

## Exploration

# On Science & the Perception of Reality

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### Abstract

The present mainstream science tackles the problem of Consciousness by embracing the objective or third person perspective; hence, it fails in understanding many fundamental aspects of life. Further, knowledge gained from science is not absolute in the sense that it is based on a human-centric view. This brings us to the question of how to access absolute reality? In this article, we consider the subjective aspect associated with the objective phenomena and explore a possible new science of subjective experience.

**Keywords:** Reality, perception, subjective experience, objective science, evolution.

### Science of Subjective Experience

Every one of us experiences the beautiful and the mysterious ubiquitous phenomenon called life within us as a subject having first person perspective and as an object having third person prospect to happenings around us (Chalmers 1996, 2004; Velmans 2000, 2009; Zeman 2005; Reddy and Pereira 2016a, b, d). Taking subjective aspect of life as granted, we worry most of the time investigating the objective phenomena associated with the various constituents of life. For this purpose, we have adopted a method of reasoning and a system of empirical validation called 'Science' to understand life better and thereby evolve. Over the years, science has evolved to such an extent that it could try to explain and answer most of the phenomena and other mechanisms occurring at various levels over multiple scales. Even though modern science celebrates its success in explaining objective aspects of life, it fails in explaining or including the subjective aspect of its investigations (Chalmers 1996, 2002; Velmans 2000, 2009; Reddy and Pereira 2016a, b, c).

Recent studies in understanding the fundamental aspects of life and the nature of consciousness made it clear that we may need a different approach of science to accommodate the subjective experience of life (Chalmers 1996, 2002, 2004; Velmans 2000, 2009; Zeman 2005; Reddy and Pereira 2016d, e, f). The science of subjective experience would then be a new approach to science that goes with the level of perception of the subject. This way there would be no absolute science or no absolute reality to be perceived. Even though the objective science may look like an absolute one the inclusion of the subject or the subjective aspect of consciousness perturbs it. For a science to be complete, it should also worry about considering subjective aspect associated with the objective phenomenon of life (Chalmers 1996, 2002; Velmans 2000, 2009; Reddy and Pereira 2016b, c, e, f).

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## **Evolution of Perception in Different Biological Systems**

The various mechanisms that give us the experience of our own self (or self-existence) as well as the sense of the presence of others are called sensory faculties. They act as interface thereby giving the unique individual subjective and objective experiences. Without the presence of such faculties, an individual couldn't have distinguished self from others or surroundings. They are the only way we perceive reality and the extent to which we perceive in turn depends on the capabilities of these sensory agents (Hoffman and Prakash 2014; Pereira and Reddy 2016b, c, f).

From an evolutionary standpoint, each biological system (or species) develops certain specific sensory mechanisms to varying ranges of detection and different levels and scales of sensitivity depending on the requirement for its selective survival and the interaction with surroundings (Land and Nilsson 2002; Kendrick 2003; Peter et al 2004; Zeman 2005; Reddy 2016c, f). The basic sensory mechanisms needed for the survival and interactive purposes of the biological species may depend fundamentally on two sensory aspects, one that requires physical contact with the individual (like taste and touch) and the other is based on detecting remotely from either close or variable distances (like sight, smell, and hearing). Amusingly, in the process of adaptation, certain species developed superior biological abilities to humans to sense subtle cues from the surrounding environment that are accessible to humans only via the availability of artificial sensors (Land and Nilsson 2002; Kendrick 2003; Chen et al 2016). In this context, do we have any indication as to how human perception would have evolved from our primates? Do present human species have the same level of perception as that of the cave man, which case would need more survival strategies?

Recent studies show that different species not only perceive spatial reality differently but also show the varying rate of perception or temporal perception (Healy et al 2013; Reddy 2016c). The body mass and the metabolic activity rate determine how individuals of different biological species perceive time. Accordingly, species that perceive time at the finest resolution and at faster rate tend to be smaller and vice versa. For such a correlation between neural capacities and temporal perception could result from various environmental and ecological factors combined with other morphological factors in the process of adaptation and would ultimately decide the optimal temporal capability of sensory perception.

## **Perception of the Absolute Reality**

All phenomena around us that we observe and perceive depend on the level and the extent of perception we are given access to. For example, as we know, human perception of reality is limited by various sensory agents, whose spectra differ over an order of magnitudes from other biological systems. We perceive the Cosmos or the Universe around us only in the limited version that falls in the range of sensory spectra; visionary spectrum ranging from 400-700nm, auditory spectrum from 20 to 20,000 Hz, and others (Peter et al 2004; Hoffman and Prakash 2014; Reddy and Pereira 2016b, c). So, in this context, how true is our experience and perception of the world around us? Before looking to answer the question of experiencing the reality in its truest sense and entirety, we may have to bring in the concept of the absolute reality.

Is there an aspect of the absolute reality associated with each of the phenomena occurring in the Universe? If this is the case, then are we partaking the version of the Cosmos that fits in with our biological system? In this sense, what we observe and experience at our own level of perception could be just an epiphenomenal of the fundamental happening at another level. So, what it takes to perceive the absolute reality? Is there any reality which all the biological species would perceive in the same way independent of sensory perceptions? If there is no concept of the absolute reality and we define reality based on our level of perception and versions we are given access to, then how could science be an absolute one? Science is just an objective extension of our enquiring mind limited by our own observation and perception of reality. Present science is based on a human-centric view. This notion of science doesn't fit in well if we are trying to understand the fundamental theories of life, which we expect to be the absolute and Universal. Accordingly, our definition of phenomenal life becomes epiphenomenal at another level of perception.

Even though the present science have explanations as to how we perceive the world involving various biological and neurophysiological mechanisms, the location or space from where we perceive the world still looks mysterious and remain unanswered (Feinberg and Keenan 2005; Ananthaswamy 2015; Reddy 2016f). All the sensory agents, in general, could perceive a specific aspect of the world separately using various modalities. But how capturing such objective aspects could combine to create a unique subjective experience giving the first-hand experience of the self is a mystery to be understood in the science of consciousness. When we perceive this world, we are actually not aware of the functioning and identity of each and every part of the sensory organ, that's because these different organs create a universal or global feeling of the self or subject, which goes beyond the functional or objective aspect of the organs (Feinberg and Keenan 2005; Ananthaswamy 2015; Reddy 2016c, f).

Inspired by nature and other biological abilities shown by various species, we have developed different kinds of artificial sensors that would serve the same functional purpose. One has to note that even though we could objectively construct such devices, they lack the feeling of having experienced by a subject. This brings in the question of why do we need a subject and how is it constructed? In the above context, one can call a sensor to be a conscious device in some aspect because it is sensitive and aware of the surrounding environment, but what it lacks is the subject of such conscious activity and hence lacks in subjective experience (Chalmers 2004; Zeman 2005; Reddy and Pereira 2016b, c, f). This shows how different a biological system works from that of the artificial device qualitatively.

Suppose if we are given access to complete electromagnetic (EM) spectrum and to all probable sensory ranges then how the world would feel like from the subjective standpoint? Do we have the same subjective experience resulting from the perception of a flower in a park? Do pink rose appears pink and so on? One has to wait and see where evolution will lead us in this regard if we will be given access to more subtle fields and energies existing in reality in the process of evolution? It would be interesting to note if reality in itself will also evolve alongside the evolution of various biological species?

## Conclusion

The present mainstream science tackles the problem of Consciousness by embracing the objective or third person perspective; hence, it fails in understanding many fundamental aspects of life. Further, knowledge gained from science is not absolute in the sense that it is based on a human-centric view. This possibly brings in the question of absolute reality and if science will ever be able to explain the true reality from an objective standpoint? Thus, we may need a different approach in which science is subject-centric rather than object-centric.

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