DIRECT OBJECTS AND LANGUAGE ACQUISITION

Direct object omission is a general occurrence, observed in varying degrees across the world's languages. The expression of verbal transitivity in small children begins with regular uses of verbs without their object, even where object omissions are illicit in the ambient language. Grounded in generative grammar and learnability theory, this book presents a comprehensive view of experimental approaches to object acquisition, and is the first to examine how children rely on lexical, structural and pragmatic components to unravel the system. The results presented lead to the hypothesis that missing objects in child language should not be seen as a deficit but as a continuous process of knowledge integration. The book argues for a new model of how this aspect of grammar is innately represented from birth. Ideal reading for advanced students and researchers in language acquisition and syntactic theory, the book's opening and closing chapters are also suitable for nonspecialist readers.

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CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

79 Anson Road, #06-04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9781107018006 DOI: 10.1017/9781139086264

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First published 2017

Printed in the United Kindom by Clays, St Ives plc

A catalogue record for this publication is available from the British Library.

ISBN 978-1-107-01800-6 Hardback

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Foreword

This is an absolutely marvelous book full of delightful insights into what may be the favorite topic of linguistics, interpreting invisible constituents, in this case, missing objects. Its greatest value, though, lies in its demonstration of how to reason simultaneously across all the domains of linguistics: theory, acquisition, experimentation, syntax, semantics, pragmatics, learning theory and cognition. This is not simple virtuosity, but an important method which will characterize - or fail to characterize - future work in linguistics. In particular, the authors show that a variety of syntactic options for null objects co-vary with subtle pragmatic options, which, in turn interact with a child's growing lexicon. In contrast, the tradition in acquisition work has been to treat linguistic theory syntax for instance – as fixed, then look at its acquisition consequences rather than attempting to allow a variety of insecure theoretical claims to co-exist with a variety of insecure acquisition claims, and then reason about the details of each with an eye on the other. It is important that we all feel empowered to reason across different domains, notations, methodologies, even though we cannot command equal expertise in them all. This should lead everyone to more sophisticated collaborations.

Where do languages divide on null objects? One division is the hot/cool distinction articulated by Huang (1982). He observed that "hot" languages (for instance, many Asian languages) allowed more direct reference to context, which can sometimes cross over into L2. Once a visitor from Japan came and offered me a gift and said, "*Let me give you*!" and handed the gift to me. In English, it is simply impossible not to express the contextually superfluous "this" (*let me give you this*). A child must make a parametric decision between hot and cool languages. This book is aimed at the subtler null object that differentiates a language like Portuguese from English, where a null *pro* (a DP) allows reference to context. In English, a null object is possible, in general, with nonreferential objects only, as in *I like to cook*. The core of the authors' analysis is that there is a universal Transitivity Requirement (TR) carried by all verbs, even seemingly intransitive ones. A transitivity requirement means, essentially, that a grammatical object (a Theme) is automatically projected.

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Since it does not follow from syntax narrowly conceived of as Merge, the TR seems to refer to a so-called Third Factor effect: the cognitive complexity of transitive verbs, which involve Agents, intentions and responsibility (*John hit Bill*).

I think that this approach may be couched in a stronger UG claim, what I call "Strict Interfaces" (Roeper 2014). This is essentially a version of what Rizzi (2016)¹ has recently called "broad UG" keeping the critical notion of crossmodular innateness in grammar. Chomsky (pc) likewise agrees that the interfaces are themselves subject to strong innate constraints. The concept of Strict Interfaces seeks to represent how various factors are expressed - or distorted at the point of an innate interface. Biology is full of strict interfaces: hand-eye coordination is clearly innate and involves a notion of three-dimensionality in vision that is mapped onto an implicit three-dimensional map carried by the organization of muscles, so that we can effortlessly reach for what we see. In the same vein, the authors argue that verbs are "intrinsically combinative" toward delivering a transitive reading. That is another way to say that there is an innate strict interface between pieces of grammar and their connection to other parts of mind, namely the notion of Events that carry Agent-Verb-Theme information. Strict Interfaces have consequences: both the notions of Agent and Theme (or grammatical object) create an impure reflection of cognition at the point of contact with grammar.

Let's examine the notion "Agent" as it maps separately onto the lexicon, syntax and morphology. A word like *cook* is an Agent, linked to notions of intentionality, skill and responsibility. It is probably closest to the cognitive notion. The –er affix carries Agent if the verb has it as one of its thematic roles: *hitter, runner.* However, in the sentence *John is the receiver of terrible insults, John* is the grammatical Agent for *receive* just as it is for *hit*, but it does not carry most of what agency means intuitively, instead the receiver is cognitively the object of insults. Here, the interface causes a fairly radical alteration. From another angle, in the sentence *John was widely admired*, there is an implicit Agent, which is interpreted as generic or implying ignorance, but its implicit status alters its meaning: intentionality is not entailed or is at least downgraded. Similarly, *the meat was cooked* has an implicit Agent that seems different from the Agent in cook. The connection to cognition is present, but it is limited by the demands of an efficient interface. Thus, each projection through the interface narrows the cognitive content. Similarly, the TR constraint both restricts and

¹ "A broad characterization of UG, the latter including both task-specific and domain general properties and principles which are operative in language, understood as a cognitive capacity."

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enlarges the connection to cognition. The cognate objects which the authors build upon, like *he sighed a large sigh* implies a kind of real object that is not there and thus begins to create effects that are the stuff of poetry. On the other hand, *John saw the ball under the car* can easily mean just part of the ball, but the transitive structure implies the whole ball.

This miniature treatment of Agent is a tiny echo of the authors' intricate treatment of the notion of "implicit" Theme, whose nonappearance or appearance as a clitic or a pronoun shows similar semantic and pragmatic variation. For instance, they observe this subtlety in the use of null objects, which in turn shows adult/child variation:

If that something was a wall and someone asked you what your friend was doing you might reply with *He/she is painting* \emptyset or *He/she is painting a wall*. The null object answer is possible because the object is of a type that can normally be painted. Such an answer would not be expected if that were not the case, if a sofa was involved for instance. Your answer to the person's question would more likely be *He/she is painting a sofa* than *He/she is painting* \emptyset . It turned out that children produced overall more null objects, which we interpreted as an indication that objects are less semantically restricted than in adults. (p. 196)

If only typical objects are deletable, then the challenge for the child is to determine, perhaps culturally, what is typical. This notion of typical could have interface-specific restrictions. For instance, the idea that, where concrete compositionality fails, as it must with idioms, no pragmatic null objects are ever allowed. If you say *John is painting my friend as an enemy* and someone asks *what's John doing?*, no one, not even a child, would respond *painting* without specifying the object.

Ultimately, the authors arrive at a view that favors some important traditional ideas:

- 1) **Categorical knowledge:** in their words "many dimensions of syntax, semantics and pragmatics intervene in the licensing and recoverability of null elements and while their combined effect leads to the appearance of a continuum, the contribution of each factor remains categorical" (p. 189).
- 2) Weak parameters: the child must still make a deep decision on the nature of empty categories. Despite many intervening factors, is there a null *pro* object that can be referential or is null *pro* parametrically

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excluded? One might therefore prefer the opposite designation "strong parameters," which are evident to the child despite pragmatics that seem to cloud the question.

3) Multiple grammars provide an explanation of gradient effects: if there is a process of weighing two options, with some evidence on each side, then the child maintains both sides of a parameter until one "wins." This creates the appearance of gradient effects. I have argued for Multiple Grammars: Roeper (1999), (2016), along with Yang (2002), Yang and Roeper (2011), Amaral and Roeper (2014).

The book concludes with many provocative open questions. In that spirit, we can follow its path a little further. There are at least two other domains where the TR reveals itself. Frazier (1999) has shown in parsing studies that the parser will seek to project an object after every verb, even an intransitive one, as if the core form of verbs were always transitive. In addition, productive morphology restricts newly created verbs to a transitive template, blocking double objects, complements and particles (Carlson and Roeper 1981). For instance:

Complements

John managed the store John managed to go downtown *John mismanaged to go downtown

Double-objects

John outKennedyed Kennedy *John outKennedyed me Kennedy

Particles

John rethrew the ball *John rethrew the ball out.

This is just what one would expect if an abstract form of TR defined a mentally real structure delivered by UG.

The difficulty of seeing how parameters interact with pragmatics, the lexicon and clitics has led to questioning the existence of parameters (Boeckx 2011), but Holmberg and Roberts (2014) have argued that they continue to be necessary. Once again, if the surface of grammar is complicated by pragmatics and the lexicon, then it becomes *more* important for a child to have an efficient

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method to make decisions, which is what a parameter provides. This book is the perfect demonstration of that perspective.

Like a small diamond, this book reflects in many directions and should be a model for collaboration in all of the fields it discusses.

> Tom Roeper, University of Massachusetts, Amherst

Acknowledgments

In the course of the last ten years or so, we have conducted, with our team at the University of Toronto, a series of experiments with monolingual and bilingual children ranging in age from three to six, acquiring French, English and Spanish. Each experiment dealt with a specific variable or set of variables involved in object omission constructions. The results of these experiments allowed us to refine our hypotheses and predictions and to see a clear picture emerge as to how to best describe and analyze the developmental sequence involved in this particular domain of language development. The impetus for this book arose from our desire to gather all of our hypotheses, experimental results and analyses and to present them as part of a unified narrative. We would like to thank Cambridge University Press for the support and editorial expertise they have provided since the submission of our initial book proposal, in particular Helen Barton, Sarah Green, Neil Smith and three anonymous readers.

One of the great rewards of academic research can be found in the opportunity to work with undergraduate and graduate assistants. We have benefited greatly from the assistance of our graduate research assistants, Maria Alkurdi-Alzirkly, Tanya Battersby, Sophia Bello, Isabelle Belzil, Ailis Cournane, Mélanie Elliott, Anna Frolova, David Fournier, Caitlin Gaffney, Monica Irimia, Meï-Lan Mamode, Joanne Markle-LaMontagne, Milica Radisic, Lynn Tieu, Danielle Thomas and our undergraduate research assistants: Samantha Andrade, Diana Dascalu, Robyn Kadoguchi, Catherine Lam, Salwa Mohi-Uddin, Kate Orgill, Aliona Rudchenko, Eric Scott, Evelina Szaczewska, Gilliam Tom and Iga Wyroba. We can only hope that they see their involvement in our project as mutually beneficial.

As will become abundantly clear throughout the following chapters, it would not have been possible to articulate the narrative developed in this book without the previous research that was available early in our project, and that has been produced since, on the topic of object omissions in L1 acquisition. Similarly, several colleagues have kindly provided tremendous comments and suggestions over the years and we would like to thank them:

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Larisa Avram, Pat Balcom, Susanne Carroll, Anny Castilla-Earls, Maria Cristina Cuervo, Sarah Cummins, Anna-Maria Di Sciullo, Anna Gavarró, Brendon Gillan, John Grinstead, Maria Teresa Guasti, Theres Grüter, Aafke Hulk, Arsalan Kahnemuyipour, Tanya Kupisch, Marie Labelle, Diane Massam, Jürgen Meisel, Natascha Müller, Alan Munn, Letitia Naigles, Philippe Prévost, Liliana Sanchez, Jeanette Schaeffer, Christina Schmitt, Einat Shetreet, William Snyder, Jeffrey Steele, Nelleke Strik, Viçens Torrens, Michelle Troberg, Kamil Ud Deen and Jill de Villiers. Special thanks to Tom Roeper for having graciously accepted to contribute a preface; given the fundamental influence of his work on our own over so many years, we could not have hoped for a more appropriate preface writer!

A special thank you to all the children who contributed to this book (some of whom are now teenagers); during our many experiments, we managed to see the world and words through their eyes! We also thank the numerous day cares in the Montréal and Toronto areas; they generously made time and space available for us for testing. For the parents of all the children who participated in this study, a warm thank you for allowing your child to enchant us!

As stated previously, the nature of this book is such that some of its contents have been presented elsewhere, including the Boston University Conference on Language Development (BUCLD), Generative Approaches to Language Acquisition (GALA), the Linguistic Symposium on Romance Languages (LSRL), Generative Approaches to Language Acquisition North America (GALANA), the Congress of the International Association for the Study of Child Language (IASCL), the Romance Turn, Canadian Linguistic Association (CLA), and appeared in several journals and volumes, including *Language Acquisition, Lingua, Bilingualism: Language and Cognition, First Language, Theoretical and Experimental Approaches to Romance Linguistics* (Benjamins), *Language Acquisition and Development* (Cambridge Scholars Press), *New Perspectives on Romance Linguistics* (Benjamins), *Multilingual Individuals and Multilingual Societies* (Benjamins). We would like to acknowledge the many anonymous reviewers who have helped us improve our contributions.

Finally, this book would not have been possible without the generous funding provided by the Social Sciences and Humanities Council of Canada (410–2005–239 and 410–09–2026), and, at the University of Toronto, the office of the Provost, New College, Victoria College and the University of Toronto Mississauga.

Abbreviations

ACC	accusative case
ASP	aspect
CL	clitic pronoun
DEF	definite
DAT	dative case
F	feminine gender
IMP	imperative
IMPF	imperfective aspect
INF	infinitive
INT	interrogative
М	masculine gender
NEG	negative
NOM	nominative case
OBJ	objective case marker
PART	participle
PAST	past tense
PERF	perfective aspect
PL	plural number
PRES	present tense
PROG	progressive aspect
SG	singular number
SUBJ	subject
ТОР	topic
LOC	locative
Ø	null category

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