

INTRODUCTION

# Testable theories of core first language acquisition

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How do typically-developing children acquire the basic syntax and morphology (marking “who did what to whom?”) of their first language? An answer to this question will lie at the very core of any theory of language acquisition. Like any scientific question, progress can be made only if we have detailed theoretical proposals which lay out testable predictions that could support or – crucially – undermine the account. While some attempts along these lines have been made in the past (e.g., Pinker, 1984; Wexler, 1998; Tomasello, 2003), theoretical developments have not kept pace with the ever-increasing body of empirical work, resulting in – in our view – a dearth of detailed, up-to-date accounts, particularly those that apply cross-linguistically. As a result, most experienced child-language researchers have had the experience of attributing to a particular theoretical account a prediction that is denied by advocates of that account (often during the peer-review process), and vice-versa.

The aim of this special issue is to begin to fill this theoretical void: We have invited representatives of several of the leading theoretical approaches to set out an account of the acquisition of basic morphosyntax along with testable predictions. All of our contributors were encouraged to address a range of core morphosyntactic phenomena, listed in 1–5. We specifically suggested these five because they are all core elements of language, but each targets different dimensions of morphosyntax, both in terms of their representational status and in terms of the learning problems they pose for children.

1. How do children acquire grammatical categories such as NOUN, VERB, DETERMINER, SUBJECT and OBJECT?
2. How do children acquire the basic canonical word-order of relatively fixed-word-order languages (e.g., SVO for English; SOV for Japanese)?
3. How do children learning highly-inflected languages learn to mark features such as verb tense, person and number, and noun case (for both fusional and agglutinative languages, including polysynthetic languages)? Under what circumstances (if any) do children make errors of omission and commission?
4. How do children acquire “movement” constructions such as passives and questions, and complex constructions such as relative clauses?

5. How do children overcome the “poverty of the stimulus” for cases such as complex *yes/no* questions, anaphoric *one*, island constraints and binding principles.

The papers are ordered – very roughly – from the nativist end of the theoretical continuum to the empiricist end.

William Snyder lays out a modern version of a Principles & Parameters approach to language acquisition that explicitly embraces the idea that children’s language learning is guided by an innate, linguistically rich representational system. He focuses on how children’s changing use of specific morphosyntactic elements over development are decisive, additive, and interconnected. He argues that these nuanced patterns are the natural result of the innate organization that children bring to their analysis of their input.

John Grinstead similarly embraces the nativist position, but his theoretical approach emphasizes the ways in which linguistic knowledge interacts with other cognitive domains. His focus is on understanding how morphosyntactic elements depend on the integration of syntactic and discourse-pragmatic knowledge. He argues that apparent problems that children have with specific morphosyntactic elements are the result of the slow development of their ability to coordinate information at the juncture, or interface, between the different cognitive systems. He proposes a theory he calls Interface Delay to account for the patterns in children’s acquisition.

Lisa Pearl combines two approaches that are not classically considered together: Universal Grammar and statistical learning. She argues for an integrated theory whereby children are guided by linguistically rich, innate representations but are also constrained by domain-general learning processes such as statistical learning in analysing the input and using it to settle on their grammatical representations. She covers a broad range of morphosyntactic phenomena and brings both syntactic sophistication and modelling rigor to her account.

Inbal Arnon presents the Starting Big approach, which argues for the importance of larger units, including multi-word phrases, as being critical organizers of children’s early morphosyntactic development. She articulates not only a variety of ways that multi-word utterances could be used to facilitate children’s learning, but also how they connect to processing and ultimately, to a reconsideration of the best way to characterize the adult grammar.

Heike Behrens articulates a Constructivist approach to language acquisition that is similarly interested in re-thinking the nature of the adult state. She emphasizes the importance of input and argues that it serves as the guidance each child uses to build a grammar. She focuses on how children make use of a range of general learning strategies, such as statistical learning and the use of schema, to analyse the distributional patterns of their input and create morphosyntactic regularities.

Finally, Michael Ramscar stakes out an approach that positions morphosyntactic acquisition as a specific instance of a much more general process of Discriminative Learning. Working from this perspective, which owes much to animal learning models, he provides analyses of traditional problems such as over-regularization of plural and past tense morphology, and also makes predictions about other domains of regularity in language, such as the usage patterns of color terms, kinship terms, and first names.

Across these articles, a wide variety of specific examples are presented along with a variety of different methodological approaches, including analyses of corpora,

experimental studies, and computational modelling. One commonality across the papers is that each one presents predictions of their theoretical approach that could be tested – not just in principle, but also in practice. We consider the inclusion of these predictions to be critical. One way to address the so-called “replication crisis” much discussed in the field of Psychology is to set out detailed, comprehensive theories (it has been said that theory is the original pre-registration). Moreover, we hope that these testable predictions inspire clear studies from child language acquisition researchers for years to come.

## References

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