

# DIVIDING REALITY

**ELI** HIRSCH

# DIVIDING REALITY

*This page intentionally left blank*

# DIVIDING REALITY

---

*Eli Hirsch*

New York    Oxford  
OXFORD UNIVERSITY PRESS

Oxford University Press

Oxford New York

Athens Auckland Bangkok Bogota Bombay Buenos Aires  
Calcutta Cape Town Dar es Salaam Delhi Florence Hong Kong  
Istanbul Karachi Kuala Lumpur Madras Madrid Melbourne  
Mexico City Nairobi Paris Singapore Taipei Tokyo Toronto

and associated companies in  
Berlin Ibadan

Copyright © 1993 by Eli Hirsch

First published in 1993 by Oxford University Press, Inc.  
198 Madison Avenue, New York, New York 10016

First issued as an Oxford University Press paperback, 1997.

Oxford is a registered trademark of Oxford University Press, Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Oxford University Press.

Library of Congress Cataloging-in-Publication Data

Hirsch, Eli

Dividing reality / Eli Hirsch.

p. cm. Includes bibliographical references and index.

ISBN 0-19-505754-6 ISBN 0-19-511142-7 (pbk.)

I. Division (Philosophy) I. Title.

B390.H57 1993 111—dc20 92-36251

1 3 5 7 9 8 6 4 2

Printed in the United States of America  
on acid-free paper

*To my wife Pam  
and my daughters Dena and Suzanna*

*This page intentionally left blank*

## Preface

This book deals with a certain philosophical question that I call the division problem. Roughly, the question is why it seems reasonable for us to have words that classify and individuate in ordinary ways rather than other ways. The question may be viewed as Kantian in its general orientation but, in its specific content, I venture to suggest at the end of chapter 1 that the division problem is in a sense a “new problem.” This is a somewhat awkward remark for an author to make. I make it because I have often found in the past that people react to the division problem by confusing it with a number of other problems that have been widely discussed in the literature, such as the problem of projectibility, or various issues of ontology. I am therefore obliged to state forthrightly that the problem I am trying to get at is distinct from these. If any other author has seriously addressed the division problem, I am not aware of it. The reader must judge, of course, whether this problem has the significance I assign to it.

I can try to give a prefatory inkling of what I think is the essential novelty of the division problem. The problem is about the rational basis for the ordinary classificatory and individuating functions of general words. In an important sense I am asking a question about (part of) the *lexicon* of languages, about the rational basis for having certain kinds of general words (or morphemes) rather than others. I am asking, for instance, whether there is any reason why we ought to have a word for green things rather than a word for things that are either green or circular. Philosophers from Aristotle to Locke to Kripke and Putnam have said many things about the standard functions of general words in a language—about the standard classificatory and individuating roles of words—but have scarcely addressed the question whether there are any good reasons why a language ought to have words that function in those standard ways. Why have philosophers generally not concerned themselves with this question?

My impression is that there are two perplexingly contradictory impulses at work here. On the one hand, some philosophers may immediately assume, prior to any serious examination of the matter, that there can be no philosophically important constraints on the lexical features

of languages, that these features are either arbitrary or at best reflect some trivial pragmatic facts of little philosophical interest. I think that this assumption will seem intuitively plausible only insofar as one ignores central cases, as if one ignores the air we breathe and concludes that gases are not important to us. Of course, there are many peripheral features of a language's lexicon which do seem arbitrary and unimportant, but the most central features seem to reflect fundamental constraints on the structure of language and thought. That seems, at any rate, to be the intuitive judgment when one considers the sorts of examples that I will introduce in the first chapter. Intuitively, it is plausible to suppose that the range of permissible lexicons is severely restricted by important philosophical considerations.

But there may be an opposite impulse at work in rendering the division problem inconspicuous to philosophers. It may be felt that, at least with respect to the most central lexical features of languages, the relevant constraints are indeed important but are so obvious and so compelling that there is no need to belabor them. I am confident, however, that this book will show, if nothing else, that there is nothing *obvious* to be said on this topic. The nature of the constraints on lexicons is a fundamental question for philosophy.

The general structure of the book is as follows: In chapter 1, I introduce the division problem and try to give a preliminary idea of some of its implications. Chapter 2 relates the problem to certain questions about projectibility, similarity, and ostensive definitions. In chapters 3 and 4, two kinds of "reality's joints" are discussed: "natural properties" in the former chapter and "natural things" in the latter. Chapter 3 also explores certain connections between the division problem and the nature of explanation, and chapter 4 connects the problem to questions about semantic compositionality and the inscrutability of reference. In chapter 5, I formulate and criticize a number of pragmatist reactions to the problem. Readers who, after completing chapter 1, are thoroughly convinced that the only sensible response to the division problem is pragmatic might want to jump directly to chapter 5, most of which is independent of the intermediary chapters, and afterward return to chapter 2. (But, other things being equal, it would be preferable to read the book straight through.) Chapter 6 presents a certain theory of propositional structure and relates this to claims that some concepts necessarily depend on others. I take the material in this chapter to provide the basis for the most serious response to the division problem. This response is explored further in chapter 7, which also relates the division problem to issues of ontology. The three appendices contain somewhat more technical or narrowly focused material related, respectively, to chapters 2, 3, and 6.

No one who writes a philosophy book can be consciously aware of more than a small minority of the major presuppositions that shape the work, but it may be worth trying to state one or two that are especially important. Throughout this book I presuppose the intelligibility of the

notions of a priority and (metaphysical) necessity. In this respect, I presuppose at least the most general epistemological and metaphysical framework of Saul Kripke's *Naming and Necessity* (1980). At the very outset I formulate the division problem in terms of the notion of a priori necessary equivalence, and in all that follows I make frequent use of the notions of a priority and necessity. Nowhere in the book are these notions challenged or even carefully explained. This may be viewed as a limitation of the book but should not be viewed as a mistake or oversight. Even in philosophy, there must be some division of labor. I presuppose here a framework that has been widely influential and that I regard as correct. Of course, this framework ought to be critically evaluated, but not by me in this book. I have sometimes considered whether the issues discussed here could be reframed, say, by substituting some Quinean notion of paraphrase for a priori necessary equivalence. I think this could be done at least to a significant extent, but I have not attempted to pursue it. It should be understood that while the Kripkean notions of a priority and necessity are what I require to pose the division problem, later chapters in the book may perhaps imply that, in order to solve the problem, other traditional notions are required, such as propositional structure or synonymy.

A second presupposition is of a methodological sort, something roughly to the following effect: Philosophical problems and questions are valuable in their own right, even if no definite solution to them seems forthcoming. Let me explain why I am saying this. The division problem exemplifies a pattern that is quite common in philosophy. We start out with an intuitive judgment and then find that this judgment is hard to clarify and defend. If the judgment is about something of philosophical significance, we have a philosophical problem. The problem of the external world and the problem of induction can readily be seen as exemplifying this pattern. The relevant intuitive judgment in the case of the division problem is that there are rational constraints on how the words of a language ought to classify and individuate. That this is our strong intuition can be brought out by reflecting on the kinds of examples that I present throughout chapter 1. It seems obvious that the intuition concerns something of philosophical importance. And we will find that it is hard to clarify or defend the intuition. So we have here a philosophical problem, the division problem. Any problem of this general sort admits of two kinds of responses: A "straight" solution attempts to clarify and defend the relevant intuition; a "skeptical" solution rejects the intuition. (See Kripke 1982, pp. 66–67.) Someone who adopts a skeptical solution to the division problem is called a "relativist" in this book.

Many of the sections in this book do not deal directly with the division problem but deal with various ancillary issues, such as natural properties and things, the inscrutability of reference, the structure of propositions, the nature of ontology, and the projectibility of terms. With

regard to these matters I often attempt to defend a definite position or theory. But as regards the division problem itself, I wind up taking no definite stand. To a large extent my discussions are negative, attempting to show that various tempting answers to the problem are unsatisfactory. In the final two chapters (and in the third appendix) I develop, as far as I am able, a theory which I regard as the only real hope for a straight solution to the problem. But, for the reasons given in the last chapter, I do not see how to work out this theory successfully. Nevertheless, the strength of the initial intuitions about the problem, especially when buttressed by considerations that come out of the last two chapters, make the skeptical, relativist response to the problem seem unacceptable to me.

This book, therefore, does not offer a definite answer to the central question it raises. It strikes me that a mathematician who spent ten years working on an intuitive theorem but could neither prove it nor disprove it would probably not write a book on the topic. I assume, however, that finding out and highlighting what we do not understand has been an essential part of philosophy going back to Socrates. I accept Thomas Nagel's judgment that in philosophy "one should trust problems over solutions," and the best one can do is "try to maintain a desire for answers, a tolerance for long periods without any" and "an unwillingness to brush aside unexplained intuitions" (Nagel 1979, pp. x, xxi.) I would be content if this book succeeds in both presenting the division problem and discouraging quick or glib responses to it.

It scarcely needs saying that, even if the problem I am here addressing is in some ways novel, virtually all of the ideas that I apply to it are derived in one way or another from other people. I am indebted to the work of Sydney Shoemaker, among other reasons because the germ of the division problem was planted in my mind a number of years ago when reading his "Comments on Chisholm" (Shoemaker 1969, especially pp. 117–25). David Lewis's writings on natural properties and related matters affect almost every page of chapters 3 and 4. A number of key formulations, especially in chapter 6, are adapted from George Bealer's *Quality and Concept* (1982).

Several philosophers commented on drafts of this book, and I want to express my debt to them. George Bealer, Georges Dicker, and Jerry Samet gave me extensive comments on various portions of the book, which led to fundamental revisions. I thank James van Cleve for commenting on almost all of the penultimate draft. I am also grateful for help with particular chapters provided by Alan Berger, Peter Unger, and David Wong.

Portions of this book were written while I held a National Endowment for the Humanities grant, for which I am grateful.

*Brookline, Mass.*  
*January 1992*

E. H.

# Contents

## *1. The Division Problem, 3*

1. Introduction to the Problem, 3
2. Classificatory and Individuative Strangeness, 7
  - a. Individuative Strangeness and Ontological Commitment, 7
  - b. The Believer and the Disbeliever, 10
  - c. The Hybrid Meta-Language, 13
  - d. Individuative Strangeness without Classificatory Strangeness, 15
3. Strange Languages and Strange Thoughts, 16
  - a. Strong and Weak Versions of Strangeness, 16
  - b. Thinking in a Strange Language, 16
  - c. Synonymy and Strangeness, 18
  - d. Strange Propositions, 20
  - e. Strange Primitives, 22
4. Further Examples of Strangeness, 23
  - a. Classificatory Examples, 23
  - b. Individuative Examples, 25
5. The Weight of the Intuitions, 27
6. The Distinctness of the Division Problem, 30

## *2. Projectibility and Strange Languages, 31*

1. Goodman's Problem and the Division Problem, 31
2. The Projectibility Principle, 32
  - a. Projectible Terms, 32
  - b. The Epistemological Claim, 34
  - c. The Similarity Principle, 36
  - d. Another Argument for the Epistemological Claim, 38
  - e. Transcendental Arguments and the Epistemological Claim, 39

3. Projectibility and Ostensive Learning, 40
  4. Projectibility, Similarity, and Individuation, 44
    - a. Strange Similarity Classes, 45
    - b. Intrinsic Similarity Classes, 46
    - c. Similarity and Salience, 47
    - d. Predictable Things, 48
- 3. Reality's Joints I: Properties, 52**
1. Reality's Joints and the Division Problem, 52
  2. Natural Properties, 53
  3. The Similarity Analysis, 56
    - a. The Problem of Imperfect Community, 56
    - b. Dimensions of Comparison, 59
    - c. The Property  $P^*$ , 60
    - d. Other Consequences of (N), 61
  4. The Causal Analysis, 61
    - a. The Standard Causal Analysis, 62
    - b. A Modified Causal Analysis, 63
    - c. Metaphysical versus Nomic Naturalness, 65
  5. Against Egalitarianism, 65
    - a. The Counterintuitiveness of Egalitarianism, 65
    - b. The Empirical Argument, 67
    - c. The A Priori Argument, 70
  6. Degrees of Naturalness, 74
    - a. Degrees of Metaphysical Naturalness, 75
    - b. Degrees of Nomic Naturalness, 77
    - c. The Overall Scale, 77
  7. Explanation and Classification, 79
    - a. The Explanation Claim, 80
    - b. Putnam's Constraint, 82
    - c. Strict Correctness and Pragmatic Adequacy, 83
    - d. Explanatory Equivalence and the Strange Languages, 85
- 4. Reality's Joints II: Things, 88**
1. Natural Things, 88
    - a. Egalitarian and Inegalitarian Views, 89
    - b. Analyses of Thing-Naturalness, 91
    - c. Four Problems for (P), 93
    - d. How Deep Is Thing-Naturalness?, 95
  2. The Semantic Argument, 97
    - a. Objections to the Argument, 98

- b. Objections to the Revised Argument, 100
  - c. Normative and Modal Arguments, 102
- 3. Inscrutability, 102
  - a. Pseudo-Languages, 103
  - b. Truth-Conditional and Inscrutability Theses, 106
  - c. Constraints on Reference Schemes, 107
  - d. Interpretive Charity, 110
  
- 5. *The Pragmatic Response, 114*
  - 1. Extreme Relativism versus Pragmatism, 114
  - 2. Salience, 117
    - a. Salience and Ostensive Learning, 117
    - b. Salience and Perceptual Speed, 120
    - c. The Salience Principle, 122
  - 3. Important Properties and Things, 123
    - a. Importance and Salience, 124
    - b. Which Properties Are Important?, 125
    - c. The Attention Claim, 128
    - d. Attention and Projectibility, 130
    - e. Important Things, 131
    - f. Summary of the Argument Thus Far, 132
  - 4. Economy, 132
    - a. The Economy Principle, 132
    - b. Economy and Incompatibility Languages, 133
    - c. Scopes of Attention, 135
    - d. How Fundamental Is Economy?, 137
    - e. Stylistic Economy versus Inductive Simplicity, 139
    - f. Heuristic Devices, 140
  - 5. The Pure Pragmatic Position, 141
  
- 6. *The Order of Understanding, 143*
  - 1. The Impossibility Claim, 143
  - 2. Concept-Dependence Claims, 145
    - a. The Interpretation of the Claims, 145
    - b. "Having a Concept", 147
    - c. Analysis and Concept-Dependence Claims, 148
    - d. The Intuitiveness of the Claims, 149
  - 3. Fine-Grained Propositions and Concept-Dependence, 149
    - a. The Fine-Grained Doctrine, 150
    - b. Natural Constituents, 152
    - c. Derivation of Concept-Dependence Claims, 154

- d. Asymmetric Concept-Dependence, 157
- e. Further Applications, 158
- 4. Derivation of the Impossibility Claim, 159
  - a. Strange Propositions, 159
  - b. The Derivation of IC, 161
  - c. The Thesis of the Necessity of Language, 162
- 5. A “Solution” to the Division Problem, 165
  - a. The Fundamental Case, 166
  - b. Secondary Strange Languages, 169
  - c. Weak Strange Languages, 170
  - d. The Lexicon of a Natural Language, 172
  - e. The Altered Perspective, 172

## 7. *Ontology and the Division Problem, 174*

- 1. Ontology and the Order of Understanding, 174
  - a. Propositions as Individuals, 175
  - b. The Relevance of Ontological Inegalitarianism, 176
  - c. The Bare Argument, 178
- 2. Soft and Hard Ontology, 180
  - a. Soft Questions and Verbal Questions, 180
  - b. Hard Ontology, 183
  - c. Soft Ontology, 185
  - d. Soft Semantic Questions, 187
  - e. Implications of Softness, 189
  - f. Connections between Hard and Soft, 191
- 3. Prospects for the Impossibility Claim, 191
  - a. The Mysterious Attraction, 192
  - b. Functionalism and the Mysterious Attraction, 193
  - c. Comparing Classification and Individuation, 196
  - d. The Difficulty of Degrees, 198
- 4. Concluding Remarks, 201

## *Appendix 1. Projectible Terms, 202*

- 1. Relative and Absolute Projectibility, 202
- 2. Which Terms Are Projectible?, 205
- 3. Projectible Terms and Hypotheses, 207

## *Appendix 2. Similarity and Natural Properties, 209*

- 1. Quine’s Similarity Condition, 209
- 2. Boundary Requirements, 210
- 3. Imperfect Community Reconsidered, 214

4. (N) and Complementary Properties, 216
5. The Problem of Conjunctive Entailment, 220

*Appendix 3. The Fine-Grained Doctrine, 223*

1. Fine-Grained Propositions, 223
2. Analysis, 227
3. A Kripkean Problem for the Fine-Grained Doctrine, 229
4. Fine-Grained Properties, 232

*References, 236*

*Index, 241*

*This page intentionally left blank*

# DIVIDING REALITY

*This page intentionally left blank*

# I

---

## The Division Problem

### *1. Introduction to the Problem*

Our language divides up reality in a certain way, though we can apparently describe an indefinite number of other ways this might be done. This fact may not in itself be seen as generating a philosophical problem, for it may merely suggest the need for an empirical explanation, in terms of psychology or sociology, of why our division practices are as they are. A philosophical problem is generated, however, by certain *normative* intuitions which we seem to have about these practices. Intuitively, it seems that there are good reasons why we ought to have essentially the division practices we do have; it seems that it would be in some sense incorrect or irrational for us to employ a language that divides reality in some way significantly different from our ordinary way. The philosophical problem is to explain what these normative intuitions amount to, and to determine whether they can be properly defended. What, if anything, makes our division practices more correct or rational than various alternative practices we seem able to describe? This is what I am calling the division problem.

In this opening chapter I will make a preliminary pass through a number of aspects of the division problem which will be explored more fully in the course of the book. My immediate aim is to establish the point that we do have the problem-generating intuitions and that some of these appear indeed to be extremely strong and deep intuitions.

The notion of “language dividing up reality” has a number of important philosophical associations but, at least to begin with, I want to adopt a highly austere interpretation of the notion. When I say that our language divides up reality in a certain way, rather than other describable ways, I simply mean that the *single words* of our language denote

(the members of) certain classes of things rather than others.<sup>1</sup> Evidently, in this sense, even actual languages differ somewhat in how they divide reality. The relevant normative intuitions, however, arise most vividly, not when we compare actual languages, but when we compare a given actual language, such as English, to certain imagined languages that are radically different from it. The following is the sort of example to which I will often appeal in this book. We have in English a word that denotes the class of green things, but we do not have a word that denotes the class of things that are either green or circular. We can describe an alternative language in which the situation is exactly the opposite. This language contains a word, say “gricular,” that applies to anything just in case it is either green or circular but contains no word that applies to anything just in case it is green. To generalize the example, let us suppose that in this language *many* ordinary words are replaced in the same manner. In this example, we have a strikingly radical departure from the way that English divides up reality.

In order to develop the example further, let me fix some terminology. *Throughout this book I will use “equivalent” simpliciter to mean “a priori necessarily equivalent.”* Hence, two sentences are equivalent if someone who understands both of them can know a priori that they hold true in exactly the same possible situations, and two terms are equivalent if someone who understands both of them can know a priori that they apply to exactly the same things in every possible situation.<sup>2</sup> If two languages are such that for any sentence in one there is an equivalent sentence in the other, then there seems to be an obvious sense in which the two languages have the *same descriptive content*.

I want to assume that “gricular,” in the imagined alternative language, is equivalent to the English expression “green or circular.” If we simply replaced “green” by “gricular” and left everything else the same, we might not have any term that is equivalent to “green.” (“Gricular and not circular” is equivalent to “green and not circular,” not to “green.”)<sup>3</sup> So the alternative language so construed might not have the same descriptive content as English. The sort of example that seems more interesting is one in which two languages divide up reality differently

<sup>1</sup>I will follow Quine in assuming that a general word denotes (applies to, is true of) particular things; for example, “green” denotes all and only green things. (See Quine 1972, p. 80.) In a derivative sense, however, it will often be convenient to express this by saying that “green” denotes the class of green things (i.e., all and only members of that class).

<sup>2</sup>As stated in the Preface, I assume throughout this book the notions of a priority and necessity in roughly the sense explained in Kripke 1980. I have discussed these notions in Hirsch 1986. I assume that the notion of “equivalence” formulated in the text can be understood in a manner that does not beg any substantive questions about whether semantical knowledge can be said to be a priori.

<sup>3</sup>I do not want to consider at this point more complicated possibilities for defining “green” in terms of “gricular” (cf. appendix 3.2).

*despite* having the same descriptive content. This is the sort of example that I want to focus on.

We can accordingly elaborate our previous example by imagining that both “green” and “circular” are eliminated and replaced by the three words “gricular,” “grincular,” and “ngricular” that apply, respectively, to things that are either green or circular, things that are either green or not circular, and things that are either not green or circular. Then “green” and “circular” are equivalent, respectively, to “gricular and grincular” and “gricular and ngricular.” The Gricular language now divides up reality differently from English though it has the same descriptive content as English.

Two points must be understood about this example. First, I am imagining that “gricular” is an unambiguous word that applies univocally to anything that is either green or circular. Ambiguous words or homonyms are of course prevalent in ordinary language, but that has nothing to do with how our language divides up reality in the relevant sense. As I use the term “word” throughout this book, it means “word *taken in a particular sense*.” If this is a departure from correct usage (it seems controversial whether it is), let this be accepted as a kind of abbreviatory stipulation. I would not say, therefore, that there is a word of English (i.e., “bank”) that denotes anything that is either a certain kind of financial institution or a certain kind of shore of a water body. In the sense that concerns me, that is *not* the way English divides up reality.

The second point is that one must not imagine that “gricular,” “grincular,” and “ngricular” occur only in the context of the two expressions “gricular and grincular” or “gricular and ngricular.” If that were so, one might count the two expressions as semantically indivisible words, and the distinction between the Gricular language and ordinary language would collapse. We are to imagine instead that “gricular,” “grincular,” and “ngricular” have the typical syntactic and semantic independence of ordinary words, so that speakers of the Gricular language would accept such sentences as “Tomatoes and peppers are two kinds of gricular vegetables,” and “None of those blocks is ngricular.”<sup>4</sup>

What is our intuition about the Gricular language (bearing in mind that in this language many words function like “gricular,” “grincular,” and “ngricular”)? It seems clear that our intuitive judgment is that this language is in some sense absurd and that we have compellingly good reasons to favor our ordinary language over it. The division problem, as applied to this case, is to explain what these good reasons are.

Our intuition may be that the Gricular language would be an absurd language for *us*, in our particular context, or that it would be an absurd

<sup>4</sup>In general, I intend to rely on the ordinary intuitive notion of a “word (taken in a particular sense).” My assumption is that various complex issues discussed, e.g., in morphology, will not be critical to this discussion.

language for *anyone*, in any imaginable context. This distinction will be looked into later. In general, it is the *former* context that will be presupposed, for this is the context that most obviously elicits the problem-generating intuitions. If we imagine that speakers of the Gricular language are relevantly like us in their beliefs and motives, certainly it seems intuitively absurd that they should employ such a language. The problem is to explain why this would be absurd.

That this question is not easy to answer must emerge in subsequent discussions throughout this book. However, the *prima facie* difficulty can immediately be appreciated. The word “gricular” does denote certain things; sentences containing the word do often express truths; indeed, if the word is surrounded by others of the same sort (e.g., “grincular” and “ngricular”), the expressible truths seem to be equivalent to the ones we ordinarily express. Why, then, is the language absurd?

In general, the division problem is to explain what good reasons there may be to favor ordinary languages over various imaginary *strange languages*, where a strange language is one that divides up reality in ways that intuitively strike us as absurd. A strange language such as the Gricular language serves to illustrate the intuitive idea that there are strong normative constraints on our division practices. It should be emphasized that this need not imply that there are no reasonable alternatives to the practices we have. On the contrary, it seems immediately plausible to suppose that the way our language divides reality is arbitrary in certain respects, in the sense that it would not be unreasonable for us to have a language that is different in these respects. But the intuitive idea, which the strange languages help to make vivid, is that there are definite limits on what can constitute a reasonable alternative to our ordinary division practices. The division problem is to understand what the nature of these limits might be.

Since I intend to explore the division problem from a number of different angles in the course of this book, it is essential that the reader not assume that certain substantive matters have already been settled. We have, I said, the intuition that there are rational constraints on our division practices, constraints that are violated by the Gricular language. I do not assume that this intuition must be correct. Even if it is correct, we may have no definite idea at the outset of how to formulate the intuitive constraints on division practices. Certainly we can think of many examples with respect to which it seems unclear whether (or to what extent) the supposed constraints are violated. It may not even be clear at the outset what general sort of “irrationality” we are dealing with when we judge intuitively that a strange language is irrational or absurd. Is it that speakers of such a language will be led to reason fallaciously about certain things? Is it that their language is in some sense rooted in some factual, or perhaps metaphysical, error? Or is it rather that a strange language like the Gricular language would have to be impractical in some way? Might there be some other, perhaps idiosyncratic way in which such

languages are absurd? And might it be that some examples of strangeness are absurd in one way whereas others are absurd in quite different ways? I want all of these questions to be open at this stage of the discussion. They are indeed all part and parcel of what I mean by the division problem.

Summarily put, the division problem is this: Can we clarify and justify our intuition that there are rational constraints on how the words of a language ought to divide up reality (with special attention to constraints on languages having the same descriptive content as ours)?

## 2. *Classificatory and Individuative Strangeness*

It will be useful to draw some preliminary distinctions between different kinds of strange languages. One essential distinction is between *classificatory* strangeness and *individuative* strangeness.

### *a. Individuative Strangeness and Ontological Commitment*

The Gricular language classifies ordinary things in strange ways, but we can also imagine languages that, in a sense, divide up the world into strange things. One way to describe such languages is by specifying strange transtemporal identity conditions for things, that is, strange truth-conditions for sentences of the form “There exists something that is  $A$  at  $t_1$  and (that same thing is)  $B$  at  $t_2$ .” As an example, let me specify the strange identity conditions that operate in the imaginary language called Contacti.<sup>5</sup> In this language the identity through time of things is partly determined by their contact relations. The language contains, for example, the word “ctable” (corresponding to the English word “table”) such that the history of a single “ctable” combines what we would ordinarily regard as stages of one table, followed by stages of a second table with which the first is exclusively in contact, followed by stages of the first table after exclusive contact is broken off. Hence, it is a principle of “ctable identity” that during an interval when two “ctables” come into contact exclusively with each other (i.e., with each other but with no other “ctables”), they temporarily exchange all of their characteristics (including their spatial positions).<sup>6</sup> There is evidently a certain symmetry in the relationship between tables and ctables, for the history of a single table combines what is regarded in Contacti as stages of one ctable, followed by stages of a second ctable with which the first is exclusively in contact, followed by stages of the first ctable after exclusive contact is

<sup>5</sup>This example (with a slight notational difference) is discussed in Hirsch 1982, chapter 10.

<sup>6</sup>But note that if one regards it as possible that, under some special circumstances, ordinary tables might exchange all of their characteristics when they come into contact, then in those circumstances ctables would *not* exchange their characteristics. I leave it open whether this qualification is necessary; if it is, let it be assumed.

broken off. It appears, then, that Contacti has the same descriptive content as English.<sup>7</sup>

We may imagine Contacti generalized to include many other bizarre individuals such as “cpersons” and “cdogs” whose identities depend in a correlative fashion upon their contact relations. The division problem, as regards this example, is to explain why it would seem absurd for us to operate with such a language.

Some readers will immediately want to object that my characterization of Contacti presupposes a disputable commitment to the existence of such entities as ctables and cdogs. This objection is based on a misunderstanding, however. What I intended to do in characterizing Contacti was to stipulate the truth-conditions for Contacti identity sentences, that is, the conditions under which the sentences would count as true.<sup>8</sup> No disputable ontological commitment is required for that stipulation. Indeed, one might convey the truth-conditions more graphically—and obviously without any disputable ontological commitments—by drawing a picture. (See Figure 1.1.) In the picture, the unbroken arrows represent our ordinary identity sentences and the broken arrows represent the Contacti identity sentences. We imagine that at one o’clock two dogs come into contact with each other (and with no other dogs). In the pictured situation, what one would say in Contacti is “A cdog was brown and to the left at twelve o’clock and (that same cdog) was white and to the right at one o’clock and (that same cdog) was brown and to the left again at two o’clock.”

My stipulation of the truth-conditions for Contacti sentences is not intended to foreclose every question of detail that could be raised about Contacti. Such questions are unimportant if they merely suggest the possibility of describing slightly different versions of this intuitively bizarre

<sup>7</sup>For example, the Contacti sentence “There exists a ctable that is first brown and then white” is equivalent to the complex English sentence “There exists a table that either is first brown while not exclusively in contact with another table and is then white while not exclusively in contact with another table, or is first exclusively in contact with a brown table and is then exclusively in contact with a white table, or is first exclusively in contact with a brown table and is then white while not exclusively in contact with another table, or is first brown while not exclusively in contact with another table and is then exclusively in contact with a white table.” The English sentence “There exists a table that is first brown and then white” is equivalent to a correspondingly complex Contacti sentence.

It will be noted that, for the sake of brevity, I use expressions of the form “two *F*-things are exclusively in contact with each other” (or “an *F*-thing is exclusively in contact with another *F*-thing”) to imply that the two *F*-things are in contact with each other and neither is in contact with a third *F*-thing (of course, they may be in contact with various other things).

<sup>8</sup>We know the truth-conditions of sentences in the relevant sense if we know, with respect to every context in which they might be uttered, what their truth-values are with respect to every possible situation. Note that (at least with respect to the sort of examples under consideration) sentences have the same truth-conditions in this sense if and only if they are equivalent.

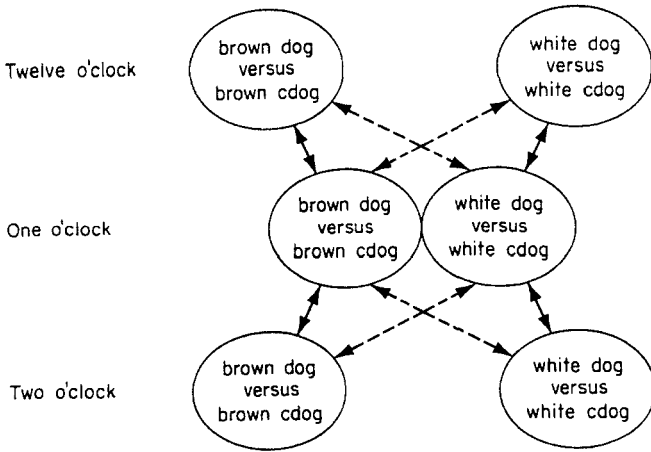


Figure 1.1 English versus Contacti.

form of language. One question that perhaps should be briefly addressed relates to statements about identity through possible worlds. How might such statements operate in Contacti? The simplest way to try to answer this question is by analogy to how statements about identity through time operate. Contact relations can be stipulated to determine the transworld identity of a ctable in much the way that they were stipulated to determine the transtemporal identity of a table. (For example, a table at one time constitutes the same ctable as another table at a second time if some third table is exclusively in contact with both the first table at the first time and the second table at the second time; likewise, a table in some actual situation might be said to constitute the same ctable as another table in some counterfactual situation if some third table is exclusively in contact with both the first table in the actual situation and the second table in the counterfactual situation.)<sup>9</sup>

Let me mention another question about Contacti. In order for Contacti to have the same descriptive content as English, it must be the case that any sentence in one language is equivalent to some sentence in the other. This seems to imply that if Cfido is the cdog that sometimes coincides with, and sometimes is in contact with, the dog Fido, then Contacti sentences containing “Cfido” are a priori necessarily equivalent to English sentences containing “Fido.” The claim of necessary equivalence seems fairly straightforward, but there may be a problem

<sup>9</sup>In ordinary language, statements about transtemporal and transworld identity seem to be closely connected in various ways (cf. Kripke 1980, pp. 112–115); the stipulation sketched in the text would transfer many of these connections to Contacti.

about the claim of a priori equivalence. One can interpret the rules of Contacti to imply that necessarily Fido exists if and only if Cfido does.<sup>10</sup> There is, however, a general problem in determining when sentences containing different proper names can be a priori equivalent. Nevertheless, I think it is plausible to assume that sentences of English containing names are a priori equivalent to sentences of Contacti containing names. If this assumption is not acceptable, I would need to modify my earlier characterization of what it means for two languages to have “the same descriptive content” by requiring that corresponding sentences containing names be only necessarily equivalent (rather than equivalent *simpliciter*).<sup>11</sup> Evidently, there could be nothing in this modification to diminish the force of the division problem (or to suggest, in particular, why ordinary sentences containing names are better than Contacti sentences containing names).

Let me generalize the point just made. Perhaps there are other problems with the assumption that sentences of the various strange languages under consideration can be a priori equivalent (and not just necessarily equivalent) to ordinary sentences.<sup>12</sup> If so, we can always retreat to the weaker assumption that the sentences can at least be necessarily equivalent. This may somewhat affect the intuitive vividness of the division problem, but the problem is certainly not removed. (Having said this, I will continue to assume that sentences of the strange languages can be both a priori and necessarily equivalent to ordinary sentences.)

### *b. The Believer and the Disbeliever*

I have pointed out that to explain Contacti, in the sense of explaining the truth-conditions of its sentences, does not require any disputable ontological commitments. Something more must be said, however, about the notion of “individuating strangeness.” There are two obvious kinds of positions that one can adopt toward the strange Contacti descriptions of “ctables”: One may believe that there exist strange things (entities, objects) answering to such descriptions or that there do not exist any such strange things. That is, the believer affirms, and the disbeliever denies, that there exist objects which are just like tables except that they

<sup>10</sup>Given the stated rules of transtemporal identity for Contacti, Fido persists at a given time if and only if Cfido does, for Fido and Cfido coincide unless they are in contact. One can interpret transworld identity in Contacti in the same spirit. If one has trouble seeing this, it is clear in any case that we could arrange for a strange language to have this effect.

<sup>11</sup>As stipulated earlier, “equivalent” *simpliciter* means “a priori necessarily equivalent.” Hence, “necessarily equivalent” and “a priori equivalent” express weaker relations than “equivalent.”

<sup>12</sup>On some views, certain general terms are semantically akin to proper names, in which case the problem mentioned in the last paragraph may arise with respect to some general terms.