



Australian
National
University

THESES SIS/LIBRARY
R.G. MENZIES LIBRARY BUILDING NO:2
THE AUSTRALIAN NATIONAL UNIVERSITY
CANBERRA ACT 0200 AUSTRALIA

TELEPHONE: +61 2 6125 4631
FACSIMILE: +61 2 6125 4063
EMAIL: library.theses@anu.edu.au

USE OF THESES

This copy is supplied for purposes
of private study and research only.
Passages from the thesis may not be
copied or closely paraphrased without the
written consent of the author.

Explanation

A Causally Constrained Pragmatic Account

**A Thesis Submitted In Fulfilment of the Requirements for the Degree of
Doctor of Philosophy at the Australian National University**

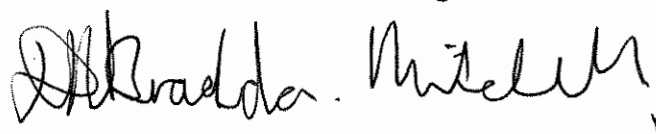
David Braddon-Mitchell

Department of Philosophy, RSSH

December 1988

For Deborah Lavers

This thesis is my own work, written while I was a Research Scholar in the Department of Philosophy, Research School of Social Sciences, at the Australian National University. As far as I am aware, all assistance and sources are acknowledged.

A handwritten signature in black ink, reading "David Braddon-Mitchell". The signature is written in a cursive, flowing style. The first name "David" is written with a large, stylized 'D' that loops around the first few letters. The last name "Mitchell" is written with a prominent 'M' and a long, sweeping tail that extends to the right.

(David Braddon-Mitchell)

Acknowledgements

First I must acknowledge the assistance of my supervisors, Frank Jackson and Philip Pettit. My intellectual debt to them will be obvious to any reader of these pages; what will not be so obvious is their generosity with helpful comment, and infectious enthusiasm for the discipline. For all this I thank them.

An earlier version of the Appendix was read to the Brisbane conference of the AAP in 1987, and to the Department of Philosophy in the RSS. Earlier versions of chapters 2 and 6 have been read to seminars in the RSSS, and the Department of Philosophy in the Faculties, respectively. I have in all cases benefited from the discussion. Much of the material in Ch. 7 is from a paper jointly written with John Fitzpatrick, a version of which was read to the Department of Philosophy in the RSSS. We both, I can say with confidence, benefited from the comments arising from the discussion.

Many people have helped in ways which have borne directly on the writing of this thesis. I have, where possible, mentioned particular points of indebtedness where they occur in the text. The following is a (probably incomplete) list of those who have helped by discussing material from the thesis, or in other direct ways: Barbara Davidson, Martin Davies, Kathinka Evers, John Fitzpatrick, Paul Griffiths, Virginia Hart, Loraine Hugh, Huw Price, Dominic Hyde, Deborah Lavers, Libby Prior, Kim Sterelny and Mark Walker.

The writing of a PhD thesis is not something which is causally isolated from those around its author. It is customary to acknowledge those who have in some way helped in its production. This seems to me a rather thesis-centred view of the world; one should in fairness add to it

those who have been affected *by* it. Amongst those who have both helped in, or put up with, the production of this thesis I must mention Marina Farnan, Virginia Hart, Margaret Jones, Geoff Kennett, Deborah Lavers, Mark Mitchell, Lisa Paul, Maureen Sheehan, Julian Thomas and Richard Webb.

Abstract

This thesis argues that explanation consists in giving pragmatically selected and often counterfactual information about causes. It begins by examining pragmatic theories of explanation, and argues that they are right insofar as pragmatics are properly a part of explanation, not just an adjunct to explanation. In the following chapters it is argued that while pragmatics may be *necessary* for an account of explanation, they are not sufficient. Additional constraints are imposed regarding the need for explanatory information to be causal information, and usually counterfactual explanation if higher-level explanation is to be accounted for. The account thus developed is then applied to problems in metaphysics, philosophy of psychology and philosophy of language. It is argued that causal reductionism can seem more plausible in the light of a good account of explanation, that propositional attitudes can be seen to have explanatory virtues (on a certain account), that Fodor's Language of Thought Hypothesis suffers in the light of the right account of explanation, and that taking into account certain interest dependencies in explanation makes the development of an account of the reference of kind terms easier.

A Note On Format

Each chapter has its own Table of Contents; these are quite detailed and include all sub-headings. The Abbreviated Table of Contents that follows includes only the highest level headings in each chapter.

Abbreviated Table of Contents

Chapter I General Introduction	2
--------------------------------------	---

Part One

Chapter II The Pragmatic Theory of Explanation	10
1 Historical Prologue: The Covering Law Model.....	12
3 Salmon's Probabilistic Account	19
4 Context and Contrast.....	27
5 Explanatory Relevance and the Problem of Arbitration	47
6 Van Fraassen's Logic of Why-Questions and Some Variations.....	53
7 Answers and Telling Answers.....	61
Chapter III The Causal Constraint.....	63
1 The Asymmetries Revisited and the Causal Constraint	64
2 The Tower and the Shadow.....	66
3 The Causal Constraint.....	76
4 The First Constraint.....	78
5 The Second Constraint.	85
6 The Third Constraint.....	87
7 Some Problems of Generality.....	88
8 Extension to the Probabilistic Case.....	92
9 The Limits of Causal Relevance.....	96
10 What kind of explanation is a causally constrained pragmatic account?.....	100
Chapter IV Levels and Explanation	104
1 Introduction.....	105
2 Levels of Description.....	107
3 Structural and Functional Levels of Description.....	114
4 Program and Process Explanations.....	132
5 Causally Efficacious Properties.....	141
6 The Constraints Reformulated.....	149
Summary of Part One, with some Last Remarks.....	153

Part Two

Chapter V Explanation and the Microstructural Cause Hypothesis.....	157
---	-----

1	Introduction.....	158
2	Why We May Want To Restrict Causation to the Bottom Level.....	159
3	The Competing Accounts.	163
4	The Case Against Causal Reductionism.....	164
5	Kim's Event-Supervenience	164
6	Menzies' Objections.....	166
7	Varieties of Supervenience and Menzies' Counterexamples.....	171
8	Explanation and Supervenient Causation.....	183
9	Against Supervenient Causation.....	184
10	Explanation and Event Identity.....	187
11	Summation.....	188
Ch. VI The Explanatory Rôle of Folk Psychology.....		190
1	Introduction.....	192
2	Positions on the Relationship.....	207
3	Explanation at Higher Levels and Broad Psychology.....	218
4	External Functionalism.	238
Chapter VII Explanation and The Language of Thought.....		259
1	Introduction.....	259
2	The Language of Thought.....	260
3	How Not To Get A LOT For Free	271
4	Explanation I: Synchronic and Diachronic Explanations.....	276
5	Explanation II: Implementation and Levels of Explanation.....	282
6	Conclusion	290
Appendix Explanation and the Reference of Kind Terms		292
1	Why-Questions and Kind Terms.....	292
2	The Programme.....	296
3	Causal Theories of Natural Kind Terms and the Sameness Relation	297
4	Natural Kinds and Natural Kind Terms.....	302
5	Reference Shift and the Bohr Atom.....	302
6	Some Twin-Earth Cases	306
7	Final Remarks.....	312
References		313