

“There are more things in heaven and earth, Horatio”—footnote on the nature of philosophy

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Does Philosophy Provide Knowledge?

“...Than is dreamt of in your philosophy.” — Hamlet, the philosopher king, tells us, and he is right.¹ Does philosophy provide knowledge, some kind of understanding? The question is too general. With all due respect, I will not deal with the achievements of earlier ages, nor will I discuss other schools of thought, thus simplifying the question: does analytical philosophy provide knowledge? This school of thought undoubtedly applies the meticulous, gradually building and debating methods of science, but this in itself is not enough; it does not answer the question.

There is no doubt that nature, society and the historical sciences provide knowledge about the world. In a sense, this can be extended to the normative sciences, such as literary studies, linguistics or fine arts, and perhaps even philosophical aesthetics or ethics.² Logic and mathematics are the language and tools of thought, and their effective use also presupposes knowledge. Does this latter knowledge indirectly concern the nature of the world, or merely the use of language?

Mathematics, Meaning, and Necessity

Could the fundamental relationships of logic and mathematics be different? Let's look at some simple examples. Could the following truths be false in some other world, for some other thinking being? If so, then we could replace them with other kinds of truths:

(a) $0 - 1 = -1$

¹“There are more things in heaven and earth, Horatio, / Than are dreamt of in your philosophy.”—William Shakespeare, *Hamlet*, Act I, Scene 5.

²Amie L. Thomasson, “Why Should We Care About Metaphysics?”, *The Philosopher's Magazine*, no. 71 (2015).

$$(b) \sin\left(\frac{3\pi}{2}\right) = -1$$

$$(c) e^{i\pi} = -1$$

Note that in the above three formulas, the symbols—both constants and functions, relations and operation symbols—have meaning.³ Whether they have meaning—rules of use—is a question of fact, not a mathematical question. If they had no meaning, then I could have used the following formulas (d), (e) and (f) in the same way. Only knowledge of the meaning makes it possible to understand the idea and prove its truth. If we regard the formulas as a series of symbols without meaning, the question of proof does not even arise. There is obviously nothing to prevent us from changing the typography of the symbols, but that is not the issue here. The question concerns the conceptual content that is common to all the formulas we obtain from the above three formulas by replacing the symbols with the same meaning but different typography:

$$(d) \alpha \beta \gamma \delta \beta \gamma$$

$$(e) \varepsilon \nu \zeta \eta \theta \iota \xi \delta \beta \gamma$$

$$(f) \kappa \lambda \mu \eta \delta \beta \gamma$$

The key is as follows:

$$0 : \alpha; - : \beta; 1 : \gamma; = : \delta; \sin : \varepsilon; 3 : \zeta; \pi : \eta; / : \theta; 2 : \nu;$$

$$e : \kappa; i : \lambda; * : \mu; (: \nu;) : \xi$$

Let us call this common conceptual content, which remains unchanged during the transformations, the proposition expressed by the three sentences above. Could propositions (a), (b) or (c) be false?

The above formulas are meaningful complete sentences, either true or false. Based on this, we can conclude that mathematics is not an arbitrary juggling of symbols, but a system of truths. We can then formulate the question more generally: are the fundamental relationships of logic and mathematics necessary truths—e.g. the three truths just mentioned—or are they accidental facts based on conventions? How can this question be decided?

³The Rosetta stone is Euler's equation:

$$e^{i \times x} = \cos(x) + i \times \sin(x).$$

Substituting $x = \pi$, we obtain:

$$e^{i \times \pi} = \cos(\pi) + i \times \sin(\pi) = -1 + 0 \times i.$$

Language, Reality, and the Metalinguistic Turn

Gravitational acceleration could be different, and on another planet, its value would obviously be different; indeed, if the constants of microphysics were slightly different, many fundamental physical laws would also be different. The laws of physics are therefore certainly knowledge and not mere conventions. Are logic and mathematics a collection of conventions? If so, then knowledge of them would mean knowledge of conventions, but if not, what follows from this? Why is the mathematics of other continents, other peoples and civilisations not different?⁴

For semantic reasons, it is advisable to separate the language used from what it refers to in order to avoid semantic paradoxes. I used to regard mathematics and logic as part of the language suitable for thinking and for describing the world accurately. It follows from this that neither mathematics nor logic are part of the world, and thus statements about their nature are not statements about the nature of the world. In this approach, it is therefore meaningless to ask whether numbers exist, for example, since numbers are part of the language used to describe the world and not inhabitants of the world. In order to ask about their existence, we must rise to a higher metalinguistic level, from which the language previously used to describe the world appears not as an unused language, but as the aforementioned language. This mentioned language is already part of the world we are examining. At this point, at the metalinguistic level, we can make meaningful statements about the object language, but not about the metalinguistic language itself, based on our previous considerations. (It follows from all this that if my line of thought so far is correct, then it does not inform us about the world itself either.) However, at the metalinguistic level, the basic laws of mathematics and logic are characteristics of the world.

The Cognitive Value of Philosophy

Returning to the fundamental question, the cognitive value of philosophy is obviously a different issue from its usefulness or function. After all, it can be useful even if it has no cognitive value, just like listening to music or watching dances. The usefulness of philosophy could most easily be demonstrated by a list of truths that it has recognised as certain, but not trivial. But are there any such truths, any certain, proven, yet non-trivial insights of philosophy? For example, does a proposal for a system of ontological categories have cognitive value?⁵ The answer depends on what such a system means: the division of things in the world according to their nature, or a kind of description or useful aid to

⁴Richard W. Hamming, "Mathematics on a Distant Planet," *The American Mathematical Monthly* 105, no. 7 (1998): 640-650.

⁵An example: E. J. Lowe, "Recent Advances in Ontology," *Philosophical Research Bulletin* 3, no. 4 (2014).

language and thought. Simply put, what are the elements of ontological categories, the things of the world, or the components of the language that describes them?

Therapeutic and Constructive Conceptions of Philosophy

George Edward Moore says (not verbatim) in his influential, now classic work: I know that I have two hands, and this knowledge of mine about this kind of existence is much more certain than any philosophical argument that seeks to shake my belief.⁶ Wittgenstein hears this and shakes his head from afar: if you know that you have two hands, then of course everything is already decided. . . Moore might respond: Ludwig, your doubt is based on much shakier grounds than my belief that I have two hands, ergo, you cannot refute that I have two hands, therefore my arguments about the existence of my hands are correct and consequently proven, so I was not mistaken when I spoke about my knowledge of them.

Wittgenstein says in a student's notes:

The practice of philosophy may begin from the standpoint of common sense, but it cannot remain at the level of common sense. In fact, of course, philosophy cannot begin with the mindset of common sense, since the goal of philosophy is to eliminate precisely those problems that common sense never even raises. No philosopher lacks common sense in everyday life. Therefore, philosophers should not attempt to present an idealistic or solipsistic position in this way. For example, it would be absurd to point to a person who, taking this position further, would say he is not really curious whether his muscles are real or just a figment of his imagination, or whether his wife exists or only he himself. These are not good points to raise. You must not circumvent the puzzles of philosophy by appealing to common sense; instead, present them in their sharpest form. You must allow yourself to be swept away by the philosophical quagmire in order to escape from it. Philosophising is the coexistence of three types of action: examining the everyday common sense position, immersing oneself deeply in the realisation that the common sense position is unacceptable, and then returning to the common sense position by a roundabout route. But common sense alone is worthless, it is not a real answer, because everyone knows it. Attempting to cut the problem short is not the same as practising philosophy.⁷

⁶"Here is one hand," (holding up his right hand), "and here is another." (holding up his left hand) "And if I can prove the existence of these two hands, you will grant that I have proved the existence of external things." Moore, G. E. (1959). "Proof of an External World." In *Philosophical Papers*. London: George Allen & Unwin, pp. 144–148.

⁷Ludwig Wittgenstein, *Lectures, Cambridge 1932–1935*, ed. Alice Ambrose (Chicago: University of

Let us call this interpretation of philosophy a therapeutic approach. According to the opposing view, concepts such as particular or universal, physical object, event, mind, mass, impulse or energy are real, comprehensive properties of reality. Both interpretations of philosophy perform conceptual analyses, but according to the first, this has a defensive purpose and use in eliminating false problems, while according to the second, philosophy's explanations provide real knowledge about the world. At the same time, it is not necessary to completely separate the two approaches. In my opinion, a therapeutic approach is the adequate response to certain questions, while a constructive approach based on metaphysical concepts is the adequate response to others. We call the latter conception the constructive approach.

Logical Categories and Ontology

The fundamental metaphysical question may be formulated as follows:

(M) Does anything in reality correspond to the system of logical-grammatical categories?

Quine says that there are red flowers and red balls, as well as red pots, but apart from that, there is no such thing as 'redness' that is common to all these things. Of course, a physical explanation can be given for the similarity, but not a metaphysical one. According to this, he must reject this way of speaking: the colour of the flower = the colour of the pot = the colour of the ball, along with the idea that the ball has a colour. Because, applying his very criterion of existence, this way of speaking commits us to a belief in the existence of colours. Instead, he believes in the set whose elements are red things. Here it is clear that logic and metaphysics go hand in hand. In the usual structure of logic, the basic categories are names and sentences, and the derived categories are functors. (Other structures are also possible.) The category of names corresponds to individual things (particulars), the category of functors corresponds to universals (properties, relations and functions), and the category of sentences corresponds to facts or states of affairs.

Let us return to our starting point, the question posed by Hamlet, Prince of Denmark. Can we find a system of philosophical categories that provides an equivalence class resolution for reality, or does no such system exist or can be found, and are there more things in the world than that? (Is there a system in which everything belongs to one and only one philosophical category?) Do we need categories for things that do not exist? Does language give us guidance on this?

In the case of object-oriented programming languages, the relationship between formal and natural language and ontological categories is as follows:

Chicago Press, 1982), 108-109.

Table 1:

Programming language	Natural language	Formal logic	Ontology
Methods	Verbs	Functions	Events, processes = time function of descriptors
Objects	Nouns	Singular terms	Objects = system of descriptors
Properties	Adjectives	Predicates	Descriptors (quality, characteristic or attribute) of objects, events or processes
Conditions	Sentences	Formulas	Facts

Conclusion: Philosophy as a Source of Necessary Truths

At this point, I return to the question of the nature of mathematical truths. The fundamental truths of mathematics and classical logic cannot be other than what they are, i.e. they are necessarily true. However, it is obvious that, from a metalinguistic point of view, they are characteristic of the nature of the world and the object language that describes it. Philosophy similarly seeks and finds necessary truths and, consequently, provides knowledge about the nature of the world at a higher level and is not merely a normative science. Philosophy is alive and well.⁸

⁸“Many people believe that philosophy makes no progress. Members of the general public often find it amazing that philosophers exist in universities at all, at least in research positions. Academics who are not philosophers often think of philosophy either as a scholarly or interpretative enterprise, or else as a sort of pre-scientific speculation. And—amazingly—many well-known philosophers argue that there is little genuine progress in philosophy. Daniel Stoljar argues that this is all a big mistake. When you think through exactly what philosophical problems are, and what it takes to solve them, the pattern of success and failure in philosophy is similar to that in other fields. In philosophy, as elsewhere, there is a series of overlapping topics that determine what the subject is about. In philosophy, as elsewhere, different people in different historical epochs and different cultures ask different big questions about these topics. And in philosophy, as elsewhere, big questions asked in the past have often been solved: Stoljar provides examples. Philosophical Progress presents a strikingly optimistic picture of philosophy—not a radical optimism that says that there is some key that unlocks all philosophical problems, and not the kind of pessimism that dominates both professional and non-professional thinking about philosophy, but a reasonable optimism that views philosophy as akin to other fields.” Daniel Stoljar, *The Defense of a Reasonable Optimism* (Oxford: Oxford University Press, 2017).