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Quantum Physics and Eastern Philosophy

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My topic is quite overwhelming. I should squeeze quantum physics and eastern philosophy, seen from the perspective of science and spirituality, into fifteen minutes.

Quantum physics has shown that the particle-mechanistic world view which was adopted at the turn of the modern era was limited. We need new ideas about the nature of reality and the relation of humans into it. It is possible that a fundamental paradigm change will bridge the distinctions between science and humanities and eastern and western thought.

Many physicists starting from big names like Bohr, Heisenberg and Schrödinger have seen parallels between quantum physics and the Eastern ideas. The eastern philosophies are not affected by the western science and its categories, but provide abundant variety of independent views into the universe. Especially the balance between material and spiritual aspects of existence and the role of humans are worth considering in our present situation. Philosophy in the east is not strictly divided from religion. It has been argued that it is a drawback, outdated view disproved by scientific progress but, without adhering to any specific dogma or faith, I do think that the underlying notion of spiritual growth should be taken seriously. Claiming our entire inner inheritance is paramount for the future of humankind.

Most of the history the world has been interpreted in a religious-mythical manner. The world was supposed to have a divine character until the scientific principles were laid down at the beginning of modern era, and man realized that that he lives in an empty space which is filled with material bodies in motion. Everything was in principle predictable and complex phenomena could be solved by reducing them to their simple parts.

The mechanistic world view was based on the idea of a detached objective observer and yet the physical laws were supposed to govern everything. Modern science does not fit into the Newtonian framework, but many people still believe that it is a scientific fact that humans themselves are nothing more than complicated mechanical devices. They think that one day science will give us completely physical explanation of why you move your hand or marry a given spouse. These disciples are brave enough to maintain that there is no basis or need for something like soul or spirit, even if it may not always be easy for to break away from the comforting old beliefs and traditions.

Starting from matter science has given us marvelous results and huge advance with its objective, third-person method. It is a great tool we can rely on but there are still profound open questions like man's relations to the universe, the composition of his mental faculties, self, identity or purpose.

These are important topics in eastern philosophies, which have not been clarified by science. We are living in the midst of a split between scientific and humanistic cultures, whose representatives often cannot understand each other. C.P. Snow already in 1959 stated, that the breakdown of communication between the "two cultures" of modern society — the sciences and the humanities, is a major hindrance to solving the world's problems. I think that healing this split is paramount for our future.

Scientifically orientated persons are right in believing that one day science may develop and find out mechanisms and connections we cannot even imagine yet, but still it is unwarranted to think that science might give us all the answers. It is a human enterprise. Science should not be seen as a God who is supposed to give us salvation. Blind faith is always dangerous. Sooner or later all the absolute and ready-made dogmas will fail. Even in science it is not always possible to discriminate between pure facts, interpretations and mere conventions based on tradition or opinions of majority. If someone claims that I am just a puppet whose behavior is dictated by external laws and circumstances, I take it as a dogma which deprives my own judgment. Authority of science is used to depress human dignity while it should be used to improve our life.

The appeal of eastern philosophies – as well as the great systems of Plato or Spinoza comes from the fact that they provide frameworks where the tension between the two cultures is solved. Humans are located into reality which is not just a mechanical system but contains rational, spiritual aspects. Quantum physics questioned the belief that nature can be investigated as a mechanical, predetermined object which is totally independent of human subject. Unexpected phenomenon like entanglement revealed that there is a new kind wholeness, an immediate intrinsic connection between local and global phenomena which is contributing to the formation of things.

When interpreting quantum mechanics many physicists were quick to notice that the new situation provided opportunities to transcend the cut between the two cultures, basically resulting from the Cartesian mind-matter dualism which has left its heavy mark on modern thinking. For example Wolfgang Pauli and David Bohm presented interpretations where the dichotomy was readily solved by postulating the basis of quantum reality to be something psychophysical. Niels Bohr with his complementarity turned into epistemology. He immersed human beings, with all their theories and seemingly contradictory descriptions, into nature and was thus led to problems encountered already by such ancient thinkers as Buddha and Laotse who were attempting to balance the position of both observers and actors in the great drama of existence.

Modern physics has certainly opened unexpected opportunities for profound metaphysical thought. When searching for appropriate presuppositions and starting points to understand the new phenomena, the holistic models presented in east and west in different times may be of help, but I think that even more important than to find out a credible ontological model is to realize, as Bohr did in his complementarity, that all the possible models and descriptions are limited. Primary reality, quantum field if you like, is beyond common logic, concepts, and subject-object distinction like the old sages in East always have taught. We can pick up different kinds of ideas, models and theories to understand better the phenomena we encounter in our inner or outer realities. These representations may be wide or specific, useful in proper situations and misleading in others, but

still none of these representations is a final truth. Further experience will improve our knowledge and understanding.

The old masters in the East urged for self-realization, individualization, growth of consciousness saying that we should wake up from the hypnosis of a conditioned life. Instead of adopting the opinions of greater or lesser authorities each of us should listen to the small voice inside, take the trouble to weight and value matters ourselves. We are not just bodies or complicated psychophysical mechanisms but conscious beings who are equipped with an own light within. The light may be fallible and liable to flicker (at first) but yet it is our sole basis to proceed, to find out the many different layers within. There are locked down belief systems, old wounds, dissociations and splits that prevent clear seeing. There are instinctive responses and divine characteristics that are embodied in us, and we are the masters who should orchestrate the proper use of all this. This ancient picture may be considered simple compared to the ingenious constructions revealed by science. Yet it is compelling in digging out our responsibility and human potential. The prescriptions of present science cannot guide us to any preferred direction. Knowing the mechanisms is not enough to use the tools given by science properly, for the benefit of all. If we are not equipped with a higher intellectual domain beyond logical thought which encompasses us with intuitive wisdom, judgment, alert sense of right and wrong, empathy, there is really no reason to call us *human* beings.

In recent times within the mechanical-deterministic paradigm of science it has been so safe and easy to argue against spirituality even if science actually does not prove for materialism. Modern physics does not fit into particle-mechanistic framework any more but rather favors an abstract mathematical basis which can be seen as a source for both material and mental states. Humans can thus be immersed into reality with all their inner qualities and capabilities. Instead of passive observers, they may be active participants, responsible, evolutive agents who make an effect onto reality. Our knowledge, beliefs and values are reflected on our acts, and they very much determine our future. Things are not pre-determined and the formation of our environment depends also on us. There is room, and urgent need, for the guidance that comes from the spirit and hearth.

The example of quantum mechanics shows that like individuals, the cultures may also mature by growing out their limits. The world-views fall and can be replaced with better ones. True progress means that one gets rid of constraints and limitations, whose very existence was not quite noticed before. We should not let the outdated world view to have us but understand that it is we who hold our ideas and world views. We are allowed to grow beyond given 'truths', old misconceptions. We could value human characteristics instead of material ones. As spirited, conscious beings we might be able to take care of social and environmental problems, rise above shortsighted egocentric interests – understand that the common good is our own.

The lesson that I have learned from quantum physics and Eastern meditative traditions is that science and spirituality, knowledge and intuitive wisdom are not contradictory. They are compatible aspects, tools that are available for conscious beings when searching their truth in reality.