
The Syntactic Process

Language, Speech, and Communication

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- The Syntactic Process*, Mark Steedman, 2000

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Mark Steedman

A Bradford Book
The MIT Press
Cambridge, Massachusetts
London, England

First MIT Press paperback edition, 2001
©2000 Massachusetts Institute of Technology

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This book was set in Times Roman by the author using L^AT_EX 2 ϵ , and was printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Steedman, Mark.

The Syntactic Process/Mark Steedman

p. cm.—(Language, speech, and communication)

“A Bradford Book.”

Includes bibliographical references (p.) and index.

ISBN 0-262-19420-1 (hb), 0-262-69268-6 (pb)

Grammar, Comparative and general—Syntax. I. Title. II. Series.

P291.S67 2000

415—dc21

99-27489

CIP

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Preface

This book attempts to bring together in a single framework and a uniform notation a number of strands in a project that my colleagues and I have been pursuing over several years. The purpose of the research has been to develop a principled theory of natural grammar more directly compatible on the one hand with certain syntactic phenomena that flagrantly disrupt order and constituency, including coordination, extraction, and intonational phrasing, and on the other with psychological and computational mechanisms that can map such surface forms onto interpretable meaning representations. The book follows other computational approaches in claiming that syntactic structure is merely the characterization of the process of constructing a logical form, rather than a representational level of structure that actually needs to be built—hence its title. Syntactic structure so understood can depart quite radically from the standard notions of surface constituency, offering in return a simpler and more explanatory linguistic theory of these phenomena.

The work covers topics in formal linguistics, intonational phonology, computational linguistics, and experimental psycholinguistics, many of which have been presented previously in different frameworks and addressed to diverse specialized audiences. In every case the early results have been extended and reworked here for the present purpose, which is to present them as a whole in a form accessible to the general reader starting from any one of those fields.

This research has had the goal defined in Chomsky's earliest work, of formalizing an explanatory theory of linguistic form. Such a theory must do more than just capture the grammars of various languages, via a finite generative specification of all and only the sentence-meaning pairs that each allows. It must also explain why all such grammars appear to be drawn from a curiously restricted set subject to universal constraints.

The origin and even the precise nature of grammatical universals remains in