

Some Aspects of *nou*" and *noh̄si*" in Plato

Lloyd P. Gerson
University of Toronto

Draft

Sometimes scholars of ancient Greek philosophy—perhaps unconsciously—substitute translation for explanation. This is particularly evident in translations of the language of what used to be called higher cognition. We read, for example, that *nou*" for Plato is "mind" or "reason" or "intellect" and that the activity in which *nou*" engages, namely, *noh̄si*", is "intellection" or "intuition" or "thinking" or "understanding" or "knowing," and so on. One need not quarrel with these translations in order to point out they are just placeholders for a genuine account of Plato's intentions or meaning. This is particularly evident given that the linguistic and conceptual apparatus surrounding the use of such English terms have no clear Platonic application. To take one simple example, in English it is easy to suppose that understanding is often equivalent to cognizing a term or concept where the criterion of "cognizing" is success in their application. For Plato, by contrast, there are very good grounds indeed for thinking that understanding intelligible reality is not equivalent to understanding words or concepts. If that is so, then what is understanding supposed by Plato to be? Similar considerations could be adduced for virtually every English term used to translate *nou*" and *noh̄si*".

In this paper, I want to advance one general and one specific claim. The general claim is that Plato's approach to cognition or, if one likes, to epistemology, is incomprehensible apart from his metaphysics. The specific claim is that Plato has something precise in mind when he is talking about *noh̄si*". To put it emblematically and, I confess, anachronistically, he is talking about the cognition of material identity. In a way, this type of cognition is for Plato the daily bread of philosophy. In addition, as we shall see in a moment, its ubiquity and irreducibility to any other type of cognition is itself a powerful reason supporting of Plato's metaphysics.

I am henceforth going to use the placeholders "intellect" and "intellection" for *nou*" and *noh̄si*", respectively. I do this with a certain amount of diffidence and with no other intention than to preserve the etymological connection between the two terms and the terms for their objects, namely, *ta; nohtavand ta; nooumena*, or "intelligibles".

1.

In *Timaeus*, Plato seems to rest his case for the existence of Forms on a distinction between intellect and "true belief" [*a] hqh;" dōwa*]:

If intellect and true belief are two kinds, then these [things]—Forms which are imperceptible by us and intelligible only—exist by themselves. If, though, as it appears to some, true belief does not differ at all from intellect, then all that we perceive through the body should be taken as the things, which are most stable. Now we must affirm that they are two kinds because we can have one without the other and because they are not the same:

one comes about through instruction; the other from persuasion; the first always involves a true account, whereas the second has no account; the first remains unmoved by persuasion, the second can be overturned by persuasion; and whereas it must be said that all men have a share of the second, only gods and a small group of persons have a share of intellect.

Given this, we should agree that that which always has its own Form, which is ungenerable and indestructible, which neither receives anything into itself from anywhere else, nor itself enters into anything else anywhere, is one thing. It is invisible and otherwise imperceptible and it is the role of intellection to study it (51D3-52A4).¹

Naturally, this passage is taken as a sort of summary of *Republic* 476D7-478E5, where Socrates argues for the distinction between knowledge and belief.² In general, this is no doubt true. Yet, given that Plato rests his case for Forms on the distinction between intellect and true belief, not a great deal has been said by scholars regarding what exactly intellect is supposed to be if Forms are as Plato describes them.

On the one hand, some suppose that intellect is a kind of intuition or "mental seeing". There are at least two problems with this. One is that there are good textual grounds for supposing that any "seeing" of Forms, that is, direct contact with them, is not available for embodied individuals, whereas in the *Timaeus* passage, at least some persons are not so deprived.³ Second, it is at least reasonable to hold that the only reason for being confident that mental seeing exists is that are things mentally seen. That, however, is not the way the argument works. Plato's case is not built on an analogy with, say, hearing, the existence of a distinct faculty of which can be inferred from the existence of *things heard*.

Because of the obscurity of claims about mental seeing, and I suspect, because of a desire to make Plato's position respectable, intellect is interpreted as cognition of certain propositions. There are more than two things wrong with this interpretation but the obvious one is this. In the passage above, true belief is said to have no account. If intellect is cognition of a proposition, it is entirely unclear why true belief could not appropriate intellect's account. Indeed, those who hold that true belief and intellect are merely different types of cognition of the same objects, draw this inference. In this case, the existence of separate Forms certainly does not follow from the existence of intellect. Mental seeing is closer than propositional knowledge as a way of describing this, but as I shall show, it is a limp metaphor for representing what Plato means.

2.

¹ Cf. 27D5-28A4 where it is sense perception, not true belief, that has no account.

² See my *Knowing Persons. A Study in Plato* (Oxford, Oxford University Press, 2003), 151-173, for a discussion of this passage.

³ See *Phaedo* 65E6-67B5 for the important differentiation of "knowledge" (ἐπιστήμη) and the use of intellect (here "thinking", διάνοια). The former is available for embodied individuals; the latter evidently is not.

In *Republic* (523Aff.) Socrates introduces intellection as inspired by the example of three fingers. As for the fact that they are fingers, sense perception is adequate. Based on sense perception, we form a true belief that there are three fingers before us. However, if we consider the relative largeness and smallness of the fingers, sense perception presents a conflicted report. It delivers the information that what makes one finger larger than another is exactly what makes it smaller than the third.⁴ Therefore, the soul is inspired to address the puzzle that two things, smallness and largeness, are presented to it as one. If it appears to it that in fact smallness and largeness *are* two things and not one, it concludes that they are intelligible entities and not sensible. This familiar passage contrasts intellection with belief, which arises from sense perception. It tells us that it is owing to intellection that what appears, as one is really two.

Consider a very different sort of passage. In *Philebus* (23Cff.) Socrates, adverting to the introduction of the "heavenly tradition" earlier (16-19), claims that "everything now existing in the universe" is divided into four class: (1) the indeterminate; (2) the determinate; (3) the mixture of the two; and (4) the cause of the mixture. He urges Protarchus to concentrate on (1) and (2) and to try to understand how, though each class appears as a many, each is also nevertheless one.⁵ Here, then, intellect's operation is about an apparent many which is really one.

The cognition that what appears one is really two or that what appear many is really one is the same—intellect or its activity, intellection. Bearing in mind the *Timaeus* passage above, we should ask why the commonplace power of grasping that two things are really the same or that one thing is, upon analysis, really two is supposed by Plato to indicate separate Forms. An anti-Platonist might well say the following: "Since two things cannot actually be the same, there is no power that enables us to discern this; and as for one thing really being two, this power of analysis is hardly distinct from true belief. Indeed, one could easily maintain that the true belief that one thing is really two is, typically, what such analysis concludes. Adding an account to this (if one needs to be added) only brings us more true belief. If we choose to call this intellection, fine, but it hardly requires us to posit separate Forms."

In order to begin to appreciate Plato's answer to such an objection, we need to have a clearer picture of this supposed power of cognizing many as being one or one as being many. Naturally, here one thinks of the Platonic method of collection and division.⁶ This is not wrong, although it is not obvious that the example from the *Republic* is an application of this method. In the present circumstances, however, it is not helpful at all to identify intellect as the dividing and collecting of Forms. For we can hardly accept as a reason for positing Forms that there exists a power of dividing and collecting them.

We can generalize from the two cases of intellection given above: to understand is to cognize a material identity, usually represented as $A = B$. Intellection of what is represented in material identity statements is of the sameness of two things that are not, in

⁴ It is useful to bear in mind that relations are being treated by Plato as properties of things. So, largeness is not something "between" one finger and another.

⁵ See *Philebus* 23E3-6: Prwton men dh; twin tettarwn ta; tria dielomenoi, ta; duo toutwn peirwmeqa, polla; ekateron ejscismenon kai; diespasmenon ijonte-, eij- eh palin ekateron sunagagonte-, nohsai phapote hh aujtw n eh kai; polla; ekateron.

⁶ See *Philebus* 16C-19A; *Phaedrus* 264E-266D; *Sophist.* 221B-C; 253C-254B; *Statesman* 262B-D; 287C.

fact, identical.⁷ This is at once a puzzling sort of claim and at the heart of intellection, on anyone's account.⁸ For example, one understands that the Morning Star ("A") is Venus and that the Evening Star ("B") is the planet Venus; or one understands the mathematical expression of Boyle's Law, $PV = k$. In the first example, we see that two things are really one; in the second, that one "thing" is manifested both as heat ("k") and as pressure ("P") on a volume. Obviously, if we agree that intellection is available to us in these cases, it is difficult to see why we should suppose that we are thereby committed to Forms.

The distinction between material identity and formal identity is not sharp, though it might seem like there is nothing sharper than the distinction between $A = B$ and $A = A$. Yet the claim that $A = B$ converges on the claim that $A = A$ when we come to understand that that our reason for thinking that A is apparently different from B was in fact an illusion or a mistake. The abandonment of phlogiston theory following on the true understanding of combustion led to the disappearance of any temptation to make material identity claims about combustion and the phlogiston. Disputes over whether or not mental states are identical with brain states reveal the vagueness of the distinction between material and formal identity. Even if it turns out that in fact mental states are identical with brain states, it is an open question when and if the assertion of their identity would be properly expressed in a material identity statement or a formal identity statement. Identity theories of various sorts or reductive analyses try to make material identity statements into formal identity statements.

Material identity underlies definitions as traditionally conceived. Suppose we say that a triangle =_{df} three-sided plane figure. On the one hand, a definition such as this is supposed to tell us what something is, and, as Bishop Butler said, "a thing is what it is and not another thing". But if the definition is supposed to be a discovery or illuminating in any way, to say what something is, is not to state a formal identity. And yet if the definition is a material identity statement, what is the one thing that is identically "triangle" and "three-sided plane figure"? In fact, there is indeed a material identity here, but the left side of the "=" sign is the disjunct of all the individual examples of all the species of triangle and the right side of the "=" sign is that with which each of these is materially identical. The one thing which underlies their material identity is triangularity or "the triangle". It is no doubt true that we cannot imagine triangularity as such, but this is only to allow that we cognize triangularity when we cognize the material identity statement. Specifically, this cognition is two-staged: we recognize the figure on the left side as a triangle, and, understanding that the triangle is a three-sided plane figure, we cognize the material identity of the disjunctive left side and the definition. A definition of this sort is contentful or meaningful only if a material identity statement is part of its cognition.

The converse of material identity is virtuality. If A is materially identical with B, then there is something which is virtually A and B. Call it V. The planet Venus is virtually the Morning Star and the Evening Star. "White" light is virtually all the colors of the spectrum. A proportionality—say, $A : B :: C : D$ —is virtually all of its values or substitution instances. In the above examples, the relationship between V and what V is virtually is not straightforwardly causal. Roughly, it is the relationship between

⁷ See my forthcoming "Plato on Identity, Sameness, and Difference," in *Review of Metaphysics*.

⁸ Cp. Wittgenstein in *Tractatus* 5.5303: "Roughly speaking, to say of *two* things that they are identical is nonsense, and to say of *one* thing that it is identical with itself is to say nothing at all."

something and that same thing under specified circumstances. If those circumstances are cognitive, then it is an open question whether V is itself cognitively available other than as A or B, etc.

Examples analogous to these from Plato's own philosophical background are readily available. Therefore, if, with the Pre-Socratics, we hold that everything in the universe is *really* just water or atoms or elements, and so on, we express such cosmological reductionism as a form of material identity potentially converging on a formal identity statement. Of course, to the extent that the target of reduction is explained causally by the explanans, formal identity is blocked. If, say, the claim that all is water is understood as the claim that the properties of water somehow produce the phenomena that it underlies, then the only sort of identity available is material identity, specifically, the material identity of all the manifestations of water.

The Platonic complaint against reductionism is that it actually forgoes explanation altogether. This is evident in *Phaedo* (97Bff.) where Socrates recounts his disillusionment with Anaxagorean explanations. It seems that Anaxagoras, though promising to explain cosmological phenomena according to what intellect deems best, actually gives conditions for a true explanation ("that without which") but not the explanation itself.⁹ The real explanation, we are told, comes with the "hypothesizing" of Forms.¹⁰ Therefore, Helen's beauty, for example, is accounted for not by color or shape and so on, but by the presence of beauty in her. *That* is what explains her beauty. Presumably, it is our supposed intellection of this that is to be contrasted with the mere true belief that Helen is beautiful.

If it is Plato's contention that intellection is different from true belief because an explanation is different from the conditions for that explanation, then the obvious retort to this is that the sum of necessary and sufficient conditions *is* precisely what an explanation amounts to. There is no additional cause needed for intellection. Thus, in the above example of Boyle's Law, a change in the pressure of a gas in a given volume is a necessary and sufficient condition for the change in heat. Or, if mental states like beliefs are really brain states, then the presence of a certain brain state is a necessary and sufficient condition for the presence of the mental state. The claim that "x believes p because there is Belief in him," far from representing a different (and superior) type of cognition, adds nothing at all.

In *Timaeus*, these conditions are termed *sunaitia* ("instruments"):

Now all of the above [mechanisms of sight] are instruments which god uses in a subordinate capacity in order to bring to completion the shape of the best insofar as this is possible. But owing to their making things cold or hot, compact or dispersed, and similar things, most people think that they are not instruments but the causes of all things. These [instruments], however, are unable to have any reason or intellect about anything. Soul alone should be said to be the only thing to which it belongs to possess intellect. It is invisible, whereas fire,

⁹ *Phaedo* 99B2-4: *to gar mh dielesqai oibn t# eihai oti a||o men tivejsti to aiftion twaohti, a||o de ekeino aheu ou\ to aiftion ouk ah pot# eih aiftion.*

¹⁰ *Ibid.*, 100B5-7.

water, earth, and air have all come to be in visible bodies. So, a lover of intellect and knowledge should necessarily concern himself primarily with those causes belonging to an intelligent nature, and only secondarily with those that are moved by others and move others of necessity. We should do the same: we should describe both types of causes, distinguishing those things, possessed of intellect, which produce what is beautiful and good, from those which, deprived of intelligence, produce only chance and disorderly effects every time (46C7-E6).

Unlike the *Phaedo* passage, here conditions ("that without which") are given a label that makes them seem a type of cause, albeit not real ones.¹¹ Like the *Phaedo* passage, however, intellection of true causes involves accessing the purposes of an intellect.¹²

There are apparently at least three separate problems here: (1) how does a cause differ from a condition or instrument? (2) Why does intellection belong to the former whereas only true belief belongs to the latter? (3) What does intellection of the cause have to do with intellection of the aims of an intellect? Although these problems are typically treated as separate, I want to suggest that they are to be solved together and that the solution involves the cognition of material identity mentioned above.

3.

Here in my view is Plato's basic argument underlying the claim that no sum of conditions could ever be equivalent to a real cause. Things in the sensible world and their properties are composite. Their composition is in *Timaeus* fixed by the fact that the Demiurge is said to impose "shapes and numbers" on the inchoate elements existing in the Receptacle.¹³ Presumably, the former correspond to the contents of the true causes and the latter correspond to the auxiliary conditions. Plato's intuition—it is hardly an argument—is that the radical distinctness of such causes and conditions means that the former could never be reduced to the latter.

In order to see why this is supposed so, we may contrast the denial of reduction with cases of undisputed or putative reduction. For example, if it turns out that virtue really is knowledge of some sort, that is, if the presence of knowledge is a necessary and sufficient condition for the presence of virtue, then we are not constrained to suppose that the presence of virtue is otherwise explained.¹⁴ Again, if as Plato maintains, "barbarian"

¹¹ Cf. 68E6-7, 76D6-7. Cf. *Statesman* 281C-E, 287C-D where the productive arts subordinate to the arts of weaving and statecraft are called *sunaitia*. In *Timaeus*, there are two types of instruments: (a) "necessity" (*anagkh*, 47E-48E); (b) "space" (*cwra*, 48E49A, 52A-C). S. Strange, "The Double Explanation in the *Timaeus*," *Ancient Philosophy* 5 (1985), 25-39, reprinted in *Plato. I. Metaphysics and Epistemology*. Edited by G. Fine (Oxford, Oxford University Press, 1999), 397-415, thinks that the instruments of causality of *Timaeus* represent a repudiation of the view in *Phaedo* according to which the putative causes of Anaxagoras are thought to have no part to play in satisfactory explanations of phenomena. But it is I think a mistake to think of *sunaitia* as a type of cause as opposed to that which accompanies causes.

¹² See for a comprehensive study of the relevant background and context G. Caesertano, "Cause e concause," in *Plato Physicus*. Edited by C. Natali and S. Maso (Amsterdam, A. Hakkert, 2003), 33-63.

¹³ See *Timaeus* 53B1-5. Cf. 48A-B.

¹⁴ In *Phaedo* 103C10-E5.

is not a word referring to a Form of Barbarian, we should not suppose that there is a property, called "being a barbarian" that needs to be explained by a Form.¹⁵ Being a member of any non-Greek speaking nation would be sufficient for being a barbarian, and the negation of the disjunct of all such nations would constitute the necessary condition. The basic idea here is clear enough. If there is no formal referent for a term, then there is no paradigmatic cause to be sought. It is, accordingly, no part of Plato's argument to maintain that every effort to offer necessary and sufficient conditions is inadequate. Only when we seek a cause of the presence of that to which we can refer formally are such conditions inadequate, indeed, irrelevant.

The obvious reply to such a line of reasoning is that there is no reason to believe that formal reference, so construed, is *ever* available. Terms like "beauty," "virtue," "justice," "large," "human being," and "fire" are all reducible to necessary and sufficient conditions expressed in elemental terms. What is the supposed criterion according to which Plato can distinguish terms with formal reference from terms that are reducible in their reference to elements?

The answer to this question does rest upon an argument. It is an argument, which seeks to represent the compositeness, mentioned above in a slightly different way by showing that nothing of what we take to exist could be just "elements". In the second part of *Parmenides*, Plato argues that there is within each thing a real distinction between its identity and the "essence" (οὐσία) in which it partakes.¹⁶ The identity of something is, roughly, whatever is thought to be the basis for *re-identification*. For example, if I identify something by color or shape, it is owing to that color or shape that I claim to be able to re-identify that thing. If I say, "this is the same so-and-so that I saw yesterday," then I suppose that that thing's identity is just what enables me to make this claim.

The reason why there must be a real distinction between identity and essence is that without such a distinction, there could be no re-identification, and hence no possible cognition of anything identical. Consider the object re-identified by color or shape. When I claim that this thing today is identical with the thing I saw yesterday because it has the same color, I re-identify the thing according to that which is distinct from its identity. If the thing's color were not distinct from its identity, then the thing yesterday could not be identical with the thing today. For the identical thing is re-identified by saying that the color seen yesterday is the same as the color seen today. But if the thing-at-T₀ is identical with the thing-at-T₁, and the color-at-T₀ is the same as color-at-T₁, then the thing could not be identical with the color whereby I identify it. Whatever we use to re-identify something must be distinct from it because, to put it crudely, one thing (that which is re-identified) cannot be identical with two "things" (the color-at-T₀ and the color-at-T₁).¹⁷

If there is a real distinction between identity and essence, then there must be *some* features of a thing the explanation of which are not reducible to necessary and sufficient conditions. For in order to identify something, we must refer to that in which that something partakes, and that latter cannot be reduced to necessary and sufficient

¹⁵ See *Statesman* 262D-E.

¹⁶ See *Parmenides* 142B5-C2. Cf. *Sophist* 244B-C where substantially the same argument is made against Eleaticism: to say that the Eleatic One is, is to implicitly distinguish it from its essence.

¹⁷ It will be noticed that the same sort of argument can be used in defense of the claim that two things can be the same, that is in defense of realism against nominalism.

conditions. That is, if we are looking for the necessary and sufficient conditions for "A is f," we have to have a criterion for identifying (and so re-identifying) A as f. Let these necessary and sufficient conditions be "g". So, if and only if A is g is A f. But either "f" means "g" in which case the fact that A is g is the uncontroversial necessary and sufficient condition for A being f, or else the claim "A is g" explains nothing about the fact that A is f. The claim that something exists—a claim that depends on the ability to identify and re-identify that thing—could not cogently be made unless that in virtue of which we identify that thing is distinct from it. And so the necessary and sufficient conditions for that thing having the property in virtue of which we identify it could never be equivalent to the explanation for the presence of the property.

In the passage from *Parmenides* alluded to above, from the distinction of identity and essence in one thing follows the properties of number, sameness, difference, likeness, unlikeness, limitedness, unlimitedness, wholeness, partness, shape, motion, rest, largeness, smallness, equality, inequality, and temporality. It is these properties (at least) that are potentially available for intellection. It is in principle an open question whether other putative Forms are irreducible to these and so available for independent intellection or whether they are so reducible, in which case the distinction between condition and cause does not apply to them.

The reason true belief "has no account" is that it excludes essence.¹⁸ It might be suggested that this exclusion amounts only to the anodyne sense of exclusion according to which the account is distinct from the true belief. Indeed, in *Theaetetus* Plato himself considers the possibility that knowledge is true belief *plus* an account (201C-210A). The obvious rejoinder to this suggestion is that if "having no account" means just being distinct from any account, the same line of reasoning would apply to intellection. That is, it would be without an account as well. But this is explicitly denied in the *Timaeus* passage.¹⁹

True belief excludes essence because true belief is dependent upon sense perception and sense perception does not attain essence. The latter point is made in *Theaetetus* (186A-E). Sense perception does not attain essence because of its relativity. Attaining essence means, roughly, cognizing that which is objective as opposed to that which is relative.²⁰ The true belief "A is f" has no account because any effort to offer an account would amount to nothing more than an appeal to some array of necessary conditions. These necessary conditions would be expressed in perceptible terms. And once again, we have the dilemma that the supposed *explanandum* is either reduced to such terms or, if it is not, the sum of necessary conditions explains nothing.

Because true belief is bereft of an account, it is acquired only by persuasion, whereas intellection is acquired by instruction. Persuasion is just an extension of sense perception. We acquire beliefs both by using our senses directly and also by the images

¹⁸ Alexander of Aphrodisias, *In Metaphysics* 83, 7-11, reports that the Platonists argued that the account of sensible equals is not the same as the account of Equality. This would suggest that true belief might not exclude an account altogether, though it is incapable of containing the account of the paradigm. It is difficult to say if the *Timaeus* passage represents a correction of this view or not. It does if "without an account" is not equivalent to "having an inferior account;" it is not if "without an account" is synonymous with "having an inferior account."

¹⁹ G. Jäger, "Nus" in *Platons Dialogen* (Göttingen, Vandenhoeck & Ruprecht, 1967), 104, confusedly, takes the absence of an account in *true* belief as belief's inability to give a true account.

²⁰ See *Knowing Persons*, 200-212.

that persuasive words are. Persuasion has no account to offer because it excludes causes in favor of conditions.²¹ By contrast, instruction concerns causes.

4.

Intellection is a mode of cognition distinct from true belief. To understand why A is f is to "see" that the *Phaedo's* simple hypothesis is an explanation whereas any adduction of necessary conditions is not. We still, though, have to deal with the contention that this "seeing" is fictitious. What I want to suggest is that intellection is cognition of material identity, that intellection is ubiquitous and practically definitive of human cognition, and that, finally, as Plato says, intellection would not be possible without Forms. In the final section of the paper, I shall address the question of why intellection is supposed by Plato to involve access to the aims of an intellect.

Cognition of material identity manifests itself in at least five ways in Plato's metaphysics: (1) intellection that two (or more) things called by the same name are so called correctly because they participate in an identical nature or essence ("the many are one"); (2) intellection of the divisions of Forms, that is, of their hierarchical articulations ("one Form in many and many embraced by one"); (3) intellection of the ultimate unity of the Forms owing to the Idea of the Good or the One; (4) intellection of the virtual identity of mathematical numbers and Forms of mathematical numbers; (5) intellection of the virtual identity of non-mathematical Forms (e.g., the Form of Living Animal) and Forms of mathematical numbers via the mathematical numbers. It will be useful to say a bit about each.

(1) The material identity of instances of Forms. I suggest that material identity is the way we understand the claim made on Socrates' behalf by Parmenides:

I think that on this basis you think that each Form is one:
whenever many things seem to you to be large, it probably seems
to you that you are looking at some one self-identical Idea over
all, whence you think that Largeness is one.²²

The material identity of all the instances of the Form is what justifies us in claiming that they are the same. The reason for thinking that a Form is one is the intellection of the identity of the essence that makes the "many" the same.²³ Intellection of the identity

²¹ We might recognize here an allusion to Parmenides' poem, fr. 5 D.-K., where Parmenides has "persuasion" attend upon truth, rather than upon mere mortal belief. Plato is correcting Parmenides or, as he puts it in *Sophist* 241D, committing "partricide" by allowing that "what is not" has some sort of being, in which case true belief is possible. But the persuasion that attends upon it is inferior to instruction.

²² *Parmenides* 132A1-4: Oilmairse ek tou toioude eh ekaston eido- oipsqai einai: oftan poll i a tta megal a soi doxhæinai, mia ti- i sw- dokei i jlea h laujh; einai epi; panta i jonti, o gen eh to; mega hgh einai. Cf. Alexander of Aphrodisias, *In. Met.* 84, 1-2: "Further, things that are the same as each other are the same as each other owing to their participation in something self-identical which is, principally, this, and this is the Idea (e f t i ta; o fnoia a j l h l oi- tou aujtou tino- metousiaæofnoia a j l h l oi- einai, o)kuriw- e jsti; touto; kai; touto einai thn i jleæn)," quoting from Aristotle's *On the Ideas*. Also, 85, 4-5.

²³ In the recollection argument of *Phaedo* 72E3-78B3, Socrates assumes that "we know this something that is just equal" (e p i s t a m e q a a u j t o; o) e j s t i n [t o; i j s o n], 74B3). Since the argument goes on to claim that we

"over and above" the many is not equivalent to a direct mental seeing, which I take it would have to be infallible.²⁴ Intellection of material identity is, therefore, *always* via images or representations of self-identical essence.²⁵ What differentiates intellection from belief, whether true or false, is that it does not mistake an image of an essence for that essence.²⁶

(2) The material identity of the plethora of Forms. In various places, Plato refers to Forms as having "parts."²⁷ I am going to assume without further argument at this time that there are at least two strictures under which these references must be understood: (a) the fact that a Form can have parts does not preclude the Form's being "uniform" (monoeidh")²⁸ and (b) the whole of which other Forms are parts is not an Aristotelian genus, that is, a logical notion which is in potency to species and individuals.²⁹ The idea of immaterial parts and wholes does have certain problems, but these are not going to be solved by transposing the manifest material mode of Plato's analysis into a formal one. In short, something like conceptual containment will not do, as in: the concept of humanity includes the concepts of male and female humans.

Material identity, by contrast, is exactly what is needed. Consider the material identity of all the colors of the spectrum. These are equivalent to "parts" of "white" light. It is literally true that white light is one *and* many, that is, exactly as many as the colors

acquire this knowledge from our experience of equal things, it is clear that this cannot be simply the knowledge of the Form of Equality. I suspect that what Plato is here indicating is in fact the intellection of the material identity of all instances of that Form. One who has this intellection—such as Socrates' interlocutors in this dialogue—is not thereby in a position to give an account of the Form. Nevertheless, this intellection exceeds the cognitive achievement of anyone who thinks that equality is a universal that is ontologically posterior to instances of equality.

²⁴ See *Republic* 477E6-7 where "knowledge" (episthmh) is distinguished from belief by its infallibility. That is why at 533D4-7 only the top section of the top part of the divided line is said to be knowledge. The lower section is "discursive reasoning" (dianoia) and the entire top part is now designated as intellection. (534A2). I take it that discursive reasoning is intellection without infallibility. Knowledge is the infallible cognition of that which is virtually the essences that are available to discursive reasoning. At *Epistle VII* 343D2, nou" seems to be assigned a higher status than episthmh.

²⁵ Cf. *Phaedrus* 249B6-C1: dei gar aqrwpon sunienai katf eido~ legomenon, ek pol lwn ipnt' aiphsewn eij- eh l ogismwusunai roumenon. ("A human being should understand what is said according to Form, proceeding to bring many perceptions into a unity by reasoning.") I read ipnt' for ipn with Badham.

²⁶ On sensibles as images of Forms, see *Timaeus* 37C7, D7, 48C6, 51B6, 92C7. Cf. I. M. Crombie, *An Examination of Plato's Doctrines*. Vol. 2 (London, Routledge & Kegan Paul, 1963), 82, "It is conceivable therefore that [Plato] thought that to come to know a Form was to achieve an understanding that could not be expressed in a formula, and that in this way 'knowing Equality itself' was not very different from understanding the analogy between its various embodiments." Crombie goes on to identify this understanding with nohsi". Analogy is, of course, another name for material identity.

²⁷ See e.g., *Phaedrus* 265B2; *Timaeus* 31A6; *Statesman* 262B1; cf. *Sophist* 253C3, D5-6, where the reference to Forms as "wholes" and "many" implies the partition of them and *Philebus* 15A6, 16D6 where the "ones" that are evidently Forms are also "many". That Forms have parts does not preclude their essence from being "indivisible" (ajneristo"). See *Timaeus* 35A1. The divisible essence of instances of Forms is owing to their being composed of the elements that go to make up three-dimensional bodies. The fact that a Form can have parts even though its essence is indivisible entails that there is a distinction between the Form and its essence. See *Parmenides* 142D1-143A3.

²⁸ See *Phaedo* 78D5, 80B2, and ajsunqeton, 78C3; *Symposium* 211B1.

²⁹ See R.E. Allen, *Plato's Euthyphro and the Earlier Theory of Forms* (New York, Humanities Press, 1970), 85-87, for a clear statement of why a "generic" Form cannot be an Aristotelian genus.

of the spectrum. Taking the task of collection and division in this way, intellection is of the material identity of the parts of a "generic" Form.³⁰

Clearly, there is a sort of dialectical process between the operations of intellection in (1) and in (2). For example, the postulation of the unity of virtue involves the intellection of the essence of individual virtues as manifested in many materially identical instances as well as the intellection of the material identity of the virtues as parts of a unitary Form. But the discovery, based upon intellection of that unity, of just how many the parts of Virtue are, can lead to the realization that, say, the word for one virtue really conceals two distinct virtues or that the words for two virtues really conceal one.³¹

(3) The Idea of the Good. I have argued elsewhere and at length that the Idea of the Good is virtually all of the other Forms or essences.³² I believe this interpretation can be stated more perspicuously in terms of the material identity of the Forms. The Idea of the Good is cognized *only* through encounters with the essences that the Forms are. This is how I understand the claim that the Idea of the Good is not itself an essence or, what amounts to the same thing, an intelligible entity.³³ It is, however, that which makes intelligibility possible, where "intelligibility" represents both the material identity that is the object of discursive intellection and the object of infallible knowledge. Viewed thus, it is at least reasonable that the first principle of all would be understood by Plato to be aptly called "the One."³⁴

All Forms, including those with parts, are themselves parts of the Idea of the Good, in the sense of "part" discussed above.³⁵ Therefore, if intellection of material identity is the cognition that two "things" are really one "thing," not only is perfect intellection the cognition of the unity of all essence, but in addition perfect intellection rests upon that which is beyond intellection. The one "thing" that two "things" are is only ever relatively cognizable because ultimately the one "thing," the Idea of the Good, is

³⁰ K. Sayre, *Plato's Analytic Method* (Chicago, University of Chicago Press, 1969), 216-223, takes the method of collection and division alternately as a search for the necessary and sufficient conditions for being "the kind of thing defined (216) and for the necessary and sufficient conditions for "being an x," where "x" stands for the instance of some kind. This seems confused for several reasons. First, among the necessary conditions for being an x should be included the instrumental causes, but these are no part of a collection and division. Second, the relationship among the Forms being collected and divided cannot be construed such that some Forms are necessary and sufficient conditions for others. Rather, if, say, two Forms are the result of a division, then these Forms are each necessary and sufficient for the other, as per material identity.

³¹ Cf. *Philebus* 17E1-3 where the cognition of a unity among a diversity of kind, that is, a cognition of material identity, is what makes one "intelligent" (εἰρων), which is, it will be recalled, in the *Timaeus* passage quoted above (46D8) the property of the nature that a lover of intellect and knowledge should pursue.

³² See "The Development of a Doctrine of the Good and Plato's Development" in *New Images of Plato*. Edited by G. Reale and S. Scolnicov (Sankt Augustin, Academia Verlag, 2002), 379-391

³³ See *Republic* 509B7.

³⁴ Aristotle explicitly identifies the One with the Good at *Metaphysics* N 4, 1091b13-14, though he does not here refer specifically to Plato. Cf. *Eudemian Ethics* A 8, 1218a19-21; *Metaphysics* A 6, 987b18-22. The term τὸ εἷς can, of course, be used as a name or a definite description. Since the first principle is "beyond οὐσίᾳ," however, a "definite description" of it is not, strictly speaking, available. Still, "that which is one" would be the best way to refer to that which is the identifying unity beneath the multiplicity of Forms. See J. Halfwassen, *Der Aufstieg zum Einen* (Stuttgart, Teubner, 1992), 236-245, for a discussion of the evidence from the dialogues for Aristotle's identification of the Good with the One.

³⁵ That is why Plato says at *Republic* 509A3 that the Forms are "Goodlike" (ἀγαθοειδῆ).

beyond our direct cognition. Still, as Plato insists, without that Idea, no essence could be cognized or have being.³⁶

(4) Mathematical numbers and Forms of mathematical numbers. Plato's account of number ($\alpha\rho\iota\mu\omicron\upsilon$) as comprised of indivisible units seems to reflect the standard ancient Greek definition as found in Euclid.³⁷ A number is a plurality of homogenous units. From this, it follows that: (i) "one" is not a number and (ii) the principle of number, that is, that by which a number's units are counted, is not itself a unit.³⁸ Further—and most significantly—(iii) a Form of each number is not itself a number.³⁹ There are certainly many vexing issues surrounding Aristotle's account of mathematical numbers and Forms of mathematical numbers, but the central point for my purposes is that the Form of, say, Twoness or Doubleness is the paradigm of all versions or representations of it, including the mathematical number 2, all ratios x/y where " x " = $2y$, and so on. All these "versions" of Twoness would be materially identical, as indicated by the "=" sign. The Form of Twoness is virtually all of these versions. The possibility that this approach makes the Forms themselves that are not Forms of mathematical numbers otiose in mathematical reasoning coupled with the claim that understanding *is* just mathematical, reveals itself in the substitution of "mathematicals" for Forms by Speusippus or the conflation of them by Xenocrates.

Just as the Forms of mathematical numbers are virtually the mathematical numbers, so the first principles, the One and the Indefinite Dyad, are virtually the Forms of mathematical numbers.⁴⁰ There is no evidence that Plato addressed the question of whether or not the One was, in addition, virtually the Indefinite Dyad. If he had, he would have been in a position to distinguish the limited causal reach of the Demiurge, which operates on a precosmic matrix of necessity, from the absolute causal reach of the One, which then would be said to be virtually everything there is, including all that is in the precosmic Receptacle.⁴¹ Intellection of the fact that certain proportions and symmetries manifest the triune aspects of the Good is exactly what Plato's philosophical art of measurement seems to be.⁴²

³⁶ *Republic* 509B5-7. A further aspect of material identity in relation to the Idea of the Good is revealed at *Philebus* 65A1-5 where participation in the Idea of the Good is grasped in three ways, via beauty, symmetry, and truth. The latter three are, the text says, "in a way one" ($\text{o}\iota\omicron\upsilon\text{n}\ \epsilon\upsilon\eta$).

³⁷ See *Republic* 526A1-5 and Euclid's definition of number at the beginning of Book VII of his *Elements*: $\alpha\rho\iota\mu\omicron\upsilon$ "de, to: $\epsilon\kappa$ monadwn sugkeimenon plhqo".

³⁸ See P. Pritchard, *Plato's Philosophy of Mathematics* (Sank Augustin, Academia Verlag, 1995), 70-83, for a good discussion of these points.

³⁹ See Aristotle, *Metaphysics* M 6, 1080b11-12, where Aristotle distinguishes "both kinds of numbers." The distinction in Aristotle is between "formal" ($\epsilon\iota\delta\eta\tau\iota\kappa\omicron\upsilon$) numbers and "unitary" (monadikol) numbers. See M 6, 1080b19, 30; M 8, 1083b16-17; M 9, 1086a5; N 2, 1088b34; N 3, 1090b35; N 5, 1092b20. Here, "number" is clearly being used equivocally.

⁴⁰ See Aristotle, *Metaphysics* A 6, 987b14-22. Cf. *Physics* A 4, 187a12.

⁴¹ See J. Halfwassen, "Monismus und Dualismus in Platons Prinzipienlehre," *Bochumer Philosophisches Jahrbuch für Antike und Mittelalter* 2 (1997), 1-21, who surveys the vast secondary literature on the question of whether Plato accepted two irreducible first principles or the ultimate reduction of two principles to one. Halfwassen also provides an argument—based on the second part of *Parmenides* and *Philebus*—for the claim that Plato does in fact hold to the latter. This is the Neoplatonic position. His position is that the absoluteness or underivedness of the Indefinite Dyad is only relative to the deduction of composite beings. It is, however, itself dependent on the One.

⁴² See *Protagoras* 356E9-357C1; *Statesman* 284E5-8; *Philebus* 25A8-B1. At *Statesman* 283E 3-6 the "art of essential measurement" is explicitly tied to the achievement of goodness. In the *Philebus* passage,

(5) Forms and Forms of mathematical numbers. If we suppose that the phenomenal properties of the elements (and hence the phenomenal properties of things composed of elements) are assigned to necessity and to the Receptacle and if we suppose that the imposition of "shapes and numbers" by the Demiurge is an application of the proportions and symmetries that the Forms of mathematical numbers virtually are, it is a nice question how Forms of natural kinds, virtues, etc. are thought constructed.⁴³ It is tempting here to connect the beauty, truth, and proportionality of the *Philebus* passage with the art of essential measurement of the *Statesman* passage. From among proportionalities, those that are applied "appropriately" in specific circumstances, represent the irreducible samenesses that it is the job of collection and division to discern.⁴⁴ When beauty is present in these proportionalities, it attracts desire, which is for the Good. When truth is discovered in these symmetries, it attracts the intellect. The virtues, for example, are the ways the Idea of the Good is manifested in specific circumstances. Its manifestation is discerned by intellect by discerning mathematical symmetry. The intellection of material identity in these cases is the cognition of sameness of circumstantially determined samenesses. Intellect discerns not that one mathematical proportion is the same as another, but that, say, justice is the self-identical symmetry (i.e., proportionality) that is manifested differently in different circumstances.⁴⁵

5.

Plato seems to infer from the existence of intellection that such cognition is in fact coincident with the accessing of the activity of an intellect. This seems a step beyond the obvious one that successful intellection attains intelligibles. What, then, is the connection between intellect and intelligibles supposed by Plato to be?

To begin with, in *Timaeus* there is an implicit identification of the Forms, insofar as they are intelligibles, with the intellect, which the Demiurge is. There are two passages which, taken together, seem to imply that the Demiurge and the Forms are extensionally equivalent. First, it is said "the world has been produced according to that which is graspable by "reason" (λογω) or "understanding" (φρονήσει) and is always in the same state." Shortly afterward, it is said "he [the Demiurge] desired that all things should come as near as possible to being like him."⁴⁶ The natural implication is that the

Socrates is describing the nature of the class named "limit" (περα) or "determinate," which includes all numbers or measures and their proportions. See K. Sayre, *Plato's Late Ontology* (Princeton, Princeton University Press, 1983), 109-110. 164.

⁴³ The list at *Epistle VII*, 342D-E, including, figures, colors, good, beautiful, just, bodies (artificial and natural), elements, psychic habits, states, and actions is obviously meant to be comprehensive. But it illuminates nothing, even assuming that it is Plato's list.

⁴⁴ See *Statesman* 284E6-7: το μετρίον, το προπρον, το κείρον, το δεόν. Also, *Republic* 531C2 on the discernment of numbers that are συμφωνοί from those that are not. Such discernment promotes "that which is beautiful and that which is good".

⁴⁵ See M. Burnyeat, "Platonism and Mathematics: A Prelude to Discussion," in *Mathematics and Metaphysics in Aristotle*. Edited by A. Graeser (Bern, P. Haupt, 1987), 227, n. 37, and 239 on the mathematical conception of justice present already in *Republic*.

⁴⁶ See *Timaeus* 29E3 and 30D1-3. At 50C7-D3 there is a threefold division of reality: Forms, sensibles, and Receptacle. The absence of the Demiurge from this list may be thought to be additional evidence for the claim that he is identical with the first division. These Forms are compared to a "father" which is how the Demiurge is characterized at 28C2, 37C7, 41A7.

Demiurge produces order out of chaos according to a model that is the Demiurge himself.⁴⁷ The implication of these passages might be resisted if there were no further considerations. And yet there seem to be such.

Plato argues that the world of becoming must have a cause, and that insofar as this world manifests beauty, its maker must have looked to an eternal model.⁴⁸ There is no doubt that this eternal model is comprised of the Forms, yet the Demiurge, like any intellect, pursues the Good.⁴⁹ It is in pursuing the Good and achieving it, insofar as a cognizer can do this, that the Demiurge knows the Forms. He knows them as materially identical or as that which the Good is virtually. If anyone possesses knowledge (as opposed to discursive intellection), it is he. Our intellection of what the Idea of the Good is virtually according to the criteria of symmetry, beauty, and truth is in fact identical with the aim of the Demiurge, namely, "that all things should as far as possible be good and not bad".⁵⁰ To have intellection of that aim is to have intellection of what the Idea of the Good is virtually.⁵¹

It seems, then, that there is no conceptual space in this account for a Demiurgic aim over and above the instantiation of the greatest possible array of intelligible products. But this also seems to be in accord with the hypothesis that the representation of temporal creation is entirely metaphorical.⁵² The "Goodlikeness" of the Forms, which consists in its multiplicity of materially identical manifestations of the Idea of the Good, is also apparently manifested in the desire of the Demiurge that all things should be as good as possible.⁵³ And yet what is the justification for any desire or aim in the Demiurge at all? Here we return to the exigencies of intellection.

In its ultimate form, intellection is the cognition of the material identity of the Forms. What is one, namely, the Idea of the Good, appears as many. To whom does the Idea of the Good appear as many? Evidently, the Demiurge, who is the guarantor of the paradigmatic distinctness of every Form. It is owing to the Demiurge's eternal contemplation of Forms that participation in the Good can occur by means of participation in this Form rather than that one. Without the Demiurge, we might suppose that the Idea of the Good appears as many to individual intellects, but then Forms would not be the eternal paradigms that make possible the instantiation of samenesses or, as *Timaeus* puts it, "divisible essences," in the sensible world.

⁴⁷ See F. Hager, *Der Geist und das Eine* (Bern, Paul Haupt, 1970), 29-30, 53-59, for a good discussion of the evidence for the identification of the Demiurge and the Forms. Also, in the same vein see F. Ferrari, "Causa paradigmatica e causa efficiente: il ruolo delle Idee nel *Timeo*," in *Plato Physicus*. Edited by C. Natali and S. Maso (Amsterdam, A. Hakkert, 2003), 83-96.

⁴⁸ See *Timaeus* 28A4-29B1.

⁴⁹ Cf. *Philebus* 20D7-10: *tode ge mhn, w- oilmai, peri; aujtou' [viz. tagaon, D4] apagkaiotaton eihai legein, w- pan to; gignwskon aujto; qhreuei kai; ejietai boulomenon el ein kai; peri; aultu; kthsasqai, kai; tw n al lwn oujden frontizei plhn tw n apoteloumenwn afna aqaqoi-*.

⁵⁰ *Timaeus* 30A2-3.

⁵¹ *Ibid.*, 37A1-2: *tw n nohtwn aji te ohtwn upo; tou ajristou ajrith genomenh tw n gennhqentwn.* The intelligibility of the Demiurge is owing to the fact that he is cognitively identical with all that is intelligible.

⁵² See M. Baltes, "Gegonen (Platon, *Tim.* 28B7). Ist Die Welt Real Entstanden Oder Nicht?," in *Polyhsitor. Studies in the History and Historiography of Ancient Philosophy*. Edited by K. Algra, P van der Horst, and D. Runia (Leiden, E. J. Brill, 1996), 76-96, for a thorough analysis of the textual evidence and the conclusion that there is no temporal creation in *Timaeus*.

⁵³ See S. Menn, *Plato on God as Nous* (Carbondale, Ill., Southern Illinois University Press, 1995), 57-58, on the different causal functioning of the Demiurge and the Forms.

The intellection by the Demiurge of the Good is, like all activities, the achievement of a desire. That is, the desire for the Good is achieved via intellection of Forms. Without *this* desire, there could be no such intellection. As in *Symposium*, where achievement of the desire to possess the beautiful consists in intellection of the Form of Beauty and results spontaneously in birth of true virtue, so achievement of the desire to possess the Good consists in intellection of all the Forms and results spontaneously in the activity of instantiating the Forms in the precosmic chaos.⁵⁴ That activity, too, springs from a desire, the desire that all things should be as good as possible.⁵⁵

In conclusion, I have argued throughout this paper for the centrality of the concept of material identity in both the metaphysics and epistemology of Plato. Material identity is the technical expression of the "sameness in difference" the possibility of which motivates the theory of Forms. It is no accident that Plato composes souls of a mixture of indivisible and divisible essence, sameness, and difference, for it is only if they are so composed can they access the world rationally. That they *do* in fact access the world rationally is the presupposition of the passage quoted at the beginning of this paper.

⁵⁴ See *Symposium* 212A-B.

⁵⁵ I am in general sympathetic with T. Johansen's effort in "The Place of the Demiurge in Plato's Teleology," in *Plato Physicus*. Edited by C. Natali and S. Maso (Amsterdam, A. Hakkert, 2003), 65-82, to "de-personalize" the Demiurge. But I would reject his argument for assimilating the Demiurge to "craftsmanship" abstractly conceived. Johansen slides from an identification of the Demiurge with craftsmanship to an identification of him with a "manifestation of craft" (80), thereby allowing for some individuality or personality. I think the solution to the problem of the Demiurge's "psychological profile" begins with detaching personhood from the idiosyncratic.