



# Experimental Methodology in Consciousness Research

Amrit Sorli\*, Steve Kaufman\*

## ABSTRACT

Consciousness research of the last few decades approaches consciousness using classical research methodology, namely, as if consciousness was an object similar to quantum fields or elementary particles. This approach is not able to grasp the subjective aspect of consciousness, namely, one has the ability to observe, to be conscious of how one's mind is creating a scientific model of consciousness. Experiential methodology, on the other hand, focuses on the subject which is observing the mind working on the model of consciousness. It allows you to experience the source of the observation, which seems is consciousness itself. Consciousness research requires the enlargement of scientific research methodology in which experience has the same scientific validity as the measurement. We cannot directly measure the experience of the source of our observation, however, we can experience it and our experience is real. Conceiving a subjective experience as "non-scientific" is the main obstacle of today's science because it is excluding "the observer - the one who has the experience" out of the scientific picture of the world. The aim of this article is to include human experience as data whose value is of the same ontological importance as data obtained by measurement.

**Key Words:** Conscious Observer, Scientific Methodology, Consciousness

**DOI Number:** 10.14704/nq.2018.16.3.1132

**NeuroQuantology 2018; 16(3):7-11**

7

## Introduction

Science of the 20<sup>th</sup> century considers the scientific picture of the world to be "objective" and so something that is real. Recent epistemological research shows that the scientific picture of the world is only "rational"; therefore, one cannot claim that it is "real" (Magershwaran *et al.*, 2016). In science, we experience the world through scientific models which are rational pictures of the world produced by the scientific human mind.

In the "scientific model" of today's science, only phenomena that can be measured are entered into that model. As a result, certain individual human experiences that cannot be measured are described as "non-scientific" only because they are outside of the grasp of today's

scientific methodology. This fact poses a serious cognitive and ethical problem in today's science, as it will be stressed in this article.

## Methods

The observer is at the core of today's physics. It is widely accepted that the observation of a given superposition favours the superposition to manifest in the physical world. Less known, but not of less importance, is that it is the observation that gives the duration to the observed motion in space. Without the observation, there is no duration (Fiscaletti and Sorli, 2015a). We cannot measure these crucial impacts of the observer on scientific methodology; however, we cannot deny

**Corresponding author:** Amrit Sorli

**Address:** Foundations of Physics Institute\*- FOPI, Slovenia

**e-mail** □ sorli.amrit@gmail.com

**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Received:** 05 October 2017; **Accepted:** 2 January 2018



their existence. At this point, it is important to discover the origin of the observer, i.e., the ultimate source of one's ability to make an observation. The search for the origin of the observer cannot be carried out by classical scientific methods. Therefore, we will employ the observer's capability to observe, "watch," or "witness" different layers of reality as a means of searching for the ultimate source of one's ability to make an observation. The observer is able to witness physical reality and is able to witness the models of physical reality that have been built by his scientific mind. He can witness the space in which physical objects exist, and he can witness the space in which mental objects exist. Whether or not the outer and inner spaces are the same space remains an open question, and is not the subject of this article. What is important is that the observer is able to observe both of the spaces; this means that the observer must have a higher ontological status than both the inner and outer spaces. The observer and the source of observation are beyond the space.

The research methodology used to discover the origin of the observer is as follows:

1. One watches and becomes conscious of the physical environment in which one is at the moment.
2. One watches and becomes conscious of the space in which physical objects reside.
3. One closes one's eyes, witnesses, and becomes conscious of mental objects.
4. One witnesses and becomes conscious of the space in which the mental objects reside.
5. One realizes, and so experiences, that all of this is being observed and known by consciousness, which is not an object, but is the witnessing subject.

Experiential methodology is based exclusively on one's perception; there is no theory behind it. You cannot measure the act of observation. However, this does not mean that the act of observation is "non-scientific." Observing is the core of science, and this has to be fully acknowledged. By practising this methodology regularly, one is able to discover that consciousness is beyond both the outer space in which physical phenomena exist, as well as the inner space in which mental

phenomena exist. In the discussion section, we will place the direct experience of consciousness into the model of Advanced Relativity, while remaining aware that the model is not itself that experience, but only points toward it.

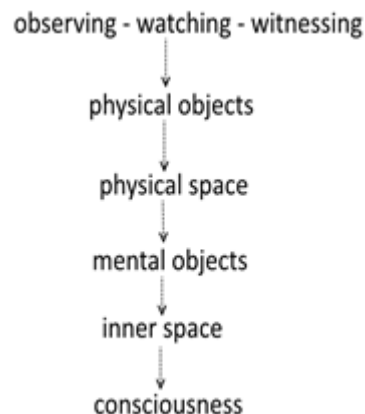


Figure 1. Experiential methodology used to determine origin of the observer

## Discussion

By accepting that the direct experience of the observer is of the same importance as the measurement, scientific methodology is enlarged and able to embrace the entire existence. The observer who is conscious that his scientific observation happens through his rational scientific mind's picture of the world has a huge potential to develop a scientific picture of the world which will increase in its adequacy.

On the other hand, by continuing to insist that the subjective and so non-objective peg of consciousness be jammed into the objective hole of today's science, in order to fit consciousness into a model that is acceptable to today's science, modern day science continues to try to force consciousness to be something that it just is not and can never be, i.e., something that can be measured and known as an object.

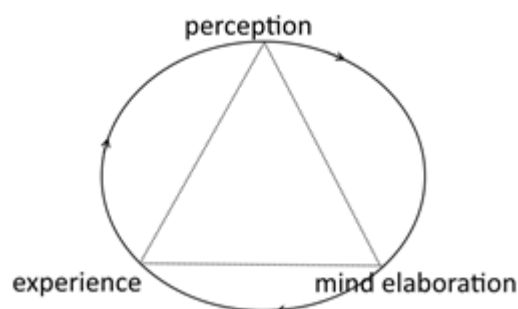


Figure 2. The epistemology triangle of the conscious observer

The conscious observer is aware that the model of linear time “past-present-future” is only a psychological time through which the common observer experiences a stream of changes which run in space. The conscious observer is aware that the “space-time” model has no counterpart in physical reality. The hundred year-old convictions that time are the 4<sup>th</sup> dimension of space has ended (Fiscaletti and Sorli, 2015b).

In space it is always NOW; the time we measure with clocks is merely a numerical order of material changes, i.e. motion in space. This view of time is the basis for the renaissance of the cosmology and evolution of life which are running in the NOW and is Einstein’s fulfilled vision of time expressed in the famous quote: “...there is something essential about the NOW which is just outside the realm of science. People like us, who believe in physics, know that the distinction between the past, present, and future is only a stubbornly persistent illusion. Time has no independent existence apart from the order of the events by which we measure it.” The old view, namely, that the universe and life evolve in some physical time is wrong and should be replaced with the view which fully corresponds to the scientific perception: events run in space only and time when their duration is measured (Sorli, 2017a).

For example, today’s scientific models of consciousness are placed in the theoretical frame of space-time, where time is considered to be a physical quantity. The Hameroff-Penrose model, for example, is consider consciousness to consists of discrete events: “Thus, we may argue that consciousness consists of discrete events at varying frequencies occurring across regions of the brain, for example 40 conscious moments per second, synchronized among the neurons in the frontal and parietal cortex. What are these conscious moments?” (Hameroff and Penrose, 2014). On the other hand, in the Advanced Relativity (AR) model, which was developed through experiential methodology, taking into account both the subject and the objects, consciousness is not an event that has any duration. Rather, consciousness is a fundamental n-dimensional Hilbert space in which the mind exists (described with lower dimensional Hilbert spaces), and in which 3D physical objects also exist (Sorli *et al.*, 2017b). When an observer is using a clock in order to

measure the numerical order of events running in consciousness, time appears as the duration of events. This insight into the real nature of time is the first rational step towards experiential consciousness research. As a result, the AR model has a clear answer to the Hameroff-Penrose question: “What are these conscious moments?” These conscious moments are the experience of an observer that is still locked in the concept of linear time, i.e., past-present-future, which concept is nothing more than his mind’s own creation. For the conscious observer, i.e., for the observer who is able to experience consciousness, no event has an inherent duration, because all events are known to run in consciousness, where it is always and only NOW. For such an observer, the duration is seen as the result of the observer’s measurement.

The experiential methodology also provides a solution for Chalmers “Hard problem of consciousness”: “The really hard problem of consciousness is the problem of experience. When we think and perceive, there is a whirl of information-processing, but there is also a subjective aspect” (Chalmers., 1995). The subjective aspect of the experience is resolved by knowing what it is that is actually having the experience, which is always consciousness. We cannot reach into the core of the experience by using the classical scientific tool of measurement. By adding the direct experience of consciousness as a valid scientific tool, the hard problem of consciousness is resolved. In “brain-mind-consciousness” research we can continue measuring and mapping the brain with an encephalogram and searching for the relationship between the encephalogram maps and higher cognitive processes. However, by including experiential methodology we will also be able to see clearly how the brain, mind, and consciousness are related:

measuring + experience of consciousness = science of consciousness.

In consciousness research we need to take in account that scientific apparatus are, and will probably remain 3D and so will never be able to measure mind and consciousness, which are both multidimensional and non-physical. The rapid development of computers in the last decade seems to offer the promise of the development of “artificial intelligence,”



which is the wrong term. A 3D apparatus can only develop “logical thinking,” which is far below “intelligence.” Intelligence is the result of cognitive activity of the mind in higher dimensional Hilbert spaces. One could say that intelligence is logic that is inspired by consciousness:

logic + consciousness = intelligence

Consciousness is, and will remain, the domain of living organisms. Without fully recognizing this fact, the entropy of human society (violence, poverty, tensions between different nations, religions and cultures) will inevitably increase. Technology is not the solution for today’s world. The solution is in the introduction of the experiential methodology in the worldwide educational system to teach that the origin of the observer, i.e., the ultimate source of one’s ability to make an observation, is consciousness. On the surface we have different social backgrounds, different cultures and religions, but deep inside we are all one consciousness. By deepening in consciousness, peace grows within. The peace between humans can only have as its basis the inner peace of each individual. We cannot “fight” for peace; we can only merge into the peace that is consciousness.

An observer’s deepening experience of consciousness leads into a non-dual experience. Consciousness is beyond the duality of “observer” and “observed”. In Advanced Relativity, consciousness is the unified field in which the entire physical and mental universe exists. A conscious observer that has fully merged into consciousness experiences mental and physical objects as one with his or her self. The big gap between “me” and the “world,” which gap is a primary characteristic of the rational scientific experience, turns into a deep relationship of oneness. This oneness is known to all who have attained a non-dual experience. In Buddhism this is called “Shunyata”, in Hinduism “Brahma”, in Taoism “Tao.” Each culture has its own tradition of merging into consciousness. Science does not yet understand non-dual experience because of its narrow methodology based exclusively on measurement. On the other hand, Advanced Relativity represents a model of reality where non-dual experience is included, and is a most valuable and noble scientific achievement. Albert Einstein used to

call this non-dual experience the “mysterious”. His famous quote goes like this: “The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. He to whom the emotion is a stranger, who can no longer pause to wonder and stand wrapped in awe, is as good as dead his eyes are closed. The insight into the mystery of life, coupled though it be with fear, has also given rise to religion. To know what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty, which our dull faculties can only comprehend in their most primitive forms this knowledge, this feeling is at the centre of true religiousness.” (Howard W. Eves.,1977).

From the ontological point of view, non-dual experience is possible, because the mental and physical worlds are different structures of consciousness. In many spiritual traditions, consciousness is the “stuff” out of which the mental and physical worlds are made. In those traditions, every mental or physical form exists in consciousness, and is made out of it. This is also the view of the “Unified Reality Theory” model, in which model the universe is described as being composed of consciousness that is evolving through a process of iterative and progressive self-relation, and in so doing creating both physical and mental experience, while at the same time becoming increasingly conscious of itself (Kaufman S., 2002). Advanced Relativity (AR) is familiar with this view: consciousness is a photon with an infinite frequency and exists in n-dimensional Hilbert space. By lowering the frequency in lower dimensional Hilbert spaces, this “photon-consciousness” becomes mind and finally, in 3D reality, it becomes matter (Sorli *et al.*, 2016). Matter has an inherent tendency to develop into life, and to develop further into intelligent organisms, throughout the entire universe, because matter exists in consciousness (Sorli *et al.*, 2017c).

It makes sense to search for an adequate scientific model of consciousness, while at the same time it is important to know that any such model is limited, because consciousness is, from the ontological perspective, higher than the mind. The mind can only build a model of consciousness to show the path, while walking that path to arrive at the experience of consciousness involves individual research, and in walking



that path experiential methodology is an indispensable tool.

### Conclusion

Today's science of consciousness needs a new paradigm built primarily on human perception and experience, and secondarily on scientific models of consciousness. The very nature of consciousness is subjective, which is why subjective experience is the most relevant result. With the introduction of experiential methodology as a valid scientific tool, science will be able to expand its area of research, which expansion is essential for the development of science, as well as for the good of humanity and all life on the planet.

### References

- Chalmers DJ. Facing up to the problem of consciousness. *Journal of Consciousness Studies* 1995; 2(3):200-19.
- Eves HW. In *Mathematical Circles*. Volume 2. Prindle, Boston: Weber & Schmidt, 1969.
- Fiscaletti D, Sorli A. Bijective epistemology and space-time. *Foundations of Science* 2015b; 20(4): 387-98.
- Fiscaletti D, Sorli A. Perspectives of the numerical order of material changes in timeless approaches in physics. *Foundations of Physics* 2015a; 45(2):105-33.
- Hameroff S, Penrose R. Consciousness in the universe: A review of the 'Orch OR' theory. *Physics of Life Reviews* 2014;11(1):39-78.
- Kaufman S. *Unified reality theory: the evolution of existence into experience*, Destiny Toad Press, 2002.
- Mageshwaran M, Sorli A, Fiscaletti D. The Foundations of the Epistemology and the Methodology of Physics. *American Journal of Modern Physics*. Special Issue: Insufficiency of the Big Bang Cosmology 2016; 5(4-1):27-33.
- Sorli A, Dobnikar U, Fiscaletti D, Kaufman S. Advanced Relativity for the Renaissance of Cosmology and Evolution of Life. *NeuroQuantology* 2017b;15(4):37-44.
- Sorli A, Dobnikar U, Fiscaletti D, Koroli V. Advanced relativity: multidimensionality of consciousness and mind, origin of life, psi phenomena. *NeuroQuantology* 2017c; 15(2):109-17.
- Sorli A, Fiscaletti D, Mageshwaran M. Advanced Relativity: Unification of Space, Matter and Consciousness. *NeuroQuantology* 2016;14(4):645-56.
- Sorli A. *Advanced Relativity: Bijective Physics*, Amazon, 2017a.

