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To my parents
James and Muriel Hurford
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Preface

What we attempt to achieve in this book is an explication of the essential formal properties of natural language numeral systems. The book owes debts to two rather different scholarly traditions, one quite old, but recently neglected, and the other quite new and presently blooming. The older tradition is that of intrepid data collection by anthropologists, explorers, missionaries, and miscellaneous travellers, culminating in some impressive and widely researched typological treatises and catalogues of data (e.g. by Pott, Kluge, Seidenberg, Conant – see Bibliography). The newer tradition is that of generative grammar, in the broadest sense of that term, in which it is regarded more as a disciplined methodology for investigating linguistic phenomena than as any particular body of specific rules, conventions, etc. That is, we share the principal methodological assumptions about ‘doing linguistics’ professed in such works as Chomsky (1965) and Chomsky and Halle (1968) but do not necessarily agree with the specific conclusions about the form of grammars reached in those works. In line with our basic methodological assumption, we treat these conclusions as empirical hypotheses, susceptible to testing and to confirmation or disconfirmation. We have subjected some of the data collected by the older tradition to the formal analytical method of the newer tradition. The result, we believe, is a contribution to both traditions. On the one hand we arrive at a deeper and more exact characterization of the essential underlying formal organization of natural language numeral systems. And on the other hand we develop proposals for certain specific formal devices which are new to the theory of generative grammar and for which the data of numeral systems appear to provide evidence.

The book will be easier to read for those with a working familiarity with the principles of generative grammar, though it has been attempted to give in chapter 1 enough of a general introduction to these principles to make it feasible for a determined reader to grasp the arguments
developed in the rest of the book. A reader with experience in constructing formal grammars may wish to skip this chapter and begin at the second. Chapter 2, which deals with English numerals and develops the main proposals in the book, is the densest and will be the slowest to read. This chapter does not presuppose detailed knowledge of recent scholarship in generative grammar, but it does assume a willingness to persevere in following a close, detailed, and abstract argument. The material presented in the second chapter forms a basis for discussion of the numeral systems of a variety of languages, Mixtec, French, Danish, Welsh, Hawaiian, Yoruba, and others in chapters 3–9. Although some new formal proposals are made in these later chapters, they are built in large part on the main theoretical framework developed in chapter 2 and therefore, given an understanding of chapter 2, should make relatively straightforward reading. Familiarity with transformational rules will be a definite advantage in reading chapter 6. Chapter 10 gives a brief summary of the main conclusions to be drawn from the preceding chapters. Chapter 11 reviews a number of other scholarly works on numerals with broadly generative aims. In reading this final chapter some familiarity with the main currents of theoretical linguistic debate over the past two decades is likely to be an advantage.
Our language can be seen as an ancient city: a maze of little streets and squares, of old and new houses, and of houses with additions from various periods; and this surrounded by a multitude of new boroughs with straight regular streets and uniform houses.

Ludwig Wittgenstein, *Philosophical Investigations*