

Limited but Limitless

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I. Introduction

It is generally believed that exploring nature and human themselves are helpful for the betterment of mankind and furthering social development. It is therefore unsurprising that STEM¹ subjects are gaining popularity in both developed and developing countries like U.S.A, China and India. While acknowledging such importance, in this essay, I purport to argue that the journey of exploration, rather than affirming human's superiority, has indeed revealed their limitations.

I would first establish two limitations shown in the journey, naming "Limitation on Mode of Thinking" and "Limitation on Knowledge", and then proceed to argue that the points in favor of the notion of superiority are without merits, or even illogical.

II. Limitation

i. Limitation on Mode of Thinking

Throughout the journey of exploration, human obviously seeks to

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identify a unified system of rules that run through the nature. The strong desire of laying down a principle that can explain everything on Earth has led human into two extremes.

At one extreme is human's blind pursuit of objectivism. Earliest in 380BC, human like Plato have argued that in order to "apprehend the 'essential reality', [one] must proceed 'through the discourse of reason unaided by any of the senses'" (Lindberg 15) because "senses are chains that tie us down". (14) Philosophers and scientists have since embraced the idea of objective reasoning and "set aside . . . characteristics peculiar to things as individuals". (15) However, while the role played by objectivism in philosophical reflection should not be denied, one must equally not lose sight of the fundamental nature of human and our purpose of exploring the nature. As Aristotle said, "many things cannot be understood without knowledge of purpose or function", (Lindberg 25) it is therefore necessary to take a step back and view the exploration holistically. In my view, the ultimate "final cause" of exploring the nature is not only to find out the truth of the world, but to discover the truth of the world *from the point of view of human*. Attaching weight to such purpose and noting that human is a sentimental species, a blind pursuit of objectivity in one's reasoning process which expels any subjective or emotional element inherent in human's mindset indeed runs counter against the nature of human and consequently the ultimate aim of exploration.² In other words, it dismantles man from their own self, and "separates man from Nature". (Needham 207) If "[a]fter all, physics as a science may be developed in a mathematical way

2 The focus here is subjectivity in the reasoning process instead of senses experiences. The difference is that one can always start by experiencing the world, and then analyze matters in an objective way. But this is not the same as engaging subjectivity to the analysis itself. It should also be noted that a reasoning which is not purely objective should not be equated with illogical.

but it always must rest on experience”, (Cohen 60) then to similar effect, it is submitted that the seeking of ultimate truth may be done by objective philosophical reasoning but it always must not eliminate human’s inherent subjectivity.

At the other extreme is the trap of subjectivism. Take the Chinese Five-Element Theory as an example, it “gradually came to be associated with every conceivable category of things in the universe that it was possible to classify in fives”. (Needham 203) As a result, it in fact led to situations where the reality does not sit well with the theory—as shown in the criticism by Wang Chhung. (Needham 204) Again, the strong desire to lay down a fixed rule led to the consequences that principles are being stretched too far, and applied subjectively and arbitrarily to circumstances which are not explainable using the current mode of analysis. It also produced absurdities because after all, “[e]ach of us experiences a world of private and unique sensations that is much more real to us than the experiences of others”. (Kandel 185) Thus, as a matter of science, the foundations of *chhi* and the following Two Fundamental Forces, Five-Element Theories are very shaky.

The exploration of nature and human themselves therefore revealed the fact that human, obsessed with seeking unnecessary unified and simplified governing rules, are by nature imperfect. They fall easily into the dichotomy of objectivism and subjectivism and trap themselves into one way of thinking and are unable to get out of the framework they set for themselves. If we draw an analogy here and see objectivism as *Yin* and subjectivism as *Yang*, the current state of human’s mode of thinking is that *Yin* and *Yang* are not in their “proper positions”, and consequently “quiet and peace” are not attained. (*Ta Tai Li Chi*; qtd. in Needham 206) Some people have been filled with *Yin* alone, others are having excessive *Yang*. There is simply a fragmentation between the objective and subjective

approach. People either attribute in an objective way that things happen because of external cause, or in a subjective way that things behave due to their “intrinsic natures”. (214) If “science cannot take on consciousness without a significant change in methodology”, (Nagel; qtd. in Kandel 186) then in my view human cannot take on nature without an escape from many of the dichotomies they themselves set. A dancer may dance not because of the governing steps, nor its intrinsic nature, she may dance because her intrinsic nature has internalized the governing steps in mind and dance the way she does naturally. Similarly, it may be that the *kung* note answers the other stringed instrument not merely by themselves, nor by the other instrument (Tung Chung-Shu; qtd. in Needham 215), but by the combination of subjective intrinsic nature with objective external cause which forms a neutral and natural response.

ii. Limitation on Knowledge

Human are not only limited in their mode of thinking, but they are also limited in knowledge in that they are not capable of understanding everything. Scientists like Poincaré argued that since facts are practically infinite in number (161), “selection should be made” because we cannot know them all. Therefore, they developed a hierarchy of facts and focused on recurring facts³ (162–163). The word “selection” seems to convey an idea that human plays an active role in the process. In reality, however, this is probably not the case. While the infinite number of facts is a cause for concern, in many situations human is just not capable of understanding facts which are not recurring. Rather than “select”, they simply have no choice but to concentrate on recurring facts.

3 i.e. which are simple facts at the first place. (163)

The most difficult unresolved question is the origin of life. Learned naturalists like Darwin proposed that all life come from a common ancestor and believed that “nature of affinities of all organic beings may be explained”. (Darwin 94) Notable biologists like Watson fixed down the double helix DNA structure and thought that “discovery of the double helix sounded the death knell for vitalism”. (141) But however smart they were, none of them was able to explain how human originate. Were we created by God? How was the common ancestor made? Who formulated the DNA?

Indeed, questions that puzzled human are not limited to those regarding origin of life. Even in the realm of recurring facts, there are many unanswered problems. With respect, when human scientists are not able to account for things happened, they simply twist the language to make them seem explainable. When Aristotle faced with the challenge of change—emergence of something out of nothing, he responded by just *supposing* there are three kinds of being and add “potential being” into “non-being” and “actual being”. (Lindberg 22) When the problem of delay between decision and awareness came into play, psychologists Richard Gregory and Vilayanur Ramachandran answered by alleging “our conscious mind may not have free will, but it does have free won’t”. (Kandel 194) If these twisting language games are not available, human then resort to imagination—pangenesism and performationism were best examples to illustrate the point at the time when experimental techniques and microscope were not well-developed. (Watson 100–101) If even imagination cannot resolve the problem, then using the argument as an evidence and resorting to the existence of God may well be their choice—Newton tried this when he faced with inertial motion of planet. (Cohen 61)

It may be that life is really just a matter of physics and chemistry. (Watson 141) The issue, however, is not about the conclusion. Throughout

the process of exploration, human has shown to the world that their knowledge is limited—there are many unsolved questions which they can only rely on language game, imagination, or resorting to unexplainable force to justify their provisional conclusions.

III. Superiority

i. Higher Understanding?

Of course, the above cannot conclude this essay. Being a relative concept, having some degree of limitations cannot exclude the notion that human is superior. Supporters of such notion would argue that human is the species who understand nature and their own self the most, and this ability is sufficient to affirm human's superiority because they are "better than other people or things of the same type". ("Superior", *Cambridge Dictionary*)

With respect, the argument is flawed in several aspects. First, supporters of such notion are too self-centered in that they view the world solely from human's position. If we adopt, indeed one must adopt, principles of natural selection and tree of life, then it is clear that human and other species came from one single common ancestor. More importantly, human and other species are on the same horizontal line. (Darwin 87–89) Thus, at least as a matter of biology, human is on the same footing as others and is not superior in itself. Second, the contention is based on human's own assumption that other species do not exhibit the same degree of understanding towards nature and themselves. But in a world where monkeys are shown to have morality, it is unjustified for one to hold such assumption. Third, a contextual reading of the question shows that the word "superiority" is used against nature, which includes but is not equated with other species. Thus, even if we assume human are superior to animals, it does not affirmatively answer

the question because superiority should be directed against the nature as a whole. If that contextual reading is correct, then such contention is also logically flawed because human, as part of the nature, can hardly exceed or exert control over its principle.

ii. Making Use of Nature?

One would then be left to the argument that human has affirmed its superiority because they are capable of making use of nature—human applies Newton rules to build amusement rides; human uses chemical and biological control to curb unwanted vegetation and solve the problems that nature beset them; (Carson 157) human even proposes Eugenics for “self-directed human evolution” and maintains the proportion of “superior middle classes”. (Watson 114)

However, these arguments are misleading. In none of the examples above was human “greater in . . . power”. (“Superior”, *Oxford Living Dictionaries*) In every single case, human, though playing around the rules, is still strictly governed by nature and in no way can they deviate from it—they are bound to follow the food chain and apply Argentine moth to weed as natural control but not *vice versa*; (Carson 158) they must abide by the “random” outcome and cannot guarantee the best gene is selected. Furthermore, human in fact shoulder the consequences of ecological imbalance and genetic disease that follow. The exercise of so called “power” over the nature is just a myth and cannot be elevated to a level of superiority.

IV. Conclusion

It is to be firmly borne in mind that without superiority does not mean we are inferior. It is also to be remembered that having limitations does not

mean we are powerless. The values of exploring the nature and knowing ourselves are not determined by asserting out greatness. Rather, it hinges on our confidence and belief that our dignity would continue to shine, despite any changes in our nature.

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Teacher’s comment:

Owing to the rapid growth of scientific advancement and technology in the past centuries, human beings seem to gain more power in controlling nature and manipulating other species. However, does this journey of exploring nature indeed affirm the superiority or reveal the limitation of human? In this essay, Kwong Hang attempted to argue that this journey revealed the limitation of human in terms of their mode of thinking as well as human’s limitation in knowing all facts exist in nature. On the other hand, common opinions on claiming human superiority are well rebutted. This essay is well structured and organized. He showed good understanding of the texts, which laid a solid foundation for making his arguments on this issue. (Cheung Hang Cheong Derek)