

process that amounted to giving or accepting *pictures*, or to gesturing at *this* rather than *that* way of looking at things. As a result, schemes of representation would be much less useful things.¹⁵ And thought and language themselves would much less effective as sources of humankind's vaulted adaptiveness to the world.

¹⁵ If I understand Wittgenstein's overall argument about rules, then things would be a good deal worse than this. For our very capacity to be guided by non-hypothetical *normae* or rules—or by concepts and definitions—depends upon abilities that are not themselves rule-based and not entirely representable by relations expressible within propositional logic. For example, the 'fit' of a thought process with a maxim or rule is not a simple propositional relation, yet the 'role' of words such as 'fit' and 'being able to' 'is what we need to understand in order to resolve philosophical paradoxes' (PI 73).

Haven't we already been all the way around the barn with the idea of logic as a set of tools, and decided that this view cannot explain how logic could afford any 'standards of correctness' for arguments, since tools cannot be 'correct' or 'incorrect', but only more or less useful? — Yes, we have. But we picked the wrong tools for understanding the analogy. Hammers may not function as 'standards of correctness' for building, but tools like *normae* and *regulae* function precisely as *estandards* of correctness (*corrigerere*) or comparison, as Wittgenstein knew in speaking of rulers and measuring-rods.

Apriority and Existence

Stephen Yablo

1. A PARADOX

Fifty years ago, something big happened in ontology. W. V. O. Quine convinced everyone who cared that the argument for abstract objects, if there were going to be one, would have to be a posteriori in nature. And it would have to be a posteriori argument of a particular sort: an *indispensability* argument representing numbers, to use that example, as entities that 'total science' cannot do without.¹

This is not to say that a priori arguments are no longer attempted. They are, for instance by Alvin Plantinga in *The Ontological Argument*, and Crispin Wright in *Frege and the Conception of Numbers as Objects*. These arguments are put forward, however, with a palpable sense of daring, as though a rabbit were about to be pulled out of a hat. Nobody supposes that there are *easy* proofs, from a priori or empirically obvious premises, of the existence of abstracta.² (The only easy existence proof we know of in philosophy is Descartes' *cogito ergo sum*.)

The paradox is that, if we are to go by what philosophers say in other contexts, this bashfulness about what can be shown a priori is quite unnecessary. Abstract objects are a priori deducible from assumptions that nobody would deny.

Example (i). As everyone knows, an argument is valid iff every model of its

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¹ The classic formulation is Hilary Putnam's: 'quantification over mathematical entities is indispensable for science . . . , therefore we should accept such quantification; but this commits us to accepting the existence of the mathematical entities in question' (1971: 57).

² A possible exception is Arthur Prior in 'Entities', who comments: 'This is very elementary stuff—I am almost tempted to apply the mystic word "tautological"—and I apologise for so solemnly putting it forward in a learned journal. But I do not think it can be denied that these things need to be said. For there are people who do not agree with them' (1976:26).

premises is a model of its conclusions. I have never seen empirical evidence offered for this equivalence so I assume the knowledge is a priori. On the other hand, it is *also* (often) known a priori that such and such an argument is invalid. From these two pieces of a priori knowledge it follows by elementary logic that there exist certain abstract objects, viz. models.

Example (ii). It is a priori, I assume, since observational evidence is never given, that there are as many *F*s and *G*s iff there is a one to one function from the *F*s to the *G*s. It is also known, a posteriori this time, that I have as many left shoes as right. From these two pieces of information it again follows by logic that certain abstract objects exist, viz. functions.

2. PLATONIC OBJECTS

So far, so bad. But matters can be made even worse. This is because objects that are *not* abstract, or not obviously so, can be similarly 'deduced' on the basis of a priori-looking bridge principles. I have in mind principles like 'it is possible that *B* iff there is a *B*-world', and 'Jones buttered the toast *F*-ly iff there was a buttering of the toast by Jones and it was *F*', and 'Jones is human iff being human is one of Jones's properties.' That non-abstract (or not obviously abstract) objects appear also to admit of overeasy proof shows that we still have not got an exact bead on the problem.

Suppose we try again. There's a tradition in philosophy of finding 'unexpected objects' in truth-conditions—of detecting whatsits in the truth-conditions of statements that are not on the face of it *about* whatsits. So,

<i>the truth-value of</i>	<i>is held to turn on</i>
'argument <i>A</i> is valid'	the existence of <i>countermodels</i>
'it is possible that <i>B</i> '	the existence of <i>worlds</i>
'there are as many <i>C</i> s as <i>D</i> s'	the existence of 1–1 <i>functions</i>
'there are over five <i>E</i> s'	the number of <i>E</i> s exceeding five
'they did it <i>Fly</i> '	the <i>event</i> of their doing it being <i>F</i>
'there are <i>G</i> s which BLAH'	there being a <i>set</i> of <i>G</i> s which BLAH
'she is <i>H</i> '	her relation to the <i>property H</i> -ness

Objects with a tendency to turn up unexpected in truth-conditions like this can be called *platonic*. Models, worlds, properties, and so on, are platonic, relative to the areas of discourse on the left, because the sentences on the left aren't intuitively *about* models, worlds, and properties. (If an example of non-platonicness is wanted, consider people in relation to population discourse. That the truth about which regions are populated should hinge on where the people are does not make anything platonic, because people are what population-discourse is visibly and unsurprisingly all about.)

Objects are platonic relative to an area of discourse due to the combination of something positive—the discourse depends for its truth-value on how objects like that behave—with something negative—the discourse is not *about* objects like that. It appears to be this combination, truth-dependence without aboutness, that makes for the paradoxical result. It appears, in other words, that with *all* platonic objects, abstract or not, there is going to be the possibility of an overeasy existence proof. Just as functions are deducible from my having as many left shoes as right ones, events can be conjured a priori out of the fact that Jones buttered the toast slowly, and worlds out of the fact that she could have done it quickly.

3. QUINE'S WAY OR THE HIGHWAY

Our paradox is now shaping up as follows. Let *X* be whatever sort of platonic object you like: numbers, properties, worlds, sets, it doesn't matter. Then on the one hand we've got

Quineanism: to establish the existence of *X*s takes a holistic a posteriori indispensability argument;

while on the other hand we've got

Rationalism: the existence of *X*s follows by 'truths of reason'—a priori bridge principles—from a priori and/or empirical banalities.

The reason this is a paradox and not merely a disagreement is that Quineanism is received opinion in philosophy, while Rationalism is a straightforward *consequence* of received opinion: the opinion that we are capable in some cases of a priori insight into truth-conditions, and can a priori 'see' that an argument is valid iff it has no countermodels, that it is possible that *S* iff there is an *S*-world, and so on.

What is to be done? One option of course is to embrace Rationalism and admit that the proof of numbers and the rest is easier than anyone had imagined. I am going to assume without argument that such a course is out of the question. Our feeling of hocus-pocus about the 'easy' proof of numbers (etc.) is really very strong and has got to be respected. If that is right, then only one option remains: we have to renounce our claim to knowing the bridge principles a priori. Perhaps the principles are *false*, as John Etchemendy maintains about the Tarskian validity principle.³ Or perhaps it is just that our justification is not a priori; the Tarski principle owes its plausibility to the prior hypothesis that there are sets, and the argument for *them* is experiential and holistic. The point either way is that we have to stop carrying on as though it is known independently of experience that, e.g. the valid arguments are the ones without countermodels.

³ Etchemendy (1990).

If only it were that easy! The trouble is that our rights of access to the bridge principles do not *seem* to be hostage to empirical fortune in the way suggested; our practice with the principles does not *feel* like it is 'hanging by a thread' until the empirical situation sorts itself out. This shows up in a couple of ways, one having to do with our actual attitudes, one having to do with the attitudes we would have had in certain counterfactual situations.

Actual: Many or most of us using the Tarski biconditional *have no particular view* about abstract ontology. Certainly we are not committed Platonists. If the biconditional (as employed by us) truly presupposed such an ontology, then we *ought* to feel as though we were walking on very thin ice indeed. I don't know about you, but I have never, not once, heard anxieties expressed on this score.

Counterfactual: Also testifying to our (surprising) lack of concern about the true ontological situation is the 'hypothetical' fact that if someone were to *turn up* with evidence that abstract objects did not exist, our use of models to figure validity would not be altered one iota. Burgess and Rosen begin their book *A Subject with No Object* with a relevant fable:

Finally, after years of waiting, it is your turn to put a question to the Oracle of Philosophy . . . you humbly approach and ask the question that has been consuming you for as long as you can remember: 'Tell me, O Oracle, what there is. What sorts of things exist?' To this the Oracle responds: 'What? You want the whole list? . . . I will tell you this: everything there is is concrete; nothing there is is abstract.' (1997: 3)

Suppose we continue the fable a little. Impressed with what the Oracle has told you, you return to civilization to spread the concrete gospel. Your first stop is at—plug in here the name of your favourite department of mathematics or logic—where researchers are confidently reckoning validity by way of calculations on models. You demand that the practice be stopped at once. It's true that the Oracle has been known to speak in riddles; but there is now a well-enough justified *worry* about the existence of models that all theoretical reliance on them should cease. They of course tell you to bug off and amscray. Which come to think of it is exactly what you yourself would do, if the situation were reversed.

4. IMPATIENCE

Our question really boils down to this. What is the source of the *impatience* we feel with the meddling ontologist—the one who insists that the practice of judging validity by use of Tarski be put on hold until the all-important matter is settled of whether models really exist?

One explanation can be ruled out immediately: we think the principles would still hold (literally) true whether the objects existed or not.⁴ That would be to think that if, contrary to what we perhaps suppose, there are no models, then every argument is valid! It would be to think that if the models were found to peter out above a certain finite cardinality—not for deep conceptual reasons, mind you, but as a matter of brute empirical fact—then a whole lot of statements we now regard as logically contingent, such as 'there are fifty zillion objects', are in fact logically false. It seems as clear as anything that we are not in the market for this sort of result. And so we can draw the following moral:

Ontology Matters to Truth: Our complacency about the bridge principles is *not* due to a belief that they hold literally true regardless of the ontological facts. (It can't be, since we have no such belief.)

A second explanation of our impatience seems equally misguided: we are confident that the negative empirical findings will never be made. It may be that *we are* confident of this; it is not as though any great number of ontological controversies have been resolved by empirical means in the past. Even if it is granted, though, that we do not expect evidence to turn up that casts doubt on the existence of models, why should that prevent us from having a view about what to say if it did? I take it that we are also confident that it will never be discovered that there are no people. Nevertheless, it seems clearly true that *if* the Oracle convinces us that all the so-called people are no more than clever illusions, we will conclude via the population principle that no region is populated; and clearly false that if the Oracle convinces us that there are no models, we will conclude via Tarski's principle that all arguments are valid. The point is that

Experience Matters to Ontology: Our complacency about the bridge principles is not due to a belief that the trouble-making empirical facts will never come to light. That belief may be there, but our complacency runs deeper than it can explain.

But then it does not really solve the paradox to say that Quineanism wins out over Rationalism. If experience matters to ontology, and ontology matters to truth, then *experience ought to matter to truth* as well. How is it then that the bridge principles are treated, and apparently rightly treated, as experience-independent?

⁴ Compare the non-platonic bridge principle

(R) a region is populated iff it contains people.

Should it be discovered that there are no people—everyone but you is a holographic projection, and you are a deluded angel—we would willingly conclude, on the basis of (R), that no regions are populated. This is (one of many reasons) why friends of the population principle do not stay up late at night worrying about the existence of people.

What accounts for the a priori-like deference we pay to them? How can we feel justified in *ignoring* a kind of evidence that would, by our own lights, exhibit our belief as false?⁵

5. PLATONISM AS THE PRICE OF ACCESS

Here is the only way out I can see: What entitles us to our indifference about evidence that would exhibit the principles as false is that *we were never committed in the first place to their truth*.⁶ Our attitude towards them is attitude *A*, and attitude *A* leaves it open whether the alluded-to objects really exist.

Now that, you may say, is just crazy. Our everyday reliance on the principles surely presupposes a belief in their truth. Take again Tarski's validity principle

(V) an argument is valid iff it has no countermodels.

The point of the 'iff' is to give us licence to infer back and forth between (V)'s left- and right-hand sides, and their negations. If these inferences require us to regard (V) as true, then that is a powerful reason so to regard it.

Humour me for a minute while I state the case a little more guardedly: The back and forth inferences give us reason to regard (V) as true *if* they are inferences that people actually perform.

Well, aren't they? You find a countermodel, you conclude that the argument is invalid. You show that there are no countermodels, you conclude that the argument is valid.

I wonder whether that is a fair description of what really goes on. If you're anything like me, the activity you call 'finding a countermodel' *really* just consists in describing to yourself what the countermodel would have to be like; it consists in laying out a blueprint for a structure of the appropriate sort. The issue of whether anything indeed *answers* to the blueprint is not taken up and seems rather beside the point.

As for the other direction, where countermodels cannot be found and we judge the argument to be valid, again, the activity of 'finding that there are no countermodels' is misdescribed. The fact that one is *really* relying on in judging validity is not that countermodels fail to exist—that you could have learned from the Oracle, and it would not have altered your validity-judgements one bit—but that there is something in the very notion of a countermodel to argument *A* that prevents there from being such a thing. A consistent blueprint can't be drawn up

⁵ Here is the problem stated a little more carefully: On the one hand, we feel entitled to the bridge principles regardless of the empirical facts (experience doesn't matter to truth), on the other hand, we think that the empirical facts are highly relevant to whether the mentioned objects exist (experience does matter to ontology); on the third hand, we think the bridge principles are false if the objects do not exist (ontology matters to truth).

⁶ To their literal truth, that is; see below.

because the conditions such a model would have to meet are directly at odds with each other. Once again, the issue of whether models do or do not really exist is not broached and seems of no genuine relevance.

So: if you look at the way the Tarski biconditional is actually used, any larger issue of the existence of models 'in general' is bracketed. It's almost as though we were understanding (V) as

(V*) an argument *A* is valid iff—ontological worries to the side, that is, *assuming that models in general exist*—*A* has no countermodels.⁷

The idea that (V) is in practice understood along the lines of (V*) has the added virtue of explaining our impatience with the ontologist's meddling. If the issue is whether there are countermodels *assuming models*, it doesn't *matter* whether models exist. Of course, the question will be raised of why someone would utter (V) when what they really literally meant was (V*). Suffice it for now to say that linguistic indirection of this sort is not unknown; we'll come back to this later. Meanwhile we need to look at some other reasons why a literal interpretation of the bridge principles might seem unavoidable. (Readers in a hurry should go straight to Section 9, or even 10.)

6. PLATONISM AS THE KEY TO CLARITY

A great goal of analytic philosophy is to make our ideas clear. Of course, the goal is not often achieved to everyone's satisfaction, but in a few instances there has been undeniable progress. Everyone will agree, I think, that our notions of limit and of continuity are clearer thanks to Weierstrass's epsilon-delta story; that our notion of cardinality (especially infinite cardinality) was made clearer by Cantor's explanation in terms of 1–1 functions; that the notion of inductive definability was clarified by the device of quantifying over all sets meeting appropriate closure conditions; and, to return to our favourite example, that our notion of validity was clarified by the appeal to models. This gives us a second reason for insisting on the reality of platonic objects. If we have to quantify over functions, models, sets, etc. to clarify our ideas, and clarification of ideas is a principal goal of analytic philosophy, how can we be expected to reject such quantification and the ontological commitment it carries?

An example will help us to sort the issue out. Recall the controversy sparked by C. I. Lewis's work in modal logic. What Lewis did was to distinguish a number of modal systems: S_1 , S_2 , S_3 , and so on. These systems, at least the ones that attracted most of the attention, differed in their attitude towards formulae like

⁷ Cf. Field in a critical response to Wright: 'the conceptual truth is [not 'the number of *As* = the number of *Bs* iff there are as many *As* as *Bs*' but] rather 'if numbers exist, then . . .' (Field 1989: 169).

- (a) $\Box P \rightarrow \Box \Box P$,
 (b) $\Diamond \Box P \rightarrow \Box P$, and
 (c) $\Diamond S \rightarrow \Box \Diamond S$.

One response to Lewis's menu of options was to argue about which of the systems was really 'correct'. But many philosophers preferred to see disputes about which system was best as stemming from subtly different ideas of necessity and possibility. The problem was to identify a *kind* of variation in ideas of necessity that would predict the observed differences in modal intuition.

Then came possible worlds semantics. Acceptance of (a) could now be linked with a transitive conception of relative possibility: a world w' that *would* have been possible, had possible world w obtained, *is* possible. (Likewise, *mutatis mutandis*, for (b) and (c).) The benefits were and remain substantial: fewer spurious ('merely verbal') disagreements, improved semantical self-understanding, fewer fallacies of equivocation, a clearer picture of why modal principles fall into natural packages, and so on.

The platonist now argues as follows. If the clarification that confers these benefits requires us to treat modal operators as (disguised) quantifiers over worlds, then that is how we have to treat them; and that means believing in the worlds.

Isn't there something strange about this line of argument? Clarification is more of a cognitive notion than an ontological one; my goal as a clarifier is to elucidate the content of an idea so that it will be easier to tell apart from other ideas with which it might otherwise get confused. But then, how well I have succeeded ought not to depend on ontological matters *except* to the extent that the content of my idea exhibits a similar dependence.

With some ideas—'externalist' ideas—this condition is perhaps satisfied. There may be no way for me to make my idea of water, or of Hillary Clinton, fully clear without bringing in actual water, or actual Hillary.⁸ But my ideas of validity and possibility do not *appear* to be externalist in this way. It is strange then to suppose that actual models and worlds would have to be brought in to make them fully clear.

Where does this leave us? The clarificatory powers of platonic objects are not to be doubted. But they do not depend on the objects' actually being there. I can do just as good a job of elucidating my modal concepts by saying

supposing for the moment that necessity is truth at all worlds possible—from here, my concept is one that calls for relative possibility to be transitive,

as I can by saying

⁸ Some would argue that unless there is water, my idea of water cannot *be* fully clear.

my concept of necessity has it that necessity is truth at all relatively possible worlds, where relative possibility is transitive.

Along one dimension, indeed, I can do a better job. Suppose I were to explain my concept of possibility in the second, realistic, way. Then it becomes a conceptual truth that if (contra Lewis) ours is the one and only world, whatever is actually the case is necessarily the case. But this is just *false* of my concept, and I venture to guess of yours as well. An explication that gets a concept's extension-under-a-supposition wrong—that makes mistakes about what goes into the extension on that supposition—does *less* justice to the concept than an explication that avoids the mistakes.

7. PLATONISM AS NEEDED FOR PROOF AND EXPLANATION

Another place principle (V) is appealed to is in metalogical proofs. Classical validity is widely agreed to be monotonic: if $P_1 \dots P_n / C$ is valid, then so is $P_1 \dots P_n P_{n+1} / C$. If we want to prove this result, and/or explain why it holds, we have to quantify over models.⁹

- (i) An argument is valid iff every model of its premises satisfies its conclusion, (This is (V).)
- (ii) If every model of $P_1 \dots P_n$ satisfies C then every model of $P_1 \dots P_n P_{n+1}$ satisfies C . (By logic and definitions.)
- (iii) If $P_1 \dots P_n / C$ is valid, then $P_1 \dots P_n P_{n+1} / C$ is valid. (From (i) and (ii).)

Proofs like this are of course often given. But the reason for giving them is not so clear. It can't be to show *that* monotonicity holds, since on the one hand, no one ever doubted it, while on the other, the Tarskian analysis of validity has been doubted. Nor does the proof do a very good job of explaining *why* monotonicity holds. The fact allegedly being explained—that adding more premisses can't make a valid argument invalid—seems on the face of it to lie at a *deeper* level than the facts called in to explain it, that is, the facts stated in (i) and (ii). One might as well try to 'explain' the fact that sisters are siblings by pointing out that a set containing all siblings thereby contains all sisters.

What a proof like the above *does* come close to showing is that monotonicity

⁹ I am grateful here to Peter van Inwagen, and, for the idea that models are called on to explain validity-facts, to Kent Bach.

holds as a conceptual matter; it is implicit in the classical concept of validity.¹⁰ The argument is in two steps. It flows from the classical concept of validity that an argument is valid iff it lacks-countermodels-assuming-models. And it flows from our concept of a model that any countermodel to the 'expanded' argument is a countermodel to the original argument as well. Explicitly:

- (1) An argument is valid iff, assuming models, models of its premises satisfy its conclusion. (This is (V*), a conceptual truth about validity.)
- (2) Assuming models, if models of $P_1 \dots P_n$ satisfy C , then models of $P_1 \dots P_n P_{n+1}$ satisfy C . (A conceptual truth about models.)

Now, let it be that $P_1 \dots P_n / C$ is valid, i.e. that assuming models, models of $P_1 \dots P_n$ satisfy C . Then from (2) we see that, again assuming models, models of $P_1 \dots P_n P_{n+1}$ satisfy C as well. (The principle used here is that if the members of $\{A, \text{if } A \text{ then } B\}$ are true-assuming-models, then B too is true-assuming-models.) So by (1), $P_1 \dots P_n P_{n+1} / C$ is valid.

- (3) $P_1 \dots P_n / C$ is valid only if $P_1 \dots P_n P_{n+1} / C$ is valid. (From (1) and (2).)

Note that an argument like this is *not* automatically available to someone whose concept of validity is non-classical. Suppose that Smith is working with a version of the 'circumscriptive' concept, whereby an argument is valid iff minimal models of its premises are models of its conclusion. Her version of (1)-(3) would start like this:

- (1') An argument is valid iff, assuming models, *minimal* models of its premises satisfy its conclusion.
- (2') Assuming models, minimal models of $P_1 \dots P_n$ satisfy C only if minimal models of $P_1 \dots P_n P_{n+1}$ satisfy C .

But now wait. $P_1 \dots P_n$'s minimal models may or may not include the minimal models of $P_1 \dots P_n P_{n+1}$, so (2') is just false.¹¹ This illustrates how one can use (1)-(3)-style arguments to tease out the content of a quantificationally explicated concept, without for a moment supposing that the quantified-over entities constitute the real grounds of the concept's application.

A second example where platonic objects fail to play their advertised role is this. Equinumerosity is symmetrical: if there are exactly as many F s as G s, then there are exactly as many G s as F s. The usual proof of this result appeals to the fact that inverting a bijection yields another bijection. Do we want to see the proof as *demonstrating*—say, to someone who didn't already believe it—that exactly-as-many-as is symmetrical? Probably not; that as many F s as G s means as many

¹⁰ As opposed to, say, the various alternative concepts discussed in the literature on nonmonotonic logic.

¹¹ e.g. let $P_1 = Fa$, $P_2 = Gb$, and $P_3 = \neg Fb$. Then minimal models of $\{P_1, P_2, P_3\}$ have two elements each, while those of $\{P_1, P_2\}$ have just one.

G s as F s seems *prima facie* at least as obvious as the invertibility of bijections. Nor does the proof appear to show *why* equinumerosity is symmetrical. If bijections exist, there are going to be lots of them. But then, rather than grounding my fingers' equinumerosity with my toes in the fact that there are all these bijections, it would seem better to explain the bijections—their possibility, at least—in terms of the prior fact that I have as many fingers as toes. That way we explain many facts in terms of one, rather than one in terms of many.

The proof motive for positing platonic objects is not without merit. Platonic argumentation can be enormously instructive.¹² Once we get clearer, though, on what the arguments actually show—not that weakening holds, or that equinumerosity is symmetrical, but that these results are implicit in concepts open to a certain sort of elucidation—then the case for actually *believing* in the objects is tremendously weakened. Once again, we gain as much purchase on the concept by aligning it with a condition on assumed objects as we would by treating the objects as real.

8. PLATONISM AS A CHECK ON PRIMITIVE IDEOLOGY

Everywhere in philosophy we are faced with 'ideology-ontology' trade-offs. Roderick Chisholm trades primitive adverbial modification off against sense data; the adverbs win. Donald Davidson trades primitive adverbs off against events; this time the adverbs lose. Arthur Prior has primitive non-nominal quantifiers trading off against properties and propositions. David Lewis pits primitive metaphysical possibility against concrete worlds, conceived as possibility-exemplifiers. Hartry Field does the same, except that his modality is a logical one and the exemplifiers are Tarskian models.

If the examples do nothing else, they remind us that how these trade-offs are carried out is a matter of taste. Some philosophers (e.g. Lewis) want to minimize semantic primitives at the expense of a bigger than expected ontology. Other philosophers (e.g. Field) want to minimize ontology at the expense of a bigger than expected lexicon. About the only thing people seem to agree on is that an *infinite* number of semantic primitives would be too many. Thus Davidson:

When we can regard the meaning of each sentence as a function of a finite number of features of the sentence, we have an insight not only into what there is to be learned [in learning a language]; we also understand how an infinite aptitude can be encompassed by finite accomplishments. For suppose that a language lacks this feature; then no matter how many sentences a would-be speaker learns to produce and understand, there will be others whose meanings are not given by the rules already mastered. It is natural to say that such

¹² I should stress that we are not talking about the use of, say, models, to prove results explicitly about models. Our interest is in discourses with respect to which the given objects are platonic.

a language is *unlearnable*. . . . we may state the condition under discussion by saying: a learnable language has a finite number of semantical primitives (1984: 8–9).¹³

The relevance of this to the ontology–ideology issue is that oftentimes the only way of keeping the number of semantic primitives down is to postulate a certain kind of object. Davidson’s showcase example, which he wants to make the basis of a new ‘method of truth in metaphysics’, has already been mentioned; we have to countenance events, he thinks, to get a tractable semantics for adverbs:

[I]t takes an ontology to make [the device] work: an ontology including people for ‘Someone fell down and broke his crown’, an ontology of events . . . for ‘Jones nicked his cheek in the bathroom-on Saturday.’ It is mildly ironic that in recent philosophy it has become a popular manoeuvre to try to *avoid* ontological problems by treating certain phrases as adverbial. One such suggestion is that we can abjure sense-data if we render a sentence like ‘The mountain appears blue to Smith’ as ‘The mountain appears blue to Smith.’ Another is that we can do without an ontology of intensional objects by thinking of sentences about propositional attitudes as essentially adverbial: ‘Galileo said that the earth moves’ would then come out, ‘Galileo spoke in-a-that-the-earth-moves-fashion’. There is little chance, I think, that such adverbial clauses can be given a systematic semantical analysis without ontological entanglements (1984: 212–13).

If speakers’ competence with adverbs is thought of as grounded (potentially, anyway) in a mechanism that derives ‘S VERBED Gly’ from a deep structure along the lines of ‘there was a VERBING with agent S which was G’, then there will be no need to learn separate inference rules for each action-verb VERB and adverb G. Both turn into predicates and so their inferential powers are already given by the rules of first-order logic.

The trouble with this as an *ontological* argument is that nowhere in Davidson’s account is use made of the fact that the events are actually *there*. At most the conclusion is that we, or pertinent subpersonal systems, are set up to *suppose* they are there. Couldn’t the supposition be just that: a supposition? Maybe ‘the adverb mechanism’ derives ‘S VERBED Gly’ not from

- (i) ‘there was a VERBING with agent S which was G,’ but
- (ii) ‘doubts about events aside, there was a VERBING which etc.’

Or maybe it derives ‘S VERBED Gly’ from (i), but a token of (i) inscribed not in the speaker’s ‘belief box’ but her ‘suppose box’. At any rate it is very hard to see how the existence-out-there of real VERBings could lend any help to the speaker trying to acquire a language; whatever it is that events are supposed to contribute to the language-acquisition task would seem to be equally contributed by merely supposed events. This is not to say that there are no events—just that one needs a better reason to believe in them than the help they provide with language-learning.

¹³ Davidson sees violations of the learnability requirement in the work of Tarski on quotation marks, Church on sense and denotation, Scheffler on indirect discourse, and Quine on belief attributions.

9. PLATONISM AS A PROP FOR REALISM

One more try: why would anyone want (V), or any other bridge principle, to be literally true, so that the platonic objects it quantifies over were really there?

One can think of this as a query about the relations between *ontology*, the study of what is, and *alethiology*, the study of what is the case. A lot of people find it plausible and desirable that what is the case should be controlled as far as possible by what is, and what it is like—that, in Lewis’s phrase,¹⁴ *truth should supervene on being*. This is a view that Lewis himself accepts, in the following form: truth is supervenient on what things there are and which perfectly natural properties they instantiate.¹⁵ Since the properties things instantiate are themselves in a broad sense ‘things’, the view is really that *truth is supervenient on what things there are and their interactions, e.g. which instantiate which*.

Although Lewis maintains supervenience about truth quite generally, it is more common to find it maintained of truth in a particular area of discourse; the usual claim is that truth supervenes on being not *globally* but *locally*. It is very often said that what is wrong, or at least different, about evaluative discourse is that there are no moral/aesthetic *properties* out there to settle the truth-value of evaluative utterances. And it is common to hear anti-realism about *F*-discourse identified with the thesis that there is no such property as *Fness*.¹⁶

This linking of anti-realism with the lack of an associated property is only one symptom of a broader tendency of thought. When truth in an area of discourse is controlled by the existence and behaviour of objects, that is felt to *boost the discourse’s credentials* as fact-stating or objective. The more truth can be pinned to the way a bunch of objects comport themselves, the more *objective* the discourse appears. Talk about possibility feels more objective if its truth-value is controlled by which possible worlds exist. Talk about what happened yesterday, or what will happen tomorrow, feels more objective if its truth-value is controlled by a still somehow lingering past, or a future out there lying in wait for us.¹⁷ And to return to our original example, talk about validity feels more objective if its truth-value is controlled by the existence or not of countermodels.

Why should objects appear to contribute to objectivity in this way? A little more grandiosely, why should *realism*—which holds that an area of discourse is objective—seem to be bolstered by *platonism*—which points to a special ensemble of objects as determining the distribution of truth values?

Realism à la Dummett says that once you get a sentence’s meaning sufficiently clear and precise, its truth-value is settled. The question is, settled by what? As long as this question is left hanging, there’s room for the anti-realist suspicion that we who employ the sentence are exercising an unwholesome influence.

¹⁴ Borrowed from John Bigelow. See Lewis (1992). ¹⁵ Lewis (1992).

¹⁶ This is a particular theme of Paul Boghossian’s paper ‘Status of Content’.

¹⁷ Cf. McDowell on yesterday’s rainstorm.

How is the question to be closed? Well, we've got to point to *another* part of reality that *monopolizes* the influence on truth-value, leaving no way that we by our attitudinalizing could be playing a role. This is where platonism comes in. The existence of objects, especially external objects, is the paradigm of an issue that's *out of our hands*. Either worlds with flying pigs are there, or they're not. Either tomorrow's sea battle awaits us, or it doesn't. Either the countermodels exist, or they don't.

10. A DILEMMA

So—there is a strategy, or tendency of thought, that links *realism* in an area of discourse to *platonism*: belief in a special range of objects whose existence and behaviour settles the question of truth. What are we to make of this strategy? I find it deeply suspicious. The added confidence that the objects are supposed to give us about the objectivity of the discourse strikes me as unearned, or unneeded, or both. To see the problem, look again at what the ontologist is telling us:

You may be right that models aren't needed to settle the truth value of *particular* 'A has a countermodel' claims. These we can read as short for 'assuming models, A has a countermodel.' What you need the models for is the objectivity of the form of speech of which 'A has a countermodel' is an example. If there really are models, then there's an objective fact of the matter about which arguments have countermodels. Take the models away, and all you've got left is the human practice of developing and swapping around model-descriptions. And this practice, not to say it isn't highly disciplined, doesn't provide as objective a basis for validity-talk as bona fide models would.

The reason I find this suspicious can be put in the form of a dilemma. Logicians speak of 'the space of models,' the space that allegedly functions via (V) to make discourse about validity especially objective. Do we have a determinate grasp of this space or not? By a determinate grasp, I mean

A grasp sufficient to determine a definite truth-value for each instance of 'assuming models, there is a countermodel to argument A'.

Does our grasp go fatally blurry, for instance, when it comes to models with very large finite cardinalities? Or is it precise enough to settle the existence of countermodels in every case?

Suppose that it's precise enough; we have a determinate grasp in the specified sense. That by itself ensures that there's a determinate fact of the matter about which arguments have-countermodels-assuming-the-space-of-models.¹⁸

¹⁸ Contrast the population principle: region *R* is populated iff there are people in it. A determinate conception of people isn't itself enough to make for an objective fact of the matter about which regions are populated.

So the models are not needed; you've got your determinate truth-values without them.

Suppose next that we *lack* a determinate conception of the space of models; our grasp *fails* to determine an appropriate truth-value for each instance of 'assuming the space of models, there is a countermodel to argument A'. How is it that we nevertheless manage to pick out the right class of mathematical objects as models?

The answer has got to be that the world meets us half way. The intended objects somehow jump out and announce themselves, saying: over here, *we're* the ones you must have had in mind. A particularly attractive form of this is as follows: look, we're the only remotely plausible candidates for the job that even *exist*. The idea either way is that we understand the space of models as whatever out there best corresponds to our otherwise indeterminate intentions.

But this reintroduces the hostage-to-fortune problem. An argument's validity-status would seem to be a conceptually necessary fact about it. Surely we don't want the validity of arguments to be held hostage to a brute logical contingency like what model-like entities happen to exist!

So Tarski's principle (considered now as objectively-bolstering) is faced with a dilemma. If we are clear enough about what we *mean* by it, then the principle isn't *needed* for objectivity; (V*) would do just as well. And if we aren't clear what we mean, then it isn't going to *help*. It isn't even going to be tolerable, because an argument's status as valid is going to blow with the ontological winds in a way that no one could want.

10. CRIME OF THE CENTURY?

It begins to look as if the objectivity argument does not really work. The objects would only be needed if they 'stiffened the discourse's spine'—if they had consequences for truth-values over and above anything determined already by our *conception* of the objects. But by that fact alone, we wouldn't trust them to deliver the right results.

The reason this matters is that as far as I can see, the objectivity argument is the *only* one that argues for a truth-link with actual objects. The other principal motives for accepting platonic objects are served just as well by *pretended* or *assumed* ones.

Which suggests a wild idea. Could it be that sets, functions, properties, worlds, and the like, are one and all put-up jobs, meaning, only pretended or assumed to exist? Call this the *say-hypothesis*, because what it essentially does is construe talk of platonic objects as following on an unspoken 'say there are models (or whatever)' prefix.

How to evaluate the hypothesis? Bertrand Russell said that postulation of

convenient objects has 'all the advantages of theft over honest toil'. This might seem to apply to the say-hypothesis as well. For the suggestion in a way is that an enormous intellectual *crime* has been committed; an entire species of much-beloved and frequently deferred-to entities has been stolen away, leaving behind only persistent appearances.

Suppose we discuss the theft of the platonic objects the way we would any other crime. Means, motive, opportunity—are all these elements present?

The question of means is: how would a job like this be pulled off, where objects appear to be in play but really aren't? The question of motive is: why would anyone *want* to fabricate these objects in the first place? The question of opportunity is: how could a job this big be pulled off without anyone noticing?

12. MEANS

How might it happen that, of the things that regularly crop up in people's *apparently* descriptive utterances, not all really exist, or are even believed to exist by the speaker?

Before addressing this question, we need to acknowledge how nervous it makes us. A certain automatic indignation about people who 'refuse to own up to the commitments of their own speech' has become hugely fashionable. The attitude goes back at least to *Word and Object*, where Quine misses no opportunity to deplore the 'philosophical double talk, which would repudiate an ontology while simultaneously enjoying its benefits' (1960: 242).

But rhetoric aside, the practice of associating oneself with sentences that don't, as literally understood, express one's true meaning is extraordinarily familiar and common. The usual name for it is (not lying or hypocrisy but) but *figurative speech*. I say 'that's not such a great idea' not to call your idea less-than-great—leaving it open, as it were, that it might be very good—but to call your idea bad. The figure in this case is meiosis or understatement. But the point could equally have been made with, say, hyperbole ('they are inseparable'), metonymy ('the White House is angry over allegations that . . .'), or metaphor ('I lost my head'). Not one of the sentences mentioned has a true literal meaning: the first because it exaggerates, the second because it conflates, the third for reasons still to be explored. But it would be insane to associate the speaker with these failings, because the sentences' literal content (if any) is not what the speaker believes, or what she is trying to get across.

The most important example for us is metaphor. What exactly is that? No one quite knows; but the most useful account for our purposes is Kendall Walton's in terms of prop oriented make-believe:

Where in Italy is the town of Crotona? I ask. You explain that it is on the arch of the Italian boot. 'See that thundercloud over there—the big, angry face near the horizon,' you say; 'it is headed this way.' . . . We speak of the saddle of a mountain and the shoulder of a highway . . . All of these cases are linked to make-believe. We think of Italy and the thundercloud as something like pictures. Italy . . . depicts a boot. The cloud is a prop which makes it fictional that there is an angry face . . . The saddle of a mountain is, fictionally, a horse's saddle. But . . . it is not for the sake of games of make-believe that we regard these things as props . . . [The make-believe] is useful for articulating, remembering, and communicating facts about the props—about the geography of Italy, or the identity of the storm cloud . . . or mountain topography. It is by thinking of Italy or the thundercloud . . . as potential if not actual props that I understand where Crotona is, which cloud is the one being talked about.¹⁹

A metaphor on this view is an utterance that represents its objects as being *like so*: the way that they would need to be to make it pretence-worthy—or, more neutrally, sayable—in a game that the utterance itself suggests. Sayability here is a function of (a) the rules of the game, and (b) the way of the world. But the two factors play very different roles. The game and its rules are treated as given; they function as medium rather than message. The point of the utterance is to call attention to factor (b), the world. It's to say that *the world has held up its end of the bargain*.

When people talk about metaphor, the examples that come to mind are of metaphorical *descriptions* of everyday objects. A hat is divine; a person is green with envy, or beside herself with excitement. Predicative expressions, though, are far from the only ones we use metaphorically. There is hardly a word in the language—be it an adverb, preposition, conjunction, or what have you—that is devoid of metaphorical potential.

The case of interest to us is *referring phrases*: names, definite descriptions, and quantifiers. An appendix to the *Metaphors Dictionary*²⁰ lists 450 examples of what it calls 'common metaphors'. Approximately one-half contain referential elements. Some examples drawn just from the beginning of the list:

he fell into *an abyss* of despair, he is tied to *her apron strings*, she has *an axe* to grind, let's put that on *the back burner*, those figures are in *the ballpark*, you're beating *a dead horse*, he's bit off *more than he can chew*, don't hide *your lamp* under *a bushel*, let's go by *the book*, don't blow *a fuse*, I have *a bone* to pick with you, I've burned *my bridges*, I hate to burst *your bubble*, you hit *the bull's-eye*, I have *butterflies* in my stomach, I'm going to lay *my cards* on *the table*, you're building *castles in the air*, we will be under *a cloud* until we settle *this thing*, he claimed *his pound of flesh*, she blew *her cool*, he threw me *a curve*, their work is on *the cutting edge*

Some additional examples not from the *Dictionary*; with some of them you have to rub your eyes and blink twice before the non-literal aspects shine through:

¹⁹ Walton (1993: 40–1).

²⁰ Sommer and Weiss (1996).

They put *a lot of hurdles* in your path, there's *a lot* that could be said about that, there's *no precedent* for that, *something* tells me you're right, *there are some things* better left unsaid, *there is something* I forgot to tell you, viz. how to operate the lock, *nothing* gets my goat as much as chewing gum in class, *a lot* you can do for me, let's roll out *the red carpet*, *the last thing I want* is to ..., their people have been rising in *my esteem*, I took her into *my confidence*, *my patience* is nearly exhausted, I'll take *my chances*, there's *a trace of sadness* in your eyes, *a growing number* of these leaks can be traced to Starr's office, she's got *a lot of smarts*, let's pull out *all the stops*; let's proceed along *the lines suggested above*.

Now, the *last* thing I want to do with these examples is to start a bidding war over who can best accommodate our classificatory intuitions. The one unbreakable rule in the world of metaphor is that there is no consensus on how big that world is: on what should be counted a metaphor and what should not. What I do want to suggest is that the same semantical mechanisms that underlie *paradigmatic* metaphors like 'that hat is divine' seem also to be at work with phrases that for whatever reason—too familiar, insufficiently picturesque, too boring—strike us as hardly figurative at all. If that is right, then it does little harm, I think, to *stipulate* that any phrases that turn a non-committal 'say for argument's sake that BLAH' to descriptive advantage are to be seen as just as much metaphorical as the old campaigners.

Pulling these threads together, I contend that the *means* by which platonic objects are simulated is *existential metaphor*—metaphor making play with a special sort of object to which the speaker is not committed (not by the metaphorical utterance, anyway) and to which she adverts only for the light it sheds on other matters. Rather as 'smarts' are conjured up as metaphorical carriers of intelligence, 'numbers' are conjured up as metaphorical measures of cardinality. More on this below; first there are the questions of motive and opportunity to deal with.

13. MOTIVE

What is the *motive* for simulating platonic objects in this way? The answer is that lots of metaphors, and in particular lots of existential metaphors, are *essential*. They have no literal paraphrases: or no readily available ones; or none with equally happy cognitive effects. To see why, we need to elaborate our picture of metaphor a little.

A metaphor has in addition to its literal content—given by the conditions under which it is true and to that extent belief-worthy—a metaphorical content given by the conditions under which it is 'sayable' in the relevant game. If we help ourselves (in a purely heuristic spirit)²¹ to the device of possible worlds, the claim is that

²¹ Yablo (1996) maintains that worlds are metaphorical. So I am using a metaphor to explain metaphor. Derrida (1982) suggests this is unavoidable. It would be fine by me if he were right.

$$S\text{'s } \left\{ \begin{array}{l} \text{literal} \\ \text{metaphorical} \end{array} \right\} \text{ content} = \text{the set of worlds making } S \left\{ \begin{array}{l} \text{true} \\ \text{sayable} \end{array} \right\}$$

The role of say-games on this approach is to bend the lines of semantic projection, so as to reshape the region a sentence defines in logical space (Fig. 9.1)²² The straight lines on the left are projected by the ordinary, conventional meaning of 'Jimi's on fire'; they pick out the worlds which make 'Jimi's on fire' literally true. The bent lines on the right show what happens when worlds are selected according to whether they make the very same sentence sayable in the relevant game.

The question of motive can now be put like this: granted these metaphorical contents—these ensembles of worlds picked out by their shared property of legitimating an attitude of acceptance-within-the-game—what is the reason for accessing them metaphorically?

One obvious reason would be *lack of an alternative*: the language might have no more to offer in the way of a unifying principle for the worlds in a given content than that *they* are the ones making the relevant sentence sayable. It seems at least an open question, for instance, whether the clouds we call *angry* are the ones that are literally *F*, for any *F* other than 'such that it would be natural and proper to regard them as angry if one were going to attribute emotions to clouds.' Nor does a literal criterion immediately suggest itself for the pieces of computer code called *viruses*, the markings on a page called *tangled* or *loopy*, the vistas called *sweeping*, the glances called *piercing*, or the topographical features called *basins*, *funnels*, and *brows*.

The topic being ontology, though, let's try to illustrate with an *existential*

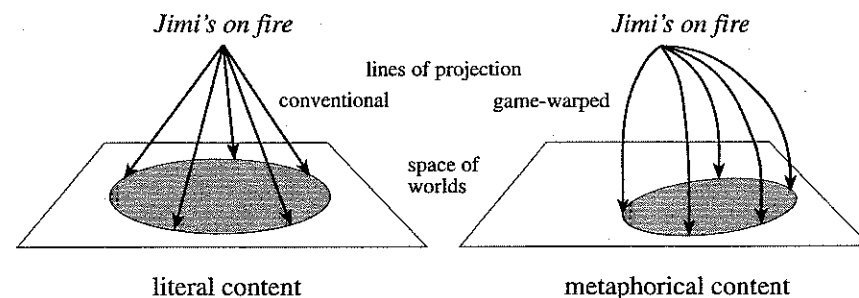


FIG. 9.1

²² A lot of metaphors are (literally understood) impossible: 'I am a rock.' Assuming we want a non-degenerate region on the left, the space of worlds should take in all 'ways for things to be', not just the 'ways things could have been'. The distinction is from Salmon (1989).

metaphor. An example much beloved of philosophers is *the average so-and-so*.²³ When a cosmologist tells us that

(S) The average star has 2.4 planets,

she is not entirely serious; she is making as if to describe an (extraordinary) entity called 'the average star' as a way of really talking about what the (ordinary) stars are like on average. True, this *particular* metaphor can be paraphrased away, as follows:

(T) The number of planets divided by the number of stars is 2.4.

But the numbers in *T* are from an intuitive perspective just as remote from the cosmologist's intended subject matter as the average star in *S*. And this ought to make us, or the more nominalistic among us, suspicious. Wasn't it Quine who stressed the possibility of unacknowledged myth-making in even the most familiar constructions? The nominalist therefore proposes that *T* is metaphorical too; it provides us with access to a content more literally expressed by

(U) There are 12 planets and 5 stars or 24 planets and 10 stars or . . .²⁴

And now here is the rub. The rules of English do not allow infinitely long sentences; so the most literal route of access *in English* to the desired content is *T*, and *T* according to the nominalist is not to be taken literally. It is only by making *as if* to countenance numbers that one can give expression in English to a fact having nothing to do with numbers, a fact about stars and planets and how they are numerically proportioned.²⁵

²³ I am indebted to Melia (1995). As always I am using 'metaphor' in a very broad sense. The term will cover anything exploiting the same basic semantic mechanisms as standard 'Juliet is the sun'-type metaphors, no matter how banal and unpoetic. (Several people have told me that the semantics of 'average F' is much more complicated than I'm allowing. I am sure they're right, and I apologize for the oversimplification.)

²⁴ Why not a primitive '2.4-times-as-many' predicate? Because 2.4 is not the only ratio in which quantities can stand; 'we will never find the time to learn all the infinitely many [*q*-times-as-many] predicates', with *q* a schematic letter taking rational substituends, much less the *r*-times-as-long predicates, with *r* ranging schematically over the reals (Melia 1995: 228). A fundamental attraction of existential metaphor is its promise of ontology-free semantic productivity. How real the promise is—how much metaphor can do to get us off the ontology-ideology treadmill—strikes me as wide open and very much in need of discussion.

²⁵ Compare Quine on states of affairs: 'the particular range of possible physiological states, each of which would count as a case of [the cat] wanting to get on that particular roof, is a gerrymandered range of states that could surely not be encapsulated in any manageable anatomical description even if we knew all about cats . . . Relations to states of affairs. . . such as wanting and fearing, afford some very special and seemingly indispensable ways of grouping events in the natural world' (Quine 1966: 147). Quine sees here an argument for counting states of affairs into his ontology. But the passage reads better as an argument that the metaphor of states of affairs allows us access to theoretically important contents unapproachable in any other way. See also Lewis on counterfactuals: 'It's the character of our world that makes the counterfactual true—in which case why bring the other worlds into the story at all? . . . it is only by bringing

Whether you buy the example or not, it gives a good indication of what it would be like for a metaphor to be 'representationally essential,' that is, unparaphrasable at the level of content; we begin to see how the description a speaker wants to offer of his *intended* objects might be inexpressible until *unintended* objects are dragged in as representational aids.

Hooking us up to the right propositional contents, however, is only one of the services that metaphor has to offer. There is also the fact that a metaphor (with any degree of life at all) 'makes us see one thing as another'; it 'organizes our view' of its subject matter; it lends a special 'perspective' and makes for 'framing-effects'.²⁶ An example of Dick Moran's:

To call someone a tail-wagging lapdog of privilege is not simply to make an assertion of his enthusiastic submissiveness. Even a pat metaphor deserves better than this . . . the comprehension of the metaphor involves *seeing* this person as a lapdog, and . . . experiencing his dogginess.²⁷

The point here is not especially about seeing-as, though, and it is not only conventionally 'picturesque' metaphors that pack the intended sort of cognitive punch. Let me illustrate with a continuation of the example started above.

Suppose I am wrong and 'the average star has 2.4 planets' is representationally *accidental*; the infinite disjunction 'there are five stars and twelve planets etc.' turns out to be perfect English.²⁸ The formulation in terms of the average star is still on the whole hugely to be preferred—for its easier visualizability, yes, but also its greater suggestiveness ('then how many electrons does the average atom have?'), the way it lends itself to comparison with other data ('2.4 again? Well, what do you know?'), and so on.²⁹

A second example has to do with the programme of 'first-orderizing' entailment relations.³⁰ Davidson in 'The Logical Form of Action Sentences' says that a key reason for rendering 'Jones VERBed Gly' as 'there was a VERBing done by Jones which was *G*' is that the argument from 'Jones VERBed Gly' to 'Jones VERBed' now becomes quantificationally valid. Of course, similar claims are often made on behalf of the possible worlds account of modality; unless you want the inference from 'possibly *S*' to 'possibly *S-or-T*' to be primitive and unanalyzable, you'd better understand 'possibly *S*' as 'there is a world making *S* true.' Any number of authors have made this sort of plea on behalf of propositions; how without quantifying over them can you hope to first-orderize the

the other worlds into the story that we can say in any concise way what character it takes to make the counterfactual true' (Lewis 1986: 22).

²⁶ Davidson (1978); Max Black in Ortony (1993); Moran (1989: 108).

²⁷ Moran (1989: 90).

²⁸ As maintained, for example, in Langendoen and Postal (1984).

²⁹ Similarly with Quine's cat example: the gerrymandered anatomical description *even if available* could never do the cognitive work of 'What Tabby wants is that she gets onto the roof.'

³⁰ See Davidson and Harman (1975). The underlying motivation had to do less with entailment than constructing axiomatic truth theories for natural language.

inference from 'I believe whatever the Pope believes' and 'the Pope believes abortion is wrong'?

The claim these authors make is not that the relevant contents are *inexpressible* without quantifying over events, or worlds, or what have you; that would be untrue, since we can use sentences like 'she did it skilfully' and 'possibly BLAH'. It's rather that the logical *relations* among these contents become much more tractable if we represent them quantificationally; the contents so represented wear (at least to a first-order-savvy audience like the community of philosophers) their logical potential on their sleeve.³¹

Along with its representational content, then, we need to consider a metaphor's 'presentational force'. Just as it can make all the difference in the world whether I grasp a proposition under the heading 'my pants are on fire', grasping it as the retroimage of 'Crotone is in the arch of the boot' or 'the average star has 2.4 planets' or 'there is a world with blue swans' can be psychologically important too. To think of Crotone's location as the place it would *need* to be to put it in the arch of Italy imagined as a boot, or of the stars and planets as proportioned the way they would need to be for the average star to come out with 2.4 planets, is to be affected in ways going well beyond the proposition expressed. That some of these ways are cognitively advantageous gives us a second reason for accessing contents metaphorically.

14. OPPORTUNITY

Now for the question of opportunity. How are these metaphors slipped in without anyone's noticing?

The first thing that has to be said is that figurative elements in our speech are very *often* unconscious, and resistant to being brought to consciousness. To hear 'that wasn't very smart' (understatement) or 'a fine friend she turned out to be' (irony) or 'spring is just around the corner' (metaphor) as meaning what they literally say takes a surprising amount of effort. A tempting analogy is with the effort involved in making out the intrinsic colour of the paint in some section of a representational painting. As the painting analogy suggests, a too-vivid appreciation of literal meaning can even *interfere* with our understanding of the speaker's message. Wittgenstein tells of an art-lover leaning up to the bloodshot eyes in a Rembrandt painting and saying 'that's the colour I want for my bathroom curtains.' Such a person is not—not at that moment, anyway—in tune with

³¹ A question rarely addressed is why this presentational advantage should seem to argue for the *truth* of the quantificational rendering, as opposed to just its naturalness and helpfulness vis-à-vis audiences like ourselves. Is it that the naturalness and helpfulness would be a miracle if there were nothing out there to answer to the platonic quantifiers? I would like to see an argument for this. I suspect that there are very few putative object-types, however otherwise disreputable, that couldn't be 'legimated' by such a manoeuvre.

the painting's representational ambitions. Just so, overzealous attention to what a 'gutsy idea' would be like, or what it would really be to 'keep your eyes peeled', or 'pour your heart out' to your beloved, prevents any real appreciation of the intended message.³²

If you're with me this far, consider now statements like 'there's something Jones is that Smith isn't: happy' or 'another way to get there is via Tegucigalpa'? Taken at face value, these sentences do indeed commit themselves to entities called 'happy' and 'via Tegucigalpa'. But overmuch attention to the fact is likelier to distract from the speaker's intended meaning than to illuminate it; what on earth could *via Tegucigalpa* be? Likewise someone who says that 'the number of Democrats is on the rise' wants the focus to be on the Democrats, not 'their number', whatever that might be. Their number is called in just to provide a measure of the Democrats' changing cardinality; it's expected to perform that service in the most inconspicuous way and then hustle itself off the stage before people start asking the inevitable awkward questions. (Which number is it? 50 million? Is 50 million really on the rise?)

A deeper reason for the unobtrusiveness of existential metaphors is this. Earlier we distinguished two qualities for which a metaphor might be valued: its representational content, and its presentational force. But that can't be the whole story. For we are still conceiving of the speaker as someone with a definite *message* to get across, and the insistence on a message settled in advance is apt to seem heavy-handed. Davidson says that 'the central error about metaphor' is the idea that

associated with [each] metaphor is a cognitive content that its author wishes to convey and that the interpreter must grasp if he is to get the message. ... It should make us suspect the theory that it is so hard to decide, even in the case of the simplest metaphors, exactly what the content is supposed to be.³³

Whether or not all metaphors are like this, one can certainly agree that a lot are: perhaps because, as Davidson says, their 'interpretation reflects as much on the interpreter as on the originator',³⁴ perhaps because their interpretation reflects ongoing real-world developments that neither party feels in a position to prejudge. Either way, one can easily bring this third, *opportunistic*, grade of metaphorical involvement under the same conceptual umbrella as the other two:

Someone who utters *S* in a metaphorical vein is recommending the project of (i) looking for games in which *S* is a promising move, and (ii) accepting the propositions that are *S*'s inverse images in those games under the modes of presentation that they provide.

³² Thanks here to Peter Railton.

³³ Davidson (1978: 44).

³⁴ *Ibid.* 29. Davidson would have no use for even the unsettled sort of metaphorical content about to be proposed.

The overriding imperative here is to *make the most of it*,³⁵ we are to construe the utterance in terms of the game or games that retromap it onto the most plausible and instructive contents in the most satisfying ways. Should it happen that the speaker has definite ideas about the best game to be playing with *S*, I myself see no objection to saying that she intended to convey a certain metaphorical message—the first grade of metaphorical involvement—perhaps under a certain metaphorical mode of presentation—the second grade.³⁶ So it is, usually, with ‘He lost his cool (head, nerve, marbles, etc.).’

The reason for the third grade of metaphorical involvement is that one can imagine other cases, in which the speaker’s sense of the potential metaphorical truthfulness of a form of words outruns her sense of the particular truth(s) being expressed. Consider, for instance, the *pregnant* metaphor, which yields up indefinite numbers of contents on continued interrogation.³⁷ Consider the *prophetic* metaphor, which expresses a single content whose identity, however, takes time to emerge.³⁸ Consider, finally, the *patient* metaphor, which hovers indefinitely above competing interpretations, as though waiting to be told where its advantage really lies.

Strange as it may seem, it is this third grade of metaphorical involvement, supposedly at the furthest remove from the literal, that can be hardest to tell apart from the literal. The reason is that *one* of the contents that my utterance may be up for, when I launch *S* into the world in the opportunistic spirit described above, is its *literal* content. I want to be understood as meaning what I literally say if my statement is literally true (count me a player of the ‘null game’, if you like) and meaning whatever my statement projects onto via the right sort of ‘non-null’ game if my statement is literally false. It is thus indeterminate from my point of view whether I am advancing *S*’s literal content or not.³⁹

Isn’t this in fact our common condition? When people say that the number of apostles is twelve, that rainbows are due to refraction, that Karl Marx had some influential ideas, or that Richard Nixon had a stunted superego, they are far more

³⁵ David Hill’s phrase, and idea.

³⁶ This of course marks a difference with Davidson.

³⁷ Thus, each in its own way, ‘Juliet is the sun’ and ‘The state is an organism.’

³⁸ Examples: An apparition assures Macbeth that ‘none of woman born’ shall harm him; the phrase’s meaning hangs in the air until Macduff, explaining that he was ‘from his mother’s womb untimely ripped’, plunges in the knife. Martin Luther King said that ‘The arc of the moral universe is long, but it bends towards justice’; Cohen (1997) shows how specific a content can be attached to these words. A growing literature on verisimilitude testifies to the belief that ‘close to the truth’ admits of a best interpretation albeit one it takes work to find.

³⁹ Indeterminacy is also possible about whether I am advancing a content at all, as opposed to articulating the rules of some game relative to which contents are figured. An example suggested by David Hill is ‘there are continuum many spatio-temporal positions’, uttered by one undecided as between the substantial and relational theories of spacetime. One might speak here of a fifth grade of metaphorical involvement, which—much as the third grade leaves it open *what* content is being expressed—takes no definite stand on whether the utterance *has* a content.

certain that *S* is getting at *something* right than that the thing it is getting at is the proposition that *S*, as some literalist might construe it. If numbers exist, then yes, we are content to regard ourselves as having spoken literally. If not, then the claim was that there were twelve apostles.⁴⁰ If Freud was right, then yes, Nixon had a superego and it really was stunted. If not, then the claim was (more or less) that Nixon had trouble telling when a proposed course of action was morally wrong.

An important special case of the patient metaphor, then, is (what we can call) the *maybe*-metaphor. That platonic metaphors are so often maybe-metaphors—that I *could* for all anyone knows be speaking literally—goes a long way towards explaining their inconspicuousness. If a literal interpretation is always and forever in the offing, then the fact that a metaphorical interpretation is also always and forever possible is liable to escape our notice.

15. . . . LOST?

Of all the reasons people give for thinking that platonic metaphors couldn’t have slipped in unnoticed, the most common is probably this. I speak metaphorically only if I speak in a way that is guided by, but somehow at odds with, my notion of what would be involved in a literal deployment of the same sentence.⁴¹ This immediately suggests a negative test. If, as Fowler puts it, metaphors are ‘offered and accepted with a consciousness of their nature as substitutes,’ then in the absence of any such consciousness—in the absence of a literal meaning the speaker can point to as exploited where it might instead have been expressed—one cannot be speaking metaphorically.

Call this the ‘felt distance’ test for metaphoricality. It appears to rule that my utterance of, say, ‘twelve is the number of apostles’ cannot possibly be metaphorical. Were I speaking metaphorically, I would experience myself as guided by meanings of ‘number’ or ‘twelve’ that I am at the same time disrespecting or making play with. The fact is, though, that I am not aware of being guided by any such disrespected meanings. I do not even have a conception of what those disrespected meanings could be; it hardly seems possible to use the words ‘number’ and ‘twelve’ more literally than I already do.

⁴⁰ ‘When it was reported that Hemingway’s plane had been sighted, wrecked, in Africa, the New York *Mirror* ran a headline saying, “Hemingway Lost in Africa”, the word “lost” being used to suggest he was dead. When it turned out he was alive, the *Mirror* left the headline to be taken literally’ (Davidson 1978). I suspect that something like this happens more often than we suppose, with the difference that there is no conscious equivocation and that it is the metaphorical content that we fall back on.

⁴¹ The intuition here comes out particularly clearly in connection with Walton’s account of metaphor; I need first to understand what *S* literally means, if I am to pretend that that meaning obtains in hopes of calling attention to the conditions that legitimate the pretence.

I have two responses, one which accepts the felt distance test for the sake of argument, one which finds the test unreliable. The first response goes like this. Why do you assume that the words being used metaphorically in 'twelve is the number of apostles' are 'number' and 'twelve'? By a 'number' we mean, roughly: entity of a kind that is suited by its intrinsic nature to providing a measure of cardinality (the number of BLAHs serves as a mark or measure of how many BLAHs there are) and that has not a whole lot more to its intrinsic nature than that. The literal meaning of 'twelve' is: number that provides a measure, cardinality-wise, of the BLAHs just in case there are twelve BLAHs. These are exactly the meanings with which 'number' and 'twelve' are used in 'twelve is the number of apostles'. So it should not be supposed that the metaphoricality of 'twelve is the number of apostles' hinges on a metaphorical usage of those two words.

Now, though, the objector will want to know which word *is* being used metaphorically.⁴² A plausible candidate is not hard to find. There is a non-negligible chance that numbers do not exist, i.e. that nothing exists whose intrinsic nature is exhausted by the considerations mentioned. Someone who says that 'twelve is the number of apostles' is not really concerned about that, however; they are taking numbers for granted in order to call attention to their real subject matter, viz. how many apostles there are. How can someone unconcerned about the existence of *Xs* maintain with full confidence that 'So and so is the *X* which *Fs*,' that is, that 'there is at least one *X* which *Fs* and all such *Xs* are identical to so and so'? The answer is that they are using the definite article 'the', or rather the existential quantifier it implicitly contains, non-literally. Nothing else explains how they can subscribe in full confidence to 'there is an *X* which *Fs*' despite being unconvinced of, or at least unconcerned about, the existence of *Xs*. The reason this matters is that the existential quantifier *passes* the felt-distance test. When I assume for metaphorical purposes that numbers exist, I am guided by, but at the same time (running the risk of) disrespecting, the literal meaning of 'exists'—for using 'exists' literally, numbers may well *not* exist, in which case 'twelve is the number of apostles', i.e. 'there is an *x* such that a thing is *x* iff it numbers the apostles and *x* is twelve', is literally false.

Anyway, though, the felt-distance test is wrong. It is true that if I am to use a sentence *S* metaphorically, there had better be conditions under which *S* is pretence-worthy, or sayable, and conditions under which it is not. But as we know from the example of fiction, this does not require *S* to possess a literal meaning, as opposed to fictionally possessing one in the story or game. Flann O'Brien in *The Third Policeman* tells of a substance called 'gravid liquid', the tiniest drop of which weighs many tons, and whose subtle dissemination through the parts of material objects is all that prevents them from floating away. When I pretend, in discussions of that book, that gravid liquid cannot be held in a test tube, since it

⁴² I do not see why the weight of a sentence's metaphoricality should always be borne by particular words. But let's not get into that here.

would break through the bottom, I am guided by my idea of what 'gravid' is *supposed in the game* to mean. I have no concern at all about what it means in English, and for all I know it is not even an English word.⁴³

An example more to the present point is this. 'Smart' in my dictionary is an adjective, not a noun. How is it that we can say 'she has a lot of smarts' and be understood? Well, it is part of the relevant game that there are these entities called 'smarts' that are somehow the carriers of intelligence; the more of them you have the smarter you are. The as-if meaning of 'smart' as a noun is of course informed by its literal meaning as an adjective. Why should it not be the same with 'twelve'? The meaning it is pretended (or said) to have *qua* noun is informed by its literal meaning *qua* adjective. Much as we're to say that someone has a lot of smarts (noun) just when they're very smart (adjective), we're to say that the number of *Fs* is twelve (noun) just when there are twelve (adjective) *Fs*.

I don't know which of the two responses to prefer, but let me call attention to a point of agreement between them. A metaphor for us is a supposition adverted to not because it is true but because it marks a place where truths are thought to lie. It is compatible with this that certain words might be used more often in a metaphorical vein than a literal one; it is compatible with it even that certain words should *always* be used metaphorically because they lack literal meaning. This points to a third reason why platonic metaphors do not call attention to themselves.

'Literal' is partly a folk notion, partly a theoretical one. The theoretical idea is that to understand the full range of speech activity, we should employ a divide-and-conquer strategy. Our first step is to set out words' 'primary' powers: what they are in the first instance *supposed* to do. Then we will take on the more multifarious task of accounting for words' 'secondary' powers: their ability to be used in ways not specifically provided for by the primary semantics. A certain kind of Davidsonian, for example, lays great weight on the notion of 'first meaning' constrained by the requirement of slotting into a recursive truth-theory for the full language. Speech is literal if it is produced with intentions lining up in an appropriate way with first meanings; otherwise we have irony, implicature, or metaphor.

Now, to the extent that literality is a theorist's notion, it comes as no great surprise that speakers occasionally misapply it. If we ask the person in the street whether she is using a word literally—using it to do what it is 'supposed' to do—her thoughts are not likely to turn to recursive semantics. More likely she will interpret us as asking about *standard* or *ordinary* usage. (All the more so when an expression has no literal use with which the standard use can be contrasted!) Since platonic metaphors are nothing if not standard, it would be only natural for them to be misconstrued as literal. One doesn't notice that talk of superegos is

⁴³ Apparently it is; my dictionary gives it the meaning 'pregnant'. Still my use of 'gravid' in the game owes nothing to this meaning or any other, or even to 'gravid's being a word.

maybe-metaphorical until one reflects that 'Nixon had a stunted superego' would not be withdrawn even in the proven absence of mental entities with the relevant properties. One doesn't notice that talk of numbers is maybe-metaphorical until one reflects on our (otherwise very peculiar!) insouciance about the existence or not of its apparent objects.

16. SUGGESTIVE SIMILARITIES

The bulk of this paper has been an argument that it is less absurd than may initially appear to think that everyday talk of platonic objects is not to be taken literally. If someone believes that the objects are not really there—that, to revert to the crime analogy, they have been 'stolen away'—it seems like means, motive, and opportunity for the alleged caper are not at all that hard to make out.

Of course, it is one thing to argue that a metaphorical construal is not out of the question, another to provide evidence that such a construal would actually be correct. The best I can do here is list a series of *similarities* between platonic objects, on the one hand, and creatures of metaphorical make-believe, on the other, that strike me as being, well, suggestive. Not all of the features to be mentioned are new. Not all of them are universal among POs—platonic objects—or MBs—creatures of metaphorical make-believe. Not one of them is so striking as to show decisively that the relevant POs are just MBs. But the cumulative effect is, I think, nothing to sneeze at.

Of course we should not forget one final piece of evidence for the as-if nature of

PARAPHRASABILITY

MBs are often paraphrasable away with no felt loss of subject matter. 'That was her first encounter with the green-eyed monster' goes to 'that was her first time feeling jealous.' 'That really gets my goat' goes to 'that really irritates me.'

POs are often paraphrasable away with no felt loss of subject matter. 'There is a possible world with furry donkeys' goes to 'furry donkeys are possible.' 'She did it in one way or another' goes to 'she did it somehow.' Etc.

IMPATIENCE

One is impatient with the meddling literalist who wants us to get worried about the fact that an MB may not exist. 'Well, say people *do* store up patience in internal reservoirs; then *my* patience is nearly exhausted.'

One is impatient with the meddling ontologist who wants us to get worried about whether a PO, or type of PO, really exists. 'Well, say there *are* models; then *this* argument has a countermodel.'

TRANSLUCENCY

It's hard to hear 'what if there is no green-eyed monster?' as meaning what it literally says; one 'sees through' to the (bizarre) suggestion that no one is ever truly jealous, as opposed say to envious.

It is hard to hear 'what if there are no other possible worlds?' as meaning what it literally says; one 'sees through' to the (bizarre) suggestion that whatever is, is necessary.

INSUBSTANTIALITY

MBs tend to have not much more to them than what flows from our conception of them. The green-eyed monster has no 'hidden substantial nature'; neither do the real-estate bug, the blue meanies, the chip on my shoulder, etc.

POs often have no more to them than what flows from our conception of them. All the really important facts about the numbers follow from (2nd order) Peano's Axioms. Likewise for sets, functions etc.

INDETERMINACY

MBs can be 'indeterminately identical'. There is no fact of the matter as to the identity relations between the fuse I blew last week and the one I blew today, or my keister and my wazoo ('I've had it up to the keister/wazoo with this paperwork'). The relevant game(s) leave it undecided what is to count as identical to what.⁴⁴

POs can be 'indeterminately identical'. There is no fact of the matter as to the identity relations between the pos. integers and the Zermelo numbers, or worlds and maximal consistent sets of propositions, or events and property-instantiations. It is left (partly) undecided what is to count as identical to what.

SILLINESS

MBs invite 'silly questions' probing areas the make-believe does not address, e.g. we know how big the average star is, where is it located? You say you lost your nerve, has it been turned in? Do you plan to *drop*-forge the uncreated conscience of your race in the smithy of your soul?

POs invite questions that seem similarly silly.⁴⁵ What are the intrinsic properties of the empty set? Is the event of the water's boiling itself hot? Are universals wholly present in each of their instances? Do relations lead a divided existence, parcelled out among their relata?

⁴⁴ 'Keister' does in some idiolects have an identifiable anatomical referent; 'wazoo' as far I've been able to determine does not. The text addresses itself to idiolects (mine included) in which 'keister' shares in 'wazoo's' unspecificity.

⁴⁵ Notwithstanding an increasing willingness in recent years to consider them with a straight face. Prior, 'Entities', deserves a lot of the credit for this: 'what we might call Bosanquetterie sprawls over the face of Philosophy like a monstrous tumour, and on the whole the person who

EXPRESSIVENESS

MBs show a heartening tendency to boost the language's power to express facts about other, more ordinary, entities. 'The average taxpayer saves more than the average homeowner.'

POs show a strong tendency to boost the language's power to express facts about other, more ordinary, entities. 'The area of a circle—any circle—is π times the square of its radius.'

IRRELEVANCE

MBs are called in to 'explain' phenomena that would not on reflection suffer by their absence. 'Why did I curse the HMO? Because I've had it up to the wazoo with this paperwork.' Take away the wazoos, and people are still going to curse their HMOs.

POs are called in to 'explain' phenomena that would not, on reflection, suffer by their absence. Suppose that all the one-one functions were killed off today; there would still be as many left shoes in my closet as right.

DISCONNECTEDNESS

MBs have a tendency not to do much other than expressive work. As a result, perhaps, of not really existing, they tend not to push things around.

POs have a tendency not to do much other than expressive work; numbers *et al.* are famous for their causal inertness.

AVAILABILITY

MBs' lack of naturalistic connections might seem to threaten epistemic access—until we remember that 'their properties' are projected rather than detected.

POs' lack of naturalistic connections might seem to threaten epistemic access—until we recognize that 'their properties' are projected too.

platonic objects. This is the fact that an *as-if interpretation of POs solves our original paradox*. Our reluctance to infer the existence of models from the Tarski equivalences is just what you'd expect if the inference goes through only on a literal interpretation, and Tarski's equation of invalidity with the existence of a countermodel is not in the end taken literally.

maintains that virtue is not square must count himself among the heretics. The current dodge or 'gambit' is to say that the question whether virtue is or is not square just doesn't arise, and it is astonishing what a number of questions modern philosophers have been able to dispose of by saying that they just don't arise. Indeed it is hardly too much to say that the whole of traditional philosophy has disappeared in this way, for among questions that don't arise are those which, as it is said, nobody but a philosopher would ask' (1976: 26).

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Knowledge of Logic

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Is it possible for us to know the fundamental truths of logic a priori? This question presupposes another: is it possible for us to know them at all, a priori or posteriori? In the case of the fundamental truths of logic, there has always seemed to be a difficulty about this, one that may be vaguely glossed as follows (more below): since logic will inevitably be involved in any account of how we might be justified in believing it, how is it possible for us to be justified in our fundamental logical beliefs?

In this essay, I aim to explain how we might be justified in our fundamental logical beliefs. If the explanation works, it will explain not merely how we might know logic, but how we might know it a priori.

THE PROBLEM STATED

To keep matters as simple as possible, let us restrict ourselves to propositional logic and let us suppose that we are working within a system in which modus ponens (MPP) is the only underived rule of inference. My question is this: is it as much as possible for us to be justified in supposing that MPP is a valid rule of inference, necessarily truth-preserving in all its applications?¹ I am not at the moment concerned with how we are *actually* justified, but only with whether it makes sense to suppose that we could be.

We need to begin with certain distinctions. Suppose it is a fact about S that whenever he believes that p and believes that 'if p, then q', he is disposed either to believe q or to reject one of the other propositions. Whenever this is so,

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¹ Some philosophers distinguish between the *activity* of giving a justification and the *property* of being justified. My question involves the latter, more basic, notion: Is it possible for logical beliefs to have the property of being justified?