

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

FORMS OF THOUGHT

Forms of thought are involved whenever we name, describe, or identify things, and whenever we distinguish between what is, might be, or must be the case. It appears to be a distinctive feature of human thought that we can have modal thoughts, about what is possible or necessary, and conditional thoughts, about what would or might be the case *if* something else were the case. Even the simplest thoughts are structured somewhat like sentences, containing referential and predicative elements, and studying these structures is the main task of philosophical logic. This clear and accessible book investigates the *forms* of thought, focusing on and drawing out the central logical notions of reference, predication, identity, modality, and conditionality. It will be useful to students and other readers interested in epistemology and metaphysics, philosophy of mind and language, and philosophical logic.

E. J. LOWE is Professor of Philosophy at the University of Durham. His publications include *Subjects of Experience* (Cambridge, 1996), *The Possibility of Metaphysics* (1998), *An Introduction to the Philosophy of Mind* (Cambridge, 2000), *The Four-Category Ontology* (2006), *Personal Agency* (2008), and *More Kinds of Being* (2009). He is a General Editor of the series Cambridge Studies in Philosophy.

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

FORMS OF THOUGHT

A Study in Philosophical Logic

E. J. LOWE



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic
E. J. Lowe
Frontmatter
[More information](#)

CAMBRIDGE
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781107001251

© E. J. Lowe 2013

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 2013

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

Library of Congress Cataloguing in Publication data

Lowe, E. J. (E. Jonathan)

Forms of thought : a study in philosophical logic / E.J. Lowe.

pages cm

Includes bibliographical references (pages) and index.

ISBN 978-1-107-00125-1 (Hardback)

1. Logic. I. Title.

BC71.L69 2013

160-dc23

2012041306

ISBN 978-1-107-00125-1 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)*Contents*

| | |
|---|-----------------|
| <i>List of figures</i> | <i>page</i> vii |
| <i>List of tables</i> | viii |
| <i>Preface</i> | ix |
| <i>Acknowledgements</i> | xii |
| 1 Introduction | I |
| PART I REFERENCE AND PREDICATION | |
| 2 Individuation, reference, and sortal terms | II |
| 3 Two styles of predication – dispositional and occurrent | 3I |
| 4 Ontological categories and categorial predication | 50 |
| PART II IDENTITY | |
| 5 What is a criterion of identity? | 69 |
| 6 Identity conditions and their grounds | 94 |
| PART III MODALITY | |
| 7 Identity, vagueness, and modality | 119 |
| 8 Necessity, essence, and possible worlds | 139 |

PART IV CONDITIONALITY

| | | |
|----|--|-----|
| 9 | The truth about counterfactuals | 163 |
| 10 | Conditionals and conditional probability | 182 |
| | <i>Bibliography</i> | 205 |
| | <i>Index</i> | 210 |

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

Figures

| | | |
|------------|-------------------------------------|----------------|
| Figure 3.1 | The ontological square, version I | <i>page</i> 34 |
| Figure 3.2 | The ontological square, version II | 35 |
| Figure 3.3 | The ontological square, version III | 36 |
| Figure 3.4 | The ontological square, version IV | 38 |

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

Tables

Table 3.1 Logical symbolism for the four-category ontology *page 36*

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

Preface

I have given this book the subtitle *A Study in Philosophical Logic* in recognition of Bertrand Russell. It was Russell who gave philosophical logic its name, in *Our Knowledge of the External World*, saying that its business is to extract our knowledge of the logical forms of propositions from its ‘concrete integuments’ and to ‘render it explicit and pure’ (see the passage quoted at the beginning of Chapter 1 of the present book). Although in practice that task must be approached by investigating the structure of sentences in natural language – since it is in such sentences that our thoughts are clothed and communicated – the underlying aim is to reveal the *forms of thought*, at least to the extent that thoughts are propositional in character and thus capable of standing in logical relations to one another.

Propositional thought is always complex and structured, even when it involves only ‘simple’ or ‘atomic’ propositions, and this is why propositional thoughts can always stand in logical relations to other such thoughts. Identifying the forms of atomic thoughts is, then, the first task of philosophical logic, and only having completed that should we endeavour to reveal the forms of more complex thoughts, including compound thoughts which contain subordinate thought-contents as proper parts. Atomic thoughts contain both referential and predicative constituents, so that an inquiry into the nature of *reference* and *predication* is an essential first step in philosophical logic. But some predications have a special importance from a logical point of view, especially predications of *identity* and predications of *necessity* and *possibility* – *modal* predications. That being so, an investigation of the notions of identity and modality is another essential step that philosophical logic must take. And where compound thoughts are concerned, the compounding relations between subordinate thought-contents need to be understood, the most important of these – in view of its intimate connection with logical inference – being *conditionality*. These, accordingly, are the central logical notions that will

be discussed in this book: *reference*, *predication*, *identity*, *modality*, and *conditionality*. Much that needs to be said concerning the forms of thought can be said in terms of these notions. Other important logical notions that I shall *not* focus on in this book are those of *negation*, *existence*, and *truth* – and, although I have views about all of these three notions, I shall reserve a full examination of them for another occasion, discussing them only in passing in the present book.

However, a complicating factor for present purposes is that none of the logical notions that I do discuss in this book can be understood entirely independently of each other: for instance, there are intimate connections between reference and identity and between modality and conditionality. Hence, although different chapters of this book are primarily devoted to each of the five core notions mentioned above, not everything to be said about each notion will be confined to the chapters devoted to it. Even so, I have endeavoured to make each chapter of the book relatively self-standing, so that it is intelligible for a reader who does not have time to study the book as a whole and just wants to focus on one particular issue. As a consequence, some chapters inevitably include a certain amount of recapitulation of matters discussed more fully elsewhere; but I hope that readers will find this preferable to a much more extensive use of cross-reference between chapters, which would have required them to turn quite frequently to other chapters in the course of their reading in order to follow certain discussions or lines of argument.

I have noted already that this book does not pretend to offer a discussion of all the logical notions needed for a full characterization of the forms of propositional thought and an exhaustive account of all the logical relations in which propositional thoughts can stand to one another. But one omission may strike some readers as being strange, namely the lack of much discussion – save in Chapter 10 – of the *propositional attitudes*, such as belief. Now, it is undoubtedly true that important logical questions arise concerning the validity of logical inferences in which the conclusion and some of the premises are sentences involving propositional attitude verbs, because a sentence of the form ‘*S* believes that *p*’ – for example – apparently provides a *non-extensional context* for the embedded sentence ‘*p*’, in which co-referring terms cannot necessarily be substituted for one another *salva veritate*. However, while the notion of extensionality is undoubtedly a logical one – and one which I admittedly do not discuss in this book – it must surely also be acknowledged that the notion of belief as such is not a logical but a *psychological* one, and this, at root, is why I do not have much to say about it in this book. My assumption is that

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)*Preface*

xi

philosophical logic, although it is centrally concerned with the nature of propositional *thoughts*, is concerned with them solely insofar as such thoughts have truth-evaluable *propositional contents*, and is not at all concerned with such thoughts qua psychological states of thinkers: that, rather, is a task for the philosophy of mind.

Of course, there are some interesting formal and semantic analogies between propositional attitude expressions and *modal* expressions – between, for instance, sentences of the form ‘*S* believes that *p*’ and sentences of the form ‘It is possible/necessary that *p*’. However, I do discuss modality extensively in this book, especially in Part III, and even urge, in Chapter 9, that modal expressions in everyday language sometimes call for ‘epistemic’ interpretations. Nonetheless, I have serious doubts about the idea that there could be a logic of *belief* – ‘doxastic’ logic – on a par with modal logic, treating ‘it is believed that’ as a quasi-logical sentential operator on a par with ‘it is necessary that’. Purely logical notions, such as the five core notions focused on in this book, are ‘topic-neutral’, since logic and reasoning are applicable to *any* subject matter, whether it be in the domain of the physical, the psychological, the social, or indeed the abstract (as in mathematics). This, incidentally, is not to deny that an important distinction may be drawn between *theoretical* and *practical* reasoning, with the former providing guidance concerning *what we should believe* in the light of the evidence available to us, while the latter provides guidance concerning *how we should act* in the light of our goals and needs. But the same purely logical notions are applicable on *both* sides of this divide. Theoretical reasoning, in my view, does not require a logic of belief, in the sense that a putative ‘doxastic’ logic would constitute this.

This is a book aimed primarily at professional philosophers and graduate students in philosophy, although I have tried to write it in a style that makes it clear and accessible also to middle- and upper-level undergraduate students of philosophy with a suitable background in logic, metaphysics, and the philosophy of language. It is partisan, in the sense that I resolutely defend certain controversial positions on the issues that I discuss, but I attempt to conduct this defence in a fair-minded spirit, giving due weight to the force of opposing views. Most of these positions I have defended in print previously, and the chapters of this book draw to varying extents on earlier work of mine. At the same time, I have naturally changed my opinions about many matters over the years and this book represents only my current views about the topics that it covers.

Cambridge University Press

978-1-107-00125-1 - Forms of Thought: A Study in Philosophical Logic

E. J. Lowe

Frontmatter

[More information](#)

Acknowledgements

The chapters of this book draw in some measure on previously published papers of mine, as follows, and I am grateful in all cases to the publishers and editors concerned for permission to reuse the material in question in this way. Chapter 2: ‘Individuation, reference, and sortal terms’, in A. Raftopoulos and P. Machamer (eds.), *Perception, Realism, and the Problem of Reference* (Cambridge University Press, 2012), pp. 123–41. Chapter 3: ‘Modes of exemplification’, in B. Langlet and J.-M. Monnoyer (eds.), *Gustav Bergmann: Phenomenological Realism and Dialectical Ontology* (Frankfurt: Ontos Verlag, 2009), pp. 173–91. Chapter 4: ‘Categorial predication’, *Ratio* 25 (2012), pp. 369–86. Chapter 5: ‘What is a criterion of identity?’, *Philosophical Quarterly* 39 (1989), pp. 1–21. Chapter 6: ‘How are identity conditions grounded?’, in C. Kanzian (ed.), *Persistence* (Frankfurt: Ontos Verlag, 2008), pp. 73–89. Chapter 7: ‘Identity, vagueness, and modality’, in J. L. Bermúdez (ed.), *Thought, Reference, and Experience: Themes from the Philosophy of Gareth Evans* (Oxford University Press, 2005), pp. 290–310. Chapter 9: ‘The truth about counterfactuals’, *Philosophical Quarterly* 45 (1995), pp. 41–59. Chapter 10: ‘Conditional probability and conditional beliefs’, *Mind* 105 (1996), pp. 603–15, and ‘What is conditional probability?’, *Analysis* 68 (2008), pp. 218–23.

Some of the material in this book was first presented in public in the form of conference or research seminar papers, and I am grateful to the many people – too many to be named individually here – who offered criticisms and suggestions for improvement on those occasions. I am indebted to Hilary Gaskin and Anna Lowe of Cambridge University Press for all their expert advice, encouragement, and assistance. Finally, I am also very grateful to a number of anonymous readers for the Press who provided very helpful suggestions both concerning the original book proposal and regarding the penultimate draft of the manuscript.