An Excerpt from

THE REPUBLIC, BOOK VI

The Simile of the Divided Line

by Plato

(Written 360 B.C.E)

Summary of excerpt, and a graphical depiction of the divided line:

<table>
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<th>STATES OF MIND</th>
<th>OBJECTS</th>
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<td>νοησις (‘noesis’ or rational intuition)</td>
<td>αρχαί (Forms)</td>
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<tr>
<td>διανοια (‘dianoia’ or thought)</td>
<td>μαθηματικα (mathematics)</td>
</tr>
<tr>
<td>δοξα (faith)</td>
<td>ειδωλον (‘idol’ or ‘sensible image’)</td>
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<tr>
<td>ειχασια (imagination)</td>
<td>ειχονες (‘icon’ or image of image)</td>
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The development of the human mind lies over two fields: δοξα (Opinion,) and επιστημη (Knowledge.) The key difference lies in the object of each. Opinion’s object is image, or ‘sensory objects’ (i.e., objects that ‘appear to be’), while knowledge’s object is
‘conceptual objects’ (i.e., objects that are ‘reasoned to be). These conceptual objects, for Plato, are ‘originals’, or archetypes (ultimately, the ‘Forms’). It is possible to progress from the Opinion state of mind to the Knowledge state of mind; we often mistake opinion for knowledge by seeing universal Forms only in their particular instantiations, mistaking these for the originals. Once this understanding is reached, one can progress from the Opinion line to the Knowledge line.

Each line is subdivided: two degrees of Opinion and two degrees of knowledge. The lowest degree of Opinion has ‘icons’ / ‘images of images’ as its object. The next highest degree has ‘sensible images’ as the object. So Opinion’s object is, in general, an ‘image’ (meaning, a representation of something), and its lowest degree’s object is image of image. The higher degree of Opinion is opinion based on an image that is directly perceivable via the senses in some particular incarnation, rather than an image of an image.

The objects of knowledge (νοητα) comprise the invisible world of conceptual objects. As to the divisions here, ‘dianouia’ (διανοια) has as its object what the soul is compelled to investigate via the lower segments of knowledge, going from hypothesis to conclusion (i.e., logically/mathematically.) For example, the geometer assumes the triangle and uses it and other adopted conceptual objects to argue to a conclusion about sensory versions of triangles (e.g., triangles that are drawn, carved, etc.) Geometrical diagrams represent what can only be seen with the eye of thought. (Rep, 510 e2 – 511 a1)

Plato uses the term ‘hypothesis’ here (mathematicians argue from hypothesis to particular conclusion rather than from hypothesis to ultimate conclusion / first principles). In other words, the truth of mathematics and geometry are treated as self-evident at the level of dianouia. You don’t ask ‘why’ mathematics works at this level, and if you do ask why, you’re on your way to a different level of knowledge—the highest level, which is ‘noesis.’

For example, you might know how mathematics and geometry work, you don’t know WHY they work. You might know 2+2=4 but you don’t know why. Where did the rules of math come from? Put another way, you might know how the world is mathematical or geometrical, but you don’t know WHY the world is mathematical or geometrical. Also, you can’t use math to explain why math exists! So whatever the answer to these questions, it cannot be derived from math or geometry alone—i.e., the level of ‘understanding.’ Therefore, there must be another level of knowledge above these, where you reason not just from hypothesis to some particular conclusion, but rather from hypothesis to ultimate conclusion, i.e., first principles. This is the highest level—noesis or ‘rational intuition’.

Plato explicitly separates noesis of the forms and dianoia of mathematics, such that the understanding of mathematics is an intermediate between opinion and pure reason.
Excerpt from Republic Book VI

(Translated by Benjamin Jowett)

Dialogue between Socrates and Glaucon (Socrates speaks first)

Now take a line which has been cut into two unequal parts, and divide each of them again in the same proportion, and suppose the two main divisions to answer, one to the visible and the other to the intelligible, and then compare the subdivisions in respect of their clearness and want of clearness, and you will find that the first section in the sphere of the visible consists of images. And by images I mean, in the first place, shadows, and in the second place, reflections in water and in solid, smooth and polished bodies and the like: Do you understand?

Yes, I understand.
Imagine, now, the other section, of which this is only the resemblance, to include the animals which we see, and everything that grows or is made.

Very good.
Would you not admit that both the sections of this division have different degrees of truth, and that the copy is to the original as the sphere of opinion is to the sphere of knowledge?

Most undoubtedly.
Next proceed to consider the manner in which the sphere of the intellectual is to be divided.

In what manner?
Thus: --There are two subdivisions, in the lower or which the soul uses the figures given by the former division as images; the enquiry can only be hypothetical, and instead of going upwards to a principle descends to the other end; in the higher of the two, the soul passes out of hypotheses, and goes up to a principle which is above hypotheses, making no use of images as in the former case, but proceeding only in and through the ideas themselves.

I do not quite understand your meaning, he said.
Then I will try again; you will understand me better when I have made some preliminary remarks. You are aware that students of geometry, arithmetic, and the kindred sciences assume the odd and the even and the figures and three kinds of angles and the like in their several branches of science; these are their hypotheses, which they and everybody are supposed to know, and therefore they do not deign to give any account of them either to themselves or others; but they begin with them, and go on until they arrive at last, and in a consistent manner, at their conclusion?

Yes, he said, I know.
And do you not know also that although they make use of the visible forms and reason about them, they are thinking not of these, but of the ideals which they resemble; not of the figures which they draw, but of the absolute square and the absolute diameter, and so on --the forms
which they draw or make, and which have shadows and reflections in water of their own, are converted by them into images, but they are really seeking to behold the things themselves, which can only be seen with the eye of the mind?

That is true.
And of this kind I spoke as the intelligible, although in the search after it the soul is compelled to use hypotheses; not ascending to a first principle, because she is unable to rise above the region of hypothesis, but employing the objects of which the shadows below are resemblances in their turn as images, they having in relation to the shadows and reflections of them a greater distinctness, and therefore a higher value.

I understand, he said, that you are speaking of the province of geometry and the sister arts.

And when I speak of the other division of the intelligible, you will understand me to speak of that other sort of knowledge which reason herself attains by the power of dialectic, using the hypotheses not as first principles, but only as hypotheses --that is to say, as steps and points of departure into a world which is above hypotheses, in order that she may soar beyond them to the first principle of the whole; and clinging to this and then to that which depends on this, by successive steps she descends again without the aid of any sensible object, from ideas, through ideas, and in ideas she ends.

I understand you, he replied; not perfectly, for you seem to me to be describing a task which is really tremendous; but, at any rate, I understand you to say that knowledge and being, which the science of dialectic contemplates, are clearer than the notions of the arts, as they are termed, which proceed from hypotheses only: these are also contemplated by the understanding, and not by the senses: yet, because they start from hypotheses and do not ascend to a principle, those who contemplate them appear to you not to exercise the higher reason upon them, although when a first principle is added to them they are cognizable by the higher reason. And the habit which is concerned with geometry and the cognate sciences I suppose that you would term understanding and not reason, as being intermediate between opinion and reason.

You have quite conceived my meaning, I said; and now, corresponding to these four divisions, let there be four faculties in the soul-reason answering to the highest, understanding to the second, faith (or conviction) to the third, and perception of shadows to the last--and let there be a scale of them, and let us suppose that the several faculties have clearness in the same degree that their objects have truth.

I understand, he replied, and give my assent, and accept your arrangement.