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978-1-107-68828-5 - The Golem at Large: What You Should Know About Technology

Harry Collins and Trevor Pinch

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FOR
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AND TO THE MEMORY OF
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PREFACE AND ACKNOWLEDGEMENTS

With the exception of most of Chapter 1 and the whole of Chapter 3, the substantive parts of this book are largely expositions of others' work; in this we follow the pattern of the first volume in the Golem series. The full bibliographic references to the works discussed both in this Preface and the other chapters, as well as additional reading, will be found in the Bibliography at the end of the volume.

As for the substantive chapters, Chapter 1 is Collins's redescription of the argument over the success of the Patriot missile. It is heavily based on the record of a Congressional hearing that took place in April 1992, and on two papers written by principal disputants, Theodore Postol and Robert Stein; it also draws on wider reading. Though this chapter is not a direct exposition of anyone else's argument, and though it uses a new analytic framework turning on different definitions of success, it must be made clear that the account was made possible only because of Postol's prior work. Also, Postol was extremely generous in supplying Collins with much of the relevant material and drawing his attention to more. Collins has tried to make sure that the account is not unduly influenced by Postol's views and that the material on which it draws represents the field in a fair way. It will be noted that the chapter does not repeat Postol's expressed position – that no Scud warheads, or almost no Scud warheads, were destroyed by Patriot missiles – but stresses the difficulty

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of reaching any firm conclusion while keeping open the strong possibility that Postol is right.

Chapter 2 is based on parts of Diane Vaughan's book, *The Challenger Launch Decision: Risky Technology, Culture and Deviance at NASA*. In the context of earlier work, Pinch had previously read McConnell's book, *Challenger: 'A Major Malfunction', Report of the Presidential Commission on the Space Shuttle Challenger Accident* and Gieryn and Figert's article, 'Ingredients for a Theory of Science in Society'. An earlier article by Pinch on this topic can be found in the Bibliography, but Vaughan's meticulous research provides a detailed historical ethnography of the events leading up to the *Challenger* launch decision and leads to a new interpretation of them.

Chapter 3 is an exposition and simplification of one of Collins's own papers, 'Public Experiments and Displays of Virtuosity: The Core-Set Revisited' which is referred to in the Bibliography.

Chapter 4 is based on Simon Cole's article, 'Which Came First, the Fossil or the Fuel?' This article was originally prepared as a term paper for a course taught by Pinch at Cornell University. Pinch also has access to an unpublished article by Cole on the Gold affair. We thank Bill Travers and Bill Travers Jr. for reading an earlier draft of the chapter.

The substantive part of Chapter 5, 'Tidings of Comfort and Joy?', is based on Collins's reading of Robert Evans's paper 'Soothsaying or Science: Falsification, Uncertainty and Social Change in Macroeconomic Modelling'. Each quotation is taken from Evans's discussions with economists. Collins was also able to take advantage of a great deal of discussion with Evans who was a

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doctoral student at the University of Bath between 1992 and 1995, working under his supervision. The ‘Soothsaying or Science’ paper is based on this PhD, which is referred to in the Bibliography.

It should not be thought that all economists are unaware of the problems and ironies of their own discipline as the books by Ormerod and Wallis reveal. The Reports of the British Government’s ‘Panel of Independent Forecasters’ (The Seven Wise Men) for February 1993 and February 1994 were also an important source of information for the chapter. Collins also used ideas from his own ‘The Meaning of Replication and the Science of Economics’.

It should be noted that the ‘Discussion’ and ‘Postscript’ sections of Chapter 5, which include some speculations, are essentially the responsibility of the authors of this volume though most of the sceptical quotations are taken from economists.

For Chapter 6, Pinch used several articles by Brian Wynne on the effect of Chernobyl radiation on Cumbrian sheepfarmers. These articles are referred to in the Bibliography.

Chapter 7 is based upon Pinch’s reading of Steven Epstein’s book *Impure Science: AIDS, Activism and the Politics of Knowledge* and an article, ‘The Construction of Lay Expertise’.

In the case of all chapters, both Pinch and Collins read and reworked the drafts and take joint responsibility for the results.

We are extremely grateful for the generosity and the efforts of the authors of the works on which we have based our accounts. In every case they were unstinting with their

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time and effort and, by reading our versions of their work, helped us make sure that we did not stray too far from their intentions. Wiebe Bijker and Knut Sorensen read and advised on the Introduction and the Conclusion. We thank Park Doing for suggesting the words ‘at Large’ in our title. That said, the final responsibility for mistakes in exposition, infelicities of style, and errors of judgement or analysis, remains our own.