

Mirella Fortino

EXPERIENCE AND REASON IN HENRI POINCARÉ'S GEOMETRICAL
CONVENTIONALISM

Abstract

Henri Poincaré's geometrical conventionalism is considered as an original alternative to the kantian apriorism and empiricism.

First it is pointed out that Poincaré criticizes the *a priori* kantian forms of sensibility, which confer universality and necessity to the Euclidean geometry.

His appeal to the concept of group as an *a priori* feature of the intellect, exalted by Neo-Criticism, is not ontologically founded but it can be legitimated, through the evolutionistic considerations of its most important philosophical works, in the terms of functional apriorism.

If the genetic considerations, on one hand, shatter the thesis of the absolutely necessary truth, on the other they weaken Poincaré's idea of the intertranslatability and equivalence of the different geometries, since they allow to recognize Euclidean geometry as the most *useful* for the species and as the one that better fits for the text, i.e. for our physical world.

In Poincaré's geometrical epistemology the intellect is supposed to be widely autonomous. The geometry is not conceived as experimental activity but as spiritual activity whose production concerns infinitely precise ideal objects. The experience is, indeed, an occasion of "making geometry" and drives the discovery of the group to which physical phenomena are referred.

For Poincaré's criticism to the empiricism, by arranging a relationalistic concept of space, it is founded on the idea according to which the experience, unlike Logical Empiricism, is not a basic criterion when the conventions of language have been established.

Lastly we show the way in which Poincaré's spacial philosophy does not erase the concept of truth, but only the concept of "necessary truth". In it, the idea of logical simplicity and biological utility, even if they deny the universal feature of geometry, yet play an important role as criteria of truth, conceived not in the ontological sense, but in the phenomenological one.

Between experience and reason Poincaré's conventionalism – which states the difficult coexistence between logical and psychological reasons – establishes a strict link that, although it can be stated that a geometry is neither true nor false, does not allow an arbitrary choice between axioms and postulates and a relativization of the concept of geometric truth.