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978-0-521-27430-2 - Opening Pandora's Box: A Sociological Analysis of Scientists' Discourse  
G. Nigel Gilbert and Michael Mulkey

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**OPENING PANDORA'S BOX**

A sociological analysis of scientists' discourse

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The physicist Leo Szilard once announced to his friend Hans Bethe that he was thinking of keeping a diary: 'I don't intend to publish it; I am merely going to record the facts for the information of God.' 'Don't you think God knows the facts?' Bethe asked. 'Yes', said Szilard. 'He knows the facts, but he does not know *this version of the facts*.'

Freeman Dyson, *Disturbing the Universe* (Preface)

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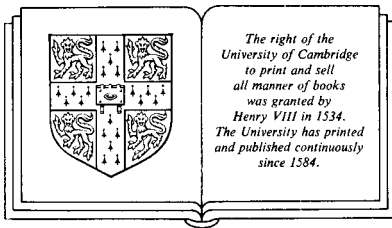
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## Preface

The research reported in this book was conceived when a scientist friend showed us a copy of a letter written by a biochemist which seemed to indicate by its tone that there was a raging and, so we thought, sociologically interesting controversy going on in an area of biochemistry called 'oxidative phosphorylation'. Like other sociologists of science, and like our scientist friend, we assumed that part of the job of the sociologist was to strip away the formal side of science, and show what was *really* going on; an area of lively debate would, we thought, be an excellent site for such investigations.

The Social Science Research Council agreed with us, and funded a three-year research programme (HR5923) which took us around Britain and across the United States to visit and talk with the scientists who were working on oxidative phosphorylation and related topics. As we travelled, in train compartments and airport departure lounges, and especially in Howard Johnson motel rooms, we discussed together what we were hearing, and realised that although we were being given quite different accounts of what 'really was happening' by different interviewees, they *all* seemed to be plausible and, indeed, convincing. It gradually became clear that we needed to employ rather different methodological assumptions and forms of analysis from those that we had been used to in order to make any sociological sense of these data. We had to learn how to deal with variability in our accounts, in a way that recognised that the variability was not just a methodological nuisance, but was an intrinsic feature which we needed to exploit in our analyses. 'Pandora's Box' is our metaphor for the conflicting voices that spoke to us. We shall show that, nevertheless, we have been able to find order in their diversity.

Many people have helped us in our research, not least the scientists who remain anonymous in the book, but to whom we are grateful for their hospitality and kindness in talking to us. Robert Reid and Barry Gould helped us to learn the rudiments of biochemistry. Sarah Domanski did invaluable work gathering the research literature of the field. Henry Small, and the Institute for Scientific Information, provided citation data as well as entertaining us royally in Philadelphia. We must also thank Stella

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