Language Evolution and Syntactic Theory

Evolution has not typically been recognised by linguists as a constraining factor when developing linguistic theories. This book demonstrates that our theories of language must reflect the fact that language has evolved. It critiques a currently dominant framework in the field of linguistics – the Minimalist Program – by showing how it fails to take evolution into account. It approaches the question of the evolution of human language in a novel way by applying findings from the field of evolutionary biology to language. Key properties associated with typically evolving systems are identified in language, and the shortcomings of the Minimalist Program in its outright rejection of these features are exposed. The book will be of interest to individual researchers and advanced students in linguistics, psychology, biology, anthropology, and cognitive science.

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Language Evolution and Syntactic Theory

Anna R. Kinsella

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For my husband –
my strength, my sanity, my cook.

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Preface

The general theme of this book is the evolutionary plausibility of the Minimalist Program. Yet there is also a background theme – the importance of evolution in studies of language. In linguistics, theory is underdetermined by data, requiring us to look to other domains in order to constrain our accounts. Evolution, however, has not been typically recognised by linguists as a constraining factor. This book shows that our theories of language must be constructed in such a way as to be compatible with the fact that language has evolved.

The tenets of a dominant modern syntactic theory – the Minimalist Program – are investigated from an evolutionary perspective, applying evidence from evolutionary biology to data from linguistics in a previously unexplored manner. Key properties of evolvability are identified in language, and the shortcomings of the Minimalist Program, in its outright rejection of these features, are exposed.

All those who seek to understand what is is that sets humans apart from all other species will find issues of interest in the chapters which follow. This includes not only evolutionary linguists, but linguists of many persuasions, as well as psychologists, philosophers, anthropologists, primatologists, neuroscientists, biologists, and cognitive scientists. The book will have something new to offer to each group through its synthesis of disparate fields, its detailed critique of a current syntactic theory, and its recipe for an evolutionarily plausible syntactic theory.

Due to its strongly cross-disciplinary nature, some sections of the book will not represent new ground for every reader. This is particularly the case for chapter 1, where background issues are discussed. Readers with a background in linguistics may therefore wish to skip over sections 1.2.1, 1.2.2, and 1.6. Those linguists with a particular grounding in minimalist theorising may in addition wish to omit section 1.7. On the other hand, those with a background in evolutionary biology may feel that section 1.3 can be passed over. Elsewhere in the book, the terminology has been kept as transparent as possible; where domain-specific vocabulary has been used, explanation is offered so that all sections may be accessible to the non-specialist.

This is a modified version of my PhD thesis, which was written at the Language Evolution & Computation Research Unit at the University of Edinburgh, under my maiden name – Parker. This book, and the thesis on which it is based, would never have been completed without the help of a number of people. Firstly, I would like to extend a huge debt of gratitude to my supervisors, and colleagues, Jim Hurford and Simon Kirby. Without their enthusiasm, generosity, and patience, I would not have got here. For advice, proofreading, and engaging discussions, I would like to thank: Dan Dediu, Mike Dowman, Daniel Everett, David Hawkey, Caroline Heycock, Stefan Höfler, Fred Karlsson, Gary Marcus, Mits Ota, Graham Ritchie, Andrew Smith, Kenny Smith, Maggie Tallerman, Mónica Tamariz, Arie Verhagen, and Daniel Wedgwood. I would also like to thank those who read the manuscript on behalf of my publishers, Cambridge University Press, for their helpful comments and suggestions.

Abbreviations

ACC	accusative case
AdvP	Adverbial Phrase
Agr_o	Object Agreement Head
Agr_S	Subject Agreement Head
Agr_oP	Object Agreement Phrase
Agr_SP	Subject Agreement Phrase
AP	articulatory–phonetic (interface)
C	Complementizer
CauseP	Cause Phrase
CI	conceptual–intentional (interface)
CON	constraint set
CondP	Conditional Phrase
CP	Complementizer Phrase
D	Determiner
DP	Determiner Phrase
DS	Deep Structure
EOI	Extended Optional Infinitive
EPP	Extended Projection Principle
EST	Extended Standard Theory
EVAL	evaluation procedure
FL	faculty of language
FLB	faculty of language in the broad sense
FLN	faculty of language in the narrow sense
GB	Government and Binding Theory
GEN	generator
GF-tier	Grammatical Function tier
G-SLI	grammatical specific language impairment
HCF	Hauser, Chomsky and Fitch (2002)
HEOC	Have an Effect on Output Condition
I	Inflection
IDEN	identity marker
INGR	ingressive

IP	Inflectional Phrase
LDD	long-distance dependency
LF	Logical Form
LSLT	*The Logical Structure of Linguistic Theory*
MP	Minimalist Program
N	Noun
NOM	nominative case
NOMLZR	nominalizer
NRRelC	Non-Restrictive Relative Clause
NP	Noun Phrase
OBJ	Object
OS	object shift
OT	Optimality Theory
PF	Phonological Form
PKU	Phenylketonuria
PP	Preposition Phrase
PPT	Principles and Parameters Theory
RDDR	Representational Deficit for Dependent Relations
REST	Revised Extended Standard Theory
S	Sentence
SLI	specific language impairment
Spec	Specifier
SS	Surface Structure
ST	Standard Theory
SUBJ	Subject
T	Tense
TP	Tense Phrase
TOP	Topic marker
UG	Universal Grammar
v	light causative verb
V	Main Verb
V2	verb second
vP/v*P	Causative Verb Phrase
VP	Verb Phrase