

## (4) CLASS DIALOGUE- the THEORY of FORMS

In class an attempt was made to re-create the kind of dialogue that might have arisen around the Platonic idea of forms. This is a very brief summary of the ideas and points that were made in the discussion, along with some remarks of my own at the end.

### (1) THE QUESTION AT ISSUE

Very briefly, the argument in question is Plato's argument for the existence of Forms, given in allegorical form in the discussion of "the Cave" (see also in SUPPLEMENTARY NOTES" on the Course Web Page). The argument for Forms typically starts from the observation that instances of justice, or of a "square" can be found all over the place- although it is clear that if we look at a square object it is not a defining instance of a square, but rather it possesses in approximate degree the quality of "squareness". Now Plato, mindful of what was already known in geometry and mathematics, argues that a perfect square exists nowhere in the world of appearances, but can nevertheless be defined mathematically. This is clear not only because a perfect square cannot be found in Nature, but also because any square we do find is only one of many imperfect examples, which hardly define for us a "real" square. Such a definition may not need any elements of the real world for its definition, but nevertheless a square CAN be defined, and in this case it must exist. If so, there must be a "higher realm" of "forms" or "Ideas" in which many such forms exist. In fact there will be a hierarchy of such forms, accessible only to reason rather than to the senses. Although this is not immediately relevant to the question at issue, we note that according to Plato, the highest (ie., most "primitive" or "fundamental") of these was the form called "the Good", a kind of perfection to which all other ideas were subsidiary. Note that ideas or Forms, by their very nature, do not change (unlike the world of appearance); and anything that does change is thus not an Idea or Form. True knowledge can only be of Forms.

This argument (sometimes called the "Many to One" argument) is put in this way to emphasize the importance attached by Plato to Mathematics- undoubtedly he was strongly influenced by the mystical ideas of Pythagoras as well as his concrete work in coming to this formulation. One can also view the argument as an attempt to argue from language, in which names denote different specific objects, to the existence of what are sometimes called "universals"- a concept due to Aristotle.

For more details go to the course notes. If you read more by Plato you will be able to explore both his other arguments both for, and later on, against, the idea of "Forms". The key thing to understand here is the arguments, not the detailed history- and the best way to do this is not to study them slavishly, but instead to construct your own arguments- this is the first step to doing this kind of philosophy. So as a useful exercise you can begin from the class discussion, summarized below:

### (2) CLASS DIALOGUE

The arguments that were put forward in class, by various members of the class, were:

(1) *Argument 1*: The Argument for the existence of Forms (see above)

(2) *Counter-Argument 1a*: That circles are just inventions of the human mind- indeed, one of many things in the 'universe' created by the human Mind. This exists in the physical world, and is a *part* of it- less than the whole. Therefore there is no need to talk about a "Circle" outside of the physical Universe.

(3) *Counter-Argument 1b*: The proposition that Forms exist carried an assumption with it- that just because we can conceive of or imagine something, it must therefore exist (in the physical world or elsewhere). Is this true? Apparently not- for example, hallucinations apparently do not exist.

(4) *Counter-Argument 1c*: In regard to hallucinations- they do exist in some sense- for example, they correspond to something in the mind of the person hallucinating. Thus in this sense they actually exist in the physical world. Thus one can adopt the 'materialistic' point of view that all thoughts and creations of the mind correspond to or are built from physical objects or processes. This may not be a direct construction, but more of a 'logical construction' from the physical processes. Thus the 'Circle' would not exist if it were not for humans.

An example that was introduced and discussed was the Stock Market (or the Economy). Nowhere can one point to a physical object and call it 'the Economy', or the 'Market'. It is a construct of the human mind from the financial transactions, goods, etc., that do exist in the world. Thus it does not exist as an object in the real world but

nevertheless it exists in the mind of many people, who all have a more or less accurate understanding of what it is supposed to be. It was also remarked that even if it doesn't exist it has big consequences- for example, a stock market crash can kill people.

It was also remarked that the form of ideas such as the Market or the Economy is usually a short-hand for something very complex- a shorthand for communication. Thus one needs to note the dependence of these 'logical constructs' on our modes and limitations of communication.

These were all counter-arguments to the original proposition that super-sensible Forms exist. However the following points were also discussed:

(5) *Argument 2*: Why is it that we have to consider the objects in the physical world as somehow primitive? There is an assumption that other objects or ideas have to be constructed from these. But in fact all the ideas in our minds- whether they be apparently direct sense impressions of things we see or hear, etc., or more abstract ideas like those of circles or 'markets', are just ideas in our minds. We have no more evidence for the existence of objects in the world like tables and chairs than we do for 'Circle'. There is no reason why our sense impressions (eg., visual impressions) have to be considered as more primary or fundamental than other ideas in the mind.

(6) *Counter-Argument 2a*: there is however an almost universal consensus on the existence of physical objects. The feeling that our sense impressions of the physical world are more fundamental comes ultimately from this. Nevertheless it is not a proof, since it relies on consensus.

(7) *Argument 3*: We can extend the first argument by noting that if humans had completely different sensory equipment (and/or mental equipment) their sense impressions might be utterly different- not even translatable back into the sense impressions and ideas of humans. One example given was of bees, who see in the ultraviolet, and this see the world very differently from us. Another example was whales, who apparently communicate but in ways which are so far rather meaningless and unintelligible to us. Finally the example of some alien race from the stars having accomplishments way beyond ours, and operating mentally in ways that are so far ahead of us, and different from us that we are like ants to them. If in addition this is because their sensory apparatus is utterly different from ours, then their idea of what is 'real' might be quite different from ours, and even incompatible with ours.

#### BRIEF EXTRA REMARKS

(1) The argument about the existence of mathematical objects like circles (as opposed to objects like 'the Economy'), that are clearly somehow constructed from, or related to, objects in the physical world, has been going on ever since Pythagoras and Plato. Many mathematicians feel very seriously that mathematical objects do exist in some non-physical realm- others that they are simply creations of the mind, with no independent existence. Note however that the nature of mathematical objects is in many ways very different from that of objects like 'the Economy' (or 'justice'). This is because not only do we all agree on the properties of the Circle, but that in fact agreement or consensus is not what really counts- the properties of the Circle actually follow logically from its defining properties, whether we like it or not. At this point you should look at the discussion of Greek mathematics, particularly of Euclid and the axiomatic method.

(2) The argument concerning the primary nature, or otherwise, of physical objects or our ideas of them is important to think about. We will see when we get to Quantum Mechanics that the physical world is not nearly so 'material' as common sense would have us believe. The point about the understanding of what is real being dependent on our limited sensory capacities is important in physics, in that we will see that as physics has extended these, radical revisions of what is physically real have been required.

Philosophers (and of course, religious thinkers) have often posited that the real world is far vaster than the one we have sensory knowledge of. Perhaps the most extreme was Spinoza, who argued that the physical and mental realms are just but 2 'attributes' of the infinite number of attributes of the whole of reality, which he called God.

The object of this exercise was not only to bring some of the arguments to the fore, but also to illustrate what kind of argumentative style is meant by "Socratic dialogue". All of the points raised above will come back as we follow the development of Western Science.