On Quine's Two Dogmas and It's Error in Human Nature

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In this short essay, I will discuss what I think about Quine's seminal paper called "The Two Dogmas". It is argued as one of the most important philosophical paper; hence an influential one, in the 20th century (and onwards). However there are limits and perhaps errors I may say concerning this important piece of work regarding the nature of knowledge and human nature too. To highlight that, I will firstly present how the "Two Dogmas" is read by me, and later on I will share with you, on what aspects of it that I think actually an epistemological hindrance in the philosophy of science based on the principle, what humans can, and cannot know.

To begin with, the "Two Dogmas" in Quine's work is about the methodologies applied by empiricist philosophers and scientists in their inquiries. As an empiricists himself, Quine finds their methods to be ineffective for reasons I will lay out shortly. The two dogmas are actually according to Quine himself, problematically are the same – in the sense that their problems are identical which demands that the solution to be one – which also I will show you shortly.

The two dogmas, which we will look at each in order are:

(i) The analytic and synthetic methods in language use, and
(ii) Radical reductionism in language use

Dogma I: The analytic and synthetic methods in language use

Following Frege, Russell and Wittgenstein, analytic philosophers of the 20th century (and 21st) use the analyzation of language to as the tool to do philosophy. In other words, epistemology and metaphysics (either as idealism or antirealism) are the studies on how we apply our language to solve certain philosophical issues. Quine's solution to the "Two Dogmas" concerns with epistemology, which naturally serves as the foundation of the philosophy of science.

Quine begun with his analyzation with the conception of "meaning". Technically for Quine, a word can be replace with another synonym and the sentence would be still in the same meaning. However, as Quine points out, sentence does not work that way. A replacement of word with another synonym does not guarantee the meaning of the sentence is conserved. Therefore a solution for this problem must be made immediately if language to be the vehicle for science and knowledge.

"Meaning" for Quine carries a heavy epistemological value, because for him, it is what to be understood as what Aristotle was referring to "essence" in his epistemology. Aristotelian

"essence" holds the key position in the Aristotelian framework, because "essence" is the criteria of "truth" for any claim to be made in any philosophical and scientific claims. However, as philosophy moves on (either progressively or regressively is a matter of debate and personal opinion) "meaning" in language use is not to be taken (easily) for granted, for the concept of "truth" is heavily depending on it. Following Tarski, Carnap suggests that language is built like arithmetic and its semantic reference can be referred to what is known as the language system, or also known as the metalanguage. Under the rules of syntax (and, if..then, or, not etc.), a word (or logical atom as introduced by Russell) which its truth value to be determined in respect to the metalanguage or language system, can be analysed to determine the truth value of the sentence of a scientific or philosophical claim.

However, Quine finds this problematic. For Quine, the question is, not "about the *analyticity*" but rather, "what is the *analyticity*?" In other words, for Quine, it is not so much about the syntax that bothers him, but rather the semantic rules that bothers him. To paraphrase the question with terms of 20th century analytic philosophy; "what is the *metalanguage* to verify the truthfulness of the *logical atoms*?" For Quine then, since the semantic is a problem, then the syntax if not any helpful also. Therefore, in Quine's words "the line between *analytic* and *synthetic* is blurred"; in other words, there is nothing much we can do with language based on the information we may have in hand in respect of the "meaning" of the words in a sentence.

Dogma II: Radical reductionism in language use

The second problem for Quine is *radical reductionism*, which means the truth value is given to the word based on an *immediate experience* of the meaning of the word. In other words, it is the classical empiricism that one can find in Locke and Hume. The problem again is for Quine, how one can justify the truthfulness of his or her own *immediate experience*? To demonstrate this, Quine uses the questions that one can find in mathematics. For example, under arithmetic, it is natural in a sequence consisted of rational numbers. However, if certain formula is introduced, irrational numbers may be found in the sequence. The irrational number is accepted in the arithmetic although its status might share the myth of a Greek god (in a different degree though). Therefore, how can anything that share the same status with irrational number provides the semantic of the language? In other words, the irrationality still would blurring the line between *analytic* and *synthetic*. Thus for Quine, *radical reductionism* shares the same problems of *analytic* and *synthetic* within the use of a *metalanguage*.

Quine's Empirical Solution

After his criticism of the two dogmas then, what is Quine's solution? The obvious solution for Quine is to abandon the two dogmas. After we make sense of the abandonment, it would be much easier for us to see the Quine's own philosophical framework or worldview. A key to his solution is found in a sentence in the paper, which he said "*no sentence is immune to revision*". What does this mean?

Well it underlies the principle of Quine's philosophy – perhaps positively viewed by supporters as form of "humility" when one is dealing with science and knowledge. In other words, Quine refuse to be certain of what we know today is 'final' – perhaps, with new

discoveries, what we know of today would be utterly irrelevant in the future. Quine is not completely wrong on this. Throughout the history of science, changes of views (or what considered as a scientific fact) do happen. Usually, it is also known as what Thomas Kuhn call as the "paradigm shift". However, the examples given by Quine as quite general, but it enough to show us that how Einstein supersede Newton in some questions in physics.

In other words, Quine rejects the principle of *certainty* in his philosophy of science. Whilst analytic philosophers like Frege, Tarski, and Carnap relies on the concept of a metalanguage to establish the value of truth of a sentence, Quine rejects that metalanguage should be the reference for truth, on the basis that *we do not know what is the metalanguage*. Likewise Quine rejects that immediate experience should be the criteria of permanent truth. For example the answer to what is the smallest particle, which was "atom", is superseded by "electron".

How Quine's Empiricism is an Error for Human Nature

Assume Quine's empiricism is absolute correct, what might then would be the implication? It is worth to note that, the "humility" in Quine's empiricism can be read in a negative direction too, which is "arrogance" if one may bear to consider my explanation.

Before we celebrate Quine's rejection of *certainty*, a good question to be asked is, *is knowledge possible*? Well, if *certainty* is impossible, then it naturally follows that *knowledge* would be impossible too. Therefore, how would we reconcile *certainty* with the "*paradigm shift*" of science?

Well to start with, we may review how we understand the paradigm shift of science. Let's review at the most obvious one, which is Einstein supersede Newton in physics.

To begin with, we can ask ourselves this question "is Newton irrelevant"? The obvious answer would be "no". Newtonian physics is still applicable and being thought in schools around the world. If one wants to build a strong and stable sky scrapper, or to launch a rocket up to the sky – even taking off an airplane, Newtonian physics is still applicable. Likewise, in explaining to students how earth is "floating" in the galaxy (or moon), we still use Newtonian explanation that mass contains gravitational force. Thus, all the planets and the stars in the galaxy exert gravitational pull on each other, which explains earth, the moon and Mars are floating in space without strings. However, to explain the beginning of the universe, Stephen Hawkings uses Einstein's theory of relativity. Hawkings could not use Newtonian physics to introduce his theory of the Big Bang. While Newton considers time and space are independent entities, Einstein regards them as dependent.

Same like situation can be found in the explanation of the natural world.

According to Galileo, the world is mechanical, and it can be copied by machines. Such worldview that the world is mechanical is well accepted even by Descartes. However, Newton challenged such claim. Newton shows that a mass can affect another mass without any contact – a force known as *gravity*. Therefore the world, is not simply a machine, as elements of occultism do occur within nature. However, gravity cannot be used to explain the reaction between different chemicals. Instead, *thermodynamics* would be more useful. However, on a much smaller scale, both gravity and thermodynamics are out of the picture.

To describe the dualist behaviour of light, and the unpredictable movement of electrons, *quantum physics* is used instead. Nevertheless, in the presence of quantum physics, do we discard mechanical philosophy, gravity and thermodynamics? The answer is "no".

In other words, the "paradigm shift" of science does not imply that a *law* replaces another *law*; but instead, it suggests that *in a different scale (or purpose) of observation, different laws is used for measurement.* To my mind, in the "Two Dogmas", Quine was not sensitive enough to this fact.

So, what is the implication on language then?

Assume in a certain metalanguage, we apply certain semantic rules. We would be aware enough in another use of a metalanguage, different semantic rules is applied instead. The brief examples in physics as I have shown above reflect this understanding. In fact, it is also applicable in everyday life. For example, Copernicus is known to suggest that the sun does not rotate around the earth, but rather it is the earth that rotates around the sun. Galileo, following Copernicus, popularized this phenomena as what is now known as a scientific fact. However, do we completely disregard the use of "earth" as a reference instead of the "sun" in our natural language use? The answer is "no". There some cases which the "earth" is used as a reference rather than the "sun". For example, if someone ask you, "where is west"? You would say, "It is at where the sun sets", making "earth" as the referent point – not the "sun". You do not "when earth rotate in a certain degree to a certain degree of the sun's orbit is west."

Now it is apparently not difficult for humans to change one metalanguage use to another metalanguage use. Not only scientists in switching their metalanguage from one field to another, but non-scientists too in their everyday life. Now this begs us a question "how?" Now it is natural to say that, the switching of one metalanguage to another metalanguage is a work of computation – and in this case, is the computation of the human mind. If science is only an "observation" then the image perceived is only one dimensional. But humans able to go beyond than one dimensional, and this is proven by their awareness able to go to one metalanguage from another metalanguage appropriately according to their judgement. This is only possible due the system of the human mind itself. Having say this, we would find ourselves in the position of the rationalists.

The system of the human mind, which is necessarily innate, suggests to us that there is a limitation to human mind itself. Recall Quine's example of the irrational number. We should, I reckon, rather than "arrogantly" assuming irrational number will change to rational number one day, be more "humble" in accepting that irrational number will remain as it is due to the limitation of our mind. To accept such fact will not a regression in science, rather it is a progression. For example, there is an element of "irrationality" between the physics, chemistry and biology – to the point they cannot be unified in formal education (around the world). But this fact does not deter the universities to produce scientists. Likewise, nobody has seen Newton's laws of motion physically – like watching an object keep moving forward uniformly without any opposing forces. Yet, the laws remain theoretical acceptable and it proves to be effective in practical engineering. In addition to that, Newtonian gravity is still a mystery, but it is accepted as a scientific fact. Richard Feynman used to say "If you think you understand quantum mechanics, you don't understand quantum mechanics." The acceptance of "irrationality" is not a hindrance for the progression of science.

Returning to Quine, I would say that “metalanguage” is not a problem – and the line between analytic and synthetic is not blurred at all. Analysing a language for its truth value according to the rules of semantics is to my mind, is very much valid.

To close this essay, I may add, the two dogmas attacked by Quine actually are methods used by the rationalists. The only difference is that (between the rationalist and the empiricist) the rationalist acknowledge the system of the human mind (which is innate) which means there is a limitation to the human mind. With this acknowledgement of human nature, the rationalists know that humans cannot everything. But this is not a barrier. Instead it is a step forward.

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