Reading on Plato for Rebel Without a Cause

Read the entire selection (reading the notes is not necessary, but some are helpful). I have marked the key portions, with verbal echoes in the film, with arrows (→) and underlining. What I am suggesting, at minimum, is that the leading themes of Rebel Without a Cause should be read in relation to these passages of the allegory of the cave and the following sections on "dialectic" as the higher learning (starting with 514). My guess, (which may be too bold since I have not found this connection in any of the literature on the movie), is that the filmmakers made intentional and explicit reference to the passages marked below. I began think about the intertextuality between the film and these famous passages from the *Republic* when I took note of the way in which a character in the film goes out of her way to connect one of the lead characters with the ancient philosopher.

Now, I also agree with the conventional suggestions by film critics that the writers of the screen play for Rebel Without a Cause drew on the book by the same name, and the "momism" and other elements of Philip Wylie's *Generation of Vipers*. In addition to these I think the screenwriter intentionally, darkly, and ironically used Plato's allegory as an intertext.²

The intertextual relations between the film and this reading include: "cause" (film title and 516-517 below), the significance of reflecting of the stars (planetarium scene and 528-530 below), and "honor" (conversation between Jim and his father and 538-539 below). (GES)

The allegory of the cave (and following), from Plato's Republic.³

[514a] "Next," said I, "compare our nature in respect of education and its lack to such an experience as this. Picture men dwelling in a sort of subterranean cavern with a long entrance open² to the light on its entire width. Conceive them as having their legs and necks fettered³ from childhood, so that they remain in the same spot, [514b] able to look forward only, and prevented by the fetters from turning their heads. Picture further the light from a fire burning higher up and at a distance behind them, and between the fire and the prisoners and above them a road along which a low wall has been built, as the exhibitors of puppet-shows⁴ have partitions before the men themselves, above which they show the puppets." "All that I see," he said. "See also, then, men carrying⁵ past the wall [514c] implements of all kinds that rise above the wall, and human images [515a] and shapes of animals as well, wrought in stone and wood and every material, some of these bearers presumably speaking and others silent." "A strange image you speak of," he said, "and strange prisoners." "Like to us," I said; "for, to begin with, tell me do you think that these men would have seen anything of themselves or of one another except the shadows cast from the fire on the wall of the cave that fronted them?" "How could they," he said, "if they were compelled [515b] to hold their heads unmoved through life?" "And again, would not the same be true of the objects carried past them?" "Surely." "If then they were able to talk to one another, do you not think that they would suppose that in naming the things that they saw⁶ they were naming the passing objects?" "Necessarily." "And if their prison had an echo⁷ from the wall opposite them, when one of the passers by uttered a sound, do you think that they would suppose anything

¹ See Robert M. Lindner, *Rebel Without a Cause ... The Hypnoanalysis of a Criminal Psychopa*th (Grune & Stratton, 1944), and Philip Wylie, *Generation of Vipers* (Rinehart & co., 1942). Roger Ebert suggests these as "inspiration" (http://rogerebert.suntimes.com/apps/pbcs.dll/article?AID=/20050619/REVIEWS08/506190301/1023 [accessed 8.30.10]). Also, I remember a publicity trailer for Rebel suggest that elements of the story came right out of newspapers.

² Probably Stewart Stern, among Nicholas Ray's several screenwriters (see L. Frascella and A. Weisel, *Live Fast, Die Young: The Wild Ride of making revel Without a Cause* [Simon & Schuster, 2005]).

http://www.perseus.tufts.edu/hopper/text.jsp?doc=Perseus:text:1999.01.0168:book=7 [accessed March 2008]

else than the passing shadow to be the speaker?" "By Zeus, I do not," said he. "Then in every way [515c] such prisoners would deem reality to be nothing else than the shadows of the artificial objects." "Quite inevitably," he said. "Consider, then, what would be the manner of the release and healing from these bonds and this folly if in the course of nature something of this sort should happen to them: When one was freed from his fetters and compelled to stand up suddenly and turn his head around and walk and to lift up his eyes to the light, and in doing all this felt pain and, because of the dazzle and glitter of the light, was unable to discern the objects whose shadows he formerly saw, [515d] what do you suppose would be his answer if someone told him that what he had seen before was all a cheat and an illusion, but that now, being nearer to reality and turned toward more real things, he saw more truly? And if also one should point out to him each of the passing objects and constrain him by questions to say what it is, do you not think that he would be at a loss and that he would regard what he formerly saw as more real than the things now pointed out to him?" "Far more real," he said.

→ "And if he were compelled to look at the light itself, [515e] would not that pain his eyes, and would he not turn away and flee to those things which he is able to discern and regard them as in very deed more clear and exact than the objects pointed out?" "It is so," he said. "And if," said I, "someone should drag him thence by force up the ascent which is rough and steep, and not let him go before he had drawn him out into the light of the sun, do you not think that he would find it painful to be so haled along, and would chafe at it, and when [516a] he came out into the light, that his eyes would be filled with its beams so that he would not be able to $see^{\frac{12}{2}}$ even one of the things that we call real?" "Why, no, not immediately," he said. "Then there would be need of habituation, I take it, to enable him to see the things higher up. And at first he would most easily discern the shadows and, after that, the likenesses or reflections in water ¹³ of men and other things, and later, the things themselves, and from these he would go on to contemplate the appearances in the heavens and heaven itself, more easily by night, looking at the light [516b] of the stars and the moon, than by day the sun and the sun's light. 14" "Of course." "And so, finally, I suppose, he would be able to look upon the sun itself and see its true nature, not by reflections in water or phantasms of it in an alien setting, ¹⁵ but in and by itself in its own place." "Necessarily," he said. "And at this point he would infer and conclude that this it is that provides the seasons and the courses of the year and presides over all things in the visible region, [516c] and is in some sort the cause ¹⁶ of all these things that they had seen." "Obviously," he said, "that would be the next step." "Well then, if he recalled to mind his first habitation and what passed for wisdom there, and his fellow-bondsmen, do you not think that he would count himself happy in the change and pity them ¹⁷?" "He would indeed." "And if there had been honors and commendations among them which they bestowed on one another and prizes for the man who is quickest to make out the shadows as they pass and best able to remember their customary precedences, [516d] sequences and co-existences, $\frac{18}{18}$ and so most successful in guessing at what was to come, do you think he would be very keen about such rewards, and that he would envy and emulate those who were honored by these prisoners and lorded it among them, or that he would feel with Homer ¹⁹ and "greatly prefer while living on earth to be serf of another, a landless man," Hom. Od. 11.489 and endure anything rather than opine with them [516e] and live that life?" "Yes," he said, "I think that he would choose to endure anything rather than such a life." "And consider this also," said I, "if such a one should go down again and take his old place would he not get his eyes full²⁰ of darkness, thus suddenly coming out of the sunlight?" "He would indeed." "Now if he should be required to contend with these perpetual prisoners [517a] in 'evaluating' these shadows while his vision was still dim and before his eyes were accustomed to the dark—and this time required for habituation would not be very short—would he not provoke laughter, ²¹ and

would it not be said of him that he had returned from his journey aloft with his eyes ruined and that it was not worth while even to attempt the ascent? And if it were possible to lay hands on and to kill the man who tried to release them and lead them up, would they not kill him²²?" "They certainly would," he said.

"This image then, dear Glaucon, we must apply as a whole to all that has been said, [517b] likening the region revealed through sight to the habitation of the prison, and the light of the fire in it to the power of the sun. And if you assume that the ascent and the contemplation of the things above is the soul's ascension to the intelligible region, $\frac{23}{3}$ you will not miss my surmise, since that is what you desire to hear. But God knows²⁴ whether it is true. But, at any rate, my dream as it appears to me is that in the region of the known the last thing to be seen and hardly seen is the idea of good, [517c] and that when seen it must needs point us to the conclusion that this is indeed the cause for all things of all that is right and beautiful, giving birth $\frac{25}{1}$ in the visible world to light, and the author of light and itself in the intelligible world being the authentic source of truth and reason, and that anyone who is to act wisely $\frac{26}{2}$ in private or public must have caught sight of this." "I concur," he said, "so far as I am able." "Come then," I said, "and join me in this further thought, and do not be surprised that those who have attained to this height are not willing 27 to occupy themselves with the affairs of men, but their souls ever feel the upward urge and [517d] the yearning for that sojourn above. For this, I take it, is likely if in this point too the likeness of our image holds" "Yes, it is likely." "And again, do you think it at all strange," said I, "if a man returning from divine contemplations to the petty miseries $\frac{28}{100}$ of men cuts a sorry figure²⁹ and appears most ridiculous, if, while still blinking through the gloom, and before he has become sufficiently accustomed to the environing darkness, he is compelled in courtrooms $\frac{30}{2}$ or elsewhere to contend about the shadows of justice or the images $\frac{31}{2}$ that cast the shadows and to wrangle in debate [517e] about the notions of these things in the minds of those who have never seen justice itself?" "It would be by no men strange," he said. "But a sensible man," [518a] I said, "would remember that there are two distinct disturbances of the eyes arising from two causes, according as the shift is from light to darkness or from darkness to light, $\frac{32}{2}$ and, believing that the same thing happens to the soul too, whenever he saw a soul perturbed and unable to discern something, he would not laugh³³ unthinkingly, but would observe whether coming from a brighter life its vision was obscured by the unfamiliar darkness, or [518b] whether the passage from the deeper dark of ignorance into a more luminous world and the greater brightness had dazzled its vision. $\frac{34}{4}$ And so $\frac{35}{4}$ he would deem the one happy in its experience and way of life and pity the other, and if it pleased him to laugh at it, his laughter would be less laughable than that at the expense of the soul that had come down from the light above." "That is a very fair statement," he said.

"Then, if this is true, our view of these matters must be this, that education is not in reality what some people proclaim it to be in their professions. [518c] What they aver is that they can put true knowledge into a soul that does not possess it, as if they were inserting 37 vision into blind eyes." "They do indeed," he said. "But our present argument indicates," said I, "that the true analogy for this indwelling power in the soul and the instrument whereby each of us apprehends is that of an eye that could not be converted to the light from the darkness except by turning the whole body. Even so this organ of knowledge must be turned around from the world of becoming together with the entire soul, like the scene-shifting periact in the theater, until the soul is able to endure the contemplation of essence and the brightest region of being. [518d] And this, we say, is the good, 39 do we not?" "Yes." "Of this very thing, then," I said, "there might be an art, 40 an art of the speediest and most effective shifting or conversion of the soul, not an art of

producing vision in it, but on the assumption that it possesses vision but does not rightly direct it and does not look where it should, an art of bringing this about." "Yes, that seems likely," he said. "Then the other so-called virtues $\frac{41}{1}$ of the soul do seem akin to those of the body. [518e] For it is true that where they do not pre-exist, they are afterwards created by habit 42 and practice. But the excellence of thought, ⁴³ it seems, is certainly of a more divine quality, a thing that never loses its potency, but, according to the direction of its conversion, becomes useful and beneficent, [519a] or, again, useless and harmful. Have you never observed in those who are popularly spoken of as bad, but smart men, $\frac{44}{1}$ how keen is the vision of the little soul, $\frac{45}{1}$ how quick it is to discern the things that interest it, $\frac{46}{1}$ a proof that it is not a poor vision which it has, but one forcibly enlisted in the service of evil, so that the sharper its sight the more mischief it accomplishes?" "I certainly have," he said. "Observe then," said I, "that this part of such a soul, if it had been hammered from childhood, and had thus been struck free 47 of the leaden weights, so to speak, of our birth [519b] and becoming, which attaching themselves to it by food and similar pleasures and gluttonies turn downwards the vision of the soul $\frac{48}{2}$ —If, I say, freed from these, it had suffered a conversion towards the things that are real and true, that same faculty of the same men would have been most keen in its vision of the higher things, just as it is for the things toward which it is now turned." "It is likely," he said. "Well, then," said I, "is not this also likely and a necessary consequence of what has been said, that neither could men who are uneducated and inexperienced in truth ever adequately [519c] preside over a state, nor could those who had been permitted to linger on to the end in the pursuit of culture—the one because they have no single aim⁵⁰ and purpose in life to which all their actions, public and private, must be directed, and the others, because they will not voluntarily engage in action, believing that while still living they have been transported to the Islands of the Blest. True," he said. "It is the duty of us, the founders, then," said I, "to compel the best natures to attain the knowledge which we pronounced the greatest, and to win to the vision of the good, [519d] to scale that ascent, and when they have reached the heights and taken an adequate view, we must not allow what is now permitted." "What is that?" "That they should linger there," I said, "and refuse to go down again $\frac{52}{2}$ among those bondsmen and share their labors and honors, whether they are of less or of greater worth." "Do you mean to say that we must do them this wrong, and compel them to live an inferior life when the better is in their power?" [519e]

"You have again forgotten, ⁵³ my friend," said I, "that the law is not concerned with the special happiness of any class in the state, but is trying to produce this condition $\frac{54}{1}$ in the city as a whole, harmonizing and adapting the citizens to one another by persuasion and compulsion, $\frac{55}{1}$ and requiring them to impart to one another any benefit $\frac{56}{520a}$ which they are severally able to bestow upon the community, and that it itself creates such men in the state, not that it may allow each to take what course pleases him, but with a view to using them for the binding together of the commonwealth." "True," he said, "I did forget it." "Observe, then, Glaucon," said I, "that we shall not be wronging, either, the philosophers who arise among us, but that we can justify our action when we constrain them to take charge of the other citizens and be their guardians. $\frac{57}{100}$ [520b] For we will say to them that it is natural that men of similar quality who spring up in other cities should not share in the labors there. For they grow up spontaneously $\frac{58}{100}$ from no volition of the government in the several states, and it is justice that the self-grown, indebted to none for its breeding, should not be zealous either to pay to anyone the price of its nurture. $\frac{59}{2}$ But you we have engendered for yourselves and the rest of the city to be, as it were, king-bees $\frac{60}{2}$ and leaders in the hive. You have received a better [520c] and more complete education than the others, and you are more capable of sharing both ways of life. Down you must go^{62} then, each in his turn, to the habitation of the others and accustom yourselves to the observation of the obscure things there. For once habituated you will discern them infinitely better than the dwellers there, and you will know what each of the 'idols' is and whereof it is a semblance, because you have seen the reality of the beautiful, the just and the good. So our city will be governed by us and you with waking minds, and not, as most cities now which are inhabited and ruled darkly as in a dream⁶⁵ by men who fight one another [520d] for shadows⁶⁶ and wrangle for office as if that were a great good, when the truth is that the city in which those who are to rule are least eager to hold office⁶⁷ must needs be best administered and most free from dissension, and the state that gets the contrary type of ruler will be the opposite of this." "By all means," he said. "Will our alumni, then, disobey us when we tell them this, and will they refuse to share in the labors of state each in his turn while permitted to dwell the most of the time with one another in that purer world⁶⁸?" [520e] "Impossible," he said: "for we shall be imposing just commands on men who are just. Yet they will assuredly approach office as an unavoidable necessity. 69 and in the opposite temper from that of the present rulers in our cities." "For the fact is, dear friend," said I, "if you can discover a better way of life than office-holding [521a] for your future rulers, a wellgoverned city becomes a possibility. For only in such a state will those rule who are really rich, $\frac{70}{2}$ not in gold, but in the wealth that makes happiness—a good and wise life. But if, being beggars and starvelings $\frac{71}{1}$ from lack of goods of their own, they turn to affairs of state thinking that it is thence that they should grasp their own good, then it is impossible. For when office and rule become the prizes of contention, $\frac{72}{2}$ such a civil and internecine strife $\frac{73}{2}$ destroys the office-seekers themselves and the city as well." [521b] "Most true," he said. "Can you name any other type or ideal of life that looks with scorn on political office except the life of true philosophers 74?" I asked. "No, by Zeus," he said. "But what we require," I said, "is that those who take office 75 should not be lovers of rule. Otherwise there will be a contest with rival lovers." "Surely." "What others, then, will you compel to undertake the guardianship of the city than those who have most intelligence of the principles that are the means of good government and who possess distinctions of another kind and a life that is preferable to the political life?" "No others," he said. [521c]

"Would you, then, have us proceed to consider how such men may be produced in a state and how they may be led upward $\frac{76}{10}$ to the light even as some $\frac{77}{10}$ are fabled to have ascended from Hades to the gods?" "Of course I would." "So this, it seems, would not be the whirling of the shell $\frac{78}{10}$ in the children's game, but a conversion and turning about of the soul from a day whose light is darkness to the veritable day—that ascension ⁷⁹ to reality of our parable which we will affirm to be true philosophy." "By all means." "Must we not, then, consider what studies have [521d] the power to effect this?" "Of course." "What, then, Glaucon, would be the study that would draw the soul away from the world of becoming to the world of being? A thought strikes me while I speak⁸⁰: Did we not say that these men in youth must be athletes of war⁸¹," "We did." "Then the study for which we are seeking must have this additional $\frac{82}{2}$ qualification." "What one?" "That it be not useless to soldiers. "Why, yes, it must," he said, "if that is possible." [521e] "But in our previous account they were educated in gymnastics and music. $\frac{84}{3}$," "They were, he said. "And gymnastics, I take it, is devoted\(^{85}\) to that which grows and perishes; for it presides over the growth and decay of the body. 86, "Obviously." "Then this cannot be the study [522a] that we seek." "No." "Is it, then, music, so far as we have already described it? "Nay, that," he said, "was the counterpart of gymnastics, if you remember. It educated the guardians through habits, imparting by the melody a certain harmony of spirit that is not science, ⁸⁸ and by the rhythm measure and grace, and also qualities akin to these in the words of tales that are fables and those that are more nearly true. But it included no study that tended to any such good as [522b] you are now seeking." "Your recollection is most exact," I said; "for in fact it had

nothing of the kind. But in heaven's name, Glaucon, what study could there be of that kind? For all the arts were in our opinion base and mechanical. 89" "Surely; and yet what other study is left apart from music, gymnastics and the arts?" "Come," said I, "if we are unable to discover anything outside of these, let us take [522c] something that applies to all alike. 90" "What?" "Why, for example, this common thing that all arts and forms of thought and all sciences employ, and which is among the first things that everybody must learn." "What?" he said. "This trifling matter, 22" I said, "of distinguishing one and two and three. I mean, in sum, number and calculation. Is it not true of them that every art and science must necessarily partake of them?" "Indeed it is," he said. "The art of war too?" said I. "Most necessarily," he said. [522d] "Certainly, then," said I, "Palamedes in the play is always making Agamemnon appear a most ridiculous general. Have you not noticed that he affirms that by the invention of number he marshalled the troops in the army at Troy in ranks and companies and enumerated the ships and everything else as if before that they had not been counted, and Agamemnon apparently did not know how many feet he had if he couldn't count? And yet what sort of a General do you think he would be in that case?" "A very queer one in my opinion," he said, "if that was true." [522e]

"Shall we not, then," I said, "set down as a study requisite for a soldier the ability to reckon and number?" "Most certainly, if he is to know anything whatever of the ordering of his troops—or rather if he is to be a man at all. "Do you observe then," said I, "in this study what I do?" "What?" "It seems likely [523a] that it is one of those studies which we are seeking that naturally conduce to the awakening of thought, but that no one makes the right use $\frac{96}{1}$ of it, though it really does tend to draw the mind to essence and reality." "What do you mean?" he said. "I will try," I said, "to show you at least my opinion. Do you keep watch and observe the things I distinguish in my mind as being or not being conducive to our purpose, and either concur or dissent, in order that here too we may see more clearly $\frac{97}{2}$ whether my surmise is right." "Point them out," he said. "I do point them out," I said, "if you can discern that some reports of our perceptions [523b] do not provoke thought to reconsideration because the judgement $\frac{98}{2}$ of them by sensation seems adequate, ⁹⁹ while others always invite the intellect to reflection because the sensation yields nothing that can be trusted. 100, "You obviously mean distant 101 appearances," he said, "and shadow-painting. 102, "You have quite missed my meaning, 103," said I. "What do you mean?" he said. "The experiences that do not provoke thought are those that do not [523c] at the same time issue in a contradictory perception. Those that do have that effect I set down as provocatives, when the perception no more manifests one thing than its contrary, alike whether its impact 105 comes from nearby or afar. An illustration will make my meaning plain. Here, we say, are three fingers, the little finger, the second and the middle." "Quite so," he said. "Assume that I speak of them as seen near at hand. But this is the point that you are to consider." "What?" "Each one of them appears to be [523d] equally a finger, ¹⁰⁶ and in this respect it makes no difference whether it is observed as intermediate or at either extreme, whether it is white or black, thick or thin, or of any other quality of this kind. For in none of these cases is the soul of most men impelled to question the reason and to ask what in the world is a finger, since the faculty of sight never signifies to it at the same time that the finger is the opposite of a finger." "Why, no, it does not," he said. "Then," said I, "it is to be expected that such a perception will not provoke or awaken in the said." [523e] reflection and thought." "It is." "But now, what about the bigness and the smallness of these objects? Is our vision's view of them adequate, and does it make no difference to it whether one of them is situated 108 outside or in the middle; and similarly of the relation of touch, to thickness and thinness, softness and hardness? And are not the other senses also defective in their reports of such things? Or is the operation of each of them as follows? [524a] In the first place, the sensation that is set over the hard is of necessity related also to the soft, $\frac{109}{2}$ and it reports to

the soul that the same thing is both hard and soft to its perception." "It is so," he said. "Then," said I, "is not this again a case where the soul must be at a $loss \frac{110}{2}$ as to what significance for it the sensation of hardness has, if the sense reports the same thing as also soft? And, similarly, as to what the sensation of light and heavy means by light and heavy, if it reports the heavy as light, and the light as heavy?" [524b] "Yes, indeed," he said, "these communications to the soul are strange and invite reconsideration." "Naturally, then," said I, "it is in such cases as these that the soul first summons to its aid the calculating reason and tries to consider whether each of the things reported to it is one or two. 113" "Of course." "And if it appears to be two, each of the two is a distinct unit. 114" "Yes." "If, then, each is one and both two, the very meaning 115 of 'two' is that the soul will conceive them as distinct. 116 For if they were not separable, [524c] it would not have been thinking of two, but of one." "Right." "Sight too saw the great and the small, we say, not separated but confounded. "Is not that so?" "Yes." "And for $\frac{118}{8}$ the clarification of this, the intelligence is compelled to contemplate the great and small, ¹¹⁹ not thus confounded but as distinct entities, in the opposite way from sensation." "True." "And is it not in some such experience as this that the question first occurs to us, what in the world, then, is the great and the small?" "By all means." "And this is the origin of the designation "intelligible" for the one, and "visible" for the other." [524d] "Just so," he said.

"This, then, is just what I was trying to explain a little while ago when I said that some things are provocative of thought and some are not, defining as provocative things that impinge upon the senses together with their opposites, while those that do not I said do not tend to awaken reflection." "Well, now I understand," he said, "and agree." "To which class, then, do you think number and the one belong 120?" "I cannot conceive," he said. "Well, reason it out from what has already been said. For, if unity is adequately seen by itself [524e] or apprehended by some other sensation, it would not tend to draw the mind to the apprehension of essence, as we were explaining in the case of the finger. But if some contradiction is always seen coincidentally with it, so that it no more appears to be one than the opposite, there would forthwith be need of something to judge between them, and it would compel the soul to be at a loss and to inquire, by arousing thought in itself, and to ask, [525a] whatever then is the one as such, and thus the study of unity will be one of the studies that guide and convert the soul to the contemplation of true being." "But surely," he said, "the visual perception of it $\frac{122}{2}$ does especially involve this. For we see the same thing at once as one and as an indefinite plurality. 123, "Then if this is true of the one," I said, "the same holds of all number, does it not?" "Of course." "But, further, reckoning and the science of arithmetic ¹²⁴ are wholly concerned with number." [525b] "They are, indeed." "And the qualities of number appear to lead to the apprehension of truth." "Beyond anything," he said. "Then, as it seems, these would be among the studies that we are seeking. For a soldier must learn them in order to marshal his troops, and a philosopher, because he must rise out of the region of generation and lay hold on essence or he can never become a true reckoner. 125, "It is so," he said. "And our guardian is soldier and philosopher in one." "Of course." "It is befitting, then, Glaucon, that this branch of learning should be prescribed by our law and that we should induce those who are to share the highest functions of state [525c] to enter upon that study of calculation and take hold of it, not as amateurs, but to follow it up until they attain to the contemplation of the nature of number, ¹²⁶ by pure thought, not for the purpose of buying and selling, ¹²⁷ as if they were preparing to be merchants or hucksters, but for the uses of war and for facilitating the conversion of the soul itself from the world of generation to essence and truth." "Excellently said," he replied. "And, further," I said, "it occurs to me, ¹²⁸ now that the study of reckoning has been mentioned, [525d] that there is something fine in it, and that it is useful for our purpose in many ways, provided it is pursued for the sake of knowledge 129 and not for

huckstering." "In what respect?" he said. "Why, in respect of the very point of which we were speaking, that it strongly directs the soul upward and compels it to discourse about pure numbers, 130 never acquiescing if anyone proffers to it in the discussion numbers attached to visible and tangible bodies. For you are doubtless aware [525e] that experts in this study, if anyone attempts to cut up the 'one' in argument, laugh at him and refuse to allow it; but if you mince it up, 131 they multiply, always on guard lest the one should appear to be not one but a multiplicity of parts. 132, "Most true," he replied. [526a] "Suppose now, Glaucon, someone were to ask them, 'My good friends, what numbers ¹³³ are these you are talking about, in which the one is such as you postulate, each unity equal to every other without the slightest difference and admitting no division into parts?' What do you think would be their answer?" "This, I think that they are speaking of units which can only be conceived by thought, and which it is not possible to deal with in any other way." "You see, then, my friend," said I, "that this branch of study really seems to be [526b] indispensable for us, since it plainly compels the soul to employ pure thought with a view to truth itself." "It most emphatically does." "Again, have you ever noticed this, that natural reckoners are by nature quick in virtually all their studies? And the slow, if they are trained and drilled in this, even if no other benefit results, all improve and become quicker than they were 134?" "It is so," he said. [526c] "And, further, as I believe, studies that demand more toil in the learning and practice than this we shall not discover easily nor find many of them. 135, "You will not, in fact." "Then, for all these reasons, we must not neglect this study, but must use it in the education of the best endowed natures." "I agree," he said.

"Assuming this one point to be established," I said, "let us in the second place consider whether the study that comes next 136 is suited to our purpose." "What is that? Do you mean geometry," he said. "Precisely that," said I. "So much of it," he said, [526d] "as applies to the conduct of war 137 is obviously suitable. For in dealing with encampments and the occupation of strong places and the bringing of troops into column and line and all the other formations of an army in actual battle and on the march, an officer who had studied geometry would be a very different person from what he would be if he had not." "But still," I said, "for such purposes a slight modicum 138 of geometry and calculation would suffice. What we have to consider is [526e] whether the greater and more advanced part of it tends to facilitate the apprehension of the idea of good. 139 That tendency, we affirm, is to be found in all studies that force the soul to turn its vision round to the region where dwells the most blessed part of reality, ¹⁴⁰ which it is imperative that it should behold." "You are right," he said. "Then if it compels the soul to contemplate essence, it is suitable; if genesis, 141 it is not." "So we affirm. 142" [527a] "This at least," said I, "will not be disputed by those who have even a slight acquaintance with geometry, that this science is in direct contradiction with the language employed in it by its adepts. How so?" he said. "Their language is most ludicrous, 144 though they cannot help it, 145 for they speak as if they were doing something 146 and as if all their words were directed towards action. For all their talk 147 is of squaring and applying ¹⁴⁸ and adding and the like, ¹⁴⁹ whereas in fact [527b] the real object of the entire study is pure knowledge. 150, "That is absolutely true," he said. "And must we not agree on a further point?" "What?" "That it is the knowledge of that which always is, $\frac{151}{2}$ and not of a something which at some time comes into being and passes away." "That is readily admitted," he said, "for geometry is the knowledge of the eternally existent." "Then, my good friend, it would tend to draw the soul to truth, and would be productive of a philosophic attitude of mind, directing upward the faculties that now wrongly are turned earthward." "Nothing is surer," he said. [527c] "Then nothing is surer," said I, "than that we must require that the men of your Fair City shall never neglect geometry, for even the by-products of such study are not slight." "What are they?" said he. "What you mentioned," said I, "its uses in war, and also we are aware

that for the better reception of all studies ¹⁵³ there will be an immeasurable ¹⁵⁴ difference between the student who has been imbued with geometry and the one who has not." "Immense indeed, by Zeus," he said. "Shall we, then, lay this down as a second branch of study for our lads?" "Let us do so," he said. [527d]

→ "Shall we set down astronomy as a third, or do you dissent?" "I certainly agree," he said; "for quickness of perception about the seasons and the courses of the months and the years is serviceable, ¹⁵⁵ not only to agriculture and navigation, but still more to the military art." "I am amused, ¹⁵⁶" said I, "at your apparent fear lest the multitude ¹⁵⁷ may suppose you to be recommending useless studies. 158 It is indeed no trifling task, but very difficult to realize that there is in every soul an organ or instrument of knowledge that is purified $\frac{159}{2}$ and kindled afresh [527e] by such studies when it has been destroyed and blinded by our ordinary pursuits, a faculty whose preservation outweighs ten thousand eyes $\frac{160}{1}$; for by it only is reality beheld. Those who share this faith will think your words superlatively $\frac{161}{1}$ true. But those who have and have had no inkling of it will naturally think them all moonshine. 162 For they can see no other benefit from such pursuits worth mentioning. Decide, then, on the spot, to which party you address yourself. [528a] Or are you speaking to neither, but chiefly carrying on the discussion for your own sake, 163 without however judging any other who may be able to profit by it?" "This is the alternative I choose," he said, "that it is for my own sake chiefly that I speak and ask questions and reply." "Fall back $\frac{164}{}$ a little, then," said I; "for we just now did not rightly select the study that comes next 165 after geometry." "What was our mistake?" he said. "After plane surfaces," said I, "we went on to solids in revolution before studying them in themselves. [528b] The right way is next in order after the second dimension to take the third. This, I suppose, is the dimension of cubes and of everything that has depth." "Why, yes, it is," he said; "but this subject, Socrates, does not appear to have been investigated yet. 167, "There are two causes of that," said I: "first, inasmuch as no city holds them in honor, these inquiries are languidly pursued owing to their difficulty. And secondly, the investigators need a director, ¹⁶⁸ who is indispensable for success and who, to begin with, is not easy to find, and then, if he could be found, as things are now, seekers in this field would be too arrogant [528c] to submit to his guidance. But if the state as a whole should join in superintending these studies and honor them, these specialists would accept advice, and continuous and strenuous investigation would bring out the truth. Since even now, lightly esteemed as they are by the multitude and hampered by the ignorance of their students 170 as to the true reasons for pursuing them, 171 they nevertheless in the face of all these obstacles force their way by their inherent charm [528d] and it would not surprise us if the truth about them were made apparent." "It is true," he said, "that they do possess an extraordinary attractiveness and charm. But explain more clearly what you were just speaking of. The investigation of plane surfaces, I presume, you took to be geometry?" "Yes," said I. "And then," he said, "at first you took astronomy next and then you drew back." "Yes," I said, "for in my haste to be done I was making less speed.¹⁷⁴ For, while the next thing in order is the study $\frac{175}{1}$ of the third dimension or solids, I passed it over because of our absurd neglect $\frac{176}{1}$ to investigate it, and mentioned next after geometry astronomy, [528e] which deals with the movements of solids." "That is right," he said. "Then, as our fourth study," said I, "let us set down astronomy, assuming that this science, the discussion of which has been passed over, is available, ¹⁷⁸ provided, that is, that the state pursues it." "That is likely," said he; "and instead of the vulgar utilitarian commendation of astronomy, for which you just now rebuked me, Socrates, I now will praise it on your principles. [529a] For it is obvious to everybody, I think, that this study certainly compels the soul to look upward 180 and leads it away from things here to those higher things." "It may be obvious to everybody except me," said I, "for I do not think so."

"What do you think?" he said. "As it is now handled by those who are trying to lead us up to philosophy, ¹⁸¹ I think that it turns the soul's gaze very much downward." "What do you mean?" he said. "You seem to me in your thought to put a most liberal ¹⁸² interpretation on the 'study of higher things,'" [529b] I said, "for apparently if anyone with back-thrown head should learn something by staring at decorations on a ceiling, you would regard him as contemplating them with the higher reason and not with the eyes. ¹⁸³ Perhaps you are right and I am a simpleton. For I, for my part, am unable to suppose that any other study turns the soul's gaze upward than that which deals with being and the invisible. But if anyone tries to learn about the things of sense, whether gaping up ¹⁸⁵ or blinking down, ¹⁸⁶ I would never say that he really learns—for nothing of the kind admits of true knowledge—nor would I say that his soul looks up, but down, [529c] even though he study floating on his back ¹⁸⁷ on sea or land."

"A fair retort, 188" he said; "your rebuke is deserved. But how, then, did you mean that astronomy ought to be taught contrary to the present fashion if it is to be learned in a way to conduce to our purpose?" "Thus," said I, "these sparks that paint the sky, 189 since they are decorations on a visible surface, we must regard, to be sure, as the fairest and [529d] most exact of material things but we must recognize that they fall far short of the truth, $\frac{190}{1}$ the movements, namely, of real speed and real slowness in true number and in all true figures both in relation to one another and as vehicles of the things they carry and contain. These can be apprehended only by reason and thought, but not by sight; or do you think otherwise?" "By no means," he said. "Then," said I, "we must use the blazonry of the heavens as patterns to aid in the study of those realities, just as [529e] one would do who chanced upon diagrams drawn with special care and elaboration by Daedalus or some other craftsman or painter. For anyone acquainted with geometry who saw such designs would admit the beauty of the workmanship, but would think it absurd to examine them seriously in the expectation of finding in them the absolute truth [530a] with regard to equals or doubles or any other ratio." "How could it be otherwise than absurd?" he said. "Do you not think," said I, "that one who was an astronomer in very truth would feel in the same way when he turned his eyes upon the movements of the stars? He will be willing to concede that the artisan¹⁹¹ of heaven fashioned it and all that it contains in the best possible manner for such a fabric; but when it comes to the proportions of day and night, and of their relation to the month, and that of the month to the year, and [530b] of the other stars to these and one another, do you not suppose that he will regard as a very strange fellow the man who believes that these things go on for ever without change ¹⁹² or the least deviation ¹⁹³—though they possess bodies and are visible objects—and that his unremitting quest ¹⁹⁴ the realities of these things?" "I at least do think so," he said, "now that I hear it from you." "It is by means of problems, ¹⁹⁵ then," said I, "as in the study of geometry, that we will pursue astronomy too, and [530c] we will let be the things in the heavens, ¹⁹⁶ if we are to have a part in the true science of astronomy and so convert to right use from uselessness that natural indwelling intelligence of the soul." "You enjoin a task," he said, "that will multiply the labor of our present study of astronomy many times." "And I fancy," I said, "that our other injunctions will be of the same kind if we are of any use as lawgivers.

"However, what suitable studies have you to suggest?" "Nothing," he said, "thus off-hand." "Yet, surely," said I, "motion 198 in general provides not one but many forms or species, [530d] according to my opinion. To enumerate them all will perhaps be the task of a wise man, 199 but even to us two of them are apparent." "What are they?" "In addition to astronomy, its counterpart, I replied." "What is that?" "We may venture to suppose," I said, "that as the eyes are framed for astronomy so the ears are framed, 200 for the movements of harmony; and these are in

some sort kindred sciences, ²⁰¹ as the Pythagoreans ²⁰² affirm and we admit, ²⁰³ do we not, Glaucon?" "We do," he said. [530e] "Then," said I, since the task is, so great, shall we not inquire of them²⁰⁴ what their opinion is and whether they have anything to add? And we in all this 205 will be on the watch for what concerns us." "What is that?" "To prevent our fosterlings from attempting to learn anything that does not conduce to the end $\frac{206}{200}$ we have in view, and does not always come out at what we said ought to be the goal of everything, as we were just now saying about astronomy. [531a] Or do you not know that they repeat the same procedure in the case of harmonies $\frac{207}{2}$? They transfer it to hearing and measure audible concords and sounds against one another, ²⁰⁸ expending much useless labor just as the astronomers do." "Yes, by heaven," he said, "and most absurdly too. They talk of something they call minims $\frac{209}{2}$ and, laying their ears alongside, as if trying to catch a voice from next door, 210 some affirm that they can hear a note between and that this is the least interval and the unit of measurement, while others insist that the strings now render identical sounds, $\frac{211}{531}$ [531b] both preferring their ears to their minds. $\frac{212}{531}$ "You," said I, "are speaking of the worthies $\frac{213}{531}$ who vex and torture the strings and rack them²¹⁴ on the pegs; but—not to draw out the comparison with strokes of the plectrum and the musician's complaints of too responsive and too reluctant strings 215—I drop the figure, 216 and tell you that I do not mean these people, but those others whom we just now said we would interrogate about harmony. [531c] Their method exactly corresponds to that of the astronomer; for the numbers they seek are those found in these heard concords, but they do not ascend to generalized problems and the consideration which numbers are inherently concordant and which not and why in each case." "A superhuman task," he said. "Say, rather, useful, ²¹⁹ said I, for the investigation of the beautiful and the good, ²²⁰ but if otherwise pursued, useless." "That is likely," he said.

"And what is more," I said, I take it that if the investigation [531d] of all these studies goes far enough to bring out their community and kinship²²² with one another, and to infer their affinities, then to busy ourselves with them contributes to our desired end, and the labor taken is not lost; but otherwise it is vain." "I too so surmise," said he; "but it is a huge task of which you speak, Socrates." "Are you talking about the prelude, 223," I said, "or what? Or do we not know that all this is but the preamble of the law itself, the prelude of the strain that we have to apprehend? For you surely do not suppose that experts in these matters are reasoners [531e] and dialecticians $\frac{224}{3}$? ""No, by Zeus," he said, "except a very few whom I have met." "But have you ever supposed," I said, "that men who could not render and exact an account of opinions in discussion would ever know anything of the things we say must be known?" [532a] "'No' is surely the answer to that too." "This, then, at last, Glaucon," I said, "is the very law which dialectics 226 recites, the strain which it executes, of which, though it belongs to the intelligible, we may see an imitation in the progress $\frac{227}{2}$ of the faculty of vision, as we described $\frac{228}{2}$ its endeavor to look at living things themselves and the stars themselves and finally at the very sun. In like manner, when anyone by dialectics attempts through discourse of reason and apart from all perceptions of sense $\frac{229}{2}$ to find his way to the very essence of each thing and does not desist [532b] till he apprehends by thought itself the nature of the good in itself, he arrives at the limit of the intelligible, as the other in our parable, came to the goal of the visible." "By all means," he said. "What, then, will you not call this progress of thought dialectic?" "Surely." "And the release from bonds," I said, "and the conversion from the shadows to the images $\frac{230}{1}$ that cast them and to the light and the ascent $\frac{231}{1}$ from the subterranean cavern to the world above, $\frac{232}{1}$ and there the persisting inability $\frac{233}{1}$ to look directly at animals and plants and the light of the sun, [532c] but the ability to see the phantasms created by God²³⁴ in water and shadows of objects that are real and not merely, as before, the shadows of images cast through a light which, compared with the sun, is as unreal as they—all

this procedure of the arts and sciences that we have described indicates their power to lead the best part of the soul up to the contemplation of what is best among realities, as in our parable the clearest organ in the body was turned to the contemplation of what is brightest [532d] in the corporeal and visible region." "I accept this," he said, "as the truth; and yet it appears to me very hard to accept, and again, from another point of view, hard to reject. 235 Nevertheless, since we have not to hear it at this time only, but are to repeat it often hereafter, let us assume that these things are as now has been said, and proceed to the melody itself, and go through with it as we have gone through the prelude. Tell me, then, what is the nature of this faculty of dialectic? [532e] Into what divisions does it fall? And what are its ways? For it is these, it seems, that would bring us to the place where we may, so to speak, rest on the road and then come to the end of our journeying." [533a] "You will not be able, dear Glaucon, to follow me further, 236 though on my part there will be no lack of goodwill. 237 And, if I could, I would show you, no longer an image and symbol of my meaning, but the very truth, as it appears to me—though whether rightly or not I may not properly affirm. 238 But that something like this is what we have to see, I must affirm. 239 Is not that so?" "Surely." "And may we not also declare that nothing less than the power of dialectics could reveal 240 this, and that only to one experienced in the studies we have described, and that the thing is in no other wise possible?" "That, too," he said, "we may properly affirm." "This, at any rate," said I, "no one will maintain in dispute against us $\frac{242}{1}$: [533b] that there is any other way of inquiry²⁴³ that attempts systematically and in all cases to determine what each thing really is. But all the other arts have for their object the opinions and desires of men or are wholly concerned with generation and composition or with the service and tendance of the things that grow and are put together, while the remnant which we said $\frac{244}{1}$ did in some sort lay hold on reality—geometry and the studies that accompany it—[533c] are, as we see, dreaming about being, but the clear waking vision of it is impossible for them as long as they leave the assumptions which they employ undisturbed and cannot give any account ²⁴⁷ of them. For where the starting-point is something that the reasoner does not know, and the conclusion and all that intervenes is a tissue of things not really known, ²⁴⁸ what possibility is there that assent in such cases can ever be converted into true knowledge or science?" "None," said he.

"Then," said I, "is not dialectics the only process of inquiry that advances in this manner, doing away with hypotheses, up to the first principle itself in order to find confirmation there? And it is literally true that when the eye of the soul $\frac{250}{1}$ is sunk [533d] in the barbaric slough $\frac{251}{1}$ of the Orphic myth, dialectic gently draws it forth and leads it up, employing as helpers and cooperators in this conversion the studies and sciences which we enumerated, which we called sciences often from habit, 252 though they really need some other designation, connoting more clearness than opinion and more obscurity than science. 'Understanding,' 253 I believe, was the term we employed. But I presume we shall not dispute about the name $\frac{254}{5}$ [533e] when things of such moment lie before us for consideration." "No, indeed," he said. $\frac{255}{5}$ * * "Are you satisfied, then," said I, "as before, $\frac{256}{1}$ to call the first division science, [534a] the second understanding, the third belief, and the fourth conjecture or picture-thought—and the last two collectively opinion, and the first two intellection, opinion dealing with generation and intellection with essence, and this relation being expressed in the proportion 258: as essence is to generation, so is intellection to opinion; and as intellection is to opinion, so is science to belief, and understanding to image-thinking or surmise? But the relation between their objective correlates $\frac{259}{2}$ and the division into two parts of each of these, the opinable, namely, and the intelligible, let us dismiss, ²⁶⁰ Glaucon, lest it involve us in discussion many times as long as the preceding." [534b] "Well," he said, "I agree with you about the rest of it, so far as I am able to follow." "And do you not also give the name dialectician to the man who is able to exact an account $\frac{261}{2}$ of the essence of each thing? And will you not say that the one who is unable to do this, in so far as he is incapable of rendering an account to himself and others, does not possess full reason and intelligence²⁶² about the matter?" "How could I say that he does?" he replied. "And is not this true of the good likewise 263—that the man who is unable to define in his discourse and distinguish and abstract from all other things the aspect or idea of the good, [534c] and who cannot, as it were in battle, running the gauntlet of all tests, and striving to examine everything by essential reality and not by opinion, hold on his way through all this without tripping in his reasoning—the man who lacks this power, you will say, does not really know the good itself or any particular good; but if he apprehends any adumbration $\frac{266}{1}$ of it, his contact with it is by opinion, not by knowledge; and dreaming and dozing through his present life, before he awakens here [534d] he will arrive at the house of Hades and fall asleep for ever? "Yes, by Zeus," said he, "all this I will stoutly affirm." "But, surely," said I, "if you should ever nurture in fact your children²⁶⁸ whom you are now nurturing and educating in word, ²⁶⁹ you would not suffer them, I presume, to hold rule in the state, and determine the greatest matters, being themselves as irrational²⁷⁰ as the lines so called in geometry." "Why, no," he said. "Then you will provide by law that they shall give special heed to the discipline that will enable them to ask and answer²⁷ questions in the most scientific manner?" [534e] "I will so legislate," he said, "in conjunction with you." "Do you agree, then," said I, "that we have set dialectics above all other studies to be as it were the coping-stone 272—and that no other higher kind of study could rightly be placed above it, [535a] but that our discussion of studies is now complete "I" do," he said.

"The distribution, then, remains," said I, "to whom we are to assign these studies and in what way." "Clearly," he said. "Do you remember, then, the kind of man we chose in our former selection²⁷⁴ of rulers?" "Of course," he said. "In most respects, then," said I, "you must suppose that we have to choose those same natures. The most stable, the most brave and enterprising $\frac{2}{3}$ are to be preferred, and, so far as practicable, the most comely. 276 But in addition [535b] we must now require that they not only be virile and vigorous 277 in temper, but that they possess also the gifts of nature suitable to this type of education." "What qualities are you distinguishing?" "They must have, my friend, to begin with, a certain keenness for study, and must not learn with difficulty. For souls are much more likely to flinch and faint ²⁷⁸ in severe studies than in gymnastics, because the toil touches them more nearly, being peculiar to them and not shared with the body." "True," he said. "And [535c] we must demand a good memory and doggedness and industry²⁷⁹ in every sense of the word. Otherwise how do you suppose anyone will consent both to undergo all the toils of the body and to complete so great a course of study and discipline?" "No one could," he said, "unless most happily endowed." "Our present mistake," said I, "and the disesteem that has in consequence fallen upon philosophy are, as I said before, 280 caused by the unfitness of her associates and wooers. They should not have been bastards but true scions." "What do you mean?" he said. "In the first place," [535d] I said, "the aspirant to philosophy must not limp²⁸² in his industry, in the one half of him loving, in the other shunning, toil. This happens when anyone is a lover of gymnastics and hunting and all the labors of the body, yet is not fond of learning or of listening $\frac{283}{1}$ or inquiring, but in all such matters hates work. And he too is lame whose industry is one-sided in the reverse way." "Most true," he said. "Likewise in respect of truth," I said, "we shall regard as maimed [535e] in precisely the same way the soul that hates the voluntary lie and is troubled by it in its own self and greatly angered by it in others, but cheerfully accepts the involuntary falsehood and is not distressed when convicted of lack of knowledge, but wallows in the mud of ignorance as insensitively as a pig. 285, [536a] "By all means," he said. "And with reference to sobriety," said I, "and bravery

and loftiness of soul²⁸⁶ and all the parts of virtue, ²⁸⁷ we must especially be on our guard to distinguish the base-born from the true-born. For when the knowledge necessary to make such discriminations is lacking in individual or state, they unawares employ at random²⁸⁸ for any of these purposes the crippled and base-born natures, as their friends or rulers." "It is so indeed," he said. "But we," I said, "must be on our guard in all such cases, [536b] since, if we bring men sound of limb and mind to so great a study and so severe a training, justice herself will have no fault to find²⁸⁹ with us, and we shall preserve the state and our polity. But, if we introduce into it the other sort, the outcome will be just the opposite, and we shall pour a still greater flood²⁹⁰ of ridicule upon philosophy." "That would indeed be shameful," he said. "Most certainly," said I: "but here again I am making myself a little ridiculous." "In what way?" [536c] "I forgot," said I, "that we were jesting, ²⁹¹ and I spoke with too great intensity. ²⁹² For, while speaking, I turned my eyes upon philosophy, ²⁹³ and when I saw how she is undeservedly reviled, I was revolted, and, as if in anger, spoke too earnestly to those who are in fault." "No, by Zeus, not too earnestly for me²⁹⁴ as a hearer." "But too much so for me as a speaker," I said. "But this we must not forget, that in our former selection we chose old men, but in this one that will not do. For we must not take Solon's word for it [536d] that growing old a man is able to learn many things. He is less able to do that than to run a race. To the young $\frac{296}{}$ belong all heavy and frequent labors." "Necessarily," he said.

"Now, all this study of reckoning and geometry and all the preliminary studies that are indispensable preparation for dialectics must be presented to them while still young, not in the form of compulsory instruction. 297, "Why so?" "Because," said I, [536e] "a free soul ought not to pursue any study slavishly; for while bodily labors ²⁹⁸ performed under constraint do not harm the body, nothing that is learned under compulsion stays with the mind." "True," he said. "Do not, then, my friend, keep children to their studies by compulsion [537a] but by play. 299 That will also better enable you to discern the natural capacities of each." "There is reason in that," he said. "And do you not remember," I said, "that we also declared that we must conduct the children to war on horseback to be spectators, and wherever it may be safe, bring them to the front and give them a taste of blood as we do with whelps?" "I do remember." "And those who as time goes on show the most facility in all these toils and studies and alarms are to be selected and enrolled on a list. 301 "At what age?" he said. "When they are released from their prescribed gymnastics. For that period, whether it be two or three years, incapacitates them for other occupations. 302 For great fatigue and much sleep are the foes of study, and moreover one of our tests of them, and not the least, will be their behavior in their physical exercises. 303" "Surely it is," he said. "After this period," I said, "those who are given preference from the twenty-year class will receive greater honors than the others, [537c] and they will be required to gather the studies which they disconnectedly pursued as children in their former education into a comprehensive survey³⁰⁴ of their affinities with one another and with the nature of things." "That, at any rate, he said, is the only instruction that abides with those who receive it." "And it is also," said I, "the chief test of the dialectical nature and its opposite. For he who can view things in their connection is a dialectician; he who cannot, is not." "I concur," he said. "With these qualities in mind," I said, [537d] "it will be your task to make a selection of those who manifest them best from the group who are steadfast in their studies and in war and in all lawful requirements, and when they have passed the thirtieth year to promote them, by a second selection from those preferred in the first, $\frac{305}{100}$ to still greater honors, and to prove and test them by the power of dialectic 306 to see which of them is able to disregard the eyes and other senses 307 and go on to being itself in company with truth. And at this point, my friend, the greatest care 308 is requisite." "How so?" he said. "Do you not note," [537e] said I, "how great is the harm caused

by our present treatment of dialectics?" "What is that?" he said. "Its practitioners are infected with lawlessness. "They are indeed." "Do you suppose," I said, "that there is anything surprising in this state of mind, and do you not think it pardonable "In what way, pray?" he said. "Their case," said I, "resembles that of a supposititious son reared in abundant wealth and a great and numerous family [538a] amid many flatterers, who on arriving at manhood should become aware that he is not the child of those who call themselves his parents, and should I not be able to find his true father and mother. Can you divine what would be his feelings towards the flatterers and his supposed parents in the time when he did not know the truth about his adoption, and, again, when he knew it? Or would you like to hear my surmise?" "I would."

→ "Well, then, my surmise is," I said, "that he would be more likely to honor [538b] his reputed father and mother and other kin than the flatterers, and that there would be less likelihood of his allowing them to lack for anything, and that he would be less inclined to do or say to them anything unlawful, and less liable to disobey them in great matters than to disobey the flatterers—during the time when he did not know the truth." "It is probable," he said. "But when he found out the truth, I surmise that he would grow more remiss in honor and devotion to them and pay more regard to the flatterers, whom he would heed [538c] more than before and would henceforth live by their rule, associating with them openly, while for that former father and his adoptive kin he would not care at all, unless he was naturally of a very good disposition." "All that you say," he replied, "would be likely to happen. 312 But what is the pertinency of this comparison to the novices of dialectic 313?" "It is this. We have, I take it, certain convictions 314 from childhood about the just and the honorable, in which, in obedience and honor to them, we have been bred as children under their parents." [538d] "Yes, we have." "And are there not other practices going counter to these, that have pleasures attached to them and that flatter and solicit our souls, but do not win over men of any decency; but they continue to hold in honor the teachings of their fathers and obey them?" "It is so" "Well, then," said I, "when a man of this kind is met by the question, 315 What is the honorable? and on his giving the answer which he learned from the lawgiver, the argument confutes him, and by many and various refutations upsets³¹⁶ his faith [538e] and makes him believe that this thing is no more honorable than it is base, 317 and when he has had the same experience about the just and the good and everything that he chiefly held in esteem, how do you suppose that he will conduct himself thereafter in the matter of respect and obedience to this traditional morality?" "It is inevitable," he said, "that he will not continue to honor and obey as before." "And then," said I, "when he ceases to honor these principles and to think that they are binding on him, ³¹⁸ and cannot discover the true principles, [539a] will he be likely to adopt any other way of life than that which flatters his desires ³¹⁹?" "He will not," he said. "He will, then, seem to have become a rebel to law and convention instead of the conformer that he was." "Necessarily." "And is not this experience of those who take up dialectics in this fashion to be expected and, as I just now said, deserving of much leniency?" "Yes, and of pity too," he said. "Then that we may not have to pity thus your thirty-year-old disciples, must you not take every precaution when you introduce them to the study of dialectics?" "Yes, indeed," he said. "And is it not [539b] one chief safeguard not to suffer them to taste of it while young?³²⁰ For I fancy you have not failed to observe that lads, when they first get a taste of disputation, misuse it as a form of sport, always employing it contentiously, and, imitating confuters, they themselves confute others. 321 They delight like spies in pulling about and tearing with words all who approach them." "Exceedingly so," he said. "And when they have themselves confuted many and been confuted by many, [539c] they quickly fall into a violent distrust of all that they formerly held true; and the outcome is that they themselves and the whole business of philosophy are discredited with other men." "Most true,"

he said. "But an older man will not share this craze, ³²²" said I, "but <u>rather choose to imitate the</u> one who consents to examine truth dialectically than the one who makes a jest ³²³ and a sport of mere contradiction, [539d] and so he will himself be more reasonable and moderate, and bring credit rather than discredit upon his pursuit." "Right," he said. "And were not all our preceding statements made with a view to this precaution our requirement that those permitted to take part in such discussions must have orderly and stable natures, instead of the present practice ³²⁴ of admitting to it any chance and unsuitable applicant?" "By all means," he said.

"Is it enough, then, to devote to the continuous and strenuous study of dialectics undisturbed by anything else, as in the corresponding discipline in bodily exercises, [539e] twice as many years as were allotted to that?" "Do you mean six or four?" he said. "Well," I said, "set it down as five. 325 For after that you will have to send them down into the cave 326 again, and compel them to hold commands in war and the other offices suitable to youth, so that they may not fall short of the other type in experience $\frac{327}{2}$ either. And in these offices, too, they are to be tested to see whether they will remain steadfast under diverse solicitations [540a] or whether they will flinch and swerve. 328," "How much time do you allow for that?" he said. "Fifteen years," said I, "and at the age of fifty 329 those who have survived the tests and approved themselves altogether the best in every task and form of knowledge must be brought at last to the goal. We shall require them to turn upwards the vision of their souls ³³⁰ and fix their gaze on that which sheds light on all, and when they have thus beheld the good itself they shall use it as a pattern³³¹ for the right ordering of the state and the citizens and themselves [540b] throughout the remainder of their lives, each in his turn, $\frac{332}{1}$ devoting the greater part of their time to the study of philosophy, but when the turn comes for each, toiling in the service of the state and holding office for the city's sake, regarding the task not as a fine thing but a necessity 333; and so, when each generation has educated others 334 like themselves to take their place as guardians of the state, they shall depart to the Islands of the Blest $\frac{335}{2}$ and there dwell. And the state shall establish public memorials $\frac{336}{2}$ [540c] and sacrifices for them as to divinities if the Pythian oracle approves 337 or, if not, as to divine and godlike men. 338, "A most beautiful finish, Socrates, you have put upon your rulers, as if you were a statuary. 339" "And on the women 340 too, Glaucon," said I; "for you must not suppose that my words apply to the men more than to all women who arise among them endowed with the requisite qualities." "That is right," he said, "if they are to share equally in all things with the men as we laid it down." [540d] "Well, then," said I, "do you admit that our notion of the state and its polity is not altogether a daydream, $\frac{341}{}$ but that though it is difficult, $\frac{342}{}$ it is in a way possible and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in no other way than that described—when genuine philosophers, and in the context of the becoming masters of the state scorn³⁴⁵ the present honors, regarding them as illiberal and worthless, but prize the right $\frac{346}{540e}$ [540e] and the honors that come from that above all things, and regarding justice as the chief and the one indispensable thing, in the service and maintenance of that reorganize and administer their city?" "In what way?" he said. "All inhabitants above the age of ten," I said, [541a] "they will send out into the fields, and they will take over the children, ³⁴⁷ remove them from the manners and habits of their parents, and bring them up in their own customs and laws which will be such as we have described. This is the speediest and easiest way in which such a city and constitution as we have portrayed could be established and prosper and bring most benefit to the people [541b] among whom it arises." "Much the easiest," he said, "and I think you have well explained the manner of its realization if it should ever be realized." "Then," said I, "have we not now said enough³⁴⁸ about this state and the corresponding type of man—for it is evident what our conception of him will be?" "It is evident," he said, "and, to answer your question, I think we have finished."

NOTES

- 1 The image of the cave illustrates by another proportion the contrast between the world of senseperception and the world of thought. Instead of going above the plane of ordinary experience for the other two members of the proportion, Plato here goes below and invents a fire and shadows cast from it on the walls of a cave to correspond to the sun and the "real" objects of sense. In such a proportion our "real" world becomes the symbol of Plato's ideal world. Modern fancy may read what meanings it pleases into the Platonic antithesis of the "real" and the "ideal." It has even been treated as an anticipation of the fourth dimension. But Plato never leaves an attentive and critical reader in doubt as to his own intended meaning. there may be at the most a little uncertainty as to which are merely indispensable parts of the picture. The source and first suggestion of Plato's imagery is an interesting speculation, but it is of no significance for the interpretation of the thought. Cf. John Henry Wright, "The Origin of Plato's Cave" in <u>Harvard Studies in Class. Phil.</u> xvii. (1906,) pp. 130-142. Burnet, Early Greek Philosophy, pp. 89-90, thinks the allegory Orphic. Cf. also Wright, loc. cit. pp. 134-135. Empedocles likens our world to a cave, Diels i.3 269. Cf. Wright, loc. cit. Wright refers it to the Cave of Vari in Attica, pp. 140-142. Others have supposed that Plato had in mind rather the puppet and marionette shows to which he refers. Cf. Diès in Bulletin Budé, No. 14 (1927,) pp. 8 f. The suggestiveness of the image has been endless. The most eloquent and frequently quoted passage of Aristotle's early writings is derived from it, Cic. De nat. deor. ii. 37. It is the source of Bacon's "idols of the den." Sir Thomas Browne writes in Urne-Buriall: "We yet discourse in Plato's den and are but embryo philosophers." Huxley's allegory of "Jack and the Beanstalk" in Evolution and Ethics, pp. 47 ff. is a variation on it. Berkeley recurs to it, Siris, 263. The Freudians would have still more fantastic interpretations. Cf. Jung, Analytic Psych. p. 232. Eddington perhaps glances at it when he attributes to the new physics the frank realization that physical science is concerned with a world of shadows
- 2 Cf. Phaedo 111 Cάναπεπταμένους
- 3 Cf. Phaedo 67 E.
- 4 H. Rackham, <u>Class. Rev.</u> xxix. pp. 77-78, suggests that the <u>τοῖς θαυματοποιοῖς</u> should be translated "at the marionettes" and be classed with <u>καινοῖς</u> <u>τραγωδοῖς</u>(Pseph.<u>ap.</u>Dem. xviii. 116). For the dative he refers to Kuehner-Gerth, II. i. p. 445.

- 5 The men are merely a part of the necessary machinery of the image. Their shadows are not cast on the wall. The artificial objects correspond to the things of sense and opinion in the divided line, and the shadows to the world of reflections, εἰκόνες.
- 6 Cf. Parmen. 130 c, Tim. 51 B, 52 A, and my De Platonis Idearum doctrina, pp. 24-25; also E. Hoffmann in Wochenschrift f. klass. Phil. xxxvi. (1919,) pp. 196-197. As we use the word tree of the trees we see, though the reality (αὐτὸ ος ἔστι) is the idea of a tree, so they would speak of the shadows as the world, though the real reference unknown to them would be to the objects that cause the shadows, and back of the objects to the things of the "real" world of which they are copies. The general meaning, which is quite certain, is that they wold suppose the shadows to be the realities. The text and the precise turn of expression are doubtful. See crit. note.παριόντα is intentionally ambiguous in its application to the shadows or to the objects which cast them. They suppose that the names refer to the passing shadows, but (as we know) they really apply to the objects. Ideas and particulars are homonymous. Assuming a slight illogicality we can get somewhat the same meaning from the text <u>ταὐτά</u>. "Do you not think that they would identify the passing objects (which strictly speaking they do not know) with what they saw?" Cf. also P. Corssen, Philologische Wochenschrift, 1913, , p. 286. He prefers οὐκ αὐτά and renders: "Sie würden in dem, was sie sähen, das Vorübergehende selbst zu benennen glauben."
- 7 The echo and the voices (515 A) merely complete the picture.
- 8 Phaedo 67 Dλύειν, and 82 Dλύσει τε καὶ καθαρμῷ. λύσις became technical in Neoplatonism.
- <u>9</u> Lit. "by nature." <u>φύσις</u> in Plato often suggests reality and truth.
- 10 The entire passage is an obvious allegory of the painful experience of one whose false conceit of knowledge is tested by the Socratic elenchus. Cf. Soph. 230 B-D, and for ἀπορεῖνΜεπο 80 A, 84 B-C, Theaet. 149 A, Apol. 23 D. Cf. also What Plato Said, p. 5123 on Meno 80 A, Eurip. Hippol. 247τὸ γὰρ ὀρθοῦσθαι γνώμαν ὀδυνᾶ, "it is painful to have one's opinions set right," and 517 A, 494 D.
- 11 Cf. Theaet. 175 B, Boethius, Cons. iii. 12 "quicunque in superum diem mentem ducere quaeritis"; 529 A, 521 C, and the Neoplatonists' use of ἀνάγειν and their "anagogical" virtue and interpretation. Cf. Leibniz, ed. Gerhardt, vii. 270.

- 12 Cf. Laws 897 D, Phaedo 99 D.
- 13 Cf. Phaedo 99 D. Stallbaum says this was imitated by Themistius, Orat. iv. p. 51 B.
- 14 It is probably a mistake to look for a definite symbolism in all the details of this description. There are more stages of progress than the proportion of four things calls for. all that Plato's thought requires is the general contrast between an unreal and a real world, and the goal of the rise from one to the other in the contemplation of the sun, or the idea of good, Cf. 517 B-C.
- 15 i.e. a foreign medium.
- 16 Cf. 508 B, and for the idea of good as the cause of all things cf. on 509 B, and Introd. pp. xxxv-xxxvi. P. Corssen, Philol. Wochenschrift, 1913, , pp. 287-299, unnecessarily proposes to emend ὧν σφεῖς ἐώρων to ὧν σκιὰς ἑ. or ὧν σφεῖς σκιὰς ἑ., "ne sol umbrarum, quas videbant, auctor fuisse dicatur, cum potius earum rerum, quarum umbras videbant, fuerit auctor."
- 17 Cf. on 486 a, p. 10, note a.
- 18 Another of Plato's anticipations of modern thought. This is precisely the Humian, Comtian, positivist, pragmatist view of causation. Cf. Gorg. 501 Ατριβῆ καὶ ἐμπειρία μνήμην μόνον σωζομένη τοῦ εἰθότος γίγνεσθαι "relying on routine and habitude for merely preserving a memory of what is wont to result." (Loeb tr.)
- 19 The quotation is almost as apt as that at the beginning of the <u>Crito.</u>
- <u>20</u> On the metaphor of darkness and light cf. also <u>Soph.</u> 254 A.
- 21 Like the philosopher in the court-room. Cf. Theaet. 172 C, 173 C ff., Gorg.. 484 D-e. Cf. also on 387 C-D. 515 D, 517 D, Soph. 216 D, Laches 196 B, Phaedr. 249 D.
- 22 An obvious allusion to the fate of Socrates. For other stinging allusions to this Cf. Gorg. 486 B, 521 C, Meno 100 B-C. Cf. Hamlet's "Wormwood, wormwood" (III. ii. 191). The text is disputed. See crit. note. A. Drachmann, "Zu Platons Staat," Hermes, 1926, , p. 110, thinks that an οἴει or something like it must be understood as having preceded, at least in Plato's thought, and that ἀποκτείνειν can be taken as a gloss or variant of ἀποκτείνου and the correct

- reading must be <u>λαβεῖν</u>, <u>καὶ ἀποκτεινύναι ἄν</u>. See also Adam ad loc.
- 23 Cf. 508 B-C, where Arnou (Le Désir de dieu dans la philos. de Plotin, p. 48 and Robin (La Théorie plat. de l'amour, pp. 83-84) make τόπος νοητός refer to le ciel astronomique as opposed to the ὑπερουράνιος τόπος of the Phaedrus 247 A-E, 248 B, 248 D-249 A. The phrase νοητὸς κόσμος, often attributed to Plato, does not occur in his writings.
- <u>24</u> Plato was much less prodigal of affirmation about metaphysical ultimates than interpreters who take his myths literally have supposed. Cf. <u>What Plato Said</u>, p. 515, on Meno 86 B.
- 25 Cf. 506 E.
- 26 This is the main point for the Republic. The significance of the idea of good for cosmogony is just glanced at and reserved for the Timaeus. Cf. on 508 B, p. 102, note a and p. 505-506. For the practical application Cf. Meno 81 D-E. See also Introd. pp. xxxv-xxxvi.
- 27 Cf. 521 A, 345 E, and Vol. I. on 347 D, p. 81, note d.
- 28 Cf. 346 E.
- 29 Cf. Theaet. 174 Cάσχημοσύνη.
- <u>30</u> For the contrast between the philosophical and the pettifogging soul Cf. <u>Theaet.</u> 173 C-175 E. Cf. also on 517 A, p 128, note b.
- 31 For ἀγαλμάτων cf. my <u>Idea of Good in Plato's</u> <u>Republic</u>, p. 237, <u>Soph.</u> 234 C, <u>Polit.</u> 303 C.
- 32 Aristotle, <u>De an.</u> 422 a 20 f. says the over-bright is ἀόρατον but otherwise than the dark.
- 33 Cf. Theaet. 175 D-E.
- <u>34</u> Lit. "or whether coming from a deeper ignorance into a more luminous world, it is dazzled by the brilliance of a greater light."
- 35 i.e. only after that. For ούτω δή in this sense cf. 484 D, 429 D, 443 E, <u>Charm.</u> 171 E.
- 36 ἐπαγγελλόμενοι connotes the boastfulness of their claims. Cf. Protag. 319 A, Gorg. 447 c, Laches 186 C, Euthyd. 273 E, Isoc.Soph. 1, 5, 9, 10, Antid. 193, Xen.Mem. iii. 1. 1, i. 2. 8, Aristot.Rhet. 1402, a 25.

- 37 Cf. Theognis 429 ff. Stallbaum compares Eurip. Hippol. 917 f. Similarly Anon. Theaet. Comm. (Berlin, 1905), p. 32, 48. 4καὶ δεῖν αὐτῆ οὐκ ἐνθέσεως μαθημάτων, ἀλλὰ ἀναμνήσεως. Cf. also St. Augustine: "Nolite putare quemquam hominem aliquid discere ab homine. Admonere possumus per strepitum vocis nostrae;" and Emerson's "strictly speaking, it is not instruction but provocation that I can receive from another soul."
- 38 περιακτέον is probably a reference to the περίακτοι or triangular prisms on each side of the stage. They revolved on an axis and had different scenes painted on their three faces. Many scholars are of the opinion that they were not known in the classical period, as they are mentioned only by late writers; but others do not consider this conclusive evidence, as a number of classical plays seem to have required something of the sort. Cf. O. Navarre in Daremberg-Saglio s.v. Machine, p. 1469.
- 39 Hard-headed distaste for the unction or seeming mysticism of Plato's language should not blind us to the plain meaning. Unlike Schopenhauer, who affirms the moral will to be unchangeable, Plato says that men may be preached and drilled into ordinary morality, but that the degree of their intelligence is an unalterable endowment of nature. Some teachers will concur.
- $\frac{40}{10}$ Plato often distinguishes the things that do or do not admit of reduction to an art or science. Cf. on 488 E p. 22, note b. Adam is mistaken in taking it "Education (ἡ παιδεία) would be an art," etc.
- 41 This then is Plato's answer (intended from the first) to the question whether virtue can be taught, debated in the Protagoras and Meno. The intellectual virtues (to use Aristotle's term), broadly speaking, cannot be taught; they are a gift. And the highest moral virtue is inseparable from rightly directed intellectual virtue. Ordinary moral virtue is not rightly taught in democratic Athens, but comes by the grace of God. In a reformed state it could be systematically inculcated and "taught." Cf. What Plato Said, pp. 51-512 on Meno 70 A. but we need not infer that Plato did not believe in mental discipline. cf. Charles Fox, Educational Psychology, p. 164 "The conception of mental discipline is a least as old as Plato, as may be seen from the seventh book of the Republic . . ."
- 42 Cf. Aristot. Eth. Nic. 1103, a 14-17 ἡ δὲ ἡθικὴ ἐξ ἔθους. Plato does not explicitly name "ethical" and "intellectual" virtues. Cf. Fox, op. cit. p. 104 "Plato correctly believed . . . "

- 43 Plato uses such synonyms as φρόνησις, σοφία, νοῦς, διάνοια, etc., as suits his purpose and context. He makes no attempt to define and discriminate them with impracticable Aristotelian meticulousness.
- 44 Cf. Theaet. 176 D, <u>Laws</u> 689 C-D, Cic.<u>De offic.</u> i. 19, and also Laws 819 A.
- 45 Cf. Theaet. 195 A, ibid. 173 Ασμικροί ... τὰς ψυχάς, Marcus Aurelius ψυχάριον εἶ βαστάζων νεκρόν, Swinburne's "A little soul for a little bears up this corpse which is man" ("Hymn to Proserpine," in fine), Tennyson's "If half the little soul is dirt."
- 46 Lit. "Toward which it is turned."
- 47 The meaning is plain, the precise nature of the image that carries it is doubtful. Jowett's "circumcision" was suggested by Stallbaum's "purgata ac circumcisa," but carries alien associations. The whole may be compared with the incrustation of the soul, 611 C-D, and with Phaedo 81 B f.
- 48 Or "eye of the mind." Cf. 533 D, Sym. 219 A, Soph. 254 A, Aristot.Eth. 1144, a 30, and the parallels and imitations collected by Gomperz, Apol. der Heilkunst, 166-167. cf. also What Plato Said, p. 534, on Phaedo 99 E, Ovid, Met. 15.64: "... quae natura negabat Visibus humanis, oculis ea pectoris hausit." Cf. Friedlander, Platon, i. pp. 12-13, 15, and perhaps Odyssey, i. 115, Marc. Aurel. iv. 29καταμύειν τῷ νοερῷ ὄμματι.
- 49 For likely and necessary cf. on 485 C, p. 6, note c.
- 50 σκοπόν: this is what distinguishes the philosophic statesman from the opportunist politician. Cf. 452 E, Laws 962 A-B, D, Unity of Plato's Thought, p. 18 n. 102.
- 51 Cf. 540 B, Gorg. 526 C, 520 Dἐν τῷ καθαρῷ and Phaedo 114 C, 109 B. Because they will still suppose that they are "building Jerusalem in England's green and pleasant land" (Blake).
- 52 Cf. 539 E and Laws 803 B-C, and on 520 C, Huxley, Evolution and Ethics, p. 53 "the hero of our story descended the bean-stalk and came back to the common world," etc.
- 53 Cf. Vol. I. pp. 314-315 on 419.
- <u>54</u> i.e. happiness, not of course exceptional happiness.

- 55 Persuasion and compulsion are often bracketed or contrasted. Cf. also <u>Laws</u> 661 C, 722 B, 711 C, <u>Rep</u>. 548 B.
- <u>56</u> Cf. 369 C ff. The reference there however is only to the economic division of labor. For the idea that laws should be for the good of the whole state cf. 420 B ff., 466 A, 341-342, <u>Laws</u> 715 B, 757 D, 875 A.
- 57 Noblesse oblige. This idea is now a commonplace of communist orations.
- 58 αὐτόματοι Cf. <u>Protag.</u> 320 A, <u>Euthyd.</u> 282 C. For the thought that there are a few men naturally good in any state cf. also <u>Laws</u> 951 B, 642 C-D.
- 59 Cf. Isoc. Archidamus 108 ἀποδῶμεν τὰ τροφεῖα τῆ πατρίδι. Stallbaum refers also to Phoenissae 44. For the country as τροφός see Vol. I. p. 303, note e on 414 E.
- 60 Cf. Polit. 301 D-E, Xen. Cyr. v.1.24, Oecon. 7.32-33.
- 61 For τελεώτερον . . . πεπαιδευμένους Cf. Prot. 342 Ετελέως πεπαιδευμένου.
- 62 They must descend into the cave again. Cf. 539 E and Laws 803 B-C. Cf. Burnet, Early Greek Philos. 89-90: "it was he alone, so far as we know, that insisted on philosophers descending by turns into the cave from which they had been released and coming to the help of their former fellow-prisoners." He agrees with Stewart (Myths of Plato, p. 252, n. 2) that Plato had in mind the Orphic κατάβασις εἰς Ἄιδου to "rescue the spirits in prison." Cf. Wright, Harvard Studies, xvii. p. 139 and Complete Poems of Henry More, pp. xix-xx "All which is agreeable to that opinion of Plato: That some descend hither to declare the Being and Nature of the Gods; and for the greater Health, Purity and Perfection of this Lower World." This is taking Plato somewhat too literally and confusing him with Plotinus.
- 63 For μυρίω cf. Eurip. Androm. 701.
- 64 i.e. images, Bacon's "idols of the den."
- 65 Plato is fond of the contrast, ὕπαρ... ὄναρ. Cf. 476 C, Phaedr. 277 D, Phileb. 36 E, 65 E, Polit. 277 D, 278 E, Theaet. 158 B, Rep. 574 D, 576 B, Tim. 71 E, Laws 969 B, also 533 B-C.
- 66 Cf. on 586 C, p. 393.

- <u>67</u> Cf. on 517 C, p. 131, note 3.
- 68 The world of ideas, the upper world as opposed to that of the cave. Cf. Stallbaum ad loc.
- 69 Cf. Vol. I. p. 80, note b on 347 C.
- <u>70</u> Cf. <u>Phaedrus in fine, supra</u> 416 E-417 A, 547 B.
- 71 Stallbaum refers to Xen.Cyr. viii. 3. 39οἴομαί σε καὶ διὰ τοῦτο ἥδιον πλουτεῖν, ὅτι πεινήσας χρημάτων πεπλούτηκας, "for you must enjoy tour riches much more, I think, for the very reason that it was only after being hungry for wealth that you became rich." (Loeb tr.) Cf. also 577 E-578 A, and Adam ad loc.
- 72 Cf. 347 D, <u>Laws</u> 715 A, also 586 C and <u>What Plato Said</u>, p. 627, on <u>Laws</u> 678 E, Isoc. <u>Areop.</u> 24, <u>Pan.</u> 145 and 146.
- 73 Cf. Eurip. <u>Heracleidae</u> 415<u>οίκεῖος ἤδη πόλεμος</u> ἐξαρτεύεται.
- 74 Cf. 580 d ff., pp. 370 ff.
- $\frac{75}{16}$ <u>iέναι ἐπί</u> in erotic language means "to woo." Cf. on 489 C, p. 26, note b, also 347 C, 588 B, 475 C.
- 76 Cf. on 515 E, p. 124, note b.
- 77 This has been much debated. Cf. Adam ad loc.Professor Linforth argues from Pausanias i. 34 that Amphiaraus is meant.
- 78 Cf. Phaedr. 241 B; also the description of the game in Plato Comicus, Fr. 153 apud Norwood, Greek Comedy, p. 167. The players were divided into two groups. A shell or potsherd, black on one side and white on the other, was thrown, and according to the face on which it fell one group fled and the other pursued. Cf. also commentators on Aristoph. Knights 855.
- 79 Much quoted by Neoplatonists and Christian Fathers. Cf. Stallbaum ad loc. Again we need to remember that Plato's main and explicitly reiterated purpose is to describe a course of study that will develop the power of consecutive consistent abstract thinking. All metaphysical and mystical suggestions of the imagery which conveys this idea are secondary and subordinate. So, e.g. Urwick, The Message of Plato, pp. 66-67, is mistaken when he says "... Plato expressly tells us that his education is designed simply and solely to awaken the spiritual faculty which every soul contains, by 'wheeling the soul

- round and turning it away from the world of change and decay.' He is not concerned with any of those 'excellences of mind' which may be produced by training and discipline, his only aim is to open the eye of the soul . . . "The general meaning of the sentence is plain but the text is disputed. See crit. note.
- 80 A frequent pretence in Plato. Cf. 370 A, 525 C, Euthyphro 9 C, Laws 686 C, 702 B, Phaedr. 262 C with Friedländer, Platon, ii. p. 498, Laws 888 D with Tayler Lewis, Plato against the Atheists, pp. 118-119. Cf. also Vol. I. on 394 D-E, and Isoc. Antid. 159 ἐνθυμοῦμαι δὲ μεταξὺ λέγων, Panath. 127.
- <u>81</u> Cf. 416 D, 422 B, 404 A, and Vol. I. p. 266, note a, on 403 E.
- 82 προσέχειν is here used in its etymological sense. Cf. pp. 66-67 on 500 A.
- <u>83</u> This further prerequisite of the higher education follows naturally from the plan of the <u>Republic</u>; but it does not interest Plato much and is, after one or two repetitions, dropped.
- 84 Cf. 376 E ff.
- 85 For <u>τετεύτακε</u> Cf. <u>Tim.</u> 90 Β<u>τετευτακότι</u>
- $\underline{86}$ Cf. 376 E. This is of course no contradiction of $\underline{410}$ C.
- <u>87</u> The ordinary study of music may cultivate and refine feeling. Only the mathematics of music would develop the power of abstract thought.
- 88 Knowledge in the true sense, as contrasted with opinion or habit.
- <u>89</u> Cf. supra, p. 49 note e on 495 E. This idea is the source of much modern prejudice against Plato.
- 90 Cf. <u>Symp.</u> 186 Β<u>ἐπὶ πᾶν τείνει</u>.
- 91 διάνοιαι is not to be pressed in the special sense of 511 D-E.
- 92 A playful introduction to Plato's serious treatment of the psychology of number and the value of the study of mathematics.
- 93 Palamedes, like Prometheus, is a "culture hero," who personifies in Greek tragedy the inventions and discoveries that produced civilization. Cf. the speech

- of Prometheus in Aesch. <u>Prom.</u> 459 ff. and <u>Harvard Studies</u>, xii. p. 208, n. 2.
- 94 Quoted by later writers in praise of mathematics. Cf. Theo Smyrn. p. 7 ed. Gelder. For the necessity of mathematics Cf. <u>Laws</u> 818 C.
- 95 Cf. Laws 819 D.
- 96 Plato's point of view here, as he will explain, is precisely the opposite of that of modern educators who would teach mathematics concretely and not puzzle the children with abstract logic. But in the Laws where he is speaking of primary and secondary education for the entire population he anticipates the modern kindergarten ideas (819 B-C).
- 97 For σαφέστερον cf. 523 C. Cf. Vol. I. p. 47, note f, on 338 D, and What Plato Said, p. 503, on Gorg. 463 D.
- 98 Cf. Phileb. 38 C. Unity of Plato's Thought, n. 337.
- 99 ίκανῶς is not to be pressed here.
- 100 For οὐδὲν ὑγιές cf. 496 C, 584 A, 589 C, <u>Phaedo</u> 69 B, 89 E, 90 E, <u>Gorg.</u> 524 E, <u>Laws</u> 776 E, <u>Theaet.</u> 173 B, Eurip.<u>Phoen.</u> 201, <u>Bacch.</u> 262, <u>Hel.</u>. 746, etc.
- 101 The most obvious cause of errors of judgement. Cf. Laws 663 B.
- 102 Cf. Vol. I. p. 137 on 365 C.
- 103 The dramatic misapprehension by the interlocutor is one of Plato's methods for enforcing his meaning. Cf. on 529 A, p. 180, note a, <u>Laws</u> 792 B-C.
- 104 Cf. Jacks, Alchemy of Thought, p. 29: "The purpose of the world, then, being to attain consciousness of itself as a rational or consistent whole, is it not a little strange that the first step, so to speak, taken by the world for the attainment of this end is that of presenting itself in the form of contradictory experience?" αἴσθησις is not to be pressed. Adam's condescending apology for the primitive character of Plato's psychology here is as uncalled-for as all such apologies. Plato varies the expression, but his meaning is clear. Cf. 524 D. No modern psychologists are able to use "sensation," "perception," "judgement," and similar terms with perfect consistency.

105 For προσπίπτουσα Cf. Tim. 33 A, 44 A, 66 A, Rep. 515 A, 561 C, Laws 791 C, 632 A, 637 A, Phileb. 21 C; also "accidere" in Lucretius, e.g. iv. 882, ii. 1024-1025, iv. 236 and iii. 841, and Goethe's "Das Blenden der Erscheinung, die sich an unsere Sinne drängt."

106 This anticipates Aristotle's doctrine that "substances" do not, as qualities do, admit of more or less.

107 We should never press synonyms which Plato employs for ποικιλία of style or to avoid falling into a rut of terminology.

108 κεῖσθαι perhaps anticipates the Aristotelian category.

109 Cf. Theaet. 186 ff., Tim. 62 B, Taylor, Timaeus, p. 233 on 63 D-E, Unity of Plato's Thought, nn. 222 and 225, Diels, Dialex. 5 (ii.3 p. 341). Protag. 331 D anticipates this thought, but Protagoras cannot follow it out. Cf. also Phileb. 13 A-B. Stallbaum also compares Phileb. 57 D and 56 C f.

110 Plato gives a very modern psychological explanation. Thought is provoked by the contradictions in perceptions that suggest problems. The very notion of unity is contradictory of uninterpreted experience. This use of ἀπορεῖν(Cf. 515 D) anticipates much modern psychology supposed to be new. Cf. e.g. Herbert Spencer, passim, and Dewey, How We Think, p. 12 "we may recapitulate by saying that the origin of thinking is some perplexity, confusion, or doubt"; also ibid, p. 62. Meyerson, Déduction relativiste p. 142, says "Mais Platon . . . n'avait-il pas dit qu'il était impossible de raisonner si ce n'est en partant d'une perception?" citing Rep. 523-524, and Rodier, Aristot. De anima, i. p. 191. But that is not Plato's point here. Zeller, Aristot. i. p. 166 (Eng.), also misses the point when he says "Even as to the passage from the former to the latter he had only the negative doctrine that the contradictions of opinion and fancy ought to lead us to go further and to pass to the pure treatment of ideas."

<u>111</u> For <u>έρμηνεῖαι</u> Cf. <u>Theaet.</u> 209 A.

112 Cf. Parmen. 130 Ατοῖς λογισμῷ λαμβανομένοις.

113 Cf. Theaet. 185 B, Laws 963 C, Sophist 254 D, Hipp. Major 301 D-E, and, for the dialectic here, Parmen. 143 D.

114 Or, as the Greek puts it, "both 'one' and 'other." Cf. Vol. 1. p. 516, note f on 416 A. For ἔτερον Cf. What Plato Said, pp. 522, 580, 587-588.

115 γε "vi termini" Cf. 379 B, 576 C, Parmen. 145 A, Protag. 358 C.

116 κεχωρισμένα and ἀχώριστα suggest the terminology of Aristotle in dealing with the problem of abstraction.

117 Plato's aim is the opposite of that of the modern theorists who say that teaching should deal integrally with the total experience and not with the artificial division of abstraction.

118 The final use of διά became more frequent in later Greek. Cf. Aristot. Met. 982 b 20, Eth. Nic. 1110, a 4. Gen. an. 717 a 6, Poetics 1450, b 3, 1451, b 37. Cf. Lysis 218 B, Epin. 975 A, Olympiodorus, Life of Plato, Teubner vi. 191, ibid. p. 218, and schol. passim, Apsines, Spengel i. 361, line 18.

119 Plato merely means that this is the psychological origin of our attempt to form abstract and general ideas. My suggestion that this passage is the probable source of the notion which still infests the history of philosophy, that the great-and-the-small was a metaphysical entity or principle in Plato's later philosophy, to be identified with indeterminate dyad, has been disregarded. Cf. Unity of Plato's Thought, 84. But it is the only plausible explanation that has ever been proposed of the attribution of that "clotted nonsense" to Plato himself. For it is fallacious to identify μᾶλλον καὶ ἦττον in Philebus 24 C, 25 C, 21 E, and elsewhere with the μέγα καὶ σμικρόν. But there is no limit to the misapprehension of texts by hasty or fanciful readers in any age.

120 To waive metaphysics, unity is, as modern mathematicians say, a concept of the mind which experience breaks up. The thought is familiar to Plato from the Meno to the Parmenides. But it is not true that Plato derived the very notion of the concept from the problem of the one and the many. Unity is a typical concept, but the consciousness of the concept was developed by the Socratic quest for the definition.

121 Cf. 523 B. The meaning must be gathered from the context.

122 See crit. note and Adam ad loc.

123 This is the problem of the one and the many with which Plato often plays, which he exhaustively and

consciously illustrates in the <u>Parmenides</u>, and which the introduction to the <u>Philebus</u> treats as a metaphysical nuisance to be disregarded in practical logic. We have not yet got rid of it, but have merely transferred it to psychology.

124 Cf. Gorg. 450 D, 451 B-C.

125 Cf. my review of Jowett, <u>A.J.P.</u> xiii. p. 365. My view there is adopted by Adam <u>ad loc.</u>, and Apelt translates in the same way.

126 It is not true as Adam says that "the nature of numbers cannot be fully seen except in their connection with the Good." Plato never says that and never really meant it, though he might possibly have affirmed it on a challenge. Numbers are typical abstractions and educate the mind for the apprehension of abstractions if studied in their nature, in themselves, and not in the concrete form of five apples. There is no common sense nor natural connection between numbers and the good, except the point made in the Timaeus 53 B, and which is not relevant here, that God used numbers and forms to make a cosmos out of a chaos.

127 Instead of remarking on Plato's scorn for the realities of experience we should note that he is marking the distinctive quality of the mind of the Greeks in contrast with the Egyptians and orientals from whom they learned and the Romans whom they taught. Cf. 525 Dκαπηλεύειν, and Horace, Ars Poetica 323-332, Cic. Tusc. i. 2. 5. Per contraXen. Mem. iv. 7, and Libby, Introduction to History of Science, p. 49: "In this the writer did not aim at the mental discipline of the students, but sought to confine himself to what is easiest and most useful in calculation, 'such as men constantly require in cases of inheritance, legacies, partition, law-suits, and trade, and in all their dealings with one another, or where the measuring of lands, the digging of canals, geometrical computation, and other objects of various sorts and kinds are concerned."

128 Cf. on 521 D, p. 147, note e.

129 Cf. Aristot. Met. 982 a 15τοῦ εἰδέναι χάριν, and Laws 741 C. Montesquieu apud Arnold, Culture and Anarchy, p. 6: "The first motive which ought to impel us to study is the desire to augment the excellence of our nature and to render an intelligent being more intelligent."

130 Lit. "numbers (in) themselves," i.e. ideal numbers or the ideas of numbers. For this and the following as one of the sources of the silly notion that

mathematical numbers are intermediate between ideal and concrete numbers, cf. my <u>De Platonis Idearum</u> <u>Doctrina</u>, p. 33, <u>Unity of Plato's Thought</u>, pp. 83-84, <u>Class. Phil.</u> xxii. (1927,) pp. 213-218.

131 Cf. Meno 79 Cκατακερματίζης, Aristot.Met. 1041, a 19 αδιαίρετον πρὸς αὐτὸ ἔκαστον: τοῦτο δ' ἦν τὸ ἐνὶ εἶναι, Met. 1052, b a ff., 15 ff. and 1053, a 1τὴν γὰρ μονάδα τιθέασι πάντη ἀδιαίρετον. κερματίζειν is also the word used of breaking money into small change.

132 Numbers are the aptest illustration of the principle of the Philebus and the Parmenides that thought has to postulate unities which sensation (sense perception) and also dialectics are constantly disintegrating into pluralities. Cf. my Ideas of Good in Plato's Republic, p. 222. Stenzel, Dialektik, p. 32, says this dismisses the problem of the one and the many "das ihn (Plato) später so lebhaft beschäftigen sollte." But that is refuted by Parmen. 159 Cοὐδὲ μὴν μόριά γε ἔχειν φαμὲν τὸ ὡς ἀληθῶς ἔν. The "problem" was always in Plato's mind. He played with it when it suited his purpose and dismissed it when he wished to go on to something else. Cf. on 525 A, Phaedr. 266 B, Meno 12 C, Laws 964 A, Soph. 251.

133 This is one of the chief sources of the fancy that numbers are intermediate entities between ideas and things. Cf. Alexander, Space, Time, and Deity, i. p. 219: "Mathematical particulars are therefore not as Plato thought intermediate between sensible figures and universals. Sensible figures are only less simple mathematical ones." Cf. on 525 D. Plato here and elsewhere simply means that the educator may distinguish two kinds of numbers—five apples, and the number five as an abstract idea. Cf. Theaet. 19 E: We couldn't err about eleven which we only think, i.e. the abstract number eleven. Cf. also Berkeley, Siris, 288.

134 Cf. Isoc. Antid. 267 αὐτοὶ δὶ αὐτῶν εὐμαθέστεροι. For the idiom αὐτοὶ αὐτῶν cf. also 411 C. 421 D, 571 D, Prot. 350 A and D, Laws 671 B, Parmen. 141 A, Laches 182 C. "Educators" have actually cited him as authority for the opposite view. On the effect of Mathematical studies cf. also Laws 747 B, 809 C-D, 810 C, Isoc. Antid. 276. Cf. Max Tyr. 37 Τάλλὰ τοῦτο μὲν εἴη ἄν τι ἐν γεωμετρία τὸ φαυλότατον. Mill on Hamilton ii. 311 "If the Practice of mathematical reasoning gives nothing else it gives wariness of mind." Ibid. 312.

<u>135</u> The translation is, I think, right. Cf. <u>A.J.P.</u> xiii. p. 365, and Adam ad loc.

136 Cf. Burnet, <u>Early Greek Philosophy</u>, p. 111: "Even Plato puts arithmetic before geometry in the <u>Republic</u> in deference to tradition." For the three branches of higher learning, arithmetic, geometry, and astronomy, Cf. <u>Laws</u> 811 E-818 A, Isoc.<u>Antid.</u> 261-267, <u>Panath.</u> 26, <u>Bus.</u> 226; Max, Tyr. 37 7.

137 Cf. <u>Basilicon Doron(Morley, A Miscellany, p.</u> 144): "I grant it is meete yee have some entrance, specially in the Mathematickes, for the knowledge of the art militarie, in situation of Campes, ordering of battels, making fortifications, placing of batteries, or such like."

<u>138</u> This was Xenophon's view, <u>Mem.</u> vi. 7. 2. Whether it was Socrates' nobody knows. Cf. pp. 162-163 on 525 C, <u>Epin.</u> 977 E, Aristoph. <u>Clouds</u> 202.

139 Because it develops the power of abstract thought. Not because numbers are deduced from the idea of good. Cf. on 525, p. 162, note b.

140 Cf. 518 C. Once more we should remember that for the practical and educational application of Plato's main thought this and all similar expressions are rhetorical surplusage or "unction," which should not be pressed, nor used e.g. to identify the idea of good with god. Cf. Introd. p. xxv.

141 Or "becoming." Cf. 485 B, 525 B.

142 γε δή is frequent in confirming answers. Cf. 557 B, 517 C, Symp. 172 C, 173 E, Gorg. 449 B, etc.

143 Geometry (and mathematics) is inevitably less abstract than dialectics. But the special purpose of the Platonic education values mathematics chiefly as a discipline in abstraction. Cf. on 523 A, p. 152, note b; and Titchener, A Beginner's Psychology, pp. 265-266: "There are probably a good many of us whose abstract idea of 'triangle' is simply a mental picture of the little equilateral triangle that stands for the word in text-books of geometry." There have been some attempts to prove (that of Mr. F. M. Cornford in Mind, April 1932, , is the most recent) that Plato, if he could not anticipate in detail the modern reduction of mathematics to logic, did postulate something like it as an ideal, the realization of which would abolish his own sharp distinction between mathematics and dialectic. The argument rests on a remote and strained interpretation of two or three texts of the Republic(cf. e.g. 511 and 533 B-D) which, naturally interpreted, merely affirm the general inferiority of the mathematical method and the intermediate position for education of mathematics as a propaedeutic to dialectics. Plato's purpose throughout

is not to exhort mathematicians as such to question their initiatory postulates, but to mark definitely the boundaries between the mathematical and other sciences and pure dialectics or philosophy. The distinction is a true and useful one today. Aristotle often refers to it with no hint that it could not be abolished by a new and different kind of mathematics. And it is uncritical to read that intention into Plato's words. He may have contributed, and doubtless did contribute, in other ways to the improvement and precision of mathematical logic. But he had no idea of doing away with the fundamental difference that made dialectics and not mathematics the coping-stone of the higher education—science as such does not question its first principles and dialectic does. Cf. 533 B-534 E.

144 The very etymology of "geometry" implies the absurd practical conception of the science. Cf. Epin. 990 Cγελοῖον ὄνομα.

145 Cf. Polit. 302 E, Laws 757 E, 818 B, Phileb. 62 B, Tim. 69 D, and also on 494 A. The word ἀναγκαίως has been variously misunderstood and mistranslated. It simply means that geometers are compelled to use the language of sense perception though they are thinking of abstractions (ideas) of which sense images are only approximations.

146 Cf. Aristot. Met. 1051, a 22εύρίσκεται δὲ καὶ τὰ διαγράμματα ἐνεργεία: διαιροῦντες γὰρ εύρίσκουσιν, "geometrical constructions, too, are discovered by an actualization, because it is by dividing that we discover them." (Loeb tr.)

147 For φθεγγόμενοι cf. on 505 C, p. 89, note g.

148 Cf. Thompson on Meno 87 A.

149 E. Hoffmann, <u>Der gegenwärtige Stand der Platonforschung</u>, p. 1091 (Anhang, Zeller, <u>Plato</u>, 5th ed.), misunderstands the passage when he says: "Die Abneigung Platons, dem Ideellen irgendwie einen dynamischen Charakter zuzuschreiben, zeigt sich sogar in terminologischen Andeutungen; so verbietet er <u>Republ.</u> 527 A für die Mathematik jede Anwendung dynamischer Termini wie <u>τετραγωνίζειν</u>, <u>πορατείνειν</u>, <u>προστιθέναι</u>" Plato does not forbid the use of such terms but merely recognizes their inadequacy to express the true nature and purpose of geometry.

150 Cf. Meyerson, <u>De l'explication dans les sciences</u>, p. 33: "En effet, Platon déjà fait ressortir que Ia géométrie, en dépit de l'apparence, ne poursuit aucun

- but pratique et n'a tout entière d'autre objet que Ia connaissance.
- 151 i.e. mathematical ideas are (Platonic) ideas like other concepts. Cf. on 525 D, p. 164, note a.
- 152 καλλιπόλει: Plato smiles at his own Utopia. There were cities named Callipolis, e.g. in the Thracian Chersonese and in Calabria on the Gulf of Tarentum. Cf. also Herod. vii. 154. fanciful is the attempt of some scholars to distinguish the Callipolis as a separate section of the Republic, or to take it as the title of the Republic.
- 153 Plato briefly anticipates much modern literature on the value of the study of mathematics. Cf. on 526 B, p. 166, note a. Olympiodorus says that when geometry deigns to enter into matter she creates mechanics which is highly esteemed.
- 154 For <u>ὅλω καὶ παντί</u> cf. 469 C.<u>Laws</u> 779 B, 734 E, <u>Phaedo</u> 79 E, <u>Crat.</u> 434 A.
- <u>155</u> Xen.<u>Mem.</u> iv. 7. 3 ff. attributes to Socrates a similar utilitarian view of science.
- 156 For ἡδὺς εἶ cf. 337 D, <u>Euthydem.</u> 300 A, <u>Gorg.</u> 491 Εἥδιστε, <u>Rep.</u> 348 Cγλυκὺς εἶ, <u>Hipp. Maj.</u> 288 B.
- 157 Cf. on 499 D-E, p. 66, note a.
- <u>158</u> Again Plato anticipates much modern controversy.
- 159 Cf. Xen. Symp. 1. 4ἐκκεκαθαρμένοις τὰς ψυχάς, and Phaedo 67 B-C.
- 160 Another instance of Plato's "unction." Cf. <u>Tim.</u> 47 A-B, Eurip.<u>Orest.</u> 806μυρίων κρείσσων, and Stallbaum ad loc. for imitations of this passage in antiquity.
- 161 For ἀμηχάνως ὡς Cf. Charm. 155 Dὰμήχανόν τι οἶον. Cf. 588 A, Phaedo 80 C, 95 C, Laws 782 A, also Rep. 331 Αθαυμάστος ὡς, Hipp. Maj. 282 C, Epin. 982 C-E, Aristoph.Birds 427, Lysist. 198, 1148, .
- 162 This is the thought more technically expressed in the "earlier" work, <u>Crito</u> 49 D. Despite his faith in dialectics Plato recognizes that the primary assumptions on which argument necessarily proceeds are irreducible choices of personality. Cf. <u>What Plato Said</u>, p. 478, <u>Class. Phil.</u> ix. (1914,) p. 352.

- 163 Cf. Charm. 166 D, Phaedo 64 C, Soph. 265 A, Apol. 33 A.
- 164 ἄναγε is a military term. Cf. Aristoph. Birds 383, Xen. Cyr. vii. 1.45, iii. 3. 69.
- <u>165 ἑξῆς</u> Cf. <u>Laches</u> 182 B.
- 166 Lit. "increase" Cf. Pearson, <u>The Grammar of Science</u>, p. 411: "He proceeds from curves of frequency to surfaces of frequency, and then requiring to go beyond these he finds his problem lands him in space of many dimensions."
- 167 This is not to be pressed. Plato means only that the progress of solid geometry is unsatisfactory. Cf. 528 D. There may or may not be a reference here to the "Delian problem" of the duplication of the cube (cf. Wilamowitz, Platon, i. p. 503 for the story) and other specific problems which the historians of mathematics discuss in connection with this passage. Cf. Adam ad loc. To understand Plato we need only remember that the extension of geometry to solids was being worked out in his day, perhaps partly at his suggestion, e.g. by Theaetetus for whom a Platonic dialogue is named, and that Plato makes use of the discovery of the five regular solids in his theory of the elements in the Timaeus. Cf. also Laws 819 E ff. for those who wish to know more of the ancient traditions and modern conjectures I add references: Eva Sachs, De Theaeteto Ath. Mathematico, Diss. Berlin, 1914, , and Die fünf platonischen Körper(Philolog. Untersuch. Heft 24), Berlin, 1917, ; E. Hoppe, Mathematik und Astronomie im klass. Altertum, pp. 133 ff.; Rudolf Eberling, Mathematik und Philosophie bei Plato, Münden, 1909, , with my review in Class. Phil. v. (1910,) p. 114; Seth Demel, Platons Verhältnis zur Mathematik, Leipzig, with my review, Class. Phil. xxiv. (1929,) pp. 312-313; and, for further bibliography on Plato and mathematics, Budé, Rep.Introd. pp. lxx-lxxi.
- <u>168</u> Plato is perhaps speaking from personal experience as director of the Academy. Cf. the hint in <u>Euthydem.</u> 290 C.
- $\underline{169}$ i.e. the mathematicians already feel themselves to be independent specialists.
- <u>170</u> This interpretation is, I think, correct. For the construction of this sentence cf. Isoc. xv. 84. The text is disputed; see crit. note.
- 171 Lit. "in what respect they are useful." Plato is fond of the half legal καθ' ο τι. Cf. Lysis 210 C, Polit. 298 C.

172 An eminent modern psychologist innocently writes: "The problem of why geometry gives pleasure is therefore a deeper problem than the mere assertion of the fact. Furthermore, there are many known cases where the study of geometry does not give pleasure to the student." Adam seems to think it may refer to the personality of Eudoxus.

173 πραγματείαν: interesting is the development of this word from its use in Phaedo 63 A ("interest," "zeal," "inquiring spirit." Cf. Aristot. Top. 100 a 18, Eth. Nic. 1103, b 26, Polyb. i. 1. 4, etc.

174 An obvious allusion to the proverb found in many forms in many languages. Cf. also Polit. 277 A-B, 264 B, Soph.Antig. 231σχολῆ ταχύς, Theognis 335, 401μηδὲν ἄγαν σπεύδειν, Suetonius, Augustus 25, Aulus Gellius x. 11. 4, Macrob.Sat. vi. 8. 9, "festina lente," "hâtez-vous lentement" (Boileau, Art poétique, i. 171), "Chi va piano va sano e va lontano" (Goldoni, I volponi,I. ii.), "Eile mit Weile" and similar expressions; Franklin's "Great haste makes great waste," etc.

 $175 \, μέθοδον$: this word, like πραγματεία came to mean "treatise."

176 This is the meaning. Neither Stallbaum's explanation, "quia ita est comparata, ut de ea quaerere ridiculum sit," nor that accepted by Adam, "quia ridicule tractatur," is correct, and 529 E and 521 A are not in point. Cf. 528 B p. 176, note a.

177 Cf. Laws 822 A ff.

178 i.e. "assuming this to exist," "vorhanden sein," which is the usual meaning of ὑπάρχειν in classical Greek. The science, of course, is solid geometry, which is still undeveloped, but in Plato's state will be constituted as a regular science through endowed research.

179 Cf. Vol. I. p. 410, note c, on 442 E, Gorg. 482 E, Rep. 581 D, Cratyl. 400 A, Apol. 32 A, Aristot.Pol. 1333, b 9.

180 Cf. my review if Warburg, <u>Class. Phil.</u> xxiv. (1929,) p. 319. The dramatic misunderstanding forestalls a possible understanding by the reader. Cf. on 523 B. The misapprehension is typical of modern misunderstandings. Glaucon is here the prototype of all sentimental Platonists or anti-Platonists. The meaning of "higher" things in Plato's allegory is obvious. But Glaucon takes it literally. Similarly, modern critics, taking Plato's imagery literally and pressing single expressions apart from the total

context, have inferred that Plato would be hostile to all the applications of modern science to experience. They refuse to make allowance for his special and avowed educational purpose, and overlook the fact that he is prophesying the mathematical astronomy and science of the future. The half-serious exaggeration of his rhetoric can easily be matched by similar utterances of modern thinkers of the most various schools, from Rousseau's "écarter tous les faits" to Judd's "Once we acquire the power to neglect all the concrete facts . . . we are free from the incumbrances that come through attention to the concrete facts." Cf. also on 529 B, 530 B and 534 A.

181 ἀνάγοντες is tinged with the suggestions of 517 A, but the meaning here is those who use astronomy as a part of the higher education. φιλοσοφία is used in the looser sense of Isocrates. Cf. A.J.P. xvi. p. 237.

182 For οὐκ ἀγεννῶςGorg. 462 D, where it is ironical, as here, Phaedr. 264 B, Euthyph. 2 C, Theaet. 184 C. In Charm. 158 C it is not ironical.

183 The humorous exaggeration of the language reflects Plato's exasperation at the sentimentalists who prefer star-gazing to mathematical science. Cf. Tim. 91 D on the evolution of birds from innocents who supposed that sight furnished the surest proof in such matters. Yet such is the irony of misinterpretation that this and the following pages are the chief support of the charge that Plato is hostile to science. Cf. on 530 B, p. 187, note c.

184 Cf. Theaet. 174 Α<u>ανω βλέποντα</u>.

185 Cf. Aristoph. Clouds 172.

186 συμμύω probably refers to the eyes. But cf. Adam ad loc.

<u>187</u> Cf. <u>Phaedr.</u> 264 A, and Adam in <u>Class. Rev.</u> xiii. p. 11.

188 Or rather, "serves me right," or, in the American language, "I've got what's coming to me." The expression is colloquial. Cf. Epist. iii. 319 E, Antiphon cxxiv. 45. But δίκην ἔχει in 520 B = "it is just."

189 Cf. <u>Tim.</u> 40 Ακόσμον <u>ἀληθινὸν αὐτῷ</u> <u>πεποικιλμένον</u>, Eurip.<u>Hel.</u> 1096, <u>ἀστέρων</u> <u>ποικίλματα</u>, Critias, <u>Sisyphus.</u>Diels ii.3 p. 321, lines 33-34τό τ' ἀστερωπὸν οὐρανοῦ δέμας χρόνου καλὸν <u>ποίκιλμα τέκτονος σοφοῦ</u>. Cf. also <u>Gorg.</u> 508 A, Lucretius v. 1205 "stellis micantibus aethera fixum," ii. 1031 ff., <u>Aeneid</u> iv. 482 "stellis ardentibus aptum,"

vi. 797, xi. 202, Ennius, <u>Ann.</u> 372. The word <u>ποικίλματα</u> may further suggest here the complication of the movements in the heavens

190 The meaning of this sentence is certain, but the expression will no more bear a matter-of-fact logical analysis than that of Phaedo 69 A-B, or Rep. 365 C, or many other subtle passages in Plato. No material object perfectly embodies the ideal and abstract mathematical relation. These mathematical ideas are designated as the true, $\alpha \lambda \eta \theta \nu \delta v$, and the real, δv . As in the Timaeus(38 C, 40 A-B, 36 D-E) the abstract and ideal has the primacy and by a reversal of the ordinary point of view is said to contain or convey the concrete. The visible stars are in and are carried by their invisible mathematical orbits. By this way of speaking Plato, it is true, disregards the apparent difficulty that the movement of the visible stars then ought to be mathematically perfect. But this interpretation is, I think, more probable for Plato than Adam's attempt to secure rigid consistency by taking τὸ ὂν τάχος etc., to represent invisible and ideal planets, and τὰ ἐνόντα to be the perfect mathematical realities, which are in them. ἐνόντα would hardly retain the metaphysical meaning of οντα. For the interpretation of 529 D cf. also my "Platonism and the History of Science,"Am. Philos. Soc, Proc. lxvi. p. 172.

191 δημιουργῷ: an anticipation of the <u>Timaeus</u>.

192 Cf. Bruno apud Höffding, History of Modern Philosophy, i. 125 and 128, and Galileo, ibid. i. 178; also Lucretius v. 302-305.

193 Plato was right against the view that Aristotle imposed on the world for centuries. We should not therefore say with Adam that he would have attached little significance to the perturbations of Neptune and the consequent discovery of Uranus. It is to Plato that tradition attributes the problem of accounting by the simplest hypothesis for the movement of the heavenly bodies and "saving the phenomena." The alleged contradiction between this and Laws 821 B ff. and Tim. 41 A is due to a misapprehension. That the stars in their movements do not perfectly express the exactness of mathematical conceptions is no more than modern astronomers say. In the Laws passage Plato protests against the idea that there is no law and order governing the movement of the planets, but that they are "wandering stars," as irregular in their movements as they seem. In the Timaeus he is saying that astronomy or science took its beginning from the sight and observation of the heavenly bodies and the changing seasons. In the Republic Plato's purpose is to predict and encourage a purely mathematical astronomy and the indicate its place in the type of

education which he wishes to give his guardians. There is not the slightest contradiction or change of opinion in the three passages if interpreted rightly in their entire context.

194 The meaning is not appreciably affected by a slight doubt as to the construction of ζητεῖν. It is usually taken with <u>ἄτοπον</u>(regarded as neuter), the meaning being that the Philosophic astronomer will think it strange to look for the absolute truth in these things. This double use of ἄτοπον is strained and it either makes παντὶ τρόπω awkward or attributes to Plato the intention of decrying the concrete study of astronomy. I think ζητεῖν etc. are added by a trailing anacoluthon such as occurs elsewhere in the Republic. Their subject is the real astronomer who, using the stars only as "diagrams" or patterns (529 D), seeks to learn a higher exacter mathematical truth than mere observation could yield. Madvig's ζητήσει implies a like view of the meaning but smooths out the construction. But my interpretation of the passage as a whole does not depend on this construction. If we make ζητεῖν depend on ἄτοπον(neuter)ἡγήσεται, the meaning will be that he thinks it absurd to expect to get that higher truth from mere observation. At all events Plato is not here objecting to observation as a suggestion for mathematical studies but to its substitution for them, as the next sentence shows.

195 That is just what the mathematical astronomy of today does, and it is a πολλαπλάσιον ἔργον compared with the merely observational astronomy of Plato's day. Cf. the interesting remarks of Sir James Jeans, apudS. J. Woolf, Drawn from Life, p. 74: "The day is gone when the astronomer's work is carried on only at the eyepiece of a telescope. Naturally, observations must be made, but these must be recorded by men who are trained for that purpose, and I am not one of them," etc. Adam's quotation of Browning's "Abt Vogler" in connection with this passage will only confirm the opinion of those who regard Plato as a sentimental enemy of science.

196 Cf. also Phileb. 59 A, Aristot.Met. 997 b 35οὐδὲ περὶ τὸν οὐρανὸν ἡ ἀστρολογία τόνδε. This intentional Ruskinian boutade has given great scandal. The Platonist, we are told ad nauseam, deduces the world from his inner consciousness. This is of course not true (Cf. Unity of Plato's Thought, p. 45). But Plato, like some lesser writers, loves to emphasize his thought by paradox and surprise, and his postulation and of a mathematical astronomy required emphasis. Cf. my Platonism and the History of Science, pp. 171-174. This and similar passages cannot be used to prove that Plato was unscientific, as many hostile or thoughtless critics have attempted to do. Cf. e.g. the severe strictures of Arthur Platt,

Nine Essays, Cambridge Univ. Press, 1921, , pp. 12-16, especially p. 16: "Plato being first and foremost a metaphysician with a sort of religious system would not have us study anything but metaphysics and a kind of mystic religion." Woodbridge Riley, <u>From Myth to Reason.</u> p. 47: "... Plato...was largely responsible for turning back the clock of scientific progress. To explain the wonders of the world he preferred imagination to observation." Cf. also Benn, Greek Philosophers, vol. i. pp. 173 and 327, Herrick, The Thinking Machine, p. 335, f. C. s. Schiller, Plato and he Predecessors, p. 81: "... that Plato's antiempirical bias renders him profoundly anti-scientific, and that his influence has always, openly or subtly, counteracted and thwarted the scientific impulse, or at least diverted it into unprofitable channels." Dampier-Whetham, A History of Science, pp. 27-28: "Plato was a great philosopher but in the history of experimental science he must be counted a disaster." Such statements disregard the entire context of the Platonic passages they exploit, and take no account of Plato's purpose or of other passages which counteract his seemingly unscientific remarks. Equally unfair is the practice of comparing Plato unfavorably with Aristotle in this respect, as Grote e.g. frequently does (Cf. Aristotle, p. 233). Plato was an artist and Aristotle an encyclopaedist; but Plato as a whole is far nearer the point of view of recent science than Aristotle. Cf. my Platonism and the History of Science, p. 163; also 532 A and on 529 A, p. 180, note a and What Plato Said, p. 236.

197 Cf. Phaedr. 272 Βκαίτοι οὺ σμικρόν γε φαίνεται ἔργον.

198 Plato here generalizes motion as a subject of science.

199 The modesty is in the tone of the Timaeus.

200 For <u>πέπηγεν</u> cf. 605 A.

<u>201</u> The similar statement attributed to Archytas, Diels i.3 p. 331, is probably an imitation of this.

202 Pythagoras is a great name, but little is known of him. "Pythagoreans" in later usage sometimes means mystics, sometimes mathematical physicists, sometimes both. Plato makes use of both traditions but is dominated by neither. For Erich Frank's recent book, Plato und die sogenannten Pythagoreer, cf. my article in Class. Phil. vol. xxiii. (1928,) pp. 347 ff. The student of Plato will do well to turn the page when he meets the name Pythagoras in a commentator.

203 For this turn of phrase cf. Vol. I. p. 333, 424 C, Protag. 316 A, Symp. 186 E.

<u>204</u> For the reference to experts Cf. 400 B, 424 C. Cf. also <u>What Plato Said</u>, p. 484, on <u>Laches</u> 184 D-E.

205 παρά of course here means "throughout" and not "contrary."

206 I take the word ἀτελές etymologically (cf. pp. 66-67, note b, on 500 A), with reference to the end in view. Others take it in the ordinary Greek sense, "imperfect," "incomplete."

207 This passage is often taken as another example of Plato's hostility to science and the experimental method. It is of course not that, but the precise interpretation is difficult. Glaucon at first misapprehends (cf. p. 180, note a, on 529 A) and gives an amusing description of the mere empiricist in music. But Socrates says he does not mean these, but those who try to apply mathematics to the perception of sound instead of developing a (Kantian)a priori science of harmony to match the mathematical science of astronomy. Cf. also p. 193, note g, on 531 B, W. Whewell, Transaction of the Cabridge Philos. Soc. vol. ix. p. 389, and for music A. Rivaud, "Platon et la musique," Rev. d'Histoire de la Philos. 1929, , pp. 1-30; also Stallbaum ad loc., and E. Frank, Platon u. d. sog. Pyth., Anhang, on the history of Greek music. He expresses surprise (p. 199) that Glaucon knows nothing of Pythagorean theories of music. Others use this to prove Socrates' ignorance of music.

208 This hints at the distinction developed in the Politicus between relative measurement of one thing against another and measurement by a standard. Cf. Polit. 283 E, 284 B-C, Theat. 186 A.

209 πυκνώματα (condensed notes). The word is technical. Cf. Adam ad loc.But, as ἄττα shows, Plato is using it loosely to distinguish a measure of sense perception from a mathematically determined interval.

210 Cf. Pater, Renaissance, p. 157. The phrase, ἐκ γειτόνων, is colloquial and, despite the protest of those who insist that it only means in the neighborhood, suggests overhearing what goes on next door—as often in the New Comedy.

211 Cf. Aldous Huxley, <u>Jesting Pilate</u>, p. 152: "Much is enthusiastically taught about the use of quarter tones in Indian music. I listened attentively at Lucknow in the hope of hearing some new and

extraordinary kind of melody based on these celebrated fractions. But I listened in vain." Gomprez, Greek Thinkers, iii. pp. 334-335, n. 85, thinks that Plato "shrugs his shoulders at experiments." He refers to Plutarch, Life of Marcellus, xiv. 65, and Quaest. Conv. viii. 2. 1, 7, where Plato is represented as "having been angry with Eudoxus and Archytas because they employed instruments and apparatus for the solution of a problem, instead of relying solely on reasoning."

212 So Malebranche, Entretiens sur la métaphysique, 3, x.: "Je pense que nous vous moquez de moi. C'est la raison et non les sens qu'il faut consulter."

213 For χρηστός in this ironical sense cf. also 479 A, Symp. 177 B.

214 The language of the imagery confounds the torture of slaves giving evidence on the rack with the strings and pegs of a musical instrument. For the latter cf. Horace, A.P. 348, "nam neque chorda sonum reddit quem vult manus et mens Poscentique gravem persaepe remittit acutum." Stallbaum says that Plato here was imitated by Aristaenetus, Epist. xiv. libr. 1τί πράγματα παρέχετε χορδαῖς;

<u>215</u> This also may suggest a reluctant and a too willing witness.

216 Cf. on 489 A, p. 23, note d.

217 He distinguishes from the pure empirics just satirized those who apply their mathematics only to the data of observation. This is perhaps one of Plato's rare errors. For though there may be in some sense a Kantian a priori mechanics of astronomy, there can hardly be a purely a priori mathematics of acoustics. What numbers are consonantly harmonious must always remain a fact of direct experience. Cf. my Platonism and the History of Science, p. 176.

218 Cf. Friedländer, Platon, p. 108, n. 1.

219 Cf. Tim. 47 C-D. Plato always keeps to his point—cf. 349 B-C, 564 A-B—or returns to it after a digression. Cf. on 572 B, p. 339, note e.

220 Cf. on 505 B, p. 88, note a.

221 μέθοδος, like πραγματείαν in D, is used almost in the later technical sense of "treatise" or "branch of study." Cf. on 528 D, p. 178, note a.

222 Cf. on 537 C, Epin. 991 E.

223 Plato is fond of this image. It suggests here also the preamble of a law, as the translation more explicitly indicates. Cf. 532 D, anticipated in 457 C, and Laws 722 D-E, 723 A-B and E, 720 D-E, ;772 E, 870 D, 854 A, 932 A and passim.

224 Cf. Theaet. 146 B, and perhaps Euthyd. 290 C. Though mathematics quicken the mind of the student, it is, apart from metaphysics, a matter of common experience that mathematicians are not necessarily good reasoners on other subjects. Jowett's wicked jest, "I have hardly ever known a mathematician who could reason," misled an eminent professor of education who infers that Plato disbelieved in "mental discipline" (Yale Review, July 1917,). Cf. also Taylor, Note in Reply to Mr. A. W. Benn, Mind, xii. (1903,) p. 511; Charles Fox, Educational Psychology pp. 187-188: "... a training in the mathematics may produce exactness of thought . . . provided that the training is of such a kind as to inculcate an ideal which the pupil values and strives to attain. Failing this, Glaucon's observation that he had 'hardly ever known a mathematician who was capable of reasoning' is likely to be repeated." On the text cf. Wilamowitz, Platon, ii. pp. 384-385, and Adam ad loc.

225 λόγον . . . δοῦναι A commonplace Platonic plea for dialectics. Cf. 534 B, Prot. 336 C, Polit. 286 A, Theaet. 202 C, 175 C, 183 D, Soph. 230 A, Phaedo 78 C-D, 95 D, Charm. 165 B, Xen. Oecon. 11. 22. Cf. also λόγον λαβεῖν Rep. 402 A, 534 B, Soph. 246 C, Theaet. 208 D, and Thompson on Meno 76 D.

226 Cf. Phileb. 58 D, Meno 75 C-D, Charm. 155 A, Cratyl. 390 C, and on 533 B, pp. 200 f., note f.

<u>227</u> This is not a literal rendering, but gives the meaning.

228 Cf. 516 A-B. Plato interprets his imagery again here and in B infra.

229 Cf. p. 180, note a, and p. 187, note c. Cf. also 537 D, and on 476 A ff. Cf. Bergson, Introduction to Metaphysics, p. 9: "Metaphysics, then, is the science which claims to dispense with symbols"; E. S. Robinson, Readings in General Psych. p. 295: "A habit of suppressing mental imagery must therefore characterize men who deal much with abstract ideas; and as the power of dealing easily and firmly with these ideas is the surest criterion of a high order if intellect . . . "; Pear, Remembering and Forgetting, p. 57: "He (Napoleon) is reported to have said that 'there are some who, from some physical or moral peculiarity of character, form a picture (tableau) of everything. No matter what knowledge, intellect,

courage, or good qualities they may have, these men are unfit to command"; A. Bain, Mind, 1880, , p. 570: "Mr. Galton is naturally startled at finding eminent scientific men, by their own account, so very low in the visualizing power. His explanation, I have no doubt, hits the mark; the deficiency is due to the natural antagonism of pictorial aptitude and abstract thought."; Judd, Psychology of High School Subjects, p.921: "It did not appear on superficial examination of the standings of students that those who can draw best are the best students from the point of view of the teacher of science."

- 230 εἴδωλα: cf. my <u>Idea of Good in Plato's Republic</u>, p. 238; also 516 A, <u>Theaet</u>. 150 C, <u>Soph</u>. 240 A, 241 E, 234 C, 266 B with 267 C, and <u>Rep</u>. 517 Dἀγαλμάτων.
- 231 ἐπάνοδος became almost technical in Neoplatonism. Cf. also 517 A, 529 A, and p. 124, note b.
- 232 Lit. "sun," i.e. the world illumined by the sun, not by the fire in the cave.
- 233 See crit. note. The text of Iamblichus is the only reasonable one. The reading of the manuscripts is impossible. For the adverb modifying a noun cf. 558 Βούδ' ὁπωστιοῦν σμικρολογία, Laws 638 Βσφόδρα γυναικῶν, with England's note, Theaet. 183 Επάνυ πρεσβύτης, Laws 791 Cπαντελῶς παίδων, 698 Cσφόδρα φιλία, Rep. 564 Αἄγαν δουλείαν, with Stallbaum's note.
- 234 θεῖα because produced by God or nature and not by man with a mirror or a paintbrush. See crit. note and CIass. Review, iv. p. 480. I quoted Sophist 266 B-D, and Adam with rare candor withdrew his emendation in his Appendix XIII. to this book. Apelt still misunderstands and emends, p.296 and note.
- 235 This sentence is fundamental for the understanding of Plato's metaphysical philosophy generally. Cf. <u>Unity of Plato's Thought</u>, p. 30, n. 192, <u>What Plato Said</u>, p. 268 and 586 on <u>Parmen</u>. 135 C. So Tennyson says it is hard to believe in God and hard not to believe.
- 236 This is not mysticism or secret doctrine. It is, in fact, the avoidance of dogmatism. but that is not all. Plato could not be expected to insert a treatise on dialectical method here, or risk an absolute definition which would only expose him to misinterpretation. The principles and methods of such reasoning, and the ultimate metaphysical conclusions to which they may lead, cannot be expounded in a page or a

- chapter. They can only be suggested to the intelligent, whose own experience will help them to understand. As the <u>Republic</u> and <u>Laws</u> entire explain Plato's idea of social good, so all the arguments in the dialogues illustrate his conception of fair and unfair argument. Cf. <u>What Plato Said</u>, Index <u>s.v.</u> Dialectics, and note f below.
- 237 For the idiom <u>οὐδὲν προθυμίας ἀπολίποι</u> Cf. <u>Symp.</u> 210 A, <u>Meno</u> 77 A, <u>Laws</u> 961 C, Aesch.<u>Prom.</u> 343, Thucyd. viii. 22. 1, Eurip.<u>Hippol.</u> 285.
- 238 On Plato's freedom from the dogmatism often attributed to him Cf. What Plato Said, p. 515 on Meno 86 B.
- 239 On Plato's freedom from the dogmatism often attributed to him Cf. What Plato Said, p. 515 on Meno 86 B.
- 240 The mystical implications of φήνειεν are not to be pressed. It is followed, as usual in Plato, by a matter-of-fact statement of the essential practical conclusion (γοῦν)that no man can be trusted to think straight in large matters who has not been educated to reason and argue straight.
- <u>241</u> Plato anticipates the criticism that he neglects experience.
- <u>242</u> i.e. dispute our statement and maintain. The meaning is plain. It is a case of what I have called illogical idiom. Cf. T.A.P.A. vol. xlvii. pp. 205-234. The meaning is that of **Philebus** 58 E, 59 A. Other "science" may be more interesting or useful, but sound dialectics alone fosters the disinterested pursuit of truth for its own sake. Cf. Soph. 295 C, Phaedr. 265-266. Aristotle, <u>Topics</u> i. 2. 6, practically comes back to the Platonic conception of dialectics. The full meaning of dialectics in Plato would demand a treatise. It is almost the opposite of what Hegelians call by that name, which is represented in Plato by the second part of the Parmenides. The characteristic Platonic dialectic is the checking of the stream of thought by the necessity of securing the understanding and assent of an intelligent interlocutor at every step, and the habit of noting all relevant distinctions, divisions, and ambiguities, in ideas and terms. When the interlocutor is used merely to relieve the strain on the leader's voice or the reader's attention, as in some of the later dialogues, dialectic becomes merely a literary form.
- 243 Cicero's "via et ratione." περὶ παντός is virtually identical with αὐτοῦ γε ἐκάστου πέρι. It is true that the scientific specialist confines himself to his

specialty. The dialectician, like his base counterfeit the sophist (Soph. 231 A), is prepared to argue about anything, Soph. 232 cf., Euthyd. 272 A-B.

244 Cf. 525 C, 527 B.

245 The interpreters of Plato must allow for his Emersonian habit of hitting each nail in turn as hard as he can. There is no real contradiction between praising mathematics in comparison with mere loose popular thinking, and disparaging it in comparison with dialectics. There is no evidence and no probability that Plato is here proposing a reform of mathematics in the direction of modern mathematical logic, as has been suggested. Cf. on 527 A. It is the nature of mathematics to fall short of dialectics.

246 Cf. Phileb. 20 B and on 520 C, p. 143, note g.

247 Cf. on 531 E.

248 The touch of humor is the expression may be illustrated by Lucian, <u>Hermotimus</u> 74, where it is used to justify Lucian's skepticism even of mathematics, and by Hazlitt's remark on Coleridge, "Excellent talker if you allow him to start from no premises and come to no conclusion."

249 Or "admission." Plato thinks of even geometrical reasoning as a Socratic dialogue. Cf. the exaggeration of this idea by the Epicureans in Cic. De fin. i. 21 "quae et a falsis initiis profecta, vera esse non possunt: et si essent vera nihil afferunt quo iucundius, id est, quo melius viveremus." Dialectic proceeds διὰ συγχωρήσεων, the admission of the interlocutor. Cf. <u>Laws</u> 957 D, <u>Phaedr.</u> 237 C-D, <u>Gorg.</u> 487 E, <u>Lysis</u> 219 C, Prot. 350 E, Phileb. 12 A, Theaet. 162 A, 169 D-E, I 64 C, Rep. 340 B. But such admissions are not valid unless when challenged they are carried back to something satisfactory—<u>iκανόν</u>—(not necessarily in any given case to the idea of good). But the mathematician as such peremptorily demands the admission of his postulates and definitions. Cf. 510 B-D, 511 B.

250 Cf. on 519 B, p. 138, note a.

251 Orphism pictured the impious souls as buried in mud in the world below; cf. 363 D. Again we should not press Plato's rhetoric and imagery either as sentimental Platonists or hostile critics. See Newman, Introd. Aristot. Pol. p. 463, n. 3.

<u>252</u> All writers and philosophers are compelled to "speak with the vulgar." Cf. e.g. Meyerson, <u>De</u> <u>l'explication dans les sciences</u>, i. p. 329: "Tout en

sachant que la couleur n'est pas réellement une qualité de l'object, à se servir cependant, dans la vie de tous les jours, d'une locution qui l'affirme."

253 Cf. on 511 D, pp. 116-117, note c.

254 This unwillingness to dispute about names when they do not concern the argument is characteristic of Plato. Cf. What Plato Said. p. 516 on Meno 78 B-C for numerous instances. Stallbaum refers to Max. Tyr. Diss. xxvii. p. 40ἐγὼ γάρ τοι τά τε ἄλλα, καὶ ἐν τῆ τῶν ὀνομάτων ἐλευθερία πείθομαι Πλάτωνι.

255 The next sentence is hopelessly corrupt and is often considered an interpolation. The translation omits it. See Adam, Appendix XVI. to Bk. VII., Bywater, <u>Journal of Phil.</u>(Eng.) v. pp. 122-124.

256 Supra 511 D-E.

257 Always avoid "faith" in translating Plato.

258 Cf. on 508 C, p. 103, note b.

259 That is the meaning, though some critics will object to the phrase. Lit. "the things over which these (mental states) are set, or to which they apply."

260 There are two probable reasons for this: (1) The objective classification is nothing to Plato's present purpose; (2) The second member of the proportion is lacking in the objective correlates. Numbers are distinguished from ideas not in themselves but only by the difference of method in dialectics and in mathematics. Cf. on 525 D, 526 A, Unity of Plato's Thought, pp. 83-84, and Class. Phil. xxii. (1927,) pp. 213-218. The explicit qualifications of my arguments there have been neglected and the arguments misquoted but not answered. They can be answered only by assuming the point at issue and affirming that Plato did assign an intermediate place to mathematical conceptions, for which there is no evidence in Plato's own writings.

261 Cf. on 531 E, p. 195, note f.

262 Cf. on 511 D, p. 117, note a.

- 264 It imports little whether the objections are in his own mind or made by others. Thought is a discussion of the soul with itself (Cf. <u>Theaet.</u> 189 E, <u>Phileb.</u> 38 E, <u>Soph.</u> 263 E), and when the interlocutor refuses to proceed Socrates sometimes continues the argument himself by supplying both question and answer, e.g. <u>Gorg.</u> 506 C ff. Cf. further <u>Phaedrus</u> 278 C, <u>Parman.</u> 136 D-E, <u>Unity of Plato's Thought</u>, p. 17.
- 265 Cf. Theaet. 160 D, Phileb. 45 A. The practical outcome=Laws 966 A-B, Phaedr. 278 C, Soph. 259 B-C. Cf. Mill, Diss. and Disc. iv. p. 283: "There is no knowledge and no assurance of right belief but with him who can both confute the opposite opinion and successfully defend his own against confutation."
- 266 For εἰδώλου cf. on 532 B, p. 197, not e. This may be one of the sources of Epist. vii. 342 B.
- 267 For Platonic intellectualism the life of the ordinary man is something between sleep and waking. Cf. Apol. 31 A. Note the touch of humor in τελέως ἐπικαταδαρθάνειν. Cf. Bridges, Psychology, p. 382: "There is really no clear-cut distinction between what is usually called sleeping and waking. In sleep we are less awake than in the waking hours, and in waking life we are less asleep than in sleep."
- <u>268</u> Plato likes to affirm his ideal only of the philosophic rulers.
- 269 Cf. 376 D, 369 C, 472 E, Critias 106 A.
- 270 A slight touch of humor. Cf. the schoolgirl who said, "These equations are inconsiderate and will not be solved."
- 271 A frequent periphrasis for dialectics. Cf.<u>τὸ</u> ἐρωτώμενον ἀποκρίνεσθαιGorg. 461 E, <u>Charm.</u> 166 D, <u>Prot.</u> 338 D, <u>Alc. I.</u> 106 B.
- 272 For μοπερ θριγκός cf. Eur. Herc. Fur. 1280, , Aesch. Ag. 1283, : and Phileb. 38 C-D ff.
- 273 Cf. 541 B.
- 274 Cf. 412 D-E, 485-487, 503 A, C-E.
- 275 Intellectually as well as physically. Cf. 357 A, Prot. 350 B f.
- <u>276</u> Cf. <u>Symp.</u> 209 B-C, <u>Phaedr.</u> 252 E and Vol. I. p. 261 on 402 D. Ascham, <u>The Schoolmaster</u>,Bk. I. also approves of this qualification.

- 277 For βλοσυρούς Cf. Theaet. 149 A.
- 278 Cf. 504 A, 364 E, Gorg. 480 C, Protag. 326 C, Euthyphro 15 C.
- 279 The qualities of the ideal student again. Cf. on 487 A
- 280 Cf. 495 C ff., pp. 49-51.
- <u>281</u> Montaigne, i. 24 (vol. i. p. 73), "les âmes boiteuses, les bastardes et vulgaires, sont indignes de Ia philosophie."
- 282 Cf. Laws 634 A, Tim. 44 C.
- 283 Cf. 548 E, <u>Lysis</u> 206 C, <u>Euthyd.</u> 274 C, 304 C, and Vol. I. p. 515 on 475 D.
- 284 Cf. 382 A-B-C.
- 285 Cf. <u>Laws</u> 819 D, <u>Rep.</u> 372 D, <u>Politicus</u> 266 C, and my note in <u>Class. Phil.</u> xii. (1917,) pp. 308-310. Cf. too the proverbial $\tilde{\upsilon}_{\varsigma}$ γνοίη, <u>Laches</u> 196 D and <u>Rivals</u> 134 A; and Apelt's emendation of <u>Cratyl.</u> 393 C, <u>Progr. Jena.</u> 1905, , p. 19.
- 286 Cf. 487 A and vol. I. p. 261, note c on 402 C. The cardinal virtues are not rigidly fixed in Plato. Cf. on 427 E, vol. I. p. 346.
- 287 Plato is using ordinary language and not troubling himself with the problem of Protag. 329 D (What Plato Said, p. 497) and Laws 633 A (What Plato Said, p. 624). Cf. also on 533 D.
- 288 πρὸς ὅ τι ἄν τύχωσι lit. "for whatsoever they happen to of these (services)." Cf. <u>Symp.</u> 181 B, <u>Prot.</u> 353 A, <u>Crito</u> 44 D and 45 D, <u>Gorg.</u> 522 C, <u>Laws</u> 656 C, <u>Rep.</u> 332 B, 561 D, Dem. iv. 46, Isoc. <u>Panath.</u> 25, 74, 239, Aristot. <u>Mat.</u> 1013, a 6.
- 289 Cf. 487 A. For δίκη cf. Hirzel, <u>Dike, Themis und Verwandtes</u>, p.116.
- 290 καταντλήσομεν: cf. 344 d.
- 291 Jest and earnest are never far apart in Plato. Fabling about justice is an old man's game, <u>Laws</u> 685 A, 769 A. Life itself is best treated as play, <u>Laws</u> 803 C. Science in <u>Tim.</u> 59 D is <u>παιδιά</u>, like literature in the <u>Phaedrus</u> 276 D-E, <u>ibid.</u> 278 B. Cf. Friedländer, <u>Platon</u>, i. pp. 38 and 160, and <u>What Plato Said</u>, pp. 553 and 601.

- 292 For similar self-checks Cf. Laws 804 B, 832 B, 907 B-C, Phaedr. 260 D, 279 B. For ἐντεινάμενος cf. Blaydes on Aristoph. Clouds 969.
- <u>293</u> Cf. Isoc.<u>Busiris</u> 49. Whatever the difficulties of the chronology it is hard to believe that this is not one of Isocrates' many endeavors to imitate Platonic effects.
- 294 Cf. Soph. 226 C, Sophocles, Ajax 397.
- 295 γηράσκω δ' ἀεὶ πολλὰ διδασκόμενος, "I grow old ever learning many things." Cf. <u>Laches</u> 188 A-B; Otto, p. 317.
- <u>296</u> Cf. <u>Theaet.</u> 146 B. This has been misquoted to the effect that Plato said the young are the best philosophers.
- 297 This and παίζοντας below (537 A) anticipate much modern Kindergarten rhetoric.
- 298 Newman, Introd. Aristot. Pol. 358, says Aristotle rejects this distinction, Pol. 1338, b 40μέχρι μὲν γὰρ ήβης κουφότερα γυμνάσια προσοιστέον, τὴν βίαιον τροφὴν καὶ τοὺς πρὸς ἀνάγκην πόνους ἀπείργοντας, ἵνα μηδὲν ἐμπόδιον ἦ πρὸς τὴν αὕξησιν.
- 299 Cf. 424 E-425 A, <u>Laws</u> 819 B-C, 643 B-D, 797 A-B, <u>Polit.</u> 308 D. Cf. the naive statement in Colvin And Bagley, <u>Human Behavior</u>, p. 41: "The discovery [<u>sic!</u>] by Karl Groos that play was actually a preparation for the business of later life was almost revolutionary from the standpoint of educational theory and practice."
- 300 Cf. 467, vol. I. pp. 485-487.
- 301 ἐγκριτέον cf. 413 D, 377 C, 486 D, <u>Laws</u> 802 B, 820 D, 936 A, 952 A.
- 302 Cf. Aristot. Pol. 1339, a 7 f. ἄμα γὰρ τῆ τε διανοία καὶ τῷ σώματι διαπονεῖν οὐ δεῖ, etc.; Plut. De Ed. Puer. 11, De Tuenda San. C. 25, quoted by Newman, Aristot. Pol. I. p. 359, are irrelevant to this passage, but could be referred to the balancing of music and gymnastics in 410-412.
- 303 Cf. Laws 829 B-C.
- 304 σύνοψιν: cf. 531 D. This thought is endlessly repeated by modern writers on education. Cf. Mill, Diss. and Disc. iv. 336; Bagley, The Educative Process, p. 180: "The theory of concentration proposed by Ziller . . . seeks to organize all the

- subject matter of instruction into a unifies system, the various units of which shall be consciously related to one another in the minds of the pupils"; Haldane, The Philosophy of Humanism, p. 94: "There was a conference attended by representatives of various German Universities . . . which took place at Hanstein, not far from Göttingen in May 1921, . The purpose of the movement is nominally the establishment of a Humanistic Faculty. But in this connection 'faculty' does not mean a separate faculty of humanistic studies. . . . The real object is to bring these subjects into organic relation to one another." Cf. Alexander, Space, Time, and Deity, vol. i. p. 4 "So true is it that, as Plato puts it, the metaphysician is a 'synoptical' man." Cf. also Aristot. Soph. El. 167 α 38διὰ τὸ μὴ δύνασθαι συνορᾶν τὸ ταὐτὸν καὶ τὸ ἔτερον. Stenzel, <u>Dialektik</u>, misuses the passage to support the view that Plato's dialectic still looks for unity and not for divisions and distinctions, as in the Sophist. Cf. also ibid. p.72.
- 305 For the technical meaning of the word προκρίτων Cf. Laws 753 B-D.
- 306 For this periphrasis Cf. Phaedr. 246 D, Tim. 85 E. Cf. also on 509 A.
- 307 The reader of Plato ought not to misunderstand this now. Cf. on 532 A, pp. 196 f., note d, and 530 p. 187, note c.
- 308 Plato returns to an idea suggested in 498 A, and warns against the mental confusion and moral unsettlement that result from premature criticism of life by undisciplined minds. In the terminology of modern education, he would not encourage students to discuss the validity of the Ten commandments and the Constitution of the United States before they could spell, construe, cipher, and had learned to distinguish an undistributed middle term from a petitio principii. Cf. Phaedo 89 D-E. We need not suppose with Grote and others that this involves any "reaction" or violent change of the opinion he held when he wrote the minor dialogues that portray such discussions. In fact, the still later Sophist, 230 B-C-D, is more friendly to youthful dialectics. Whatever the effect of the practice of Socrates or the Sophists, Plato himself anticipates Grote's criticism in the Republic by representing Socrates as discoursing with ingenuous youth in a more simple and edifying style. Cf. Lysis 207 D ff., Euthydem. 278 E-282 C, 288 D-290 D. Yet again the Charmides might be thought an exception. Cf. also Zeller, Phil. d. Griechen, ii. 1, p. 912, who seems to consider the Sophist earlier than the Republic.

- 309 i.e. they call all restrictions on impulses and instincts tyrannical conventions. Cf. Gorg. 483-484, Aristoph. Clouds, passim, and on nature and law cf. Vol. I. p. 116, note a, on 359 C.
- 310 Cf. on 494 A, p. 43, note c.
- 311 διαφερόντως ἢ πρότερον: Cf. Phaedo 85 B.
- 312 οἶά περ ἀν γένοιτο is the phrase Aristotle uses to distinguish the truth of poetry from the facts of history.
- 313 That is the meaning. Lit. "those who lay hold on discourse."
- 314 Plato's warning apples to our day no less than to his own. Like the proponents of ethical nihilism in Plato's Athens, much of our present-day literature and teaching questions all standards of morality and aesthetics, and confuses justice and injustice, beauty and ugliness. Cf. also on 537 D, p. 220, note a.
- 315 The question is here personified, as the λόγος so often is, e.g. 503 A. Cf. What Plato Said on Protag. 361 A-B.
- 316 A possible allusion to the καταβάλλοντες λόγοι of the sophist. Cf. <u>Euthydem.</u> 277 D, 288 A, <u>Phaedo</u> 88 C, <u>Phileb.</u> 15 E and <u>What Plato Said.</u> p. 518, on <u>Crito</u> 272 B.
- 317 This is the oral counterpart of the intellectual skepticism or μισολογία of Phaedo 90 C-D. Cf. What Plato Said, p. 531, on Phaedo 89.
- 318 For οἰκεῖα Cf. 433 E, 433 D, and <u>Class. Phil.</u> xxiv. (1929,) pp. 409-410.
- 319 Cf. <u>Laws</u> 633 E and 442 A-B. Others render it, "than the life of the flatterers (parasites)." Why not both?
- 320 See on 498 A-B. Cf. Richard of Bury, Philobiblon(Morley, A Miscellany, pp. 49-50): "But the contemporaries of our age negligently apply a few years of ardent youth, burning by turns with the fire of vice; and when they have attained the acumen of discerning a doubtful truth, they immediately become involved in extraneous business, retire, and say farewell to the schools of philosophy; they sip the frothy must of juvenile wit over the difficulties of philosophy, and pour out the purified old wine with economical care."

- 321 Cf. Apol. 23 C, Phileb. 15 E, Xen. Mem. i. 2. 46, Isoc. xii. 26 and x. 6; also Friedländer, Platon, ii. p. 568.
- 322 But in another mood or from another angle this is the bacchic madness of philosophy which all the company in the Symposium have shared, 218 A-B. Cf. also Phaedr. 245 B-C, 249 C-E, Sophist 216 D, Philosophy 15 D-E, and What Plato Said, p. 493 on Protage. 317 D-E.
- 323 Cf. Gorg. 500 B-C. Yet the prevailing seriousness of Plato's own thought does not exclude touches of humor and irony, and he vainly warns the modern reader to distinguish between jest and earnest in the drama of disputation in his dialogues. Many misinterpretations of Plato's thought are due to the failure to heed this warning. Cf. e.g. .Gorgias 474 A (What Plato Said, p. 504), which Robin, L'Année Philos. xxi. p. 29, and others miss, Rep. 376 B, Symp. 196 C, Protag. 339 f., Theaet. 157 A-B, 160 B,165 B,and passim. Cf. also on 536 C, p. 214, note b
- 324 For the idiom μὴ ὡς νῦν etc. Cf. on 410 Βοὐχ ϗόσπερ; also 610 D, Gorg. 522 A, Symp. 179 E, 189 C, Epist. vii. 333 A, Aristoph.Knights 784, Eurip.Bacchae 929, II. xix. 493, Od. xxiv. 199, xxi. 427, Dem. iv. 34, Aristot.De an. 414 A 22.
- 325 It is very naive of modern commentators to cavil at the precise time allotted to dialectic, and still more so to infer that there was not much to say about the ideas. Dialectic was not exclusively or mainly concerned with the metaphysics of the ideas. It was the development of the reasoning powers by rational discussion.
- 326 Cf. 519 C ff., pp. 139-145.
- 327 Xen. Cyrop. i. 2. 13 seems to copy this. Cf. on 484 D. Critics of Plato frequently overlook the fact that he insisted on practical experience in the training of his rulers. Newman, Aristot. Pol. i. p. 5 points out that this experience takes the place of special training in political science.
- 328 Cf. ὑποκινήσαντ', Aristoph. Frogs 643.
- <u>329</u> An eminent scholar quaintly infers that Plato could not have written this page before he himself was fifty years old.
- 330 Plato having made his practical meaning quite clear feels that he can safely permit himself the short cut of rhetoric and symbolism in summing it up. He

reckoned without Neoplatonists ancient and modern. Cf. also on 519 B, p. 138, note a.

331 Cf. 500 D-E. For παράδειγμα cf. 592 B and What Plato Said, p. 458, on Euthyphro 6 E, and p. 599, on Polit. 277 D.

332 Cf. 520 D.

333 Cf. 347 C-D, 520 E.

334 Plato's guardians, unlike Athenian statesmen, could train their successors. Cf. Protag. 319 E-320 B, Meno 99 B. Also ἄλλους ποιεῖνΜεπο 100 A, Gorg. 449 B, 455 C, Euthyph. 3 C, Phaedr. 266 C, 268 B, Symp. 196 E, Protag. 348 E, Isoc.Demon. 3, Panath. 28, Soph. 13, Antid. 204, Xen.Oecon. 15. 10, and παιδεύειν ἀνθρώπους, generally used of the sophists, Gorg. 519 E, Protag. 317 B, Euthyd. 306 E, Laches 186 D, Rep. 600 C.

335 Cf. p. 139, note d. Plato checks himself in midflight and wistfully smiles at his own idealism. Cf. on 536 B-C, also 540 C and 509 C. Frutiger, Mythes de Platon, p. 170.

336 Cf. Symp. 209 E.

337 For this caution cf. 461 E and Vol. I. p. 344, note c, on 427 C.

338 Plato plays on the words δαίμων and εὐδαίμων. Cf. also Crat. 398 b-C.

339 Cf. 361 D.

340 Lit. "female rulers."

341 Cf. on 450 D and 499 C.

342 Cf. 499 D.

343 Cf. What Plato Said, p. 564 on Rep. 472 B-E, and p. 65, not h, on 499 D.

344 Cf. 463 C-D, 499 B-C.

345 Cf. 521 B, 516 C-D.

346 τὸ ὀρθόν: Cf. Theaet. 161 C, Meno 99 A.

<u>347</u> This is another of the passages in which Plato seems to lend support to revolutionaries. Cf. p. 71, note g. Cf. <u>Laws</u> 752 C, where it is said that the

children would accept the new laws if the parents would not. Cf. 415 D, and also What Plato Said, p. 625, on Laws 644 A and p. 638, on 813 D. There is some confusion in this passage between the inauguration and the normal conduct of the ideal state, and Wilamowitz, Platon, i. p. 439 calls the idea "ein hingeworfener Einfall." But Plato always held that the reformer must have or make a clean slate. Cf. 501 A, Laws 735 E. And he constantly emphasizes the supreme importance of education; Rep. 377 A-B, 423 E, 416 C, Laws 641 B, 644 A-B, 752 C, 765 E-766 A, 788 C, 804 D. For παραλαβόντες Cf. Phaedo 82 Επαραλαβοῦσα.

348 Cf. 535 A.

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