

Systems of logic have progressed through the ages, and though they have been shaped by modern thinking, they have retained some universal guidelines for breaking down complexity into something workable. Ancient Greece yielded many of the forefront of philosophers, among which were Socrates, and his student Plato. Because there is nothing that remains of Socrates' writings, many of his theories and postulates are taken from Plato's works. In particular is the renowned *Republic* of Plato in which he has Socrates quest for the definition of Justice. In doing so Plato follows some basic steps of logic that can be seen in contemporary schools of thought, and in particular, the proofs in mathematics. One particular system of logic is that of Geometry, stemming from Euclid, another Greek philosopher.

His Fifth Axiom, the parallel axiom, cannot be proven using the other axioms of what is called neutral geometry, yet it lasted for well over two millennia, and has only been challenged within the last two hundred years. By using a collection of axioms (as Euclid's were for Geometry), or universally accepted primary principles, one can make a series of justified deductions to reach a conclusion. One very simple and effective way of examining a problem is to construct a model that interprets the axiomatic system and work through it.

Plato's use of models and interpretations in the *Republic* is logically equivalent to the mathematical interpretations of axiomatic systems. From a

given list of known statements, a model can be constructed so that the new model satisfies all of the axioms. Because the model uses all the axioms, none of which fail, anything that can be deduced from the axioms can also be deduced in the model. Though Socrates is working backwards in this sense, he seems to have this understanding that the results of his city model will mimic the results of his interpretation of the soul seeing as both follow from the same logical understanding of Justice.

However, in the *Republic*, knowing justice is not enough. Justice in the sense that Plato describes is one of his Forms¹ (notable by capitalization). He distinguishes between the Form and the many things by first distinguishing between Philosophers and what he calls the Lovers. Philosophers are those who love (in this case) the Just or Justice itself (one of his forms), whereas the Lovers love the many just things (things which are interpretations of the forms). This idea of forms ties back to his original argument in his *Republic* that there must be an ultimate definition for Justice, without relying on examples of various just acts. Many times he is confronted with a definition of what others consider to be justice. However, he is able to disprove each person's explanation of justice and convince them that merely understanding why one action is just and not another is not enough to live a just life.

¹ Theory of Forms *Republic* X 596a-b

The first is Cephalus² who says that justice is repaying ones debts. Plato turns his argument against him by asking if he would return a borrowed weapon to a mad man. Plato then is confronted by Polemarchus and Simonides with the more general statement of giving each what they are owed. They soon realize that this is equivalent to Cephalus' argument, and so Periander helps and suggests something even more generalized: help friends, harm enemies. Plato's counter-argument here is that one cannot distinguish between true and false friends. He also explains that it is not virtuous to harm another person, and because justice is a virtue, harming even one's enemies is unjust. Thrasymachus chimes in with his own theory that justice is the advantage of the strong or established rule. Strength has nothing to do with it though, for Plato says that a just person is happy, something not exclusive to only the strong or elite.

Before continuing, Plato gives his audience a hint as to what Justice itself is by saying that it is when each part of the soul does its job and only its job. Glaucon³, who seems to be wiser than the others, provides a conjecture based upon Plato's prior statement and the others' discussions. He postulates that there are three kinds of good (Justice being one Form of the ultimate good). There are those that are valued for their own sake, others for the sake of something else, and the remainder is valued for both. Glaucon simply places

² Examples and refutations of those meeting with Socrates *Republic* I 331c-443d

³ Glaucon's trichotomy of the good *Republic* II 357-358

Justice in the second category, as something valued for the sake of something else. Plato, however, attempts to put Justice in what he believes to be the best of these categories.

From Plato's first theory of the soul and Glaucon's trichotomy of the good, Plato concludes that one must have a balanced soul in order for Justice, as well as all other virtues, to truly be harnessed and implemented. In order to demonstrate this to his audience, Plato utilizes a model. This model is of a city where, after he is through speaking of all its parts, will be considered Just. By using a model of such large city, Plato is able to demonstrate the truest sense of Justice itself and, in a way, prove not only its existence as a form, but that it can be modeled on any scale, however intangible. Because the same Justice persists in both the city and the soul, then the individual's understanding of justice is the same as that of any size group.

In his city⁴, he categorizes three groups which are then placed into four relations. The first group is the working class, the second is the military, and the third is the governing or guardian elites. With each of these steps in his interpretation, he gives a justification for their creation. The working class is needed for the arts and crafts; all the manufacturing of goods and the agricultural responsibilities rest on their belabored shoulders. Because the cattle

⁴ Model of the City *Republic* II 368e-375d

and herds animals require grazing lands, and the population of both the citizens and the livestock increase regularly, there is a need for expansion. Because the workers are too busy supplying one another with sustenance, there needed to be a military power in place to secure more land for the growing populace. These ruffians, however, would soon become tyrannical and use their physical strength and number to subjugate the lower class. Because this would not be considered Just, Plato introduces the guardians, the rulers and overseers who can check the military power and maintain a balance amongst the groups.

From these three come the four relations⁵: wisdom, courage, moderation, and together with those, justice. Wisdom is synonymous with the guardians as they are the ones who make the most important decisions for the whole, and are the ones ultimately look to for guidance. Courage is placed with the military, for they are the ones who enable the city to grow by seizing other lands. Moderation is not set in context of just the working class, but is where each person in each group does what they are best suited to do. Finally, Justice is found when all the groups are in agreement that the guardians should lead.

Later in the *Republic* Plato outlines the prerequisites to being such a ruler⁶ as the one in his city model. His conclusion is that only a philosopher, a title which can only be determined after time spent in many disciplines, is considered

⁵ Four Relations *Republic* IV 428-433

⁶ Philosopher Rulers *Republic* 484-503

fit to rule. The gauntlet that must be run involves many years of study which would effectively weed out those who would become unjust tyrants, those who are unable to find value in the Just itself or in any other Forms. Those who do not pass the various stages are then placed into one of the other groups: workers or fighters. The city requires that its citizens have balanced and just souls, and that they each do what they are best suited for. Once a leader is chosen, and everything is as he describes, then a city as a whole is said to be just. Plato then uses this model as he examines the individual and evaluates what it means to have a balanced soul.

The soul⁷ is divided, like the city, into three parts: reason, spirit, and appetite. Similarly to the city, reason is the holder of the wisdom, spirit of courage, and moderation comes from each part working at what they're specialized to do. Again, justice follows from all three agreeing to follow the wisdom, or rational part of the soul. Having a trichotomy in the soul gives rise to the various combinations of conflicts between any two. From this model, Plato deduces that people are corrupt if their soul is out of balance, and that a change in the balance can cause corruption and injustice therein.

⁷ The parts of the soul *Republic* IV 434d-444e

Another argument, along these lines, that Plato gives earlier is the myth of Gyges⁸. In this tale, a ring is found that turns its wearer, Gyges, invisible when turned upside down. Using this ring, the former servant to the king becomes the king, and a favored king at that. Plato continues by saying that even the just man would eventually do an unjust thing given such a power without responsibility for the consequences.

Seeing that there can be no truly Just man, Plato's argument is inherently flawed. He knows that there is an ultimate good of what his Form of Justice is, yet he falls short in realizing this ideal. Euclid, with geometry, encountered a similar problem with his fifth axiom. It was a relationship of lines that he considered to be so obvious that it did not require depth of proof, and those who have subsequently ventured to prove it have been left empty-handed. The *Republic* was an attempt by Plato to prove one of his terms of virtue, one which others had taken for granted as obvious.

The truth which Euclid may have been unable to prove himself is one of the forms, the form of Parallels. Or at least that would be how Plato would see it. Hyperbolic geometry was born from the inability to prove Euclid's fifth axiom, just as Plato never was able conclude what Justice itself is. In both cases, there was and still is a need to once-and-for-all understand something previously

⁸ Myth of Gyges *Republic* 359d-361b

considered basic enough to be taken for granted in every-day life, yet complex enough to yield a basis for entire schools of thought.