

The Commentaries of Proclus on the First  
Book of Euclid's Elements of Geometry  
Translated by Thomas Taylor  
(London, 1792)  
Book I, Chapter 10

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## CHAP. X.

### *A Solution of another Objection of certain Platonists, against the Utility of the Mathematical Sciences.*

BUT, perhaps, some of our own family will here rise up against us, and, proposing Plato as a witness, will endeavour to provoke ruder understandings into a contemptuous disregard of the mathematical disciplines. For they will say, that this philosopher entirely excludes (in his Republic) the mathematical knowledge from the choir of the sciences, and that he accuses it as being ignorant of its own principles, that its very principle is to itself unknown, and its ends and mediums composed from things of which it is ignorant. To these objections they may likewise add whatever other reproaches are there urged by Socrates against this contemplation. In answer then, to the objections of our friends, we shall recall into their memory, that Plato himself perspicuously asserts the mathematical science to be the purgation of the soul, and that it is endued with a power of leading it on high; because, like the Homeric Minerva, it removes the darkness of a sensible nature from the intellectual light of thought, which is better worth saving than ten thousand corporeal eyes, and which not only participates of a mercurial gift, (preserving us from the incantations and delusions of this material abode, which is similar to the fascinating [*sic.*] realms of Circe,) but also of the more divine arts of Minerva. He likewise every where calls it by the name of science, and asserts that it is the cause of the greatest felicity to those who are exercised in its contemplation. But I will briefly explain why, in the Republic he takes from it the surname of science: for my present discourse is addressed to the learned. Plato, indeed, in most places, calls all knowledge (as I may say) of universals by the name of science, opposing it in a division to sense which apprehends not only particulars, whether such a mode of cognition is accomplished by art or experience. And in this sense, as it appears to me in the *Civil* Dialogue, and in the Sophista, he seems to use the name of science; placing likewise the illustrious Sophistic science, which Socrates in the Gorgias, says, is a certain experience: also, the adulatory, and many others, which are experiences, but not true sciences. But again, dividing this knowledge of universals into that which knows causes, and into that which understands without a cause, he thinks that the one should be called science, but the other experience. And hence, to arts he sometimes attributes the name of science, but to experience

never. For how (says he in the Banquet) can a thing which possesses no reason be science? All knowledge, therefore, which contains the reason and cause of the things known, is a certain science. Again, therefore, he divides this science which is endued with a power from the cause of knowing, by the peculiarity of its subjects, and he places one, conjectural of things divisible; but the other of such as subsist by themselves, and are ever knowable after the same manner. And according to this division he separates from science, medicine, and every faculty which is conversant with material concerns. But he calls mathematical knowledge, and whatever possesses a power of contemplating eternal objects, by the name of science. Lastly, dividing this science, which we distinguished from arts, he considers one part as void of supposition; but the other as flowing from supposition. And that the one which is void of supposition, has a power of knowing universals: that it rises to good, and the supreme cause of all; and that it considers good as the end of its elevation: but that the other, which previously fabricates for itself definite and determinate principles, from which it evinces things consequent to such principles, does not tend to the principle, but to the conclusion. And hence he asserts, that mathematical knowledge, because it makes use of supposition, falls short of that science which is without supposition, and is perfect. For there is one true science, by means of which we are disposed to know all the things *which are*, and from which also principles emerge to all sciences; to some, indeed, constituted more proximately, but to others more remotely. We must not say, therefore, that Plato expels mathematical knowledge from the number of the sciences, but that he asserts it to be the second from that one science, which possesses the supreme seat of all: nor must we affirm, that he accuses it as ignorant of its own principles, but that receiving these from the master science dialectic, and possessing them without any demonstration, it demonstrates from these its consequent propositions. For, indeed, he sometimes allows the soul, which is constituted from mathematical reasons, to be the principle of motion: and sometimes he affirms, that it receives its motion from genera which are subject to intelligence. And these variations accord among themselves. For to such things as are moved by another, the soul is a certain cause of motion, but it is not the cause of every motion. After the same manner, the mathematical science is indeed the second from the first of all sciences, and, with reference to it, imperfect: but it is, nevertheless, a science, not as being free from supposition, but as knowing the peculiar reasons resident in the soul, and as bringing the causes of conclusions, and containing the reason of such things as are subject to its knowledge. And thus much for the opinion of Plato respecting mathematics.