Philosophy as a generalization of rational knowledge and a practical toolset

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Earlier, the author attempted to write an article about philosophy, whose purpose was defending this important science and proving that actually philosophy is a scientific discipline, which is extremely important for intellectual development, scientific and technological advances and progress of humankind in general. Importance of philosophy stems both from its scientific value as a systematic teaching about general laws and mechanisms that govern and shape the world, as well as from its high value as an efficient toolset for solving practical problems at all levels, especially when it comes to loosely defined and high level problems.

What is philosophy?

The origin and foundation of mature and truly scientific philosophical teachings is common sense, which in philosophy obtains a rationalized and systematic form. Common sense is a rationalization and often generalization of human experience, acquired through a two-way interaction with the surrounding environment. In this regard, we can consider common sense as the first abstraction layer on top of practical experience. However, rationalizing common sense and building another abstraction layer (which, to certain extent, philosophical concepts are) on this already abstract foundation requires very measurable approach and careful cross verification and validation of newly introduced concepts. The reason is that abstract constructs practically have no limitation on the number of degrees of freedom. In abstract world, we can go any way and do anything we want, while the real world imposes lots of constraints, so that only few alternative routes are available at any given moment. This is why developing philosophical concepts requires measurable, comprehensive and multifactor thinking and mandatory comprehensive verification, in order to remain in the realm of reality and not to slip to a wrong path (which is an extremely easy thing to do – recall any two of your last choices and you will see that at least one of them was not optimal). This is why so many philosophical teachings are not really scientific venues in a strict meaning of science, but rather restricted and sometimes even isolated set of abstract postulates, which were never subjected to scientific scrutiny for validity and integrity. Because of their isolation, lack of validation tools, and abstract nature, such teachings are doomed to be non-adequate presentations of reality, at best, while in many instances they serve to dogmatic and even fanatic justifications of unsound ideas and actions. Since all such teachings claim themselves “philosophies”, it is very important to understand what a truly scientific philosophy is, and how to distinguish it from “bad apples”, of which so many are “hanging” around. Besides, many teachings may include several reasonable considerations, while the rest are not, so that the final inferences still could be wrong. Besides, many teachings consider only certain restricted areas, such as moral, ethics, aesthetics, governance, politics, etc, which furthermore impedes orientation and introduces confusion when one attempts to understand the subject of philosophy. This accordingly leads to frustration and discouragement which at the end averts overwhelming majority of people from philosophy, while, in fact, they even did not enter the garden not to mention never tried real fruits. Philosophy (meaning robust and proven philosophical doctrines) is not really complicated discipline. Maybe it requires certain aptitudes when it comes to deep understanding of really advanced concepts and developing philosophical teachings, but otherwise it can be viewed as an efficient cognitive and practical tool, which can be mastered by many people. Here, we can use an analogy with mathematics. Not all people are mathematicians, but many people can understand Pythagoras theorem and use it for

practical purposes. Some philosophical concepts can be even used in an “algorithmic like” fashion, although, of course, compared to many mathematical tools, philosophical “algorithms” are more subtle (but by no means less efficient!).

Interrelationships between philosophical teachings

As we said above, overwhelming majority of philosophical teachings reflect on certain restricted aspects of life, society or nature and, accordingly, their conceptual foundation is limited to specific area (ethics, politics, etc). Despite the loosely arranged and often invisible interrelationships of different philosophical teachings, in many instances, it is possible to make connections between many of them based on similarity, and even the same origin, of certain *core* concepts. This way, we can uncover common hierarchical *structure* of all philosophical doctrines (or, more precisely, those pretended to be philosophical teachings). Filtering out obviously doubtful paradigms and climbing to the summit of hierarchical structure, we could get to the very top of it – to the most general concepts, which, if they are valid ones, at this level, present general laws of Nature. (Of course, Nature includes humankind, with all its societal institutions and biological features.) This is an important consideration, since once we discover, which philosophical doctrine includes the most comprehensive set of general laws of Nature, interrelates and considers them in harmonic entirety and confluence, we can be certain that we are at the right place, in the right “garden”. Since the set of most general laws of Nature is *unique*, it means that all objective philosophical teachings should gradually move in the same direction toward conversion. Of course, such a complete conversion will never happen. Also, the conversion process may not be necessarily uniform, for quite objective reasons, and certain differences will always exist.

It turned out that presently the most comprehensive philosophical teaching incorporating the most general laws of Nature in their inherent unity is *dialectics*. In this regard, dialectics is far ahead of any other philosophical doctrine, although it shares many ideas with other philosophical teachings. For instance, materialism is often considered to be a separate doctrine (and this is how it originated). In fact, materialism appeared as a counter reaction by rebelled Hegel’s student Feuerbach against idealism of Hegel’s dialectics. Although dialectical materialism is a more refined and congruent paradigm, dialectics and classical materialism share main ideas. The same is true for many other robust philosophical doctrines, in which dialectical concepts constitutes much of the body of those teachings, which makes dialectics a good candidate for study.

Structure of a philosophical teaching. Validation of philosophical doctrines

A truly philosophical teaching has to have a comprehensive and well defined apparatus, which includes notions, definitions, categories and concepts, using which one could create an *adequate representation* of the *real* world and actively interact with it. In order to achieve this goal, a philosophical teaching has to include methods and tools for verification and validation of its postulates and results at all levels, both individually and in their *entirety*. The last note, about entirety, means that *all* components of a teaching, within the whole discipline, have to be inherently non-conflicting and compatible. Another important feature of a philosophical doctrine is a mandatory presence of *structure*. Structure has to be inherently non-contradictive, and allow the following natural development and evolvement, including ability to sprout new healthy branches and to adopt qualitative transformations. In fact, the said above is applicable to any scientific discipline. However, for philosophy, fulfillment of these requirements is especially critical, because most often philosophy deals with poorly defined (in traditional sense) problems, for which there are no unambiguous methods of solution and approaches, and often there are no algorithmic methods at all.

In such situations, the coherence and integrity of philosophical teaching are the most critical guarantors in order not to slip from the path and not to take a wrong turn in node points when one forces his way to a solution.

Unfortunately, many philosophical teachings do not satisfy such requirements. Some philosophical doctrines, from the very beginning, are founded on wrong initial assumptions, and so their real value is negligible, if any, regardless how far they advanced ahead from the starting point. If something is based on a fundamental flaw, it cannot be true. An example could be positivism (and its newer flavors), which much affected modern science, in particular physics, and especially physics of elementary particles, where observability is a big issue, and whose present unenvied state is a subject of many books and discussions. Despite the popularity of this teaching, its main postulate is wrong, which states that it is *impossible* to objectively cognize reality, since, as positivists say, we reflect the world by our brain only, and, whatever is in the brain, is our world. Thus, our knowledge is always inherently subjective and we never know the truth, the reality. However, if the world was not observable, if our knowledge was not objective and true, we would never succeed in any endeavor. In fact, our knowledge about objective reality can be infinitesimally close to the truth, because our interaction with reality is a two-way communication. Whatever we do, we receive some feedback, which allows us to correct our knowledge and our actions in the right direction. This process and phenomenon of feedback from objective reality and based on it corrective action is called in dialectics *practice*. Of course, the means of receiving feedback can be of different nature and efficiency, depending on who is getting feedback and what kind of action was performed. However, the general idea of receiving feedback and correcting next actions is the same across all species. Thus, through such sequential *iterative* actions living organisms *incrementally* improve their abilities to interact with the surrounding environment. Humans and other high animals increment knowledge, efficiency of methods and actions, perfecting and bringing all this closer and closer to objective reality. In fact, all other organisms, by and large, do about the same. The difference is in scale and particular mechanisms of such adaptation and gradual perfection of responses toward more objective reactions to impacts incoming from the surrounding environment. In fact, the same mechanism is used internally, since living organisms include many different components. Many humans, besides having biological adaptation abilities, can consciously exercise wide spectrum of such mechanisms, such as rational thinking, vast knowledge of natural sciences, use different instruments and machines, etc, while simple organisms reflect on impacts from the surrounding environment through more primitive mechanisms, such as acceleration of rate of biochemical reactions when temperature increases. Impact of long term environmental factors eventually can be fixed in genome; more volatile factors trigger epigenetic mechanisms, etc.

Value and application of philosophy

It might look as if understanding of such apparently subtle things as philosophical ideas is not important. Who cares, how do we cognize this world as soon as we are successful? People who could say this are not aware that success they are talking about is founded on our behavioral patterns imbedded into our organisms by inheritance and learning through *practice*. Yes, many of these reactions, qualities, instincts are imbedded into our physiology, genome, etc, and many people go through their entire life relying solely on these natural abilities. However, finding optimal solutions of complex problems, let us say, finding a compromise solution for a group of people, or doing state governance, often requires not as much instincts (although instincts disappear nowhere and stay with us), but rather a well developed rational thinking and certain proven consciously applied methods

and approaches. In fact, philosophical thinking is useful at all levels, although, indeed, it brings greatest benefits for complex high level uncertain problems.

For instance, people often think in terms of *cycles*. There are certain physiological and psychological reasons for that, which we will not discuss. However, if people knew dialectics, they would not look for cycles, because *there are no cycles* in Nature, but *oscillations*. Sure, sometimes, oscillations may resemble cycles, but only resemble, while people are confident that they discover cycles and religiously stick to such findings. As a result, soon their cycling sequence is broken and they start looking for others, "correct" cycles. The thing is not as innocent as some may think, because a wrong mindset brings wrong results, which can be devastating. Examples are numerous and some awfully ruinous – recall gamblers, not to say about whole empires perished for the same reason. One can use knowledge about oscillation in the same way as many use Pythagorean triples to find a direct angle without being able to prove the theorem. Others can relate this inherent property of the world to many other properties and general laws, considering this phenomenon in the entirety and interrelationships of all meaningful factors, which will certainly give them an edge in understanding and more efficient application of this knowledge.

Once we know that there are no cycles in Nature, the next close conclusion would be that nothing is repeated exactly in the world, while, in everyday life, many people think that this is exactly what life is about – repetition. Such a mood and mindset is a sure way to miss many opportunities for which life is reasonably generous - for everybody. (By the way, the last statement about availability of opportunities is another inference form dialectical concepts, which we will not explore in order not to confuse unprepared readers.) More examples can be found in a more specific article "Validation of hypothesis by dialectical laws", which, as I was notified by an outgoing editor of a philosophical journal "Inquiry", passed reviews, but nonetheless was never published because of cuts of funds in crisis started in 2008. (As a side note, in 2007, it was fairly easy anticipating the incoming crisis of 2008 based on dialectical considerations, of which I wrote preparing the book "Science of inexact mathematics" for publication. Certainly, many people talked about incoming crisis; I just want to say that I did that based on dialectical concepts.)

The purpose of this article was to show readers that philosophy has a high value for humankind in *all* endeavors. Unfortunately, today, philosophy is not in a good shape; actually, far from that. There are many reasons for such a situation, many of which will most likely persist for a long time. Serious and proven philosophical teachings, and first of all dialectics, could tremendously benefit humankind. However, nobody is really interested in acquisition of this invaluable knowledge and its usage. Overall ignorance is probably the main reason, although certain fear of dialectics power, which proved its enormous potential in certain historical events of 20^{th} century, could contribute to such an attitude too. Unfortunately, its power was not always used in the interests of people. Well, it always like this with any power, which could serve for good and for bad, depending on which hands (and, in our case, minds) possess it. Could humankind solve its quickly accumulating problems without dialectics? Maybe by trial and error? Well, depends. If too many unsuccessful trials are made, no resources could be left over. Philosophy could save lots of resources, find and straighten ways to solutions and to overall progress. Think about it.