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THE "PROBLEM OF FIRE":
REFERRING TO PHENOMENA IN PLATO'S *TIMAEUS*

David P. Hunt

One of the most notorious passages in the *Timaeus* is where Plato, in the course of introducing the Receptacle, finds it necessary "to discuss first the problem of fire and its fellow elements" (προαπορηθῆναι περὶ πυρός καὶ τῶν μετὰ πυρός--49b1-2).¹ The passage which follows at 49b2-50a4 certainly ranks among the most significant in the Platonic corpus, but there is still no agreement on *what* it signifies. While the ἀπορία in question is rooted in the *behavior* of phenomena, Plato's main interest is in how we should *talk* about phenomena in light of their problematic behavior. The "traditional" understanding of this problem and Plato's answer to it is associated with Taylor (1928), Cornford (1937), Gulley (1960) and Zeyl (1975). It affirms the following with respect to phenomena and our talk about them:

(1) The difficulty is one that is rooted in the phenomenal flux, which makes it impossible for any phenomenal particular to provide the foundation for a "reliable and stable account" (πιστός καὶ βεβαίος λόγος). By drawing attention to this difficulty, Plato is reconfirming (if not deepening) the metaphysical critique of the phenomenal world which he has undertaken in earlier works.

(2) This difficulty does not preclude all reference to phenomena. Water, for example, may be referred to by way of the locution τὸ τοιοῦτον, with a third thing--the Receptacle--introduced to fill the role of τὸ τοῦτο.

Alongside this traditional position there may also be found the interpretation advocated by Cherniss (1954) and Lee (1967), which accepts (1) but denies (2), holding that the proper referents of the *Timaeus*'s "canonical notation" are not the phenomena but something else (characters, Forms). Finally, there is a more recent trend, exemplified by Zembaty (1983) and Gill (1987),

which denies (at least in part) both (1) and (2), inasmuch as it understands the *Timaeus* to be reaffirming or rehabilitating (depending on one's reading of the earlier dialogues) the ontological integrity of at least some phenomenal particulars, with Zembaty going so far as to turn Plato into a sort of proto-Aristotelian.²

The text itself has been analyzed so closely that it is doubtful whether any philological breakthroughs can be expected at this point. But it is also doubtful whether the outstanding interpretive issues are open to a purely philological resolution. Here I part company with the principal parties to the debate, who have tended to view the situation more hopefully. In defense of my more skeptical posture, consider what is probably the most-discussed syntactical dispute in the entire work: the interpretation of the phrase μη τουτο αλλα το τοιουτον προσαγορευειν πυρ (literally, "not this but the suchlike to call fire"). This phrase, in one form or another, occurs a total of three times in our passage (most straightforwardly at 49d5-6). The difficulty with its interpretation is that the locution μη X αλλα Y προσαγορευειν Z is ambiguous between μη "X" αλλα "Y" προσαγορευειν Z (call this the "A-reading") and μη X αλλα Y προσαγορευειν "Z" (call this the "B-reading"). These seem at first sight to be significantly different readings: the first concerns which of two *names* is to be assigned to a particular *thing*; the second concerns which of two *things* is to be assigned a particular *name*. The difference looks significant enough to warrant Prof. Gill's judgment that

the choice of one reading rather than the other has large consequences extending beyond the interpretation of this particular passage. The choice reflects a decision about the status Plato grants to physical phenomena. On the traditional reading he legitimates talk about such objects. On the alternative he proscribes it . . . (36)

In other words, the A-reading of μη X αλλα Y προσαγορευειν Z supports the traditional interpretation of 49b2-50a4 offered by Taylor and Cornford, while the B-reading supports the alternative interpretation put forward by Cherniss. This makes the proper understanding of 49b2-50a4 crucially dependent on a syntactical decision between the A-reading and the B-reading. And this is the way the matter has been generally understood by the participants in the debate.

I believe, to the contrary, that the three positions adumbrated in the first paragraph would be just as strong (or weak) even if there were complete consensus on the passage's syntax.

Granted that the A-reading concerns what name to assign Z while the B-reading concerns what name to assign X and Y. But by the same token, the sentence "Socrates taught Plato" and the sentence "Plato was taught by Socrates" differ in that the first asserts something of Socrates while the latter asserts something of Plato, without this difference in syntax corresponding to any real difference in meaning or in the truth-conditions for the two sentences. Why suppose that the A- and B-readings of μη τουτο αλλα το τοιουτον προσαγορευειν πυρ support interestingly different positions on (1) and (2)? On either reading the phrase conveys that there is something which is both το τοιουτον and also πυρ, but which is not τουτο. The only difference is that on the A-reading "πυρ" is *used* to pick out this something while "τουτο" and "το τοιουτον" are *mentioned* as unacceptable and acceptable (respectively) names for this something, whereas on the B-reading "το τοιουτον" is *used* to pick out this something and "πυρ" is then *mentioned* as an acceptable name for it (and "τουτο" is used to pick out something else of which "πυρ" is not an acceptable name).

This difference in the use and mention of key terms radically underdetermines the different positions that have crystallized around (1) and (2). Where there is little scope for varying conceptions of the key terms, there is no temptation to see the use-mention ambiguity in μη X αλλα Y προσαγορευειν Z as anything other than an ambiguity of emphasis. (To see that this is so, compare μη Bill Clinton αλλα Juan Carlos προσαγορευειν "the King of Spain" with μη "Bill Clinton" αλλα "Juan Carlos" προσαγορευειν the King of Spain.)³ What is required for μη τουτο αλλα το τοιουτον προσαγορευειν πυρ to yield different positions on (1) and (2) are different conceptions of τουτο, το τοιουτον, and πυρ. It is clear that the opposing camps in the battle over (1) and (2) bring these different conceptions with them to their divergent readings of 49b2-50a4; they do not find these conceptions dictated to them by their choice of an A-reading v. a B-reading.

Supposing that text does underdetermine meaning here, there is no choice but to adopt an explicit interpretive framework for the assessment of candidate meanings. The following interpretation of Plato's "problem of fire" is certainly no exception, most notably in its appeal to the notion of *de re* and *de dicto* necessities (a medieval distinction lately pressed into service by metaphysicians in the analytic tradition). What recommends this framework, despite its anachronism, is its compatibility with the text and its possession of certain extra-textual virtues, namely, that the ἀπορία it has Plato raising in the passage is real, and that the solution it attributes to him is a plausible one. This is perhaps the most that can be said for any interpretation under the circumstances. It would be rash, of course, to claim that the account I offer has a monopoly on such hermeneutical virtues, particularly owing to the opacity of the passage and the possibility that it may even be deliberately understated or ambiguous; my only concern is to argue that it at least *possesses* these virtues.

What is "the problem of fire and its fellow elements"? Plato's first pass at an explanation is this: "it is hard to say which particular element we ought really to term water rather than fire, and which we ought to term any one element rather than each and all of them, while still employing a terminology that is reliable and stable" (49b2-5). His second pass traces this difficulty to the phenomenal flux: "since no one of these ever remains identical in appearance, which of them shall a man definitely affirm to be any one particular element and no other without incurring ridicule?" (49d1-2).

One way to understand the problem, then, is this: the flux is so virulent that nothing stands still long enough to be identified as *fire*, *water*, etc. (or: picked out via the referring expression 'fire', etc.). But this can't be the problem, since the very formulation of the problem makes identifying reference to fire and the other elements: these must be referentially available for Plato to ask "which particular element we ought really to term water rather than fire" (49b2-3); his illustration of the cyclical nature of the flux starts off with "that which we now call 'water'" (ο δη νυν υδωρ ωνομακαμεν--49b7); and his solution to the problem cites fire as an example of an "object we perceive to be changing from one state to another" (ο καθορωμεν αλλοτε αλλη

γίγνομενον--49d4-5). Even in the gold analogy that follows, where the figures are being remodeled "without ceasing" and "change even while one is mentioning them"--a condition which suggests a very strong flux indeed--the formulation of the problem begins with someone "pointing to one of the figures and asking what it is" (50a6-b4). It is here, in cases of pure ostension, that one might most plausibly suppose that successful reference requires the referent to exist for a minimal span of time, during which the act of referring can be completed; but the gold analogy, by countenancing ostensive reference, suggests that the problematic flux does not violate this requirement. The identifying references which help set up the problem are possible because the flux, however virulent, exhibits patterns sufficient to provide phenomenal particulars with the spatio-temporal contours without which unambiguous reference to phenomena cannot take place. Certainly Plato is committed to the existence of such patterns, since much of the *Timaeus* is devoted to explaining them; indeed, the very evidence Plato adduces in demonstrating the elements' problematic instability is itself drawn from these patterns: water congealing into earth and evaporating into air; air combusting into fire, fire extinguishing into air, air condensing into water (49b7-c7). So this first way of understanding the problem won't do.

Since reference to the four elements is apparently presupposed, perhaps it is our ability to say something *about* these things that is supposed to be problematic. On this understanding of the problem, what is jeopardized by the flux is the ascription to some particular element (successfully referred to) of the predicate 'fire' ('water', etc.). But it's hard to see how this ascription *could* be jeopardized. If, as Plato must allow, it is indeed possible to pick out an element within the flux via the identifying description 'this fire' (or a shape within the mass of gold as 'this triangle'), then how could the predicate 'fire' *not* be truly ascribable to that element? Understood in this way, Plato's question, "Which element ought we to term water rather than fire?", has a simple answer, namely, "water". Our ability to predicate 'fire' of fire, 'water' of water, and so on for the other elements, is surely not what Plato wants us to regard as problematic.

Since the most obvious approaches do not look very promising, let us make a fresh start. Assuming that we can effect an identifying reference via the expression 'this fire', what is it to

which we have made reference in this way? And assuming that we can predicate 'fire' of this referent, are we (in so predicating) thereby saying what this thing is? These are really two sides of the same question, but it is useful to consider the two sides separately.

Let us consider the second question first, supposing for the moment that the first can simply be answered with 'fire'. If the question is a legitimate one, it isn't because "Fire is fire" isn't *true* (how could it not be? it's *tautologically* true); what might remain open, however, is whether this adequately answers the "what is it?" question. To do so, it must provide a *πιστος και βεβαιος λογος* which sets forth the nature or essence of the thing in question, rather than some transient feature that characterizes it at one time and not at another. This requirement, however, may not appear to take us any closer toward understanding why Plato regards the situation with fire as problematic. Isn't *fire* the nature or essence of fire? Certainly fire is not a merely transient feature of fire, something which characterizes fire at one time and not at another! *Phaedo* 102 ff. provides a model for this response: fire would either withdraw in the presence of, e.g., water, or it would cease to exist; in neither case would fire be characterized by the incompatible attributes of fieriness and wateriness. Yet in the *Timaeus* Plato illustrates the problem with fire and company as one in which fire, by changing into the other elements, becomes other than itself.

A useful tool for unpacking this problem is the medieval distinction between predications *de re* and predications *de dicto*, a distinction which has been resuscitated and put to work in recent theories of reference by such philosophers as Saul Kripke and Alvin Plantinga.⁴ When something X is said to be F by nature or essence--necessarily F--this could mean one of two things. It could mean that F belongs to X necessarily only in virtue of the fact that X has been singled out under a description of which F is analytic. This is *de dicto* necessity. Alternatively, it could mean that F belongs to X necessarily in virtue of X's nature, regardless of the description by which X happened to be picked out. This is *de re* necessity. For example, "That bachelor is unmarried" expresses a *de dicto* necessity, since 'unmarried' is analytic of 'bachelor': "That bachelor is married" is self-contradictory. Moreover, it *only* expresses a *de dicto* necessity, since the person to whom reference has been made via the description "that bachelor" is not a bachelor by nature: the

supposition that he weds tomorrow is at least not self-contradictory. Kripke and Plantinga, however, aver that there are true *de re* necessities as well: Kripke offers as examples "Water is H₂O" and "Gold has atomic number 79" (1980, 116). What this means is that, while we cannot say of this person (the one singled out as 'that bachelor') that *he* is essentially unmarried, we can say of this liquid (the one singled out as 'this glass of water') that *it* is essentially H₂O, and we can say of this metal (the one singled out as 'that bar of gold') that *it* has essentially atomic number 79.

I take Plato, on the other hand, to be denying that water (or gold, for that matter) is a suitable subject for *de re* predications. "Water is water" and "Fire is fire" are true, and necessarily true; so (presumably) are "Water is wet" and "Fire is hot." But insofar as these assertions concern phenomenal rather than eidetic water and fire, they are only *de dicto* necessities; as such, they fail to articulate the nature or essence of the stuffs to which their subject-terms refer. This is not because there are other expressions which articulate their nature or essence in a more perspicuous fashion, but because they have no nature or essence to be articulated. There simply is nothing that (phenomenal) water is of its own nature, apart from the description(s) by which it is picked out.⁵

With this answer to the second question in mind, let us consider the first question, regarding the identity of that to which we have secured reference by way of the expression 'this fire'. The reason the obvious answer 'fire' may not be correct is that an expression 'F' may enable reference to something X without F supplying the identity-conditions for X. For example, if I refer to someone at a party as "that inebriate in the corner", I would generally be understood to have picked out a certain *person* who is now inebriated, someone whose identity-conditions are not given via the term "inebriate". This would be particularly clear if what I say about him is that he "won the lottery yesterday" or "will regret this tomorrow", for this presupposes the referent's existence at times other than those covered by the concept *inebriate* (assuming his sobriety yesterday and tomorrow). Plato talks about the transformation of the elements in a similar way. Just as, when we say of the inebriate that he will later acquire the contrary attribute of sobriety, this implies that 'inebriate' helped us achieve reference to something whose identity-conditions go beyond anything supplied by the term 'inebriate'; so when Plato has "that which we now call

'water' becoming . . . stones and earth" (49b7-c1), this implies that 'water' ultimately refers to something whose identity-conditions go beyond anything given by the term 'water' itself. It is this underlying referent, "the Receptacle, and as it were the nurse, of all Becoming" (49a5-6), which possesses the stability and reliability to warrant the designation 'τουτο'. Natural kind terms like 'water', on the other hand, which occupy a privileged position in the theories of Kripke and Plantinga, are for Plato no better than names for properties, like "hot or white or any of the contraries" (θερμον η λευκον η και στιουν των εναντιων--50a3), none of which counts as a τουτο.⁶ Insofar as they express necessary truths, "This liquid is water" and "That fire is hot," like "The hot is hot," do nothing more than articulate the *de dicto* relations in which each τουτουτον stands to itself and to others; they do not say anything about the nature of the phenomenal things to which their subject-terms refer.

In contrast to its phenomenal contents, the Receptacle possesses the ontological wherewithal to support predications *de re*: it is Plato's effort to clarify the Receptacle's *nature* (49a5) which leads him to raise the problem of fire, and the conclusion he reaches is that "in describing that and that alone should we employ the terms 'τουτο' and 'τοδε'" (50a1-2). The term 'this' is not only reserved for that which supports a πιστος και βεβαιος λογος; it also functions as a vehicle for "pure reference," uncontaminated by description. For pure reference to be successful in the absence of any descriptive backing, it must operate in an ontological environment in which things have clear identity-conditions apart from how we happen to talk about them. This is precisely what the Heraclitean flux is seen to jeopardize in 49b2-50a4. But the Receptacle escapes this flux: "It must always be called 'the same'; from its own nature it never departs at all" (50b6-8). That nature turns out to be pretty thin; as Prof. Prior aptly notes, "Its nature, one is tempted to say, is that it has no nature" (1985, 113). The irony is that the very considerations that qualify the Receptacle as an ideal subject for *de re* predication ensure that there is little if any content to be conveyed by such predication. As a pure *this*, the Receptacle remains a "difficult and obscure sort of thing" (χαλεπον και αμυδρον ειδος--49a3-4), "in some most baffling and perplexing way partaking of the intelligible"

(μεταλαμβανον δε απορωτατα πη του νοητου και δυσαλωτοτατον--51a7-b1), "itself grasped without sensation by a kind of bastard reasoning, barely an object of belief" (αυτο δε μετ' αναισθησιας απτον λογισμω τινι νοθω, μογις πιστον--52b1-2). Of course it could not do its metaphysical job otherwise, as Plato explains at 50d4-51b2: the ontological minimalism that renders it so epistemically puzzling is the very thing that enables the Receptacle to host the shifting and contingent appearances making up the physical cosmos.

Given the suggested answers to our two questions about the problem of fire, the interpretation I favor can be summed up as follows. Phenomenal change challenges, not our capacity to refer to phenomenal things, but each thing's capacity to constitute a *τοδε και τουτο*: an ontologically privileged item possessing a career independent of the description(s) by which reference to it was secured. This means that the only necessities that may be predicated of phenomena are *de dicto* necessities. Since they fail to support *de re* necessities, there is not with respect to them any answer to the *τι εστι* question (at least insofar as this question is directed toward real rather than nominal essences). Within the phenomenal world, only the Receptacle possesses the requisite independence and can therefore anchor predications *de re*.

I would now like to consider four concerns that might be raised by this interpretation. Peter Strawson, in the Introduction to *Individuals*, distinguishes between a "descriptive" metaphysics, which "is content to describe the actual structure of our thought about the world," and a "revisionary" metaphysics, which "is concerned to produce a better structure" (1959, xiii). Using this distinction for classificatory purposes is sometimes a bit tricky (Berkeley, for example, would almost certainly be regarded as a revisionary metaphysician, though he insisted as a principal point in its favor that his metaphysics was wholly descriptive). But everyone would agree that Plato--relative to, say, Aristotle--is putting forward a revisionary metaphysics. At the same time, it might seem that I have made Plato *too much* of a revisionist. The following concerns reflect the underlying suspicion that the account I have offered takes the metaphysical impoverishment of the phenomenal world too far, even for Plato.

The first concern is how the view I have attributed to Plato could possibly be compatible with the ways in which he typically talks about phenomenal particulars. Insofar as this complaint rests on nothing more than the fact that Plato does not actually adopt the "canonical notation" suggested by the *Timaeus*, it can hardly be taken seriously. Certainly Plato continues to employ substantives, rather than purging them in favor of adjectives; more generally, he retains all the linguistic forms by which the commonsense conceptual scheme he supposedly rejects is continually asserted and reinforced. But this is no evidence at all against my interpretation, since there is scarcely a revisionary metaphysician who does *not* continue to speak with the vulgar while mandating how one should philosophize with the learned. (Hume, Russell, and Quine, for example, join Plato in denying the perspicuity of substantives while blithely employing them in elegant philosophical prose.) What the objection really requires is some evidence that Plato specifically disavows the line I am attributing to him. This evidence obviously cannot come from the early or middle period dialogues,⁷ since these are separated from the *Timaeus* by the *Parmenides*, in which the middle-period theory is under attack and the young Socrates who proves unequal to its defense is also seen doubting whether Forms are required for sortals like *man* and mass-terms like *fire* and *water* (130c). It should hardly occasion surprise if this doubt is called into question in later dialogues. It is true that the problematic examples in the *Timaeus* include only mass terms; but it is difficult to argue that the problem itself is so restricted. For one thing, nothing in Plato's discussion of these examples turns on specific ways in which mass terms are ill-behaved relative to sortals, and the "problem of fire" appears to arise with equal force for *any* material body. For another thing, the *Theaetetus* also hypothesizes a world in Heraclitean flux and derives from it semantic consequences echoing those in the *Timaeus*, but here the examples are all *sortals*: "*man* and *stone* and every animal and kind" (157b-c). If Plato develops this problem in the *Timaeus* with special reference to the four elements, it is not because the problem is limited to the elements in particular or to masses in general, but because these are the very principles to which the Presocratics had looked for stability--if even these fail, there is little reason to think that *any* material candidate can succeed. Zembaty (1983) endeavors to avoid this conclusion by citing

the discussion of ζωα later in the *Timaeus*, where Plato treats living things as though they are well-behaved constituents of reality. But this is dubious evidence. In the ζωα passages Plato has moved on to new topics to which his novel theory of the Receptacle is irrelevant, and there is no reason why he should inject this theory into contexts where it is inappropriate. It would be just as difficult for Plato to discuss biological organisms in terms of the canonical notation of the receptacle-passages as it would be for a 20th-century biologist to articulate biological phenomena in terms of fundamental physics, and the fact that he understandably fails to do so does not count in any way against the metaphysical revisionism advocated earlier in the dialogue. Insofar as ζωα have a psychology *as well as* a biology, Zembaty may be right in suggesting that there is an exception in the neighborhood; but the exception is itself exceptional. In the *Phaedo* Plato argues that the human soul is *incomposite* (78c) on the grounds that it is *invisible* (79b) and "most like the . . . *uniform and indissoluble and ever unchanging*" (80b), making it hard to see how souls could have any place in the Receptacle as characterized in the *Timaeus*. Souls may have a greater claim than stones or water to constituting privileged unities, but insofar as this reflects their anomalous position vis-à-vis the phenomenal order, it fails to support any qualification in Plato's overall analysis.

The second concern regarding the interpretation I have given to Plato's "problem of fire" is that this problem is supposed to be associated primarily (if not wholly) with conditions obtaining in the pre-cosmic chaos, whose investigation Plato announces at 48d. If it is, any analysis of this problem (including the one offered in this paper) will necessarily overstate the ontological and epistemological deficiencies of phenomenal particulars as they exist subsequent to the divine intervention described at 53b. What this concern presupposes is that the demiurge's introduction of "forms and numbers" (53b5) into the primitive chaos changes things in such a way that the problem of fire and its fellow elements no longer arises, and I see little reason to think that this is so. The nature of the traces (τχvη) which antedate the organization of chaos into a cosmos, and the effects of such organization at the phenomenal level, are themselves subjects of considerable controversy;⁸ but one thing that seems pretty clear is that the grounding of

phenomena in the geometrical micro-order imposed by the demiurge introduces enough pattern into the chaos to make it possible for the first time to talk about fire and water and the other elements (69b5-8). As we have seen, however, the problem raised at 49b-50a and elaborated in the gold analogy which follows at 50a-c presupposes a world with at least enough stability that someone can pick out something in the flux and ask what it is--presupposes, that is, more order than would be available in the pre-cosmic chaos. When setting up the problem, moreover, Plato notes how "we see that which we now call 'water' becoming by condensation, as we believe, stones and earth" (49b7-c1). This is clearly post-chaotic water: the stuff which we *now* (νῦν) call 'water', and which we actually *see* (ὁρωμεν). Whatever this problem is, it is one that evidently obtains under present conditions. So it can't be claimed that I am illicitly attributing to the cosmos the more severe ontological and epistemological liabilities which obtain only in the pre-cosmic chaos.

The third concern is how Plato, at this stage in his career, could possibly settle into a skepticism about phenomenal particulars even more severe than the one he exhibits in his middle period. The attention paid to the precise relationship between Forms and particulars in the *Parmenides* ought to result in some rapprochement between the two worlds, an expectation which appears to be borne out in the *Sophist* and *Statesman*. Yet I have Plato in the *Timaeus* pursuing a radical reduction of phenomenal particulars which is regressive relative to his middle-period position. A complete response to this concern would require a long story about Plato's development, one which would go far beyond the scope of this paper (even if I had the story to tell). A less complete but far more succinct response is to deny the assumption behind the concern, which is that Plato's analysis of the problem of fire (on my account of it) further undermines the ontological integrity of the phenomenal world. To the contrary, the Receptacle makes available for the first time a substantial medium in which Forms may be imaged, providing the phenomena with an ontological ballast which they formerly lacked. What Plato *does* denigrate, in my view, is the idea that the ontological integrity of phenomena is to be traced to relatively autonomous centers of stability *within* the flux. To suppose that this is the only way to

give phenomena their due is to buy into an Aristotelian analysis of the material world which Plato would reject. If anything, twentieth-century physics shows Plato's denial of individual material substances to be a progressive rather than regressive development.

The fourth and final concern that I would like to consider is whether the Receptacle is really substantial enough to play the role assigned to it. On the one hand, it is supposed to anchor *de re* predications and provide for phenomenal particulars the ontological ballast which they cannot provide for themselves; on the other hand, it has no character of its own (50d-51a), and so is hardly distinguishable from nothing. Before addressing this concern, it is worth reviewing those features which Plato nevertheless ascribes to the Receptacle: it serves as (1) *nurse* (49a) and *mother* (50d); it constitutes (2) *place*--implicitly at 49e-50a, where it is that wherein ($\epsilon\nu\ \omega$) material things are generated and wherefrom ($\epsilon\kappa\epsilon\iota\theta\epsilon\nu$) they are destroyed, and explicitly at 52b and 52d, where the word $\chi\omega\rho\alpha$ is used; it is characterized by (3) *receptivity* (50b-c, 51a); it functions as (4) a *molding-stuff* (50c); and it remains (5) *unformed* (50d, 51a), *invisible* (51a), and *indestructible* (52b). This recital, despite its rich variety, may simply reinforce the present concern, since the listed properties are (1) metaphorical, (2) relational, (3) passive, (4) vague, and (5) negative. In response, let me make just three points. First, it is Plato's own position that we want to clarify, and it is evident that *he* at least did not regard the "deficient specification" problem as fatal to the Receptacle's metaphysical credentials: no sooner has he mentioned the Receptacle's "obscurity" than he is already proposing a power that it possesses "by nature" (49a3-5). Second, Plato is hardly alone in thinking that something as attenuated as the Receptacle can play the role of substance. Cartesian space, for example, is every bit as attenuated, possessing just a single essential property (extension), and yet it serves in Descartes' system as the only material substance. For a more recent example, one might cite (among others) Anthony Quinton's (1973) argument that spatio-temporal *position* is substance, a status that it holds in spite of (and partly because of) the fact that a thing's position, unlike its other qualities, can only be defined in relation to other positions and ultimately in relation to nonqualitative indicators like 'I', 'this', 'here', and 'now'. (One might say of *position*, as Quinton explicates it, what Plato says of the Receptacle: that

it is "in some most baffling and perplexing way partaking of the intelligible.") Third, the problem is in any case overstated. It is not as though the notion of the Receptacle lacks any content. Even if the properties Plato ascribes to it are individually "deficient," the fact that there are a number of them and that they are not all "deficient" in the same way helps preserve the Receptacle from ineffability. It's far from obvious that this notion is any less clear than others which play a similarly foundational role in metaphysics, such as matter, form, time, cause, and so on. The Receptacle is just as intelligible as it needs to be in order to play its assigned role in a system in which the real locus of intelligibility is the Forms.

This is enough to indicate how the reading I have given to Plato's "problem of fire" can withstand the most obvious objections to it. The problem, as I understand it, is a real one; it is not an artifact of Plato's confusion, or rationalistic prejudices, or lack of the proper conceptual tools. His solution to the problem is also quite plausible: if arrayed in modern dress, it would not look out of place alongside other theories of reference which have been developed during the last hundred years. Plato is often presented as though he simply failed to understand, in this dialogue and elsewhere, the conditions under which the material world can be articulated as a system of well-behaved Aristotelian substances. On my reading, Plato understood these conditions well enough, but denied that they are satisfied. The *Timaeus* can therefore be seen as Plato's rejection in advance of Aristotle's doctrine of individual material substances.⁹

Department of Philosophy

Whittier College

Whittier, CA 90608

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NOTES

¹R. G. Bury's rendering in the *Loeb* series is used as the "default" translation when I am not using my own.

²While differing in many respects, Zembaty and Gill would agree that (1) overstates Plato's metaphysical critique of the phenomenal world; they would also accept the first sentence of (2) while rejecting the second sentence's restriction of το τουτο to the receptacle.

³The example reflects the occasion on which the first iteration of this paper was presented, namely, the IV Symposium Platonicum of the International Plato Society, held in 1995 in Granada, Spain.

⁴See, e.g., Plantinga (1974) and Kripke (1980).

⁵If, on the other hand, the referent of "Water is water" or "Water is watery" is eidetic rather than phenomenal water, the assertion *does* express a *de re* necessity. Indeed, for Plato there can be *de dicto* necessities only because there are such *de re* necessities, where the subjects of the latter are Forms and their predicates say something about the Forms' natures.

De re necessities concerning a Form's content--e.g., predicating 'F' of the Form of F-ness--must differ from cases of ordinary predication not just in their modality but also in the force of the copula. At least this is one moral which can be drawn from the "third man argument" in the *Parmenides*--see Hunt (1997).

⁶This assumes, once again, that the natural kind term in question is not functioning as the name for a Form.

⁷There is evidence that Plato does not take the line I attribute to him in earlier dialogues. In the *Phaedo*, for example, Plato speaks of fire as though it were a fit subject for essential predication: "it will never endure accepting cold while remaining what it was, both fire and cold," for in such cases "not only the idea itself is worthy of the same name throughout all time, but also something else, which is not the idea, but which always has the form of the idea whenever it exists" (103d-e). And in the *Republic* he distinguishes sortals like 'finger' from relatives like 'great' and 'small', where the former escape the epistemological deficiencies which require the latter to borrow their being from Forms (523b-524e). But this evidence is of course irrelevant to the question whether he adopts this line in the later *Timaeus*.

⁸A recent suggestion for understanding the difference between the pre-cosmic and the cosmic situations may be found in Gerson (1996).

⁹Helpful comments on different stages of the paper were made by Ron Polansky, John Mark Reynolds, Gerry Santas, Bob Sharples, and an anonymous referee for this journal.