

CAMBRIDGE

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

CAMBRIDGE STUDIES IN PHILOSOPHY

Assertion and Conditionals

Cambridge University Press
 978-0-521-07129-1 - Assertion and Conditionals
 Anthony Appiah
 Frontmatter
[More information](#)

CAMBRIDGE STUDIES IN PHILOSOPHY

General editor SYDNEY SHOEMAKER

Advisory editors J. E. J. ALTHAM, SIMON BLACKBURN,
 GILBERT HARMAN, MARTIN HOLLIS, FRANK JACKSON,
 JONATHAN LEAR, JOHN PERRY, T. J. SMILEY, BARRY STROUD

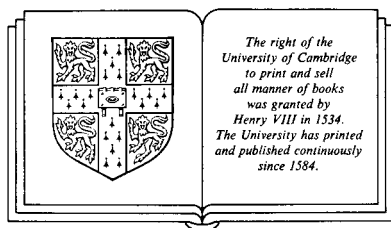
JAMES CARGILE *Paradoxes: a study in form and predication*
 PAUL M. CHURCHLAND *Scientific Realism and the plasticity of mind*
 N. M. L. NATHAN *Evidence and assurance*
 WILLIAM LYONS *Emotion*
 PETER SMITH *Realism and the progress of science*
 BRIAN LOAR *Mind and meaning*
 J. F. ROSS *Portraying analogy*
 DAVID HEYD *Supererogation*
 PAUL HORWICH *Probability and evidence*
 ELLERY EELLS *Rational decision and causality*
 HOWARD ROBINSON *Matter and sense*
 E. H. BOND *Reason and value*
 D. M. ARMSTRONG *What is a law of nature?*
 HENRY KYBURG JR *Theory and measurement*
 N. J. H. DENT *The moral psychology of the virtues*
 MICHAEL H. ROBINS *Promising, intending, and moral autonomy*

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

Assertion and Conditionals

Anthony Appiah

*Assistant Professor of Philosophy and Afro-American Studies,
Yale University*



Cambridge University Press

Cambridge

London New York New Rochelle

Melbourne Sydney

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521304115

© Cambridge University Press 1985

This publication is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without the written
permission of Cambridge University Press.

First published 1985
This digitally printed version 2008

A catalogue record for this publication is available from the British Library

Library of Congress Catalogue Card Number: 85-4738

ISBN 978-0-521-30411-5 hardback
ISBN 978-0-521-07129-1 paperback

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

For M.: Quod spiro et placeo, si placeo, tuum est.
Horace, 'Quem, tu, Melpomene . . .'

Contents

| | |
|--|---------|
| Acknowledgements | page xi |
| Notation | xiii |
| 1. <i>Cartesianism, behaviourism and the philosophical context</i> | |
| 1.1 After behaviourism | 1 |
| 1.2 The background | 3 |
| 1.3 The structure of the book | 5 |
| 1.4 Neglected topics | 7 |
| Part I <i>Belief</i> | |
| 2. <i>A theory of the mind</i> | |
| 2.1 Overview | 11 |
| 2.2 Functionalism: an introduction | 16 |
| 2.3 Computation and representation | 18 |
| 2.4 States and dispositions | 25 |
| 2.5 States, events and causes | 30 |
| 2.6 Input, output and throughput | 32 |
| 2.7 Summary | 36 |
| 3. <i>Belief and decision</i> | |
| 3.1 Overview | 39 |
| 3.2 Decision theory: the general form | 41 |
| 3.3 Causal decision theory | 44 |
| 3.4 The theory in action | 51 |
| 3.5 Decision and preference | 54 |
| 3.6 Changing your mind | 59 |
| 4. <i>Computation</i> | |
| 4.1 Overview | 73 |
| 4.2 Truth conditions and decision theory | 75 |
| 4.3 Computational structure | 81 |
| 4.4 Output and input | 90 |

Cambridge University Press
 978-0-521-07129-1 - Assertion and Conditionals
 Anthony Appiah
 Frontmatter
[More information](#)

| | | |
|-----|--|-----|
| 4.5 | Regularity | 94 |
| 4.6 | Beliefs and sentences | 97 |
| 5. | <i>Truth conditions</i> | |
| 5.1 | Overview | 100 |
| 5.2 | Decision and truth | 101 |
| 5.3 | Phenomenological problems | 109 |
| 5.4 | Truth conditions and causality | 112 |
| 5.5 | Summary | 117 |
| | Part II <i>Meaning</i> | |
| 6. | <i>Realism and truth-theory</i> | |
| 6.1 | Overview | 123 |
| 6.2 | Meaning and truth conditions | 124 |
| 6.3 | Tarski's truth-theory | 130 |
| 6.4 | Truth conditions are not enough | 140 |
| 7. | <i>Assertion</i> | |
| 7.1 | Overview | 143 |
| 7.2 | Utterance | 144 |
| 7.3 | Sentences and beliefs | 147 |
| 7.4 | Conventions of expression | 148 |
| 7.5 | Sentences and computational structure | 152 |
| 7.6 | Summary | 156 |
| | Part III <i>Conditionals</i> | |
| 8. | <i>Indicative conditionals</i> | |
| 8.1 | Subjunctive and indicative conditionals | 161 |
| 8.2 | Material conditionals | 166 |
| 8.3 | Adams' Hypothesis | 173 |
| 8.4 | Lewis and the conversational implicature defence | 176 |
| 8.5 | Jackson and the conventional implicature defence | 185 |
| 9. | <i>Truth and triviality</i> | |
| 9.1 | Overview | 192 |
| 9.2 | The proof itself | 194 |
| 9.3 | Lewis' rationale | 196 |
| 9.4 | Giving up simple conditionalisation | 198 |

Cambridge University Press
 978-0-521-07129-1 - Assertion and Conditionals
 Anthony Appiah
 Frontmatter
[More information](#)

| | |
|---|-----|
| 9.5 Adams' proof | 201 |
| 9.6 Carlstrom and Hill | 202 |
| 9.7 Compounds of conditionals | 205 |
| 9.8 A final argument | 210 |
| 9.9 Conclusion | 212 |
| 10. <i>Logic without truth</i> | |
| 10.1 Adams and the validity of conditional inferences | 213 |
| 10.2 Impossible antecedents | 219 |
| 10.3 Problems of inference | 222 |
| 10.4 Adams' logic | 227 |
| 10.5 Conditional logic | 231 |
| 11. <i>Generalising the probabilistic semantics of conditionals</i> | |
| 11.1 Overview | 234 |
| 11.2 Ramsey conditionalisation | 235 |
| 11.3 Minimal evidence | 237 |
| 11.4 Embedded conditionals | 239 |
| 11.5 Semi-indicatives | 246 |
| 11.6 Conclusion | 251 |
| <i>Epilogue</i> | 253 |
| <i>Bibliography</i> | 254 |
| <i>Index of names</i> | 262 |
| <i>Index of key terms</i> | 264 |

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

Acknowledgements

Hugh Mellor knows that it is literally true that without him this book would not have been written. Without him I might have written another one, but it would certainly have been worse. He guided me through the doctoral work on which this book is based, and I have had many fruitful conversations with him since, especially in a seminar we organised in Cambridge in the autumn of 1983. That this book is not better is despite his many patient corrections, fruitful questions and kind encouragements.

Terry Moore, and the other members of a lunchtime seminar in the Cambridge Department of Linguistics in 1980–81 helped to make me aware of how wide a gap there is between what I have said about conditionals and a proper account of their linguistic behaviour; and I should have written a better book, if I had known how to use more of what I learnt from them. Terry also helped clarify my views with his questions at my 1981 lectures on the ‘background to meaning’; as did David Papineau in the same course of lectures and Hugh Mellor, Jonathan Lear and Isaac Levi at my lectures on conditionals the year before. Isaac Levi’s famous vigour in argument was more stimulating than I think he realised; but I do not want to give the misleading impression that he agrees with me: on every central claim in this book, I think he holds a view at odds with mine!

I am grateful too to Tim Smiley for much helpful discussion since he examined my dissertation; to Dorothy Edgington for making many helpful suggestions as the other examiner of my dissertation, and for discussions of the matter of this book since; to Robert Stalnaker who also read my dissertation carefully and made many helpful and encouraging remarks, even though he thinks my view of conditionals neither correct nor plausible (I concentrated on the encouragement); to Frank Jackson for discussing conditionals with me whilst busy packing to go home to Australia; to Nick Jardine for introducing me to Adams’ work in the first place; to David Lewis for a brief but helpful discussion of beliefs in 1981 and longer discussion of conditionals in 1983; to Brian Ellis, for sending me many useful ideas on conditionals in unpublished papers; and to Ruth Marcus for many discussions and much kindness both while I was first at Yale and since. I owe much to many students at Cambridge and at Yale: but especially to Alasdair Palmer.

Cambridge University Press
978-0-521-07129-1 - Assertion and Conditionals
Anthony Appiah
Frontmatter
[More information](#)

Part of Chapter 5 are from 'A Causal Theory of Truth Conditions', a paper I gave at the Thyssen seminar in April 1984, and which was helpfully criticised there, most extensively by Michael Ayers, Jeremy Butterfield, Hide Ishiguro, Hugh Mellor, John Perry and John Skorupski. I am grateful to them especially; and also to the Thyssen Group and the Thyssen Foundation, who made, between them, an extremely enjoyable meeting possible.

Portions of this book have appeared before in journals, and I am grateful to their editors and publishers, both for permission to republish, and for commenting or arranging comments on earlier versions of the arguments.

In particular, parts of Chapter 8 are from 'Conversation and Conditionals', which appeared in the *Philosophical Quarterly* in 1982, and was based on a paper which was improved by criticism it received at a Keele conference on philosophy of language and logic, in 1981; and from 'Jackson on the Material Conditional', which appeared in the *Australasian Journal Of Philosophy* in 1984, and owes much to Professor Brian Ellis, its editor, and to Phil Bricker. Chapter 9 owes a good deal to my paper 'Generalising the Probabilistic Semantics of Conditionals', which appeared in the *Journal Of Philosophical Logic* in 1984, to which Professor Thomason, the editor, and an anonymous referee made important contributions. This paper is © D. Reidel publishing company, Dordrecht, Holland.

Since I wrote my dissertation I have been at Yale; and the collegiality of my fellows in the departments of Afro-American Studies and Philosophy has been a constant pleasure. If I pick out Phil Bricker for special mention here, it is because Phil has helped me to clarify the triviality proofs and the dispute, reported in Chapter 9, about implicatures and conditionals.

But I owe Yale also the Morse Fellowship which allowed me to spend a year at Clare College in Cambridge. As many of you will know, it is one thing to write a dissertation, another to write a book. Without the Morse I should not have had the opportunity to learn this for myself. Having mentioned Clare several times already, I cannot end without acknowledging the friendship and stimulation of the Fellows of the college, where I have been for much of the last decade; more especially during my two years as a Research Fellow, and this year while I have had all the pleasures and priveleges of Fellowship, but, as a visiting Fellow, none of the responsibilities. No circumstances could have been more conducive to happy and productive labour.

A. A.

Notation

A few notes on notation and other conventions may prove helpful: I use ' \rightarrow ', ' \supset ', ' \equiv ', ' $\square\rightarrow$ ', for the indicative conditional, the material conditional, material equivalence and the subjunctive conditional respectively. ' $\langle S_1, S_2, \dots S_n \rangle$ ' denotes an ordered set with n members, S_1 to S_n . ' \vdash ' is the consequence relation (classical entailment or probabilistic consequences as context requires); and ' \dashv ' is its converse.

I use ' P ', ' Q ', ' R ', ' S ', ' U ', as variables for sentences, beliefs or other representations; and ' T ' for a sentence, which is logically true, except where it is used, with ' F ' for 'false', for the truth-value 'true' in the truth-tables of Chapter 8. ' i ', ' k ', ' m ', ' n ' are used as numerical variables. Other letters are used less systematically. Brackets are dropped wherever they are not necessary to avoid ambiguity.

In general, indented expressions or sentences are named (usually with a mnemonic label) where they will be referred to again in other sections or remote parts of the same section; numbered if they will be referred to again immediately and then not again (the numbering beginning anew in each section); and unlabelled if they do not need to be referred back to. But these principles are not strictly applied.