Judgment and Thought in the Theaetetus

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The variety of meanings attached to the term doxa has been a cause of concern to many scholars. The tendency has been to look for a gradual and tolerably consistent change in Plato's understanding of the term, in tune with what is thought to have been his philosophical development. At the same time it is often recognized that the distribution of the various senses of doxa between earlier and later dialogues does not always warrant this perspective. One of the results of this general uncertainty about the status of doxa has been that translators have variously rendered it "opinion" or "belief" or "judgment," to mention only the three most prominent renderings. All will agree that this is an unfortunate situation. The present paper will attempt to show that, certainly in the Theaetetus, but probably elsewhere in Plato also, all three translations are subject to criticism. Doxa in the sense of "belief," i.e., as signifying the conviction of the truth of something, is extremely rare in Plato, as is doxa in the sense of "judgment," i.e., as signifying the discursive combining of two or more initially separate terms into a proposition; and the word "opinion" in English raises an expectation that it will be followed by a subordinate clause, which is only infrequently the case in Greek.

A typical case of doxa being used in a sense other than "judgment" occurs at Charm. 158E7 ff. Socrates seems to suggest that if Charmides possesses a balanced personality (sophrosyne) he should be able to judge what that is, i.e., he should be able to make a statement of identity, or a classification in terms of genus and species. But though we might put things that way, that is not the sort of language which Socrates or his interlocutors would understand. Socrates really means to say that if you have something, you must have a conception of it which you ought to be able to put into words. The word sophrosyne will not do because for the present purposes it is regarded as an unknown, like the name of a man whom we have not met. If you truly have the reality corresponding to the name you are looking for, its presence within you ought to precipitate an awareness, a thought, which according to the teachings of Prodicus will perhaps be articulable in more ways than one. If you can find an articulation which because of its associations with names known to you produces in you a greater feeling of familiarity than sophrosyne would, then you will gladly substitute the new term for the old. We might say that the activity which Socrates encourages Charmides to undertake is the making of a judgment, the combination of two knowns in a meaningful relationship. For Socrates, the apparent equation of sophrosyne and calmness which follows is the substitution of a more familiar term articulating a more distinct concept, for a less familiar term articulating a less distinct concept or thought. The substitution happens to be mistaken. But there is nothing discursive about doxa and the verb doxazein as here used;
doxa simply designates the thought prompted more or less spontaneously in the soul by the presence, also in the soul, of the reality which the thought reflects.

I suggest that in Plato doxa should be translated "thought," and doxazein "think" wherever they occur. Such a policy would have several obvious advantages. One, it would avoid the bewildering variety of translations now in force; two, it would take Plato's use of one and the same word in various contexts as a hint that what is designated by it is one and the same sort of thing (it is always dangerous to assume lightly that Plato uses his terms negligently); and three, it would force us to investigate further the precise nature of what Plato chooses to denote by the term. The analysis of some of the uses of doxa in the Theaetetus which follows is designed to attempt the beginnings of an answer to the last point.

What is the relationship between aisthesis (sense-perception) and doxa? In the earlier part of the Theaetetus they are not differentiated, for the simple reason that according to Protagoras all thoughts are ultimately of perceptual objects. If there is a distinction, it is merely that doxa, instead of being identical with aisthesis, may occur through aisthesis, or may be the awareness of an aisthesis. But since the term aisthesis is used in the sense of "result in the soul" as well as "process which causes the result," and since all perception as distinct from the mechanical motions which enter into perception is conscious, the realities designated by the two terms are, to begin with, not distinct.

But when, 187A ff., the claim of sense perception to be knowledge has been thrown out of court, and Socrates proceeds to focus on the sort of cognition which can occur independently of sensation, he lays the foundation for a distinction between aisthesis and doxa. Earlier, "the work of the soul by herself" had meant the kind of perceiving which goes hand in hand with the sensing through the organs, the perceiving of being and difference and numbers which is a necessary part of every complex perception. Now Socrates begins to mean by the "work of the soul by herself" the thinking which may go on in the absence of any immediate perception. And this thinking he calls doxazein. 187a8. Such thinking now is held to apprehend objects which, if we were talking of direct perception, would include objects of physical sensation: I think "stone." Thus, of the two meanings of the phrase "the work of the soul by herself," the first, i.e., perception minus the elements contributed by the sense organs, is dispensed with in favor of the second, i.e., thinking; in the absence of direct perception, of objects otherwise apprehended by sense perception. And in the end, doxa comes to mean "thinking" of perceptual objects, whether the act of perception is prior in time or not. In the fourth examination of error, for instance (191a8 ff.), doxa is triggered by sensation and memory, and becomes itself a kind of perception. But, initially at least, as is indicated by the premises of the first, second and third examinations of error (cf. below, appendix), no immediate apprehension via the sense organs seems to be involved in the making of a doxa.
Even where, however, doxa is not identical with perception, it is analogous to it. In the fourth examination of error, on the occasion of describing the wax tablet, Socrates 191D6 ff. parallels perceptions and thoughts as both effecting memory when stored or registered on the tablet. And a little later, at 195A7, Socrates suggests that those whose retained impressions, i.e., former perceptions now filed away on the tablet, are indistinct and confused, will not, when faced with new impressions, correlate them properly but "see and hear and think amiss." Error, thus, is a matter of faulty vision or hearing or thinking; thought is paralleled with perception. Here, as elsewhere in Plato, it is apparent that thinking is prompted by objects precisely as hearing and smelling are. But if it is correct to say that thought is analogous to perception, then doxa cannot be judgment. The most characteristic thing about those who have true doxai, and the point in which they fall most distinctly short of rational understanding, is their complete lack of the capacity or willingness to initiate a mental act and to operate dialectically, to combine and analyze. In the dream which is related near the end of the Theaetetus and which is occasioned by the difficulty of the word logos, it is said that a true doxa as distinct from knowledge does not have logos (202B5 ff.). It must be admitted, of course, that this line of attack fails; it is impossible to arrive at a definition of knowledge by starting from perception or its analogue thought. But the readiness to assume without further question that doxa as such does not involve logos must count for something. As we shall see, even when doxa is combined with logos in some other fashion it need not be, and perhaps cannot be judgment.

Throughout the five examinations of error, error is conceived of as false thought rather than false judgment. Cornford, though in general committed to the translation "judgment," seems to have felt that this was not always the appropriate rendering, for on occasion he speaks of "notion or judgment," or "belief." But false doxa is neither false judgment nor false belief, as a hurried glance at some of the stages in the fivefold examination of error will show. In the second examination, for instance, Socrates argues (188D3 ff.) that thinking something which does not exist is impossible, just as it would be impossible to perceive something which is at the same time nothing. In other words, that which is not, is nothing. Now on the premise that Plato is talking about judgments this sort of talk is patently casuistic, and some critics have asked us to recognize a sophistic element in the argument. But if doxazein is merely "to think," the argument is quite in order. You cannot think a nothing. In terms of mere being and not-being, error is impossible.

In the fourth examination (194A3), making an error is compared to an archer trying to hit the goal but missing it. That is to say, the soul thinks x, while she should have thought y. Again, no judgment seems to be involved. Similarly in the fifth examination error is thought of as a wrong grabbing, or rather the grabbing of the wrong bird. In all these cases, doxa means "notion" or "thought" rather than the combination of two or more notions into a judgment.
The same thing remains true after the refutation of the second thesis, that knowledge is true doxa. When in the course of exploring the value of the third thesis that knowledge is true doxa plus logos, Socrates 207Al ff. takes true doxa plus logos to be a correct enumeration of the parts of a complex object of thought (in this case, the parts of a wagon), again no judgment is involved. I think "wheel" and "axle" and "box," and though I think them in sequence rather than in the fashion in which I would perceive them if the wagon were present to my senses, I do not make the sort of connexion between them which would render a judgment.

Can there be a doxa of a simple, i.e., of an irreducible phenomenon corresponding to an irreducible Form? Perhaps the chief difference between a perception proper and a doxa is that for the former, its object always contains the element of existence, whereas for the latter it does not. That is to say, a perception, even if put in the form "Green grass!", really means: "This is green grass," while the thought "green grass," though always, if sometimes very indirectly, referable to an external existent, does not as such contain a reference to the existence of the object. But though existence need not be a constituent of the thought-datum, there are other constituents which prevent the Platonic doxa from ever being the doxa of a simple. For instance, as Plato puts it in the course of investigating the third thesis (209DL-2): "The true thought of anything must ... include the differentness of that thing." Even earlier, in his account of the dream, Socrates had touched on this (202B6); he there distinguished doxa from sensation by saying that the latter apprehends simples, the former complexes (syllabai). Simples cannot be talked about or known, they can only be sensed; complexes can be known and referred to in speech and thought by true thought. To be sure, Plato subsequently seems to challenge this distinction when, 206Al ff., he cites the evidence of the alphabet against the notion that a complex is more easily apprehended than a simple; elements, he suggests, produce a more distinct apprehension than complexes and produce such an apprehension more effectively, for letters are learnt more clearly and with greater ease than syllables of words. But the force of this challenge, based as it is on the premises of the dream, is more apparent than real. For a letter of the alphabet may be simpler than a written word, but it is by no means a simple object of perception or thought. In Plato's philosophy, in spite of the curious allegations of the dream, a simple can be neither perceived nor thought nor articulated.

We must now consider some modern testimony to the effect that thought without judgment is impossible; further, we must take up some Platonic texts which at first glance seem to advance the same proposition. Susemihl speaks as most Platonic scholars do when he says: "Hence the concept is the first result of reflection." Among recent philosophers, C. D. Broad distinguishes between "seeing" and "thinking" by saying that a perceptual situation is 'intuitive', whilst a thought-situation with the same kind of epistemological object is 'discursive' .... I do not wish to deny that there may be something intuitive in every thought-situation and something discursive in every perceptual situation ...." It is a nice question, which I have not been able to resolve for myself, whether according to Plato's teaching perception and thought can share the same epistemological object. Certainly in the Theaetetus it appears as if Plato thought they could.
At any rate, when Broad proceeds to demonstrate the discursive character of thought by stressing the fact that we use a preposition, "thinking about" or "of," rather than the simple accusative case to refer to the object, his case becomes hopeless, for not only is this not true in Greek, it is not necessarily true in English either. Even Reid had said: "We may distinctly conceive a proposition, without judging of it at all." Of the two thoughts "tree" and "Theaetetus is handsome," the latter may be described as the mental correlate of a proposition. But it is the former type which seems to be important for Plato, apparently furnishing him with his cue for treating the second type of thought also as if it were of an intuitively apprehended complex object. Plato cannot do anything else. In his account of perception, 156C6 ff., also 182A3 ff., he includes the perception of a quality in the act of perception itself. I see whiteness or handsomeness along with the various other elements included in the complex object of vision. But if this is so, then, when Theaetetus is perceived, his handsomeness is part of the original perceptual object, and the apprehension of handsomeness is included in the perception of Theaetetus. And when the thought "Theaetetus is handsome" occurs independently of direct perception, it is merely the recapturing of a previous perception, or rather the selection and subsequent articulation of a small fraction of the complex originally perceived.

What, then, is a doxa of things to come? For, ostensibly in rebuttal of the sensationalist relativism of Protagoras, but really in support of Protagoras' contention that the area of good and bad allows for some limited expertise, Socrates shows, 178B9 ff., that experts are better prognosticators of the things which will happen in the future than non-experts. As far as the major question "What is knowledge" is concerned, this section of the dialogue contributes effectively to the ultimate finding that it is not sensation. But this does not concern us at the moment. A false doxa of things to come should, one supposes, be expressed in a proposition containing a verb in the future tense. But Plato's language speaks against this. The whole discussion is conducted as if the wrongness of the non-expert were not a matter of faulty judgment but a matter of delusion; he has the wrong presentiment, he thinks—before (prodoxazei 178E5) "sweet" rather than "bitter." Prognostication, in these terms, is closer to prophecy, the present awareness of an anticipated future experience, or rather the experiencing in the present of what is not yet apprehensible by ordinary mortals, than to a judgment formed on the basis of premises. And it seems to differ very little from the kind of thing which Protagoras is talking about when he credits the expert with the capacity of causing a person who has had bad phainomena to have good phainomena (166D6-8). Take a man A who thinks "bitter" when eating a certain food. The expert, proceeding from the correct or healthy presentiment, changes the man A into the man B; as a result, the man B thinks "sweet" when eating the same food. This transformation, the implanting of healthier perceptions and thoughts in the citizens, is achieved by the expert by means of persuasion rather than teaching; he affects not the reasoning processes but the "emotions" or, as we might say more correctly, the perceptual tendencies of his subjects. This is what Socrates puts into the mouth of Protagoras, and there is nothing to suggest that it does not reflect Plato's own feelings in the matter.
A new difficulty is introduced when in the third examination of error, 189E4 - 190A6, Socrates makes a distinction between doxa and doxazein. The latter seems to be identified with "reflecting" (dianoisthai) or the dialogue of the soul with herself, while the former is said to be the result of doxazein. The dialogue of the soul is "about the things which she inspects." Thus we seem to have three different phases: (1) the soul inspects objects; (2) the soul converses with herself concerning these objects; and (3) the soul arrives at a decision concerning them. The difficulty with all this is that elsewhere in the same examination (a) "inspecting" (skopein) and "thinking" (doxazein) seem to be identified, 189C3-4 (cf. also the paralleling of "thinking" [doxazon] and "touching" [ephaptomenos], 190D6, also 190D9-10); and (b) the internal conversation of the soul and the final decision are not always distinguished; either may be called doxazein: 190D4-8. The terminological uncertainty affecting the argument appears to mirror a major difficulty which may well be obliquely hinted at by Socrates' ironic remark, 189E7, that he is giving his explanation without knowing anything about the subject: a re-emphasis of Socrates' traditional attitude which is rather rare in the logical part of the Theaetetus.

The point is that Plato allows himself to be swayed by such terms as "reflecting" (dianoisthai), "conversing" (dialegesthai) and "stock-taking" (syllogizesthai) to approximate "thinking" to considering and judging. From what we have established about the complex nature of the object of doxa, it follows that once a doxa is articulated it is likely to be expressed in terms of subject and predicate (206D1 ff.). The soul assembles certain data originally submitted by a combination of sensation and her own proper activity, and thus produces a thought. This process of assembling may properly be called a "stock-taking" or a "conversing with herself," but it should be understood that such stock-taking or internal dialogue does nothing more than re-create the original perceptual structure, and that it is not experienced on the level of consciousness. The man, as distinct from his soul, becomes aware only of the final product of this operation within the soul, namely the thought. This is what Plato seems to have in mind when in the Sophist (264A8 ff.) he calls thought a "realization" or "conclusion" of considering (dianoias apoteleutesis): "... considering is a conversing of the soul with herself, and doxa is a realization of considering ...." (cf. Theaet. 189E6-7). The conversation is a silent conversation, it is pre-verbal, a conversation only in the figurative sense of the word. In fact, the whole section about the soul conversing is a metaphor to account for the complexity of doxa.

Now what Plato does is, for a brief moment, to neglect the difference between this unconscious activity of the soul and the conscious process of judging. At one point in the third examination of error, 190A9, Plato substitutes for his previous formulation of error, namely the thinking of one thing in the place of another (189C2-3), a new formulation to the effect that error is thinking that one thing is another, and gives as examples of this type of equation the thought that the fair is ugly, or that the unjust is just, or that the odd is even. Surely, Socrates hastens to remark, this kind of thought has never occurred to anyone even in his wildest dreams; not even a sick
man or a madman would dare to persuade himself that an ox is a horse, or
two is one. Hence error is impossible. What Plato has done here is to
substitute the nonsensical judgment "the ox is a horse" for the perfectly
legitimate thought "this is a horse," which is false but not nonsensical
if the object I should have thought of is in fact not a horse but an ox.
Plato's deviation from the logic of the argument is to be explained as a
venture stimulated by the terms "considering" and "stock-taking" and
"conversing" in an irrelevant judgmental sense. In any case, the venture
is short-lived; it helps Socrates to present his interlocutors with a
blind alley and force them into approaching the problem of error by means
of a new examination which, incidentally, continues to operate with the
notions of considering and stock-taking and comparing, but now in their
proper sense -- proper within the context of the examinations of error --
as unconscious activities of the soul. Hence the terms of the fourth and
fifth examinations of error help to prove our contention that the opening­
up of a judgmental horizon in the third examination is illegitimate and
abortive, and that Plato recognized it to be so.

A further objection to the notion that doxa is not judgment, or, in
other words, that a doxa is always of things and not about them, stems
from the fact that in the Platonic text doxa is often followed by the
preposition "about" (peri). That the objection has no force becomes evi­
dent from even a cursory perusal of the passages in question, for doxa
peri and doxa followed by the simple (objective) genitive case (or
doxazein peri and doxazein followed by the accusative case) are appar­
tently used without distinction, and often indeed within one and the same
sentence.\textsuperscript{19} Peri, therefore, does not refer to the reality about which
a judgment is made, but to the reality in the presence of which or
through whose agency a thought implants itself in the soul. For this
use of peri, roughly meaning "with reference to" or "in connexion with,"
there are many parallels in Plato. Modern interpretation might hazard
the guess that, after doxa, peri points to the external object of thought
while the simple genitive designates the thought-datum or thought-result.
But it is very doubtful whether Plato meant to distinguish in principle
between an object and a datum of thought or of any other type of cogni­
tion. The object of a thought is not dealt with separately from the con­
tent of the thought. The constituents of a complex thought object are to
be rediscovered in the content of thought. False thought, like false per­
ception, is apprehending a complex object which either is not structured
as the object which prompts it -- though the constituents are the same --
or which is not the object expected or required, given the logic of the
situation which produces the thought. That on either alternative there
are serious psychological and philosophical difficulties which press for
clarification need not deter us. What matters is that for Plato both
thought and perception can be false apparently because of the unreliabil­
ity of the soul, which does not always respond truly to the prompt­
ings of the external object, having as she does an immense variety of
memory imprints at her disposal, ready to be activated into thought at
the slightest impulse. But without the postulate of the external exist­
ence of the objects of thought, whatever they are, Plato's epistemology
would collapse, and the idealist interpreters would have the field to
themselves. Hence Plato must say that false thinking is thinking an
object which is false or that the object which has stimulated the soul to think need not be the same as the object which the soul finally comes to think.20

In the preceding, we have analyzed doxa as prompted either by a present perception or by a past perception registered and resuscitated. There is, however, also a doxa prompted by a Form, or a complex of Forms. At the conclusion of the fourth examination of error, 195E ff., Socrates introduces the problem which later occasions the distinction between latent memory and actual recall, made in the course of the fifth examination. How can a man, he asks, when totalling 5 and 7, make the error of thinking that the sum is 11? The kind of doxa which Socrates has in mind here is different from the doxa discussed heretofore, because the objects of this doxa are not perceptual objects, either present or past, but simple constituents of perceptual objects, of a kind which cannot be perceived by themselves. The thought "eleven" is analogous to the thought "white"; "here are eleven men" is a thought analogous to the thought "this is a white stone"; both "white" and "eleven" may function as constituents of a perceptual experience, but thought by themselves they point beyond perception to the world of the Forms.21

But are we referring to Forms when we think: "white plus black is grey"? In the eyes of some, perhaps, it is nonsense to say that when you combine the notion of white with the notion of black you obtain the notion of grey. But in Platonic terms this may not be absurd at all. In some contexts Plato apparently thought that the Form of white is white, and the Form of black is black; hence the issue of any miscegenation between them, if such a thing is possible (and I suspect it is) would be grey. Similarly when we think: "white plus black is green" we are not thinking nonsense but thinking falsely. So, you may think the Forms 5 and 7, and combine them into a sum, and make a mistake in doing so, without the slightest interference of the elements of sensation and perception which, it had been determined in the fourth examination, are the only factors which make false thinking possible. How can that be?

I would like to propose that though Plato does not pretend to give us a real solution of the puzzle, he does suggest a way of solving it by treating 5 and 7 as if they were not Forms known to the soul but Forms unknown and therefore behaving much like perceptual objects dimly perceived. We have seen that for Plato false thought is false naming or identification rather than false equation. I think a false thought when, under the influence of a misleading perceptual situation, the thought x or yx presents itself to me rather than the thought z or zy. Now that is precisely the sort of experience which is envisaged by Plato in the false summing of 5 and 7, except that 5 and 7 are not perceptual objects (in spite of eskepsato, 196A5) but objects whose relation to 11 and 12 is merely analogous to the relation between perceptual objects and thought objects in the fourth examination of error. Since both 5 and 7, on the one hand, and 11 and 12, on the other, are objects of knowledge, Socrates broaches the question whether we ought not to distinguish between two types of knowledge. As is well known,
he then distinguishes between latent memory and actual recall, or, as we might say with special reference to the numbers: between knowledge proper and a kind of knowledge which does not rise to the level of consciousness and whose only job it is to trigger the knowledge proper, just as it is the function of sense perception to trigger thought. Hence the thought "5 plus 7" releases a new thought which is either correct, "12," or false, "11." This is not a matter of equating (5 plus 7) with 11, much less 12 with 11, but of the thought "5 plus 7" producing the thought "11" more or less as the perceptual experience of dimly seeing Theodorus and Theaetetus may produce the wrong thought "This is Theaetetus" in the place of the correct thought "This is Theodorus." Instead of an improper fitting together of two objects of sensation with two objects of retained perceptions, we now have an improper fitting together of two objects of latent knowledge with an object of actual knowledge (for the perceptual situation here used as a paradigm, cf. the fourth examination of error, below, Appendix). 5 and 7 become objects of latent knowledge the moment they are put together into one hat for the purpose of summing; they lose their identity, and together form a new identity which is as yet unknown. To use the Platonic terminology: 5 and 7 are individually held, but (5 plus 7) is only possessed, and in the process of converting the possession into an actual holding the totaller will hit the wrong object of knowledge. Plato's language is quite specific on this point: the summing of 5 and 7 into 11 or 12 is not an act of equating two knowns, but an act of grabbing a known, at the prompting of a complex thought object which is, for the purposes of the manipulation, only latently known, or virtually unknown.

This analysis leaves many difficulties unsolved. Some of them are due to the fact that both Socrates and Theaetetus refer to the numbers not only as objects of knowledge but also as pieces of knowledge (epistemic). What is more, Theaetetus seems to assume that not only 11, but also the equation (5 plus 7 equals 11) is a piece of non-knowledge or ignorance. Socrates does not fall in with this use of language. According to him, 11 and 12 are pieces of knowledge, the equation (5 plus 7 equals 12) is not. But his criticism of Theaetetus' proposal is not as thoroughgoing as we should wish it to be. And, as always, Socrates is hampered by his unwillingness to consider the problem of error as a purely psychological rather than a metaphysical problem. Nevertheless, it should be clear from this cursory analysis of what Plato himself seems to have regarded as an insoluble difficulty, that arithmetical error is not a matter of faulty equating, but of faulty identifying. The thought "5 plus 7" represents an activating device which may send the aviarist off on a wild goose chase. For (5 plus 7) is an object only dimly discerned in thought to which I want to give a name which corresponds to a knowledge which I have within me. And this brings us back to the Charmides passage cited at the beginning of the paper, in which Socrates asks the boy to substitute another name for sophrosyne. The substitution of the known "calmness" for the virtual unknown "sophrosyne" is an error precisely like the substitution of the known "11." For the virtual unknown "5 plus 7." We shall not be able to throw further light on the nature and the mechanics of arithmetical error until we can explain how it is possible for Charmides, who supposedly has sophrosyne within him, to give it a name which is erroneous.
Appendix: The Five Examinations of Error

In the course of the five examinations of error, Plato operates with three epistemological factors: memory, sensation, and thinking. Of these, memory is identical with knowledge; for the purposes of the argument of the Theaetetus, knowledge is the retention and availability of a previous perception or part of it. Each of these three cognitive activities has its object or, Platonically speaking, its cause.

To facilitate the analysis, the following symbols will be employed:

m: memory or knowledge
s: sensation
t: thought
C: object or cause; hence Cm: object of memory;
    Cs: object of sensation; t(Cm): the thought of an object of memory.

--> : is cause of

superscript ~: negation sign; hence CM: an object which is not remembered.

1 or 2 in raised position determines the value of all C, s, and m preceding it. Thus, for Csm, read: object 1 which is both sensed and remembered.

It will be useful to re-state at the outset that in his examination of error, Plato is not interested in the possibility of speaking nonsense, or in the possibility of making wilful misstatements, but in the possibility of thinking wrong thoughts, i.e., mistaking x for y, or ax for ay. This may involve what we call predication, i.e., mistaking (a is x) for (a is y), but the mistake is not a faulty equating or judging ("x equals y"), but a substituting of y for x, i.e., a faulty identifying: "y" rather than "x." But since for Plato an identification or "hitting" of an object is inconceivable without the external object which ultimately prompts it, we may write: x --> "y," or, better, C1 --> t(C2). This, for Plato, is impossible, hence he must try to find out what other circumstances are necessary to make error possible.

First examination, 188a1ff. Premise: there are only t, m and M.

Consequences:

Cm1 --> t(Cm2): impossible
Cm1 --> t(Cm2): impossible
Cm --> t(Cm): impossible
CM --> t(Cm): impossible.23
Second examination, 188C9 ff. Premise: there is only t.

Consequence:

On the analogy of the impossibility of $C \rightarrow \overline{sC}$ and $\overline{C} \rightarrow sC$,

\[
\begin{align*}
C & \rightarrow \overline{t}: \text{impossible} \\
\overline{C} & \rightarrow tC: \text{impossible}
\end{align*}
\]

I have bracketed the two formulations because in the text they do not appear separately. Rather, the text could be interpreted to mean the one or the other. Since, however, the second formulation postulates the non-existence of the external object, which is impossible in Platonic terms, the first formulation would seem to be the appropriate one if a choice had to be made.

Third examination, 189Bl2 ff. Premise: there is only t.

Consequence:

$C^1 \rightarrow tC^2$: impossible.

The third examination differs from the first in that no memory is involved; it differs from the second in that more than one object of thought is involved. The formulation $(C^1$ and $C^2) \rightarrow t(\overline{C^1 = C^2})$ is briefly considered by Socrates, only to be rejected as nonsensical. However, it is nonsensical only because of Socrates' sleight-of-hand premise that $C^1$ and $C^2$ are contraries or incompatibles. Actually, "Platonic diaeresis offers many examples in which $(C^1$ and $C^2) \rightarrow t(\overline{C^1 = C^2})$ is regarded as valid, or plausible. Take such a statement as "rhetoric is a humoring art" (Gorgias 463A6 ff.). By thus prejudicing the plausibility of the judgmental formulation, Plato clearly means to keep it out of the running during the present discussion."

Fourth examination, 191A2 ff. Premise: there are m, m, s, s and t.

Consequences:

A: $Csm^1 \rightarrow t(Csm^2)$: impossible  Examples: 192D3 ff., E8 ff.
B: $Csm^1 \rightarrow t(Csm^2)$: impossible  193A8 ff.
C: $Csm^1 \rightarrow t(Csm^2)$: impossible  193Bl ff.
D: $Csm^1 \rightarrow t(Csm^2)$: impossible
E: $Csm^1 \rightarrow t(Csm^2)$: impossible
F: $Csm^1 \rightarrow t(Csm^2)$: impossible
G: $Csm^1 \rightarrow t(Csm^2)$: impossible; = C  193Bl ff.
Thus, under A to N, 10 cases are considered and declared impossible. Not considered are the following 6 cases:

\[ H: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible} \]
\[ I: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible} \quad 193D10 \text{ ff.} \]
\[ J: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible} \]
\[ K: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible} \]
\[ L: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible}; = C, G \]
\[ M: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible}; = H \]
\[ N: \text{Csm}^1 \rightarrow t(\text{Csm}^2): \text{impossible}; = D \]

Finally, Plato determines three cases in which error is possible:

\[ O: \text{(Csm}^1 \text{ and Csm}^2) \rightarrow t(\text{Csm}^2) \quad 193D5 \text{ ff., 194A6 ff.} \]
\[ P: \text{(Csm}^1 \text{ and Csm}^2) \rightarrow t(\text{Csm}^2);^{26} \]
\[ Q: \text{(Csm}^1 \text{ and Csm}^2) \rightarrow t(\text{Csm}^2) \text{ and/or } t(\text{Csm}^2). \quad 193B9 \text{ ff., E6 ff.} \]

The summation of the fourth examination is given at 194B2-6: for error to be possible, there has to be both s and m. When they are both distinct and clear, s\(^1\) goes with m\(^1\) and s\(^2\) with m\(^2\) (cases I, J, and K) and error is ruled out. But when s is indistinct and m shallow, s\(^1\) may go with m\(^2\) or s\(^2\) with m\(^1\) (cases O, P and Q), and then error occurs. The example of Q, 193B9 ff., shows that in O, P, and Q, C\(^1\) and C\(^2\) are understood as operating simultaneously. My chief argument for the suggestion that O and P are not identical with any of the six cases of which I say that they are not discussed, is that if they were, Q would have to be identical with I, which it plainly is not. What a compound of one sensation with another memory could be like is difficult to imagine. Plato has not yet, at this stage, distinguished between two types of m, possession and holding, or latent and actual.
Transition from the fourth to the fifth examination, 195El ff. Socrates ostensibly suggests that case A of the fourth examination is possible after all, seeing that we can confuse 11 and 12, i.e., 11 \rightarrow t(12). This seems to show that error may be possible without the operation of \( s \), purely on the level of \( m \).

Fifth examination, 196El ff. Premise: there is only \( t \), \( m \), and \( \overline{m} \), but \( m \) may be either \( m \) (latent memory) or \( M \) (positive recall): 197B4 ff.

Consequence:

\[
\text{if } C^1 \text{ plus } C^2 \text{ equals } C^3, \quad (C^1 \text{ plus } C^2) \rightarrow t(C^4).
\]

After first assuming that this is possible (199Bl ff.), Socrates immediately turns around (199C7 ff.) and questions the possibility, on grounds which have struck commentators as obscure. Theaetetus then suggests that perhaps in addition to \( m \) and \( M \), there is also \( \overline{m} \) and \( \overline{M} \), but this suggestion is refuted by Socrates (200Bl ff.) along the lines taken in the first examination. In the end, the distinction between \( m \) and \( M \) seems to be dropped, and the error in question, i.e., "5 plus 7 equals 11" comes to be regarded as a simple case of \( C^3 \rightarrow t(C^4) \), which is of course impossible.

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NOTES

1) A pertinent discussion may be found in any one of the standard treat-ments of Platonic philosophy. Two recent studies specifically devoted to the problem of doxa may be singled out for mention: H. Perls, Platon: Sa Conception du Kosmos (New York 1945) chs. vi and vii; and C. A. Viano, "Il significato della doxa nella filosofia di Platone," Rivista di Filosofia 43 (1952) 167-185. Both Perls and Viano, like most other writers who have dealt with Platonic doxa, are interested in the relationship between doxa and the several other cognitive capacities and activities rather than in the psychological structure or mode of operation of doxa itself. For some reason, the question: how precisely does doxa operate and what does it do? has only rarely been asked. A notable exception to this rule is N. R. Murphy, who has a searching though largely inconclusive investigation of the meaning of doxa in the Republic in his The Interpretation of Plato's Republic (Oxford 1951) ch. vi. References to the Platonic text are given according to John Burnet's edition in the Bibliotheca Oxoniensis.

2) In the sequel I shall use the terms "discursive" and "intuitive." In discursive thinking, consciousness of the whole comes after consciousness of the parts; in intuitive thinking, the whole is apprehended before it is analyzed into parts.

3) Plato uses the term aisthesis indifferently to refer both to the work of the sense organs, i.e., the purely physical processes whereby sense organ and sense object cause each other to establish contact with one another; and to the work of the soul which combines the data furnished by the senses and makes her own special contribution to create a perceptual awareness. The former type of aisthesis does not involve the soul at all. Hence the modern distinction between sensation and perception is not relevant to Plato's distinction between two types of aisthesis. For our purpose, the purpose of tracing the relation between aisthesis and doxa, it is the second type of aisthesis, perception via the soul, which counts.

4) Cf. 185C4 ff. The perception of non-sensory items must not be confused with the intuiting of Forms.

5) In spite of the apparent agreement between this formulation and Plato's "deviation" concerning judgment at 186B6 (cf. text, pp. 6-7), the examples used in the subsequent fivefold examination of error demonstrate that "the work of the soul by herself" in the sequel does not mean "reflection upon the Forms themselves."

6) For doxazein, Plato occasionally uses other terms such as σεοδα (Theaet. 191B6 ff.), ἀγεοδα (189B7), εἰς τὴν διάνοιαν λαβείν (188B9), τὴν διανοὶς τὸ πάθεος (189D8); cf. Viano (above, note 1) 177. This oscillation of terms reflects the stylistic peculiarity of the Theaetetus, which is at one and the same time a rigorous exercise in logic and a document of belles lettres.

7) Cf. Meno 98A1 ff., especially the comparison of those who have true doxa with prophets and oracle mongers, 99C3.

9) See, for instance, P. Friedlaender, *Platon* vol. 2 (Berlin 1930) 447.

10) Miss W. Hicken, "The Character and Provenance of Socrates' 'Dream' in the *Theaetetus,"* Phronesis 3 (1958) 128 points to the image from the law-courts to support her opinion that "doxazein seems to mean 'to believe a proposition', i.e., that so-and-so stole from or did violence to someone else." I should rather say that the oratory of the advocates prompts the jurors to accept not so much a proposition but a fact: (there has been) theft, or (there has been) violence. Miss Hicken's "so-and-so" and "someone else" are not in the text. The datives ὁς ἀντιστρεμένοις ... βιαζόμενος refer to the original fact, not the *doxa* inspired by the advocate. The lawyer manages to make his audience experience the illusion of a perception; he supplies them with perceptual data in the absence of a process of perception.

11) Socrates' argument at 209A7 ff. is slightly disingenuous. He is discussing the third sense of *logos*, i.e., "account of specific difference." The thesis is that true *doxa* plus this sort of *logos* is knowledge. But, Socrates objects, does this mean that a true *doxa* does not apprehend the specific difference of its object? That would be impossible. -- Socrates is willing to overlook the obvious suggestion that true *doxa* certainly does include an awareness of specific difference, but that this *doxa* does not become knowledge until the awareness has been promoted to the status of reflected consideration or analysis. Nevertheless, Socrates' objection shows clearly that for Plato the simple act of recognition -- for *doxa* here equals "awareness of object perceived previously" -- involves the perceptual acceptance of a complex object.

12) The alleged authority for the dream theory seems to be of the opinion that not only unconscious physical sensation but perception via the soul is of simples, for he calls the simples namable: 202B2. But this is only one of the many infelicities of the theory which Plato himself would disavow.

13) F. Susemihl, *Die genetische Entwicklung der platonischen Dialoge* (Leipzig 1855) 192. Cf. A. E. Taylor, *Plato* (New York 1936) 339: "The common name for the process of reflection, comparison and discrimination to which the occurrence of our sensations gives rise is 'belief' or 'judgment' (*doxa*, to *doxazon*). The word doxa is being used here in a way characteristic of Plato's later dialogues ... the meaning is judgment, intellectual conviction in general." Note the equating of judgment and conviction.


16) Cornford (above, note 8) 119 note 2 sees this, and remarks: "This is a good example of Plato's deliberate refusal to use terms as fixed technicalities." But why Plato should refuse to abide by technical terms at the very moment when he is creating them is difficult to understand.

17) Given the range of meaning of the Greek logos which is in things as well as of them, and which need not be articulated even if it is of things, it may well be asked whether it is possible to speak of a pre-verbal process in a Greek theory of thinking. It is possible, as long as we understand by pre-verbal nothing more than what is meant by it today, i.e., the phase of a cognitive experience which is logically or temporally prior to its formulation in terms and propositions.

18) That the work of the soul in arriving at a doxa is not on the level of consciousness is clear also from the fourth examination of error. At 193B9 ff. Theaetetus and Theodorus are compared to seals which in the past have left impressions on the wax of the soul of the percipient. Now, seeing both once more, but indistinctly, the percipient wishes to restore (apodous, C3) each imprint to its proper sensation (opsis), to achieve recognition (anagnorisis), but he combines the wrong ones, exchanging left and right. In this instance, the work of the soul is seen through the image of putting things in the slots where they belong or where she thinks they belong; like the image of stock-taking and tallying, it is a perspective derived from the world of business. Cf. also Phil. 3805 ff., where Plato describes doxa as arising out of perception via discerning and self-questioning. He also parallels doxa with a logos addressed to someone else. All this turns out to be a simile; the activity of a man seeing an object, asking himself what it might be and then deciding for himself is only a paradigm for the activity of the soul, 38E12 ff. But if the activity of the soul were a conscious activity, there would be no difference between the activity of the man and the activity of his soul. -- Hackforth's translation, in his Plato's Examination of Pleasure (Cambridge 1945) of diadoxazein at 38B13 as "to reach a judgment" seems to me mistaken. Rather: "to continue thinking," i.e., to have a lasting attitude or disposition.

19) See Theaet. 206D8-9, 209A1-3 and B2-3 and C4-5; cf. also Cornford (above, note 8) 145 note 1. -- There is a similar wavering between "to think correctly" and "to think a correct thing" (207B1 and 206D9). From the point of view of Plato's realism, the latter is the more appropriate way of putting it.

20. Theaet. 170D4-9 seems to be one of those passages, like 190A9 ff. (discussed in the text, p.6) in which Plato parts company with the premises of the discussion and raises his sights to a range of possibilities with which he does not choose to come to grips for the present. Socrates says: Let us assume that A discerns (krinei) something, and it is true for him, and he communicates a doxa concerning it to B, may not B become a discerner concerning the discernment of A, and in fact may he not think-contrary (antidoxazein),
believing A to discern and think false things? This paraphrase of the passage is awkward because it tries to avoid the terms "judge" and "judgment." The translation: "B may become a judge of the judgments of A" is clearly more intelligible. Now whenever Plato is discussing the subject of perception or the sort of thought which is tied up with perception, krinein means "discern." But there is a difference here. Whereas in other contexts the object discerned is identical with the object perceived or thought, here the object discerned is the truth or falsehood of the object of thought. This sort of discernment, if articulated, would be not "I think x" or "I think xy" but "I think x to be true" or "I think x to be false." It is at this point that krinein comes to mean "judge" rather than "discern," for truth and falsehood are not inherent constituents of perceptual or thought objects as red and green and similar and one are. They are not discerned along with the apprehension of things. To be sure, Plato regards things as either true or false. But their truth or falsehood cannot be apprehended by inspection, but only by means of a discursive activity of the soul whereby the relations between things are consciously sorted out and defined. and this launches us on the road to knowledge, as mere perception and its analogue thought by themselves never could. Here then we have a case in which doxa does mean "judgment." But Plato merely throws out the hint, without following it up.

21) R. Hackforth, "Notes on Plato's Theaetetus," Mnemosyne 10 (1957) 137-9 argues that in the Aviary Plato is not concerned with ideal numbers but with mathematical numbers. I am not sure that I follow his argument; but the analogy of "white" and "eleven" would seem to speak against regarding the numbers in this section of the Theaetetus as anything other than Forms.

22) Aisthesis, in the examinations of error, is of objects which are channelled through the sense organs. It is a purely mechanical process which needs to be associated with memory to make for thinking. Hence I have called it "sensation" rather than perception. Cf., however, the warning issued above, note 3.

23) At the beginning of the fourth examination, the findings of the first are restated in the following form (191E6-7):

\[ Cm^1 \rightarrow t(Cm^2): \text{possible?} \]

\[ Cm \rightarrow t(Cm): \text{possible?} \]

The second formulation agrees with that given at 191A9-10; the first is a variation of that underlying the example given at 191B3-5, which would be:

\[ Cm^{s1 } \rightarrow t(Cm^2): \text{possible?} \] This formulation adds the element of \( s \), and thus leads into the fourth examination proper.
24) At 189E3 Socrates makes allowance for the time element required by the making of a judgment, though not by the thinking of a thought. Cf. Friedlaender (above, note 9) 447 note 2, who shows that the words are spoken by Socrates, not by Theaetetus. The allowance for duration, like the rest of the judgmental notions referred to in the third examination, is of no significance for the sequel of the discussion.

25) I do not understand Cornford's statement (above, note 16) 120 that this examination operates with a notion which had not been used before, i.e., memory. As seen above, the first examination operated with μ. Rather it is s which is now added to the premises.

26) At 192E10, the thought is to be completed as follows: ἡ (sc. ἐν οἷς οἶδεν, οἰηθήνατι αὐτὰ ἐτερ' ἀττα εἶναι) ὅν μὴ οἶδεν, αἰσθάνεται ὅτε.