The Emergence of Formalism and a new Conception of Science

abstract

According to formalism a mathematician is not concerned with mysterious metaphysical entities but with mathematical symbols themselves. Thanks to it mathematical entities become simply sensible signs. However, the price that has to be paid for this move seems to be too high. Mathematics, which is nowadays considered to be the queen of sciences, thus turns to be a contentless game. That is why it seems to absurd to regard numbers and all mathematical entities as mere symbols. The aim of our paper is to show the reasons that led some philosophers and mathematicians to accept the view that mathematical terms in a proper sense do not refer to anything and mathematical propositions do not have any real content. At the same time we want to explain how formalism helped to overcome the traditional concept of science.