrical conventionalism as being an example of positivistic philosophy of science connected to a verificationist theory of meaning. In analyzing *H. Reichenbach's* early philosophy of space and time as presented in his "Philosophie der Raum-Zeit-Lehre" [Leipzig and Berlin, de Gruyter (1928; JFM 54.0937.17); English ed. "Philosophy of Space and Time" (New York, Dover) (1958; Zbl 0084.00307)], the author arrives at the conclusion that Reichenbach's conventionalism rather turns out to be "a specific form of scientific realism, which exactly avoids to identify factual content and empirical content" (p. 243). The argument starts from the assertion that "Reichenbach's so-called geometric conventionalism consists in the claim that there are equivalent geometric descriptions of physical space" (p. 244), but Reichenbach, nevertheless, preserves the concept of an objective reality as one that is independent of our descriptions. According to the author, this is the central idea of Reichenbach early philosophy of geometry. This evaluation is supported by Reichenbach's criticism of Henri Poincaré's conventionalism which he interpreted as radical geometrical relativism. The theory of equivalent descriptions tries to avoid this relativistic consequence. It was put forward for "preserving a certain kind of scientific realism while at the same time maintaining a moderate conventionalism" (p. 249).

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MSC:

00A30 Philosophy of mathematics
01A60 History of mathematics in the 20th century

Keywords:

physical geometry; geometrical conventionalism; realism; theory of equivalent descriptions

Full Text: DOI

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