Husserl's philosophy of arithmetic, a discussion

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Dallas Willard in the introduction to his translation of Edmund Husserl's *Philosophy of Arithmetic* writes: "There are three main questions which Husserl addresses in his earliest writings:

- 1. What is number itself?
- 2. In what kind of cognitive act is number itself actually present in our minds?
- 3. How do symbols and symbolic systems used in arithmetical thought enable us to represent, and to arrive at knowledge of, number and number relations that are not "... intuitively given to our minds ...".

These questions are fundamental, but Husserl himself warns us: "The 'philosophy of arithmetic' ... does not claim to construct a thoroughgoing system of this boundary discipline, of equal importance to the mathematician and to the philosopher. Rather, in a sequence of 'psychological and logical investigations,' it claims to prepare the scientific foundations for a future construction of that discipline. In the present state of the science, nothing more than such a 'preparation' could be attempted. I would not know how to indicate even *one* question of consequence where the response could sustain a merely passable harmony among the investigators concerned."

Frege was very critical of the book, and Husserl himself, preoccupied with more general tasks of phenomenology, never returned to his early work. Nevertheless, *Philosophy of Arithmetic* is an important contribution, and it has been recently made more accessible by Stefania Cantrone's analysis in *Logic and Philosophy of Mathematics in the Early Husserl*, Springer, Synthese Library, 345, 2010.

As an introduction to the discussion, I will present excerpts from *Philosophy of Arithmetic* and other texts.