

# Review of: "Occupation from a perspective of complementarity - Part 1 - Background to the development of a concept"

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The authors strike at a core question in scientific research: What is the position of the observer relative to the phenomenon under study? In other words, what is the nature of the relationship between the observer and the observed? The language used to describe their analysis of the question uses terms like "I and Thou" and "subject and object". In complementarity, the central concept in the paper, these dualities correspond to the "we" and "subject-object entanglements," respectively. The authors encourage the reader/scientist to think about social relationships and dialog in the context of intersubjectivity, which in my mind should be seriously perused in science as researchers are not outside, neutral observers with a God's eye (view) for understanding objects of study.

The authors examine what is a phenomenon from classic physics, employing the example of an electron being a particle and a wave at the same time, or to simultaneously possess properties and behaviors of each. They explore this physical fact through the concept of complementarity and argue the project of occupational science can be improved and expanded by applying complementarity. I wholeheartedly agree with their position and suggest that complementarity has something of value to offer the entirety of the social sciences and most likely all of science.

The paper is part of a series of papers, some of which are under construction now, so the reader is encouraged to review the works that have preceded this paper and look ahead to Part Two of this argument to get the full picture. I found the piece to be well written and to flow in a pattern that makes for easy reading. The authors use language that is easily understood by the entire scientific community above and beyond experts in philosophy and the philosophy of science.

I believe the paper would benefit from more detail and depth into what occupational science entails and hopes to accomplish and where the concept of complementarity would best fit into the overall project of occupational science.

The arguments presented here and in future works stemming from this position have implications for better understanding power relations and knowledge production and privilege in science and practice that purports to rely on science. I encourage the authors to explore the linkages between their thinking and writing on complementarity and three related areas of study in the social sciences: 1) Does complementarity exist and function the same way in collectivist and individualistic cultures and societies? 2) How does the concept of complementarity link with Gadamer's fusion of horizons? 3) What are the implications of complementarity for the project of co-production of knowledge?

In particular, can complementarity be applied or realized in a way that facilitates and improves co-stewardship of our global environment? For example, what does complementarity have to offer Indigenous scientists/knowledge holders and conventional western scientists as they attempt to work together to better manage environmental resources?

Scientists and practitioners of science are in occupations centered around objects, knowledge, and relationships. I encourage the authors to examine and demonstrate how complementarity may be applied to recruit, train, and ethically influence the next generation of scientists and practitioners. I look forward to reading Part Two.