1. Introduction

The numerosity of things we encounter is an important dimension of our everyday experience. Knowing whether to expect a single entity, a small group or a large assembly can be a vital piece of information, whether one is thinking of a queue at a post office, cookies left in a jar or tigers in a nearby forest. With the practical value of numerical information comes the need to communicate it to others. In many languages, this need resulted in integrating number into the very fabric of grammar. The category of grammatical number is common in natural languages representing diverse language families, with number systems ranging from a simple choice between singular and plural forms to more complex number value arrangements. There is considerable diversity in how number information is lexically or morphosyntactically expressed using the means available in a given language. Grammatical number has been an attractive topic of study in various fields of linguistics. From typology through morphology and syntax to semantics and pragmatics, the theoretical linguistic literature on grammatical number is quite extensive. Number has also attracted the attention of researchers interested in studying the psychology of language. Grammatical number offers a promising target for investigation by psycholinguists for at least two reasons. First, as a grammatical category with a strong connection to semantic concepts and expressed through (often obligatory) morphological or lexical elements, number plays a role at many levels of linguistic organization and as such can be used to examine multiple aspects of language processing. Second, the ability to represent and manipulate numerosities is partly independent of language, as suggested by the fact that it has been observed in infants

and non-human animals. The connection between extralinguistic numerical cognition and number as a grammatical category in language is certainly worth exploring.

Due to of its relevance for multiple aspects of language processing, reports of experimental studies dealing with grammatical number are both numerous and scattered across various fields and subfields of psycholinguistics. The results of individual experiments are usually discussed in the context of specific linguistic problems. The aim of this work is to provide a bird's eye view of the psycholinguistic research on grammatical number. Additionally, an important goal is to give the reader the opportunity to evaluate which number-related topics offer the most promising opportunities for future research. Some of the explored areas received a lot of attention (e.g., number agreement) whereas others are less well-represented in the available literature (e.g., conceptual representation of number). The collection of studies presented here is by no means intended to be exhaustive, neither in terms of the areas examined nor in terms of the studies discussed. It should, however, give the reader some sense of the directions in which research on grammatical number has been proceeding over the last couple of decades and present the experimental techniques used in service of this research. When selecting the studies, seminal works were picked preferentially, although care was taken to include in each section also some of the most recent publications. The discussed studies generally have an experimental component in the traditional sense of participants exposed to various experimental conditions. A few works presenting a corpus analysis or a questionnaire survey were also chosen. Theoretical and formal studies are mentioned here only to give the most necessary background information. Many intriguing and complex theoretical issues related to grammatical number have been glossed over or grossly simplified in this process. It was a necessary sacrifice to keep this overview focused. Sources are usually provided where the interested reader can find more information on those issues.

The work is structured as follows: Section 2 offers a brief introduction to number as a grammatical category. It is intended to indi-

cate the place of grammatical number among other quantificational elements and to give the reader a general idea about the variety of number systems found among natural languages. Section 3 is dedicated to discussing the most important findings of the psychological and neurocognitive research on numerical cognition. The purpose of this section is to present number as a category extending beyond language. Section 4 is the central part of the present work. It provides an overview of empirical studies related to grammatical number. This section is divided into seven subsections corresponding to major research areas: language acquisition, morphology, agreement, conceptual representation, countability, compositional interpretation and neurocognition. Areas are often subdivided into narrower domains. Section 5 presents a short discussion of the problematic aspects of the research so far and the possible directions for future studies.