

Mind, World and Action

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Defending Analyticity

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Abstract

In this paper I concentrate basically on three issues the problem of analytic statements being first-order propositions, the issue concerning aposteriority and the concerns related to the semantic vs. metasemantic distinction.

1. Are analytic truths ordinary first-order propositions?

One of the main themes of “The Philosophy of Philosophy” is the view that, even though philosophy is an armchair activity, it would be wrong to conclude that philosophical questions are basically conceptual (analogy with mathematics¹).

Philosophy is supposed to be analogous to mathematics in the sense that mathematics *is* a science, it is an armchair activity and does not in any useful sense deal with conceptual questions.

Philosophical truths are by and large neither about words nor concepts; and it holds generally for analytic truths too.

That mathematics is not concerned with conceptual problems is however contentious.

If anything else, if Frege is right in asserting that “a statement of number contains an assertion about a concept” (*Grundlagen*, § 46)², then mathematical statements *are*, even though not exclusively, standardly (not exclusively) conceptual truths.

And the neo-Fregeans follow Frege on his path of viewing (at least) certain basic mathematical statements as (second-order) statements about concepts.

Neo-Fregeans typically see Hume’s Principle as means to

¹ The analogy consists in the fact that mathematics *is* a science, it is an armchair activity and is not in any useful sense concerned about conceptual questions. So why should not philosophy be the same?

² I.e., that in answering the question “How many?”, we are saying something about a concept.

set up *number* as a sortal *concept* (Italics mine), i.e. that Hume's Principle *suffices* to explain number as a sortal concept. (Hale and Wright, 2001, *The Reason's Proper Study*, p.15)

Someone might complaint that Hume's Principle is not to be found in standard mathematical books and hence is not a typical mathematical statement. However, an analogous story holds for the Direction Principle that certainly *is* a canonical way of introducing directions (of lines) in geometry.

$$\forall a \forall b (d(a)=d(b) \Leftrightarrow a \parallel b)$$

As Frege points out:

If we do this, we obtain the concept of direction and say: 'The direction of line *a* is equal to the direction of line *b*'. We thus replace the symbol \parallel by the more general = ... We split up the content in a different way from the original and thereby acquire a new concept. (*Grundlagen*, § 64)

In general, as the neo-Fregeans would put it:

A legitimate abstraction, in short, ought to do no more than to introduce a *concept* (Italics mine) by fixing truth-conditions for statements concerning instances of that concept. (Hale and Wright, 2001, *The Reason's Proper Study*, p.296)

Hilbert too, sees the five groups of axioms in his *Grundlagen der Geometrie* as defining *concepts* when he says at the beginning of Sections 2 (Axioms of Connection), respectively Section 3 (Axioms of Order):

The axioms of this group establish a connection between the concepts indicated above; namely, points, straight lines, and planes.

or

The axioms of this group define the concept 'between'.

(He repeats the formulation for other Sections as well, e.g. Section 6 (Axioms of Congruence) in which he defines the concepts of congruence and movement)

According to Williamson philosophical truths are (analogously to the mathematics case) generally not about words or concepts. And given that it should hold generally for analytic truths too, sentences like "Vixens are female foxes" (or "Zzz is a short sleep") are no exceptions. Such statements are not, as someone might except, second-order concept-defining/determining or about extensionally equivalent concepts, nor are they pragmatic ways of establishing stipulative

synonymy. They are also not expressions concerning metalinguistically introduced terms, i.e. labels as shorthands for composite terms. They are first-order statements (and thus) concerning worldly objects: vixens and female foxes (respectively zzzs and short sleeps, whatever objects these might be).

This is not to deny that the terms “vixen” or “zzz” have been introduced by stipulation, or that the extensions of the concepts “vixen” and “female fox” are identical or that “zzz” is just a label to be used to point to any short sleep; this is just to say that the sentence “Vixens are female foxes” is not about words or concepts - it is about vixens. Even though “vixen” might be introduced to mean female fox by stipulation, it is not the case that stipulation is what makes vixens to be female foxes.

Here is a dilemma for first-order statements.

Since Williamson emphasizes the analogy between philosophy and mathematics, the latter is offering us examples in which extensional statements turn out to be actually about concepts, as the example of Direction Principle given above has shown us.

And despite the fact that the Direction Principle is a first-order abstraction³, it introduces concepts and certainly appears to be about them.

In the same way in which statements of numbers that appear to be about worldly objects (as “Venus has zero moons” - § 46) are about concepts.

As such cases show us, statement’s being *prima facie* extensional might still leave it open to discussion whether it is about objects or not.

Analyzing analytic truths, Williamson is criticizing the view according to which such truths are those that are true solely in virtue of meaning (without the need to verify if things are as the meaning requires). He agrees with Boghossian in endorsing the idea that, even in such cases, we could not possibly dismiss the following explanation:

For any true sentence *s* whatsoever, a canonical explanation of the truth of *s* takes the overall form “*s* means that *P*, and *P*”.

To use the obscure locution “in virtue of”, every true sentence is true in virtue of both its meaning and how things are.

(Williamson, T., *Philosophy of Philosophy*, p. 59; citation from Boghossian, P.A., 1997, *Analyticity*, p.335-6)

³ Since the equivalence relation is a first-order one, i.e. a relation on objects. Even though we might have a formulation of the Direction Principle where the quantification is second-order ($d(a) = d(b) \Leftrightarrow \forall F (\text{Cong} (|| , F) \rightarrow (Fa \Leftrightarrow Fb))$), the abstraction itself would still be first-order because the equivalence relation is a relation on objects (it is the sense in which Hale and Wright define a first-order abstraction) - *Reason’s Proper Study*, p.422, footnote 3.

To what does the view of having to add something to the meaning in order to get an analytic truth amount in the case of stipulations?

Let us have a look at three stipulative statements:

a standard stipulation such as “vixen” being (stipulatively) defined as female fox,

a historically inspired one such as “numerix” or “feminine number” being stipulatively assigned to even numbers (as “feminine number” actually was assigned by the Pythagoreans) and

one unrealistic such as “maloeba” being defined as a male ameba.

Even though all three cases involve stipulation, they differ in so far as their practical value, i.e. appropriateness is concerned.

It means that we could, in principle, refer to male amebas as “maloebas”, but it makes no sense given that there are no male amebas (or females for that matter). The stipulation is thus simply useless, involving undetectable and (as we know) non-existing distinctions amongst objects and hence not efficient in any sense.⁴

In the case of Pythagorean feminine numbers, the “existential” condition is fulfilled (we shall ignore the debate about the objective existence of numbers, but we take the odd-even distinction to be unproblematic), even though there are no mathematical, philosophical or other obvious needs for a “feminine-masculine” distinction and labeling among numbers.

In the maloeba example both conditions fail to be fulfilled and it is rational to discard it (as we would do in practice).

But, once we have determined the acceptability of a stipulation in the positive, what more items of information do the ways of “how things are” give us, what further piece of information would be necessary in order to determine the truth of the given stipulative (analytic) true?

What more can the even numbers as objects “tell” us about their being feminine, that is not already embedded in the stipulative (analytic) truth - “Numberixs are feminine (even) numbers” - itself?

Going back to the vixen case, the question posed is: in virtue of what are vixens female foxes? In asking this, Williamson rejects any demand to look at the semantic debate about the word “vixen”, or “fox” or “female” with the goal to answer such question. That vixens are female foxes is hence not a pragmatic way of saying that “vixen” applies to female foxes in the same way in which “zzz” applies to short sleeps. Instead, what is being endorsed is that

⁴ There are exceptions to this criterion. Contexts in which we stipulatively and legitimately introduce non-existing objects, are e.g. those in which we apply *reductio ad absurdum* or, as it was the case in astronomy, a celestial object whose existence is still to be determined (as in the Pluton-case).

Vixens would have been female foxes no matter how we had used words. Presumably, vixens are female foxes in virtue of whatever female foxes are female foxes in virtue of; what makes it the case that vixens are female foxes is whatever makes it the case that female foxes are female foxes.

(Williamson, T., *The Philosophy of Philosophy*)

It is difficult to avoid thinking that a different stipulation, a different use of words *would* have changed the status of the sentence “Vixens are female foxes”, without obviously changing anything in the animal world. For let us suppose we meet some aliens that use the very same language and having the very same animal-world like it is on our planet, but having the term “vixen” in use for and only for all female cats. Even if the aliens would certainly agree that female foxes are female foxes, there would be some disagreement on *vixens* being female foxes. With the consequence that what makes it the case that vixens are female foxes might *not* be whatever makes it the case that female foxes are female foxes.

A different stipulation would make the statement “Vixens are female foxes” false, while the truth of “Female foxes are female foxes” depends on the identity of terms flanking the verb “are”, i.e. on the logical form alone.

2. The issue of aposteriority

What is the epistemic status of the sentence “Vixens are female foxes”? How do we know that vixens are female foxes?

Might its being about worldly objects imply its aposteriority? Does it imply that vixens being female foxes has been empirically determined?

Here is why one might be tempted in this direction.

What is given for the target sentence is its first-order reading only. That makes the analytic-synthetic continuity being established. And given that the sentence is hence not about words, concepts, nor their extensions, but concerns physical objects instead, one might regard it to be implicitly analogous to other sentences concerning physical objects.

Being the sentence about earthlings - vixens in this case, we might be tempted to think that its being true has been empirically determined and is therefore empirically knowable.

In this case the sentence would be epistemically analogous to paradigms of aposteriority such as, e.g. “Hesperus is Phosphorus”.

And in this case, the epistemic status of vixens being female foxes would be like the status of empirical facts; in our Hesperus example dependent upon the astronomic discovery of the Morning and the Evening star being the same star.

Such a result would deny to a traditional paradigm of analyticity the status of being a priori and might even cast doubt on its being analytic (through not being a priori).

A Quinean might not consider it to be a bad consequence, “Vixens are female foxes” being likened to paradigms of syntheticity.

However appealing this option might be, a problem quickly arises: How are we supposed to be looking for vixens, without contemporaneously looking for female foxes in the first place?

And that is exactly what we are supposed to be doing, if asserting that worldly objects (vixens and female foxes) are the truth-makers.

In the case of the Morning-Evening star that creates no problems: being the former an objects appearing in the sky in the morning, while the other appearing in the evening, and we should verify if the two objects are identical - there are two different senses so that we should ascertain if there is a single extension common to both of them.

Looking for vixens independently of our search for female foxes appears to be virtually impossible.

I agree that this is an epistemic consideration. However, it seems to me that it is highly relevant to the semantic status of the sentence under consideration, suggesting that it is significantly different from ordinary first-order statements about vixens. This line of thought can be perhaps developed into an epistemic argument against first-order reading of the “Vixens are female foxes” statement.

Even if we found the reasons just given unconvincing, what could nevertheless force us to reject the idea of the analogy between the vixen and the Hesperus cases?

Well, if anything, the background of these two cases is different: “vixen” being stipulatively defined as female fox, while Hesperus being empirically determined to be identical to Phosphorus.

How and why “vixen” means female fox (or “zzz” a short sleep for that matter) is due to stipulation, explicit or implicit. This brings us to the semantic vs. metasemantic distinction.

3. The semantic vs. metasemantic distinction

According to Williamson, the way in which it came to be the case that “vixen” means female fox, is of no semantic concern, since the act of stipulation or any other way of obtaining the mentioned fact is of no concern for the semantic theory that is interested only in the outcome. Stipulation, since that is what we think it is the case in the examples of “vixen” or “zzz”, is what *metasemantic* analysis deals with.

Semantics facts are facts of the kind we attempt to systematize in giving a systematic compositional semantic theory for a language, as to what its expressions mean. Metasemantic facts are the nonsemantic facts on which the semantics facts supervene. ... The semantic theory takes no notice of the act of stipulation, only of its outcome - that a given expression has a given meaning.

(Williamson, T., *The Philosophy of Philosophy*, p.71-72)

Even so, metasemantics is having a role in determining the apriority of statements.

Just remember Kripke's famous example from *Naming and Necessity* "I'm giving a talk today" in which an un-contentiously a posteriori statement might be treated as being a priori - due to its metasemantics.

And if I had been really born with the innate belief of Kripke giving that particular lecture on that particular date/place, I would have known that a priori.

Metasemantic considerations hence very probably could either involve or ground the epistemic ones. Metasemantic facts might be considered relevant for the epistemic status in question.⁵

And metasemantics does influence the semantic matters too: knowing that a statement is a stipulative one, I know its truth conditions too. More than that: in order to know its truth conditions (which are considered to be purely semantic), I *have* to know at least a segment of the metasemantic story.

If this is accepted, then the vixen case - being metasemantically a stipulative definition - could not possibly be an empirically determined fact. It would be a priori and presumably analytic.

This option is however just one horn of the dilemma we are faced with when asking how we know that vixens are female foxes. Declining this option would lead us to the other horn of the dilemma.

On this horn, even though the sentence is about earthlings (instead of concepts, words or abstract objects or any other causally inert objects) it does not imply its aposteriority; we might know that vixens are female foxes without having to check that out empirically.

The vixen case, on this horn, turns out not to be analogous to the morning star-evening star case and vixens being foxes turns out as not being empirically established.

In that case, epistemic analyticity is what plays the epistemic role. On this reading though, Williamson's view about the acceptability of the epistemological conception of analyticity and the analytic theory of apriority would have to follow the line of reasoning endorsed by Boghossian.

Williamson is nevertheless explicitly denying it and arguments in favor of such denial has been offered (*Phil. Of Phil*), e.g. the failure of the understanding-assent link even for the paradigm cases of analyticity.

But if no understanding-assent link holds, i.e. if we reject epistemic analyticity, how do we know that vixens are female foxes? The question, I suspect, remains open.

⁵ Even though one might think that metasemantic facts cannot deny the apriority of a statement, just confirm it.