

SQUARES – Ideas from Plato’s Republic
Teachers’ Notes/Commentary/References

These notes sketch out some of the philosophical references made during the film. Use the Chapter Headings menu in the DVD to locate the Scenes.

The aspects of Plato’s view that the video aims to introduce are:

- The path to the forms via mathematics
- A criticism of democracy, or of “voting on the truth”.
- The idea that “Justice” is bound up with order in the individual soul, as well as with order in the state.

The path to the forms via mathematics: overview of the basics

What Plato meant by the so-called theory of forms – how central this theory was, or whether he even held such a theory, is a matter of academic dispute. In the interpretation followed in the video, this theory is bound up with what is known as his “Two Worlds” metaphysical viewpoint – also a disputed interpretation. (The “Two Worlds” picture must not be taken too literally - Plato is always prepared to simplify and use rough similes to help the reader to understand, and these pictures should be taken in the spirit in which they are intended and eventually be left behind for a more subtle understanding.)

A common way of approaching Plato’s theory is to concentrate on the “one over many” approach, such as Bertrand Russell expounds, where the forms are a kind of reified universal. On this view there is potentially a form of everything, (the form of the table, the form of dung, the form of mobile phone, perhaps), and although Plato used this approach at some points, to reduce the theory to just this renders it both problematic and tediously unlikely.

It is worth recalling that Plato was chiefly interested in concepts of Justice, Goodness and Beauty, (rather than “redness”), and these are indeed the most elusive concepts.

So, instead, the film concentrates on the path to the forms via mathematics.

Plato holds that:

- There is a kind of rational, and hence intelligible (understandable) order written in to the universe.
- There are objective, non-relative, absolute standards (ideals or forms): truths about what is just (right), beautiful and good. Philosophers can come to know these truths through reason. This is in direct opposition to most Sophists who

thought that there were no absolute standards of what is just and beautiful, that these concepts were relative to culture, historical period, individual feelings, etc.

Roughly speaking, Plato accepted that something like the Sophist view would indeed be true IF the sensory world alone existed – i.e. he agrees that our sensory impressions of beautiful things or unjust acts are indeed relative, shifting, etc. But Plato held that there is also the intelligible dimension of reality, comprehended by the mind, and this is how these absolute standards were to be apprehended.

- The universe operates in part according to reason or mind, and, because we also possess reason, we ought in theory to be able to come to comprehend the intelligible principles of the universe. There is not the separation and alienation in the first place that is assumed in modern philosophy between the knower and the objective reality that is known.

The universe has two dimensions, the visible and the intelligible - we see the visible body of the world with our eyes, but we understand (“see”) the intelligible principles that are the rational soul of the universe with our minds.

Plato has an almost mystical conception of the importance of mathematics, seeing it as part of the key of the universe. (Mathematical physics is often seen as the key today, with the significant difference that modern physics is applied to Plato’s “sensory” world, whereas Plato feels that the sensory world is only something like a distorted “copy” only of the intelligible order of the universe.) Plato’s idea of justice (or rightness) is related to correct proportion and ordering, as is his idea of beauty.

Mathematical knowledge has certain features which Plato regards as essential to true knowledge (episteme):

- It seems to be infallible: to use the common example, one could not imagine that we might discover that $2+2=4$ turns out to be wrong tomorrow – once one grasps the principle behind the maths, once one has “got it” one sees that it has to be that way.

- Mathematical truths are eternal in the sense of not being in time.

- Although one learns maths at school, and the teacher has to explain the ideas, it is rather as if one is being reminded of something one already knew, independently of being told about it by the teacher. Contrast this with a history lesson: the history teacher could delude one altogether, but (once one sees the logic behind it) one can see that what the maths teacher says must be correct. (in modern terms this becomes the view that mathematics is known a priori, not empirically – Plato’s explanation of this is that the soul knows all before birth, but forgets it at birth, and the soul’s reason is then distorted by the soul’s association with the irrational body.)

SCENE 2 : CLASSROOM 1

John explains the simple but remarkable features of intuitive geometry that so impressed Plato:

The best way of understanding the relationship of the “intelligible” and “visible”, of the forms and their particular visible “copies”, is with a simple geometrical model (like the one Plato uses in the Meno):

In a geometry class, suppose one looks at a rough illustration of a square on the board: one sees that if the square is bisected diagonally then it must form two equal triangles.

In this case:

- with one eyes one sees the visible illustration on the board
- with one’s mind one understands the pure geometrical forms of square, triangle, etc.

Attending to the pure forms one can see that the triangles must be of equal size, one is certain of this, even if the illustration is quite distorted. Attending to the actual visible illustration one gets only the impression (doxa) that they are more or less equals, one would have to measure them to find out. But one does not understand the mathematical equality of the two triangles by measuring lots of illustrations (someone who does this would mistake the whole idea of maths) one attends directly with one’s understanding to the pure forms or ideals of which the visible illustration is just a copy.

According to Plato, the philosopher can come to perform a similar act of understanding with the pure form of Justice, or Beauty.

The eyes (the senses) are moved and affected by the physical thing– but the philosopher can “see” (understand) the pure form of beauty, by a form of intellectual intuition. This gives him an infallible guide for judging how far short the physical reality is.

Similarly with the form of justice: the sensory apprehension of some event or situation also involves various impressions as to the justice or otherwise of that situation or event. These impressions may vary from person to person. But the philosopher can see how and why this situation is a distortion of how things ought to be, because he has an ideal to guide him - a pure intellectual intuition of the form of Justice. (i.e. he knows “what justice is”.)

SCENE 3: THE GUIDE - IMAGES

For Plato, the sensory “world” is meaningless chaos - Sensory impressions connect with appetite, desire in the soul, with the material part of us. Images, which are mere copies of the already meaningless sensory material, stimulate desire, but contain no reason.

In the battle to create order in the soul by keeping desire in check, the constant bombardment by images is a force for chaos and disorder.

SCENE 4: STAFFROOM 1 – RESEARCH OUTPUT

SCENE 5: DR BROCK

If the heart is trained by reason it can become the guard dog of the soul – but if it is left to rule itself it becomes a creature guided only by a need for honour – and if it is controlled by appetite and desire it becomes a creature of blind ambition, a creature that consumes “success”, so to speak.

SCENE 6: CAR

Images (especially adverts) stoke desire, but bypass reason (other than the mere slavish calculating kind of reason.)

Desire/appetite is “an emptiness that can never be filled”.

Desires are not in themselves bad – but what is bad is the warped soul that results when desire rules. Goodness lies in the ordering of the elements of the soul, not in the elements themselves, which are morally neutral, or at least facts of our human condition.

SCENE 7: APPETITE

See Republic 571a – 573c Desire/ Appetite “589c Imagine a very complicated many-headed beast, with heads of wild and tame animals all round it, which it can produce and change at will”

SCENE 8: SQUARES TEMPLE 1

Plato holds the view (contra to some libertarian views) that the individual is moulded profoundly and irresistibly by the structure and culture of the society in which he lives.

“The pattern”: wickedness, unhappiness and injustice is a kind of disorder in soul and society– so order is required – the right order, but which order? Where do we find the blueprint? According to Plato, there is a pattern to be found to guide the construction of a just society, just as there are mathematical patterns to enable the engineer to construct his bridge. Furthermore we should look for the pattern in the same kind of way, as a kind of intelligible order apprehended directly by reason. But what are we to do, we who have not yet gained direct intuition of this truth? We must trust one who has...

SCENE 9: MONEY. THE GUIDE 2

Republic 575 “...under the tyranny of his master passion he becomes in waking life what he once was only in his [worst] dreams, and there’s nothing, no taboo, no murder, however terrible, from which he will shrink.”

“His passion tyrannises over him, a despot without restraint or law...”

SCENE 10: CLASSROOM 2: MATHS IS PURE

SCENE 11: JAKE MAKES BINARY JAMMER

Images: the image copies the surface impression of the sensory world without understanding.

Representing the world in images: Plato does not think that any representation conveys a kind of meaningful truth about the world: representations encourage only sensory reactions / impressions / feelings, and a concentration on how things “look” (seem) rather than are.

SCENE 12: STAFFROOM 2 - CALL

SCENE 13: SQUARES' HOUSE

The “Binary Jammer”: this invention is designed to block all digital operations: digital information is at the heart of the proliferation of images (according to the Squares) and the domination of society by the sensory dimension.

The thesis / antithesis / synthesis idea of Jake's is a very distorted reference to Plato's idea of dialectic, although it sounds more like Hegel's or Marx's formalism – it does not in fact reflect Plato's dialectic.

However, Jake makes an important point about maths and logic: it has been argued that philosophies such as Plato's (and Kant's), where the strange intuitive certainty of maths is such a central inspiration, are undermined by modern mathematical developments. Non-Euclidean geometries, or the kind of logic required to deal with quantum theory, seem counter-intuitive, far from self-evident, and point to a different conception of logic and maths. (see Bertrand Russell *The Problems of Philosophy*) In fact these developments refute neither Plato's nor Kant's views, but arguably lessen the immediate intuitive power of Plato's appeal to the self-evidence of geometry.

SCENE 14: NO GEOMETRY

Can one imagine not having any sense of ideal geometry? One can “see” that certain shapes cannot fit together, and can see why. But the person without abstract maths would have learned this only by induction from experience: things could work out differently, and such a person's confidence in maths would be of a different kind. This latter person is like the person with no “moral compass”. (Although this last metaphor is perhaps misleading for Plato, since his moral compass is restricted to the few, and is a highly intellectual intuition.)

People may be trained to have a “true belief” (i.e. a belief that happens to be

true) about right and wrong, but, without knowledge of the form of “Rightness”, they cannot see why things are right, or fall short of this. So they are akin to someone who struggles with creating a building through trial and error, with no mathematical understanding or even intuition to guide them in their construction. (The objection to this point, in parallel to the standard objection to Plato’s Ship simile is that mathematical training would be essential in the execution, but would not provide the design or purpose of the building)

(Bertrand Russell: In reply to the usual complaint that “maths is learned at school”: a priori knowledge is elicited by experience and teaching, but not justified by it.)

SCENE 15: SQUARE – ONE TRUTH

We all tune in to the same mathematical reality in the maths class, and can point out features of this reality to each other, as if we are viewing the same abstract landscape.

There is a comparable realm of moral truth, and possible complete access to it, according to Plato.

SCENE 16: BELLY DANCE

Stacia makes the familiar objection: of course many people have an inner certainty about their own moral views – but that is just how it seems to them: in fact these views are merely an expression of their own subjective feelings (or whatever variant of subjectivism one chooses)

- Calvert counters with the objective certainty of maths

- Stacia says that morality is not like maths

- Calvert pursues the mathematical view: Sophists would argue that a person’s feeling about right and wrong, like their opinions about beauty, are subjective and/or culturally relative.

Plato would simply agree with this, but then point out that this applies to the world of sensory impressions. If we are asked about the illustration of the square itself (the “visible” square) – then it would indeed be a matter of “subjective” impression to some extent whether or by how much the illustrated triangles differ in area: one triangle might look more elongated to me than to you, etc. But when it comes to the ideal mathematical square we all agree.

So, in parallel, impressions as to the moral “rightness” of various situations, scenarios or actions in the physical world are indeed subjective and various, but were we to apprehend the form of rightness itself, then we would agree about it as self-evident, just as we do about the ideal mathematical square.

The moral of Calvert’s crude reaction to Stacia’s invitation to “give in to

passion”:

A puritanical follower of Plato could indeed interpret him as a “despiser of the body”: the sexual urge being just like the urge for nutrition - something to be serviced but not indulged: giving into passion is not heroic, merely a form of incontinence.

(In fact in the Symposium it is clear that Plato himself regarded eros, when properly understood, as a vehicle to the forms – so the puritanical reading of Plato is quite tangential.)

SCENE 17: THE EYES DECEIVE

Again, for Plato the world of the senses is without worth: in the Cave story one does not ascend to the forms by travelling through the sensory world, so to speak, but by turning away from it altogether.

SCENE 18: CLASSROOM 3 - VOTING ON TRUTH

One objection to democracy – what kind of truth can be decided by a vote?

Clearly, it is absurd to think that mathematical truth can be determined by a vote. Does this follow about all truth? Suppose one does not think that morality is a matter of opinion, or that “anybody’s idea is as good as anybody else’s” – then one admits: “There is a truth of the matter.”

Does it not become nonsensical to settle this truth by a vote, just as nonsensical as it would be with a mathematical question?

And could one deny that IF there was one person who knew this truth, then he should be given total control?

-So, if one holds an absolutist moral view, then democracy has no value, except as a means to an end to be jettisoned when the correct end has been reached.

- Political Islamists sometimes use a similar line – if there is a God-given truth about the right way to live and to order a state, then one should leave government to those best qualified to intuit or interpret this truth.

Democracy, if it implies that this truth can be determined by the majority view, is mistaken.

SCENE 19: SQUARES’ DANCE

SCENE 20: STAFFROOM 3 – STATISTICAL RESEARCH

To Brock, morality is just another game to be played for power.

SCENE 21: GUIDING INTELLIGENCE

Plato’s view is that the universe operates according to intelligence: not a personalised intelligence, but by mind or reason (see for example Socrates disappointment with Anaxagoras in The *Phaedo*.) The intelligible workings of the universe - not to be found in the sensory world - are such that everything

happens for the good.

There is (at least) a simple internal conceptual connection: the good is the ultimate “why” by definition. The physical world by contrast is ruled by blind, senseless necessity.

The idea of the philosopher coming to comprehend all reality is not so far-fetched if reality itself operates according to reason: for Plato man is not a creature endowed with a human reasoning apparatus confronting an alien world, but the human mind is part of the cosmic mind, so it can understand it by harmonising with it. There is danger of making Plato sound like a “new age” mystic – but it must be allowed that there is something like this view in Plato. Of course “harmonising with cosmic reason” involves a lifetime of education and intellectual work coupled with a kind of exquisite intellectual intuition.

This is not quite what Brock says here, what he says is more fitting for what one might call an “old-style” God: Plato’s form of the good, if subsumed by a monotheistic religion, renders God a kind of metaphysical identity one that is by definition good. The “oldstyle” God, of course, may be a more mercurial power...

SCENE 22: SQUARES’ BROADCAST

What the model says would be a kind of new-age religious take on Plato’s theory – and it sounds harmonious in some way, but lacks any actual intellectual content.

Lydia’s dismissive response is also Platonic: in the world of images, people judge the truth of what someone is saying by “whether they like the look of them.”

SCENE 23: UNIVERSAL SOLUTION

Plato (Republic 501a):

Socrates: “The first thing our [political] artists must do, and it’s not easy – is to wipe the slate of human society and human habits clean.”

A chilling assertion, that brings to mind amongst others Pol Pot’s “year zero” in Cambodia. Plato’s writing is ambivalent: on the one hand he believes it is the duty of the philosopher to toil in turning people towards the light, and Plato in his own writings spares no effort, and makes considerable compromises, to try to make his ideas intelligible to a lay-person. But on the other hand, Plato exhibits the revolutionary’s disgust, and despair at ever making the “common people” understand what is best for them.

SCENE 24: THE GUIDE IN THE TEMPLE

(a) Brock says to his students that they must follow him ("The Guide") until they themselves can comprehend the form of rightness, and see for themselves how

"Injustice lies in the inversion of the rational order of things":

The students accept that they cannot comprehend what this means, but when John enters the temple and sees the scenario set out before him, he thinks, for a moment at least, that he does understand it. What John thinks is one possible, intuitive way of understanding Plato (even if it does not go much beyond a vague intuition that could, of course, be challenged):

There are certain situations which seem wrong because they seem to be "an inversion of the rational order of things" an affront to a kind of intuitive reason.

In the little tableau presented to John we see a man like Brock, utterly without principle, who does what he does simply in the spirit of pulling wings off flies, leading a group of distorted idealists, who think he is some kind of Guide, to an act of wanton destruction.

The wrong man is clearly in charge, he has no understanding of any ultimate moral truth, and the injustice lies in the nightmarish inversion of rational order of things in having Brock in charge.

(b) As Plato sets it up in the *Republic*, the state mirrors the individual soul: John is thinking of the political tyranny that the Squares movement would lead to, but Brock shifts the attention to John's inner conflict pointing out: "The tyrant is in you, and you cannot control it"

SCENE 25: ORDER

What does it mean that John switches off the computer? In this action, we have the overthrow of the tyrant in John's soul by reason, and order is restored in his soul.

This implies the (perhaps anti-platonist) point that:

In a time of individualist democracy, the individual has to find it within himself to struggle for order in his soul – he cannot fall back on the line of "the pure soul cannot survive in a corrupted society."

John needs to press the button that regains control of his own small, personal inner turmoil, and not try to escape this by diverting himself into the grand plan of pulling down society as a whole (as do those many revolutionaries and political fanatics, such as Lydia, who are working out their own inner failings).

“Order in the soul is Justice (rightness), and happiness”:

This may seem like a dry, overly rationalistic, and unlikely idea, until one considers what *disorder* in the soul is like:

The ability to walk untroubled past the bookmakers is happiness for a compulsive gambler - and misery is to be controlled by the irrational tyrant of gambling addiction. This is just one extreme example: see the section in Books VIII and IX in the *Republic*.

It is worth recalling that the challenge that Socrates is given first of all in the *Republic* is not “What is an ideal state?”, but:

“Prove to us therefore, not only that justice (rightness) is superior to injustice, but that, irrespective of whether gods or men know it or not, one is good and the other bad because of its inherent effects on its possessor.” (367e)

Quotations from Plato, *The Republic* translated by H D P Lee (Penguin Classics 1987)

Other References mentioned in these notes:

Plato, *Phaedo* translated by Hugh Tredennick (published in *The Last Days of Socrates* Penguin Classics 1969)

Russell, Bertrand *The Problems of Philosophy* 1912 (O.U.P.1967)