

The Sociology of Expectations in Science and Technology

Matthew Greenhawt

Department of Medicine, Weill Cornell Medicine, New York, USA

***Corresponding author:** Matthew Greenhawt, Department of Medicine, Weill Cornell Medicine, New York, USA, E-mail: greenhawtmattthew@gmail.com

Citation: Greenhawt M (2021) The Sociology of Expectations in Science and Technology. J Clin Immunol Allergy Vol.7 No.3:e238.

Received date: June 09, 2021; **Accepted date:** June 23, 2021; **Published date:** June 30, 2021

Introduction

In recent years a growing number of social science studies have pointed out the significance of expectations in science and technology innovation. This special issue of Technology Analysis and Strategic Management brings together authors whose interest has been concerned with exploring a range of questions about the role of expectations in shaping scientific and technological change. Its contributors reflect ongoing scholarship from within a range of perspectives including sociology of technology and science, history, economics and innovation studies. Given that such expectations have been a source of acute interest of late in areas as broad as the biosciences, nanotechnology and energy, this special issue is both timely and important in drawing these strands together, articulating some of the lessons learnt thus far, and defining future areas of investigation. By definition, innovation in contemporary science and technology is an intensely future-oriented business with an emphasis on the creation of new opportunities and capabilities. Novel technologies and fundamental changes in scientific principle do not substantively pre-exist themselves, except and only in terms of the imaginings, expectations and visions that have shaped their potential. As such, future-oriented abstractions are among the most important objects of enquiry for scholars and analysts of innovation. Such expectations can be seen to be fundamentally 'generative', they guide activities, provide structure and legitimation, attract interest and foster investment. They give definition to roles, clarify duties, offer some shared shape of what to expect and how to prepare for opportunities and risks. Visions drive technical and scientific activity, warranting the production of measurements, calculations, material tests, pilot projects and models. As such, very little in innovation can work in isolation from a highly dynamic and variegated body of future-oriented understandings about the future.

To conclude, a systematic comparison of the differences in dynamics in various fields is an important next step in the study of expectations. To what extent might we be able to identify recurrent patterns in the dynamics of expectations? What lessons might be learnt from a comparison of sector specific insights? What contribution will retrospective case studies make to such an analysis and to what extent are their insights comparable? How do these studies fit within comment and discussion on the wider context of the political economy of expectations? While the papers brought together in this issue go some way towards responding to these kinds of questions, much remains to be done in furthering our understanding of these dynamics and their place in the temporal and spatial organization of innovation.

Over the last couple of decades any number of techniques, instruments and practices has evolved to articulate and assess expectations in science and technology (technology forecasting and assessment, backcasting, roadmapping, scenarios methods, foresight, etc.). Each in their different way have sought to provide some form of anticipatory competence through which it might become possible to make more strategically prudent decisions about the future. The papers brought together in this issue offer a slightly different perspective by offering observations about the less strategic and formalized way in which futures and expectations are enacted and performed. This distinction was once referred to as the difference between looking into the future and looking at the future. Probably the most important next step for analysts of expectations is to bring these two dimensions together in a more reflexive attempt to understand the contribution of their findings for the future underway in the present. That is to integrate analysis and practice by merging the perspectives of looking into and looking at the future. It is just possible that the papers in this issue may harbor some nascent suggestions on how that might be achieved.