HOW ARITHMETIC IS USEFUL FOR UNDERSTANDING THE GOOD AS THE PRINCIPLE OF FORMS IN PLATO’S

REPUBLIC

Prof. Moon-Heum Yang

I.

Many readers might be surprised at the title, since most of the traditional discussions have focused not on the relation of arithmetic to the Good, but on the relation of mathematics to the Good. But I have to point out that this traditional approach tends not to pursue seriously a specific way in which the five mathematical sciences (arithmetic, plane geometry, solid geometry, astronomy and harmonics) are closely related. And obviously, it is because of “a synoptic view of their [the five sciences’] kinship with one another” (537c), which I shall call the thesis of synopsis, that the study of the sciences “contributes something to our goal [of reaching the Good]” (531d). I have not yet read, so far as I am aware, any serious attempt to base the synoptic view on arithmetic, much less any attempt to approach the Good as the principle of Forms accordingly. Although Plato is not explicit about the way arithmetic should be the key to the kinship in question, there are some significant suggestions, one of which is as follows: “the common thing which is used by all crafts, all modes of thought, and all sciences, and which everybody of necessity must learn to begin with” is “number and calculation” (522c1-7). Let me call this the thesis of the general application of arithmetic. We are further told that the man who is “good at calculation (logistikos)” is naturally good at every other study (526b), and that the theoretical sciences of arithmetic and geometry help see “the Form of the Good” (526e). In my study, the two theses mentioned, the thesis of synopsis and that of the general application of arithmetic, constitute the basis on which to expound the relationship between arithmetic and the Good.

In the next section, I shall distinguish carefully two aspects of arithmetic, i.e. method and science. The former aspect, related to the thesis of the general application of arithmetic, reveals the necessity of using number in dealing with Forms. The latter, on the other hand, related to the thesis of synopsis, is