

Abstract

This paper is divided into three main parts. In the first part, we propose a logical approach to the concept of number based on Frege's *Foundations of Arithmetic*. Besides the main attempt to define and classify number per se, we also discuss Husserl's struggle with psychologism, Frege's logicism, and the construction of the series of natural numbers. In the second part, we look at a psychological approach to the concept of number through theories and experiments of cognitive science. We focus on infants' understanding of numbers and amounts, their counting abilities and later conventional skills. In the third part, we summarise differences as well as similarities of these two approaches.

Keywords: cognitive science, concept, Frege, Husserl, identity, logicism, number, one-to-one correspondence, Piaget, psychologism.

“As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality.”
(Albert Einstein, *Geometry and Experience*, 1921)