Hegel's Big Mistake | Lorenza Wolzka de la Torre

Based on the research by E. Leylavergne *in Une Critique Hégélienne de Hegel,* PAF, Paris, 2014.

Whether you like him or not, it cannot be denied that Hegel was one of the most influential and groundbreaking philosophers of his time. He single-handedly developed dialectics and elaborated a Philosophy of Life. His most famous work, *The Encyclopedia of Philosophical Sciences,* has occupied and confused many who have tried to decipher it. Nevertheless, the people who have claimed that they finished studying and reading this work, apparently did not.

Now you might be asking why I am making such an outlandish claim and partially delegitimizing the hundreds of published scholars of Hegel? The fact is, that Hegel, near the end of *The Science of Logic*, contradicts himself and makes a mistake that could make us question the entirety of the system that he developed. So, at the near end of *The Science of Logic*, Hegel makes the extreme statement of calling quantitative sciences, such as mathematics and Newtonian physics, "dialectically irrelevant" and continues on declaring that it is the "least scientific" of all the sciences. He justifies this by exploring the truth-factor of this discipline.

Quantitative science explores the study of Nature through the scope of quantity and quantification. Hegel essentially "proves" the irrelevance of quantity by stating that Quantity is the negation of Quality. Let us take the example of scales and more specifically, mood meters. If someone asks you how you are feeling on a scale of one to ten, and you reply with the number two, that person will obviously know that you are not feeling too good. However, that singular number two, according to Hegel, is essentially eliminating the emotional, intricate, and qualitative complexities of Being. By answering with this number two, you are limiting your emotion to a meaningless number. Quantum is therefore a *quality* in the sense that it still *qualifies* something (your mood in this instance), but a negative quality because it is, as mentioned previously, the negation of Quality in the sense that it eliminates, in the same aforementioned example, the complexities of the *reality* of your mood. Quality, Hegel mentions, is the essence of Being and Life itself for it is what *everything* fundamentally *is*.

Quantum is "*Dialectically Irrelevant*" because it is too simple. A number can define almost anything in existence and is so vague, that in its essence, it is nothing. Remember the mood meter? That number two that you picked is just a number, nothing else. It doesn't expand on the intricacies that a mood can consist of. It is just a number.

In the 105th addition of *The Science of Logic*, Hegel utilizes the example of Fractions to prove the irrelevance of numbers and subsequently, of Quantum. Here, he states that in a fraction, for example 1 over 2, the numbers within it mean absolutely nothing as independent quantities and only have an elucidation *in relation* to each other. However, he states that this relation itself has absolutely no purpose without something to apply it (the fraction) to. It is therefore the Relation itself that matters and not the individual quantities within the fraction that have meaning. This is also why you can write out 1 over 2 as 3 over 6 or even 10 over twenty.

Hegel believes that *Quanta* view and transform the diversity of being in to cold, fixed values. It eliminates and disintegrates all the complexities and the contingencies of being. He therefore believes that quantitative science and its methodology miss reality itself.

Nevertheless, we could make the statement and argument that it is exactly Quantity and its respective sciences that describe Nature and reality in a universal and understandable manner. In other words, it is that exact simplicity that enabled a significant increase in Human comprehension of the world around us. Words, even though they have their own individual definitions, have different meanings for every person utilizing them. Since they are so open to interpretation, we cannot rest assured that the entirety of the population has the same understanding of what a word means. In contrast, quantity and numerical sciences are so simple that everyone learns them and therefore comprehends them in the same way. There are no multiple perspectives to an equation, to a formula, nor to a mathematical theorem. For example, no matter where you are from, how you have been raised, you know that two plus two makes four. However, if we use a qualitative statement, a color for instance, people will have various interpretations. If I say “blue”, how can I ensure that you are all picturing the same type of blue that I am? Maybe you would be imagining a lighter, or a darker shade. Qualitative statements are so open to interpretation while quantitative ones are simple and universal. They mean what they mean. This shows that quantitative science breaks down linguistic barriers and is essentially its own universal language.

For example, in today’s rapid and technologically advanced society, we are used to receive media notifications of almost any natural disaster hours, minutes, or even seconds from it occurring. However, in an article about an earthquake for instance, a journalist can use words to embellish and exaggerate the situation for dramatic effect. Now, using the scale of Richter, we know that the earthquake has been deadly if it had a magnitude of 5,7 or has produced little to no damage if it has a scale of two. Plato once stated that it is exactly Literature and Art that trick humanity into thinking they know what nature is without knowing. Words and Literature are a misrepresentation, according to Plato, of reality itself. Numbers here are used to ensure that everyone understands and interprets the complexities of a convoluted event.

As mentioned previously, it is Human innovation and progress in mathematics and in physics that has led to an increase in human comprehension of Nature and of the world that surrounds us. For example, it was by the quantification of the gravitational model developed by Newton, where they quantified the relation between Mass and Distance that more people were able to understand what gravitational interaction is. History has shown us on multiple occasions that without the progress in mathematics, we would not be able to predict for example the extent of global warming and climate change and we would not be able to predict natural disasters.

Now – and this is where things get interesting regarding Hegel's theory – the author of *The Science of Logic* states that what we could call "the ultimate truth" that lies in the universe always is a constant process of unification of different *moments* of quantity: unity, plurality, and totality. For example, we all know that if one person is a citizen of France and another is a citizen of the United States, those two individuals will indeed have different rights, because each nation has its own set of laws and has its own Constitution. However, since both of these nations (the United States and France) are member-states of the United Nations, these two citizens will share the same human rights that were developed at the Geneva Conference, for example. If we apply this to Hegel's unification of quantity, the singular countries (France, US) would be each a type of unity, and the United Nations, a type of plurality, for it consists of multiple unities. The accumulation of their rights, would be an example of how the unification of different types of quantity determine a greater whole (totality). Every thing is a part of something greater and is itself a whole of its own: a citizen is a whole a body made of cells, individual cells are a whole as a set of molecules and the same citizen is a unit of the plurality of the citizens of their country, this same plurality being a whole (totality) in itself, and so forth: everything is always unity, plurality and totality.

Now, unity, plurality and totality are and have always been considered since Aristotle as the sub-categories of… *quantity*.

Therefore, as Elfège Leylavergne asks it in his works, how could Hegel describe Quantity and Quantum in such negative terms if it is the ***basis*** of his entire dialectic system and the keystone to every structure in the entire universe? In fact, Hegel's entire system of life is in itself the unification of two different moments of quantity: the unification between the Universal and the Singular. So how could he, at the end of *The Science of Logic*, the book where he details and explains the intricacies and the purpose of his dialectics, completely delegitimize it by calling the foundation (which is quantity) of it "dialectically irrelevant"?

Sure, we'll never get a clear answer to that question unless we dig Hegel himself out of his grave and confront him with this contradiction and ask him how he could make such a statement. Unfortunately, as that is quite impossible, we will have to hypothesize.

Hegel, other than being a philosopher who completely revolutionized how we perceive the Human Spirit and the Human Purpose of Life, subscribed ideologically to a literary movement entitled Romanticism and more specifically German Romanticism.

It could actually be inferred that it was his friendship with two specific German *romantik* thinkers that have influenced Hegel's denial on quantitative sciences. Hegel, along with Friedrich Hölderlin and Friedrich von Schelling were said to have radicalized this idealism in theoretical thinking and philosophy. In fact, Schelling once said that "The fear of speculation, the ostensible rush from the theoretical to the practical, brings about the same shallowness in action that it does in knowledge." (Book Five of *Schelling's complete works*, page 277) - He believed that it is by strictly studying theoretical philosophy that one becomes most acquainted with the intricacies of the world that surrounds us. Here we can see the same type of idea that Hegel proposes at the end of *The Science of Logic*, we can see the rejection of quantitative sciences, here called "practical", and the praise of theoretical sciences and philosophy, or as they called it at the time, *Naturphilosophie*, which they hoped – with Hegel – to be the true future of science, not experimental physics.

Hegel and Schelling have been friends since the beginning of each other's careers and have each been very influential in their forms of thinking. If we are hypothesizing in the realm of potentiality, we could believe that it was, in fact, their friendship that led Hegel to make such a wild statement that comes to contradict his system of dialectics.

In addition, if we stay in this realm of potentiality, we could say that it was his time that forced him to negate quantitative sciences as much as he did. It was even Hegel who said that one cannot escape the time that they were born into. Errol E. Harris, a South African philosopher and scholar on Hegel, explored his relationship with the natural sciences in his book, *Hegel and the Natural Sciences*. In it he states that in Hegel's time there was a sort of intellectual war in between philosophers and quantitative scientists. Therefore, in order to affirm his status of being a serious and innovative philosopher, he needed to include this rejection of Quantity in his works. Harris states specifically that "Hegel certainly does very frequently ridicule Quantitative science, a study that he regards as pseudo-science, and his taunts are, more often than not, aimed at philosophers and scientists with whom he disagrees".

However, is this contradiction simply an idiosyncrasy, an individual mistake, or does it bring back into question the entirety of Hegel's dialectics? In order to answer this concluding question, let's compare Hegel to one of his predecessors, Descartes. Third *Meditatio*, the famous French philosopher makes a logical mistake that we could even call a tautology, while trying to solve one of the ontological problem of philosophy: how is it possible that mathematical description of physical events can actually predict physical events? What is the connection that lies between our abstract thinking and reality? His famous solution is… God. The existence of God provides a secure connection between the realm of pure thoughts (mathematical concepts) and reality itself. Therefore, in order to prove the existence of God and thus solve this old ontological problem, Descartes resorts to an apparently elegant but, in truth, completely flawed demonstration: if I can conceive the idea of an infinitely perfect being, this idea has to come from this being himself since nothing that I can perceive, imagine or be taught is neither perfect nor infinite. Only perfection can *cause* the idea of perfection. Only infinity itself can *cause* the existence of the idea of infinity. Therefore, as it seems logical to conclude, God, as the infinite and perfect being, must exist for these ideas to exist in my mind. You may know the different refutations that were made regarding this famous so-called proof of God's existence, especially Kant's refutation. But these are too sophisticated. One simpler refutation is one by E. Leylavergne for it shows a quite simple logical error: in order to find the *link* between mind and reality, Descartes postulates the existence of a *causal* connection between ideas (in the mind) and reality. Descartes makes a terrible and basic error of logic called a tautology by which he sets as one of his premises what he aims to find in his conclusion. This is logic 101 and Descartes was very versed in the world of logic and mathematics. So how could he make such a gross mistake?

Despite his logic being flawed, we all perceive him as the father of modern philosophy and of modern sciences. In fact, he was the first to understand, as surprising as it may seem to contemporary thinkers such as ourselves, that a well-organized subjectivity is the source of all objectivity (hence the need to explain how mathematical descriptions of the laws of Nature could be so accurate). We choose to ignore his mistake and focus on what good he contributed to Philosophy and knowledge as a whole: we use his mathematics every day in our computers, his law of the diffraction of light in physics or his elements of dioptric when we get new glasses without any consideration for his logical and metaphysical digressions. The same innovative aspect or quality can be applied to Hegel's philosophy.

French philosopher Gaston Bachelard stated once that the concepts that truly resonate with humanity will stay relevant throughout history. We could call this a Darwinism of concepts, a cultural selection of sorts. So what is the Hegelian equivalent to Descartes *cogito*? How can we apply Hegel's revolutionary innovations to Philosophy in our contemporary world? What should we keep from Hegel's philosophy, ignoring this specific mistake?

The core of Hegelian dialectics is about contradiction as the very way through which anything rational grows as such. This can explain why for example Karl Popper can make a statement saying that the essence of a scientific theory is that it can be refuted : contradiction, contrary to what we usually think, is the very path to growth, just in the same way we need errors and mistakes to learn ; this is mere common-sense. Hegelian Dialectics – as the science of logic that studies contradiction itself as the very *engine* of the universe – could therefore help accelerate the scientific process and should, at some point, open new doors to new discoveries. For that to happen, however, Hegel's logic will have to reach the same historical point of maturity than Descarte's did ; that is when we let go of his idiosyncrasies (the inept rejection of quantification) to just keep the best of it instead of – as most scientists do it – discard him as an obscure philosopher. Hegel's philosophy, contrary to one might think, is always written in a simple language. As a matter of fact, he always uses words of every day's life in his books, except for his classes excerpts which were for too long published as actual books to *read* out of mere parisian pedantry. What we call the *Great logic*, his master book where he lays down all the simple principles of the science of all sciences, the science of logic, is one of the easiest philosophy books you may read so much it is entirely made of common-sense statements. The only real problem with Hegel for now is the pedantry of those who pretend to have read his books while they most certainly have not. If that statement were not true, then his idiotic but, in the end, inconsequential mistake would have been noticed long before Leylavergne's works in 2014 ; Hegel rejected quantity while defining the very Concept of his entire system on the sub-categories of quantity (unity, plurality and totality). This is too absurd to be missed, too easy to catch to be overlooked by any careful reader. Now, his works must be reevaluated through the lens of this new filter: just ignore what Hegel says about quantitative sciences for he was probably too drunk on those days (that's one of the infamous traits of romantic writers). For the rest, he produced the most astonishingly complete way of understanding both sciences and humans (from history to politics and laws) in one unified system entirely based on the sole rules of pure logic.