

Introduction

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The present volume is a handbook of experimental syntax, but what is “experimental syntax?” One could reasonably argue that all syntax is experimental, in the sense that traditional syntactic research is based on series of small, informal experiments where the syntactician asks whether particular sentences are acceptable in the language. Syntacticians may ask this of others, in the case of fieldwork with a native-speaking consultant, or of themselves, in the case of introspective “armchair” work, or through some combination of the two, but in any event, there is something clearly experimental about the approach. On the other hand, one might understand “experimental syntax” to refer to studies that use the tools and techniques of formal experiments, as in the tradition of experimental psychology, to explore linguistic behavior relevant to the structure of sentences. In this sense, much of psycholinguistics and neurolinguistics would be part of “experimental syntax.”

In practice, though, the term “experimental syntax” is generally used to refer to the intersection of the traditional approach of informal experiments and the approach utilizing more formal experiments based on methods from experimental psychology. That is, the label “experimental syntax” is typically applied to studies that focus on the varying acceptability of particular sentence types and explore this by means of formal experiments. As a consequence, this handbook is devoted primarily to experimental syntax in this sense, focusing on the use of formal sentence acceptability experiments to study issues in syntactic theory. Nevertheless, this approach is built upon a tradition of experimental work in a broader sense, including the informal experiments used in syntactic research for many decades, and has many points of contact with the more conventionally experimental work of psycholinguists and neurolinguists, so these areas receive significant attention in the handbook as well.

The goal of the handbook is to review what we have learned in the area of experimental syntax, but also to make sense of what this new body of knowledge is telling us, understand how experimental studies relate to the study of syntax more broadly, and explore what type of work we should be doing as the field moves forward. Experimental syntax has exploded in popularity over the last several years, so a pause to reflect on what we have done and where we are going is sorely needed.

The handbook consists of 27 chapters, organized into four parts. Part I is devoted to sentence acceptability experiments as such: how to do them, how to interpret the results, and how they can be of use to syntacticians. This type of experiment presents many methodological challenges in terms of designing the stimuli, choosing participants, creating an appropriate response method for the participants, and making sense of the gradience in their responses, but it also leads to deep questions about the nature of acceptability and grammaticality, and the varying results that one can get across time and across languages.

Part II explores particular syntactic phenomena that have been studied in depth using acceptability experiments and related methods. For some of these phenomena, such as resumptive pronouns and the *that*-trace effect, to mention only two, experimental work has had such an impact that even “traditional” syntacticians now pay close attention, while for some other phenomena, the broader influence of experimental studies has been more limited. In all cases, though, a thorough review of what has been found so far and what remains to be investigated, as is provided in these chapters, should provide a necessary foundation for new work.

In Part III, the focus is on using techniques of experimental syntax to study specific populations of speakers and specific groups of languages. For studying the first language of young children and the second language of speakers of all ages, for instance, formal experiments have long been a mainstay, but these populations present special challenges that mean that the techniques used for adult native speakers cannot always be utilized as is. For better or worse, the fields of child language acquisition, second language acquisition, and experimental syntax have each developed their own experimental traditions relatively independently, but we are now in a position to reflect on this and look for the most productive path forward. With regard to experimental work on different languages, the situation is similar in the sense that each language (or language family) may present its own challenges, such as a need to use non-written stimuli or a lack of clarity as to who counts as a native speaker or signer of the language. In addition, specific sentence types in individual languages may be difficult to study experimentally for a variety of reasons. All of the chapters in Part III attempt to survey what experimental work has shown us for particular populations and language families, and to recommend areas for further research that could be fruitful.

While much of Parts I–III looks at acceptability experiments, Part IV examines other experimental approaches to the study of syntax. Many of the techniques examined are traditionally thought of as relevant mainly for psycholinguists, neurolinguists, or computational linguists, but the authors show they can address issues of interest to syntacticians of all stripes. This leads to broader questions about the relation between these types of experimental methods and the acceptability experiments that are discussed in many of the other chapters, and at an even broader level, the relation between “theoretical linguistics” and “experimental linguistics” in general.

It seems clear now that the methodological and conceptual silos in which linguists have operated for decades, with syntacticians relying on acceptability judgments gathered through fieldwork and introspection and psycholinguists and others relying on formal experiments, will soon be a thing of the past. The tradition of acceptability judgments has yielded a rich set of data and important insights, as has the tradition of experimentation, but some of the most interesting new work now comes from trying to integrate these two traditions, both in terms of methodology and in terms of theoretical concepts and mechanisms.

Though the methodological and conceptual silos may be in the process of being broken down, it is less clear what will emerge from this. A new way of doing syntax will take the sustained and thoughtful work of many researchers, and it is hoped that the present volume will provide a solid foundation for this work and inspiring ideas on how to move forward.