Creating Scientific Controversies

For decades, cigarette companies helped to promote the impression that there was no scientific consensus concerning the safety of their product. The appearance of controversy, however, was misleading, designed to confuse the public and to protect industry interests. Created scientific controversies emerge when expert communities are in broad agreement but the public perception is one of profound scientific uncertainty and doubt. In the first book-length analysis of the concept of a created scientific controversy, David Harker explores issues including climate change, Creation science, the anti-vaccine movement and genetically modified crops. Drawing on work in cognitive psychology, social epistemology, critical thinking and philosophy of science, he shows readers how to better understand, evaluate and respond to the appearance of scientific controversy. His book will be a valuable resource for students of philosophy of science, environmental and health sciences, and social and natural sciences.

David Harker is Associate Professor of Philosophy at East Tennessee State University. He has published articles in journals including *British Journal for the Philosophy of Science, Philosophical Studies* and *Studies in History and Philosophy of Science*.

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Uncertainty and Bias in Science and Society

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For Harry and Isla, in the hopes that someday they might choose to read it, and then review it favourably

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Preface

For several years I have enjoyed teaching an introductory college course that explored many of the issues discussed in this book. My thanks go out to all those students who have helped me think through these issues, who have challenged me to find better ways of explaining the material, and who have helped me see which aspects were of greater or lesser relevance. Several friends and colleagues were extremely generous with their time and talents, reading through large sections of the book, and providing wonderful feedback that greatly improved the book. Thanks in particular to Bob Schroer, Justin Sytsma, Matt Lund, Dave Hilbert, Nick Huggett and Bob Fischer. Parts of the book were presented to audiences in Durham, Leeds and Bristol. I am very grateful to those who made these events possible, and to those who attended and offered helpful questions and discussion. An anonymous referee from Cambridge University Press made several excellent suggestions that I'm sure have made the book better. My editors, Hilary Gaskin and Rosemary Crawley, were incredibly helpful with the book's preparation, for which I am very grateful. My thanks are also owed to the College of Arts and Science at East Tennessee State University, for awarding me a Summer Research Fellowship in 2014, which helped in the final stages of writing. My sister and parents have always provided enormous encouragement and support. There are many reasons why this book wouldn't have been written if it wasn't for them. Finally, my wife is a perennial source of inspiration and optimism. With respect to this project she was always willing to offer support, advice and reassurance. For the many ways she enriches my life I am indebted.