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## COMMENTARY

# Science That Swears by Objectivity Is Half-Blind

Vijayaraghavan Padmanabhan<sup>1</sup><sup>1</sup> ESIC Medical College & Hospital**Funding:** No specific funding was received for this work.**Potential competing interests:** No potential competing interests to declare.

## Abstract

Whatever is deemed to be objective, is in the final analysis, the subjective opinion of an individual. Thus science, by its very origin, has a subjective element. Common sense allows a balanced approach, where objectivity and subjectivity are treated equally without any bias. Even mathematical equations that appear objective, have a subjective element, the classic example being the equations of quantum mechanics. Focusing within the boundaries formed by objectivity, subjectivity and common sense can be the basis for a methodology that allows intuition and creativity to express themselves. There are enough reasons to consider objectivity and subjectivity on an even scale. Great scientific discoveries have been made based on intuition (which is subjective), that has been further pursued with objectivity and common sense.

**Vijayaraghavan Padmanabhan***ESIC Medical College & Hospital, Chennai 600078, India**Thodi – Wing1 B2, Ragamalika Apts, Thiruvengadam St, Chennai 600028**Email: [drvpm@gmail.com](mailto:drvpm@gmail.com)***Keywords:** objectivity, subjectivity, common sense, intuition.

## Introduction

Objective and subjective are terms used to either accept or reject ideas in scientific literature. But on scrutiny, such usage seems to be based on certain questionable assumptions.

## No objectivity without an element of subjectivity

It is widely understood that science is knowledge that is based on a systematic and objective study of the natural world. However, such a study is conducted by the human being, who is a combination of objectivity and subjectivity. Whatever is deemed to be objective, is in the final analysis, the subjective opinion of an individual. Thus, there can be no objectivity without an element of subjectivity.

## The role of common sense

Thus science, by its very origin, has a subjective element. Though its boundaries are not clearly defined, science has proved to be immensely useful to mankind and has been the basis of great technological progress. This has been possible because the human being is endowed with a third quality, which is common sense. Common sense allows a balanced approach, where objectivity and subjectivity are treated equally without any bias. Without common sense, scientists can lose touch with reality and end up building castles in the air. Objectivity is the engine of science but subjectivity is the rail on which it runs.

Thus objectivity, subjectivity and common sense need to be viewed as means for grasping the truth, with each by itself throwing some light on the hitherto unrevealed truth. The three together form the basis of an unseen natural methodology that helps to reveal truth.

## Too much of objectivity can stall meaningful progress

The tendency to become too objective is the bane of science. It can stall meaningful progress and makes the scientist and science to go around in circles. Usually, any new discovery in science is considered 'scientific' only if it can be shown to be true in the form of some mathematical equation. But the subtle point here is that even mathematical equations that appear objective, have a subjective element.

The classic example is the case of quantum mechanics (which is about indeterminism in physical laws). It is well known among physicists that the equations of quantum mechanics 'work', but all agree that it is not known 'how they work'. There is general conclusion that it is not necessary to understand 'how they work', but nevertheless it makes sense to use the equations since they actually 'work' in the real world. <sup>[1]</sup>

## Objective evidence and subjective experience

There is another aspect of science that is less well known. It has become an established norm that any scientific conclusion needs to be supported by 'objective' evidence. Something is accepted as objective if several people subjectively agree that it is 'objective'. However, a rational conclusion perceived internally within one's subjective 'experience' and supported by several people who agree with a similar 'experience', is dismissed as being 'merely subjective'.

## Focusing within the three sides of objectivity, subjectivity and common sense

It is clear that overemphasis on subjectivity can lead to dilution of objectivity in scientific studies. However, scientific studies still make sense when the focus is within the boundaries formed by objectivity, subjectivity and common sense. Such an approach can be the basis of a practical methodology that allows intuition and creativity to express themselves. Equanimity will ensure this focus, with no place given for excessive tilt towards any one side.

## Conclusion

There are enough reasons to consider objectivity and subjectivity on an even scale.<sup>[2]</sup> Scientists who swear by objectivity and reject subjectivity do a great disservice to the progress of the 'search for truth in the natural world' if that is what science is about. Albert Einstein has famously said that 'imagination is more important than knowledge'.<sup>[3]</sup> Great scientific discoveries have been made based on intuition (which is subjective), that has been further pursued with objectivity and common sense. To swear by objectivity can be a personal choice but science cannot remain half-blind for that reason.

## References

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