THE GRAMMAR OF RAISING AND CONTROL
For Billy, Kate, Elijah, and Isaac

Who we hope to teach so much,
But from whom we learn so much more
THE GRAMMAR
OF RAISING
AND CONTROL
A COURSE IN SYNTACTIC ARGUMENTATION
## CONTENTS

| Preface | vii |
| Acknowledgments | x |

### Unit I  Classical Transformational Grammar  

<table>
<thead>
<tr>
<th>Introduction: Building the Foundations of a Syntactic Analysis</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laying the Empirical Groundwork</td>
<td>3</td>
</tr>
<tr>
<td>Transformational Grammar and Rosenbaum’s Analysis</td>
<td>17</td>
</tr>
</tbody>
</table>
| Postal’s *On Raising*  
Reading from Postal (1974) | 30 |
| Extended Standard Theory: Chomsky’s “Conditions on Transformations”  
Reading from Chomsky (1973) | 60 |
| The *On Raising* Debates: Bresnan, Postal, and Bach | 89 |

### Unit II  Extensions and Reinterpretations of Standard Theory  

<table>
<thead>
<tr>
<th>Introduction: Branching Paths of Inquiry</th>
<th>105</th>
</tr>
</thead>
</table>
| Relational Grammar: Perlmutter and Postal’s “The Relational Succession Law”  
Reading from Perlmutter and Postal (1972/83) | 107 |
| Revised Extended Standard Theory: Chomsky and Lasnik’s “Filters and Control”  
Reading from Chomsky and Lasnik (1977) | 137 |

### Unit III  Government and Binding Theory  

<table>
<thead>
<tr>
<th>Introduction: The Interaction of Principles and Possible Analyses</th>
<th>175</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chomsky’s <em>Lectures on Government and Binding</em> and the ECM Analysis of Raising</td>
<td>177</td>
</tr>
</tbody>
</table>
   Reading from Cole and Hermon (1981) 209
10 Are All These Really Raising Constructions? Cross-Linguistic Issues 243

Unit IV  The Minimalist Program 273

Introduction:  Neo-Raising, Neo-ECM, and the Raising/Control Distinction 273
11 Functional Projections and the Rise of the Minimalist Program 275
12 The Return to a Raising-to-Object Analysis 299
   Reading: Lasnik and Saito (1991) 300
13 The Separation/Unification of Raising and Control 332

References 363
Name Index 374
Subject Index 377
PREFACE

(1) Barnett seemed to understand the formula.
(2) Barnett believed the doctor to have examined Tilman.
(3) Barnett tried to understand the formula.
(4) Barnett persuaded the doctor to examine Tilman.

The sentences in (1) and (2) and their relationship to the sentences in (3) and (4) form the thematic core of this book. Inasmuch as understanding the analysis of (3) and (4) is important to understanding the analysis of (1) and (2), this book is about them as well. Sentences (1) and (2) are examples of Raising – Raising-to-Subject (sometimes Subject-to-Subject Raising) and Raising-to-Object (sometimes Subject-to-Object Raising), to be more precise. Sentences (3) and (4) are examples of Control, Subject Control, and Object Control, respectively. Raising and Control are among a handful of syntactic phenomena (including anaphora and question formation) which have been central concerns of generative syntax since the 1960s and must be factored into every instantiation of a comprehensive model. In many instances understanding the analysis of these constructions in a particular framework requires understanding the key assumptions underlying that framework, which leads to a general understanding of the framework itself. Thus, Raising and Control provide an excellent window into generative theories of syntax.

Starting with the classical transformational argumentation relating to Raising and Control, this book traces the development of analyses within the Chomskyan tradition from Standard Theory to the Minimalist Program, with some consideration of other generative alternatives along the way. Through a close examination of the development of analyses of this particular data domain one may gain insights into the interaction between data and theory. The shifts in the analyses of Raising and Control dramatically illustrate how theoretical models at times drive the perception of data, and how linguistic facts at other times force the restructuring of linguistic models. An understanding of the phenomena themselves and how data drive analyses and analyses are driven by theory are what we most hope you will get from this book.
Examining the development of the analyses of Raising and Control may also provide a sense of how the theory has evolved since the Standard Theory of Chomsky’s *Aspects*-model. To the extent that it does, this is an added bonus. However, such an understanding most likely requires the assistance of volumes more focused on this topic, such as Newmeyer (1986). So, with any luck at all, this book will serve multiple functions.

The book is divided into four units, each consisting of two to five separate chapters. Unit I, “Classical Transformational Grammar,” provides an introduction to the empirical domain of the book, an examination of one of the earliest transformational treatments of the constructions (Rosenbaum 1967), a look at two contrasting theoretical perspectives (those of Postal 1974 and N. Chomsky 1973), and a depiction of the mid-1970s debate on the issue of Raising. Unit II, on “Extensions and Reinterpretations of Standard Theory,” provides two distinct theoretical perspectives of the late 1970s and early 1980s, those of Relational Grammar and of Revised Extended Standard Theory (REST). In Unit III, “Government and Binding Theory” is the focus. There we introduce the theoretical principles that drive the Exceptional Case Marking (ECM) analysis of Raising-to-Object constructions, consider the theoretical innovations that are necessitated in attempting to extend the ECM analysis beyond its English model, and explore the raising construction in a range of languages that ultimately might not have it. Finally, Unit IV “The Minimalist Program,” begins with a look at the theoretical revisions of the early 1990s, revisions which motivate an abandonment of the ECM analysis and a return to a “Raising”-like account of these constructions. The last chapter of this unit brings the discussion into the present tense, examining recent attempts to collapse the Raising/Control distinction in favor of unitary analyses of them.

The subtitle of this book is *A course in syntactic argumentation*, and this is due to our belief that it is suitable material for a course in syntactic theory. The book contains six readings, drawn from the literature, which are intended to provide the student/reader with a feel for the literature that would necessarily be lacking from a pure summary of it. At the same time, we have endeavored to provide explanation and discussion of these passages, so as to make them accessible to one who is not familiar with the theoretical contexts in which they were written. We think that a course based on this book could profitably use the content of the book to avoid the alternative of reading the source materials for all the different analyses presented here. This enables students to go off on their own to explore other readings on the topic and perhaps on some topics other than the ones presented in this book. Note that the sources cited in the six readings are listed at the end of each reading; all other sources cited are listed in references at the end of this book.

Having successfully taught some version of such a course on four distinct occasions at two universities, the authors can attest to its success. By restricting the data domain to Raising and Control, as we have done in this book, the empirical focus acts as a lens through which students may examine the development of theoretical models of syntax. And while it would be difficult to devise a comprehensive course covering 35 years of generative theory in a single semester, a course based on this book makes such an endeavor quite
feasible. While students do not come away from this course with a thorough knowledge of each model, they do achieve a deep understanding of the basic premises that underlie the conceptual distinctions among them. They also develop, through their exposure to the various models and analyses, a faculty for “theoretical translation” – that is, an ability to grasp the intent of differing theoretical models, notational conventions, and innovations, without getting lost in or discouraged by the often confusing details. In this regard, the students who have passed through such a course have all become better practitioners of syntactic analysis, and more critical consumers of linguistic theory.

At the same time, there are a number of things that we do not intend the reader to derive from this book. First off, this is not a comprehensive treatment of the full range of constructions that might be grouped under the rubric of “Raising” or “Control.” The constructions that occupy the central focus of this book, as noted above, are Subject-to-Subject Raising and Subject-to-Object Raising, alongside the parallel Subject and Object Control constructions. The book makes little to no mention of non-obligatory Control, of Control by constituents other than subjects and objects, of “tough” constructions (sometimes classed as Object-to-Subject Raising), of Possessor Raising, of “seems like” Copy Raising, of a construction named “Richard” (Rogers 1971, 1972, 1974; Potsdam and Runner 2001), of Super Equi, or of Hyper Raising. Nor is this volume intended to be a history or compilation of all generative approaches to Raising and Control. It should be made clear at the outset that the volume does not do justice to the many non-MIT-oriented theoretical models (such as Categorial Grammar, G/HPSG, and LFG) that all have much to say regarding Raising and Control. Finally, this book does not provide a full and comprehensive understanding of any of the theories or theoretical models actually covered in this volume. There are many other volumes devoted to introducing MIT-oriented generative syntax, Relational Grammar, or other theories touched on here. Of course, readers who are truly interested in understanding the workings of a particular model are best advised to consult the primary sources, many of which are included in the references to this volume.

With this in mind, we hope that the reader will find the ensuing pages useful and informative.
ACKNOWLEDGMENTS

Any large endeavor requires the goodwill and support of many people. This book is no exception. We would like to thank the anonymous referees who read the initial book proposal and all who patiently listened to our developing idea and enthusiastically encouraged us to attempt this. Among them there are some who deserve special mention.

Frederick Newmeyer, Paul Postal, Roumyana Slabakova, and an anonymous reader for Blackwell carefully read the manuscript and offered excellent suggestions that strengthened the volume you now hold in your hands. Despite the fact that some suggestions were not followed up on, all were greatly appreciated.

A number of native speakers provided grammaticality judgments for some of the non-English data included here, and we extend our thanks to Surachman Dimmyati, Annie Dumenil, Hasan, Masharudin, Ruskawi, Sugiyono, Apolonia Tamata, and Rowena Torrevillas.

This volume developed out of several classes we have taught since the spring 1999 semester. The questions, comments, puzzlements, perceptions, and outrage of the students in those classes helped shape the book and gave us confidence that the project was worth trying. Thanks to the students of syntactic theory classes and the syntax seminar at the University of South Carolina: Raquel Blazquez-Domingo, Carla Breidenbach, Craig Callender, Lori Donath, Cheryl Fitzgerald, Angie Green, Rachel Hayes, Claudia Heinemann-Priest, Won-yoo Kim, Denis Kopyl, Larry LaFond, Rulai Li, Changyong Liao, Theresa McGarry, Robert Moonan, Heather Myers, Mila Tasseva-Kurkchchieva, Leticia Trower, Cherlon Ussery, Chalmers Van Deusen, Kristen Vanheest, and Lan Zhang. And thanks to the students of the University of Iowa syntax seminar: Judit Balassa, Susanna Bauer, Jane Gressang, Dongmei Li, Lixia Ma, Danielle Seager-Frerichs, and Yuping Zhou.

Thanks to Tami Kaplan, formerly of Blackwell, for encouraging us to pursue the project and shepherding us most of the way through it, and Sarah Coleman for her editorial and logistical help. Thanks also to Craig Callender, Craig Dresser, Fiona Sewell, Zara Wanlass, and Lan Zhang for assistance in preparing and proofreading the manuscript.
Financial assistance for various aspects of the work was provided by the University of Iowa Arts and Humanities Initiative, the University of Iowa College of Liberal Arts and Sciences, the Obermann Center for Advanced Studies, and the University of South Carolina Department of English Language and Literature. Work on Madurese was supported in part by the National Science Foundation through grant SBR 98-09044 to the University of Iowa.

As always our families provided a lot of support but more importantly a great deal of tolerance through many disruptive visits and absences over the past year and a half, always providing the right balance of inspiration and exasperation. So our special thanks to Melissa and Elijah and Patty, Billy, and Kate.

The editor and publisher gratefully acknowledge the permission granted to reproduce the copyright material in this book:


4. Noam Chomsky and Howard Lasnik, sections 0 and 1.1 (pp. 425–33) and 1.3 (pp. 439–44) from “Filters and Control” in *Linguistic Inquiry* 8:3 (Summer 1977). © 1977 by the Massachusetts Institute of Technology. Reprinted by permission.


Every effort has been made to trace copyright holders and to obtain their permission for the use of copyright material. The publisher apologizes for any errors or omissions in the above list and would be grateful if notified of any corrections that should be incorporated in future reprints or editions of this book.
UNIT I
CLASSIC TRANSFORMATIONAL GRAMMAR

INTRODUCTION: BUILDING THE FOUNDATIONS OF A SYNTACTIC ANALYSIS

This unit traces the developments in the treatment of Raising and Control in early generative syntax. The distinction between Raising and Control is robust in early transformational grammar, the Standard Theory as delineated in Noam Chomsky’s 1965 *Aspects of the theory of syntax*. But as with other grammatical features, developments in this area were many and rapid, in part fueled by the exuberance of the early practitioners of generative linguistics and in part by the developing rift between interpretive semantics and generative semantics.

Chapter 1 examines the grammatical characteristics of Raising and Control, outlining the empirical distinctions between these constructions which every analysis in the generative era must deal with in developing an adequate analysis. As the course of the book shows, the same distinctions that fueled the initial Standard Theory analyses drive the proposals of the 2000s.

Chapter 2 provides an overview of Standard Theory and lays out Rosenbaum’s (1967) classic analysis of both Raising and Control. In Rosenbaum’s analysis, both Raising-to-Subject (RtoS), as in *Barnett seemed to understand the formula*, and Raising-to-Object (RtoO), as in *Barnett believed the doctor to have examined Tilman*, include movement of the subject of the embedded clause into a position in the matrix clause. Although Raising and Control are unified in a single rule in Rosenbaum’s analysis, reaction to and evaluation of his proposal often led to the splitting of these constructions into separate structures. And the movement analysis of RtoO later became controversial.

The classic transformational work on Raising is Postal’s (1974) tome *On Raising*. Chapter 3 outlines a number of Postal’s many and varied data arguments for recognizing a movement analysis of both RtoS and RtoO and includes reading selections from that work. Postal’s treatment emerged roughly simultaneously to Chomsky’s (1973) “Conditions on transformations,” which
includes Chomsky’s shift from deep structure semantics to interpretive semantics and the concomitant repudiation of the movement analysis of RtoO. Chapter 4 details these developments and includes a selection from “Conditions on transformations.”

In some ways the Raising-to-Object transformation was a rallying point for the so-called “linguistic wars” (Harris 1995; Huck and Goldsmith 1995) between generative semantics, as embodied in Postal (1974), and interpretive semantics, represented by Chomsky (1973). As generative semanticists sought to generalize syntactic operations throughout the grammar, introducing levels of abstract representation deep into the lexicon, Chomsky’s interpretivist endeavors were aimed at drawing clear distinctions between the lexical and syntactic components of the grammar (as epitomized in N. Chomsky 1970), and constraining what the syntactic component of the grammar could do.¹ The combative nature of this debate is evident in Bresnan’s (1976) review of Postal, which lays out objections to nearly every one of Postal’s empirical arguments for movement in RtoO, and Postal’s (1977) uncompromising response to that review. This material is the subject of Chapter 5.

Note

¹ Needless to say, initial theoretical stances can be poor predictors of theoretical evolution, and as will be seen in unit IV, some of the theoretical repositioning in Chomsky’s 1990s Minimalist Program involves the adoption of assumptions that would have been deemed generative semantic heresy in the 1970s.
1 Constructions and labels

A primary motivation for the attention given to Raising and Control in generative syntax is the striking similarity of the constructions in English. This is obvious in the data in (1) and (2), which illustrate Raising-to-Subject and Subject Control.

(1) Barnett seemed to understand the formula.

(2) Barnett tried to understand the formula.

The surface strings in (1) and (2) are identical: an intransitive matrix clause with an infinitival complement, NP-V-to-VP. The sole surface difference is the choice of the matrix verb, *seem* vs. *try*. However, as will be seen in the following section, there are fundamental differences between the two sentences that center on the subject of the matrix clause. In the Raising construction in (1), the subject *Barnett* is semantically linked only to the embedded verb *understand*, while in (2) it is semantically linked to both the matrix verb *try* and the embedded verb. For this reason, the subject in (2) is said to “control” the reference of the subject of the embedded clause and the construction has come to be referred to as “Subject Control.”

Parallel data are found with transitive matrix verbs where the locus of these differences is the immediately postverbal NP.

(3) Barnett believed the doctor to have examined Tilman.

(4) Barnett persuaded the doctor to examine Tilman.

Again, the surface strings are (virtually) identical, but there are fundamental differences in the characteristics of the NPs immediately following the matrix verbs. In (3), the *doctor* is semantically linked only with the embedded verb
examine, while in (4) the doctor is semantically linked to both the matrix verb persuade and the embedded verb. The construction in (3) is referred to as Raising-to-Object and that in (4) as Object Control. Additionally, there are constructions such as (5) that parallel the surface strings (3) and (4).

(5) Barnett promised the doctor to examine Tilman.

In (5), the subject Barnett but not the object the doctor is semantically linked to the embedded predicate, and the sentence, like (2), is a case of Subject Control.

Whether or not the structures in (1–5) are Raising or Control depend on properties of the matrix verb, that is, the Raising and Control that are examined here are lexically governed. In other words, while some syntactic rules apply independent of lexical selection (e.g., SUBJ-AUX Inversion applies in questions regardless of the main verb of the sentences), other rules apply only in the context of particular lexical items. Being marked for Raising may have nothing to do with the argument structure of a verb or the thematic roles it assigns. It will be seen below that there are large classes of “raising predicates” and “control predicates,” and their structure will be examined in the course of our discussion. However, we first turn to diagnostics for distinguishing the two constructions.

2 Empirical distinctions between Raising and Control

Despite the superficial similarities in word order and morphology, raising and control constructions differ in a variety of ways, many of them related to meaning. This section outlines the traditional arguments for distinguishing Raising and Control.

Thematic roles

Raising and control structures have distinct thematic structures; that is, the roles of the participants in the state of affairs described in the sentence are distinct. In the case of intransitive verbs, the matrix subject appears to have a role only in the action of the complement. Note that (1) is truth-conditionally equivalent to (6).

(6) It seemed that Barnett understood the formula.

In (6), Barnett is assigned the thematic role of “experiencer” as the subject of understand. It, on the other hand, as a pleonastic (or semantically empty) element, receives no thematic role, showing that the predicate seem need not assign a thematic role to its subject. The thematic structure of (1) is identical to (6). Barnett is understood to be an experiencer, but has no other thematic role assigned. Conversely, in (2), Barnett appears to have two roles in the sentence, one as experiencer of understand and one as agent of try. The control verb try,
Unlike the raising verb *seem*, assigns a thematic role to its subject. Thus, intransitive raising and control verbs have different thematic structures.

Transitive raising and control verbs exhibit a similar difference, with the difference residing in the postverbal argument. In (4), *Barnett persuaded the doctor to examine Tilman, the doctor* plays two roles in the sentence: one as the agent of the embedded verb *examine* (i.e., the examiner) and the other as the object of persuasion (i.e., the persuadee) of the verb *persuade*. *Persuade* assigns three thematic roles: agent, persuadee, thing persuaded of (the clausal complement). In (3), *Barnett believed the doctor to have examined Tilman, the doctor* plays a single role, that of agent or examiner. That is, (3) is truth-conditionally equivalent to (7).

(7) Barnett believed that the doctor had examined Tilman.

In (7), as in (3), *believe* has two thematic roles to assign: agent to its subject and theme to the clausal complement. Thus, transitive raising and control predicates have distinct thematic structures, just as intransitives do.

*Embedded passive*

Raising and control structures can be distinguished by their behavior when the complement clause is passive (Rosenbaum 1967:59–61). For raising predicates such as *seem*, a sentence with a passive complement is synonymous with the same sentence with an active complement. This is illustrated in (8).

(8) a. Barnett seemed to have read the book.
   b. The book seemed to have been read by Barnett.

With an intransitive control verb, the sentences with embedded passive are not synonymous with the active, and, in fact, an embedded passive is not always possible.

(9) a. The doctor tried to examine Tilman.
   b. Tilman tried to be examined by the doctor.

(10) a. Barnett tried to read the book.
    b. #The book tried to be read by Barnett.

The sentences in (9) are not synonymous. In (9a), it is the doctor who attempts the examination; however, the attempt may fail for some reason, be it Tilman’s refusal to be examined or some other circumstance. On the other hand, in (9b), it is Tilman who makes the attempt, but may be unsuccessful due to the doctor’s refusal or some other circumstance. (10) shows that the passive is not possible when the object of the embedded clause is an inanimate entity such as a book. This relates to the thematic structure of *try*, which assigns the agent role to its subject, and so in the normal state of affairs requires a sentient, volitional entity as subject.
The same situation is encountered with transitive raising and control predicates. With raising predicates, sentences with embedded passive and active are truth-conditionally equivalent; so, (11) and (3) are synonymous.¹

(11) Barnett believed Tilman to have been examined by the doctor.

In both (3) and (11), Barnett’s belief is that the doctor examined Tilman. In contrast, with a matrix control predicate, the embedded passive and active are not synonymous. The state of affairs expressed in (12) is not the same as that expressed in (4).

(12) Barnett persuaded Tilman to be examined by the doctor.

In (12), Barnett must persuade Tilman of the need for the examination, while in (4), it is the doctor that must be persuaded. The synonymy or non-synonymy of sentences with active and passive complements thus provides a second diagnostic for distinguishing Raising and Control.

**Selectional restrictions**

Another diagnostic distinguishing raising and control constructions is available from selectional restrictions imposed by embedded predicates. For semantic reasons, many predicates require that one argument or another have particular properties. This is illustrated in (13).

(13) a. The rock is granite.
    b. #The rock understands the important issues of the day.

(13a) is a perfectly well-formed sentence; the predicate *be granite* selects for a subject that can in fact be granite. (13b), on the other hand, is pragmatically odd; the predicate *understand* requires that its subject be sentient. Since rocks do not have this property, (13b), while syntactically well-formed, is semantically ill-formed.

The influence of the selectional restrictions of predicates of complement clauses provides a diagnostic for distinguishing Raising from Control. The data in (14, 15) illustrate.

(14) a. The rock seems to be granite.
    b. #The rock seems to understand the important issues of the day.

(15) a. #The rock tried to be granite.
    b. #The rock tried to understand the important issues of the day.

Looking first at (14), we see that (14a) is perfectly well-formed, while (14b) is semantically odd. The data precisely parallel the situation in (13). In (14a), the embedded predicate is *be granite*, and the *rock* can be the subject of the entire sentence, while in (14b), the embedded predicate is *understand*, and having the
Laying the Empirical Groundwork

rock as subject of seem is semantically ill-formed. Thus, it is possible to account for the judgments in (14) on the basis of the semantics of the embedded predicate. With the control predicate try, the situation changes. Both sentences in (15) are semantically ill-formed, the embedded predicate having no influence over the judgments of acceptability. In fact, the oddness in (15a) and (15b) results from the semantic requirements of try; try assigns the agent role to its subject, which requires an entity capable of volition. The sentences in (15) are ill-formed precisely because rocks violate this selectional restriction. Raising constructions can thus be distinguished from control constructions on the basis of whether or not the selectional restrictions of the embedded predicate can determine the semantic well-formedness of the sentence.

The sentences in (16) and (17) show that the situation is similar with transitive raising and control predicates. With raising predicates such as believe, when the selectional restrictions of the embedded predicate are satisfied, the sentence is well-formed (16a), but when they are violated, the sentence is semantically ill-formed (16b). As (17) shows, with control verbs such as persuade the situation changes. Despite the fact that the selectional restrictions of the embedded predicate are satisfied in (17a), this sentence is as semantically ill-formed as (17b). The reason is that persuade requires a sentient object, an object that is capable of being persuaded; the rock satisfies this requirement in neither (17a) nor (17b).

(16)  a. Barnett believed the rock to be granite.
    b. #Barnett believed the rock to understand the issues of the day.

(17)  a. #Barnett persuaded the rock to be granite.
    b. #Barnett persuaded the rock to understand the issues of the day.

Pleonastic subjects

As seen in the preceding sections, the fact that control predicates assign a thematic role to the controller while raising predicates assign no thematic role to the corresponding argument provides an explanation for the distinct behaviors of the two classes with respect to embedded passive and selectional restrictions. A further diagnostic where this is relevant involves the it of meteorological expressions and existential there. While either can be the subject of an intransitive raising predicate such as seem (18), neither is possible with control predicates (19).

(18)  a. It seemed to be raining.
    b. There seems to be a unicorn in the garden.

(19)  a. *It tried to be raining.
    b. *There tried to be a unicorn in the garden.

Since pleonastic elements are semantically empty, they can be assigned no thematic role. Therefore, they are not possible subjects for verbs such as try,
which assign thematic roles to their subjects, in this case agent, and the sentences in (19) are ungrammatical. Conversely, as was seen above, intransitive raising verbs do not assign a thematic role to their subjects and so pleonastic elements are semantically allowable subjects. As the sentences in (18) show, as long as the pleonastic subjects are sanctioned by the predicates of the embedded clause, they are possible subjects of intransitive raising predicates.

Again, parallel data are found with transitive raising and control predicates.

(20)  
   a. Barnett believed it to have rained.  
   b. Barnett believed there to be a unicorn in the garden.

(21)  
   a. *Barnett persuaded it to rain.  
   b. *Barnett persuaded there to be a unicorn in the garden.

Raising predicates such as believe accept meteorological it or existential there as postverbal NPs (20), while control predicates such as persuade do not (21). Again, the ungrammaticality of the sentences in (21) is attributable to the fact that persuade has a thematic role to assign to its object, and this role cannot be assigned to semantically empty elements such as it and there.

Idiom chunks

A final diagnostic for distinguishing raising from control constructions comes from the behavior of idiomatic expressions. In (22), the cat can take on a special meaning.

(22) The cat is out of the bag.

The sentence in (22) is ambiguous. When interpreted literally it describes a situation in which a particular feline is not in a particular container, and the cat denotes that feline. As an idiom, (22) means that a one-time secret is no longer a secret, and the cat denotes that secret. Clearly this is an unusual meaning of the cat and is only possible when the cat occurs in this particular idiomatic expression.

   As (23) and (24) show, the possibility of idiomatic interpretations distinguishes Raising from Control.

(23)  
   a. The cat seemed to be out of the bag.  
   b. ?The cat tried to be out of the bag.

(24)  
   a. Tina believed the cat to be out of the bag by now.  
   b. ?Tina persuaded the cat to be out of the bag.

With raising predicates, expressions can retain their idiomatic interpretation: (23a) and (24a) can still be interpreted as describing situations in which the cat can refer to a secret. On the contrary, with control predicates, the idiomatic interpretation is no longer possible: in (23b) and (24b) the cat can only be interpreted as referring to a particular feline.²
3 Where things get fuzzy

There are verbs in English which seem to occur in both raising and control structures, albeit with slightly different meaning. One such predicate is *begin*, as described in detail by Perlmutter (1970).

(25) The street sweeper began to work.

(25) can be viewed as either a raising or a control structure, and this can be made clear with the addition of further context as in (26).

(26) a. The street sweeper began to work, once we replaced the spark plugs.
    b. The street sweeper began to work, as soon as he got to the park.

In (26a), *the street sweeper* is clearly a machine, and *begin* functions only as an aspectual raising verb, assigning no thematic role to its surface subject. In (26b), though, *the street sweeper* denotes a person. Here the NP is assigned the thematic role of agent by the embedded verb *work*, but additionally, the commencement of the activity is a volitional act, in which case *the street sweeper* is also assigned an agent role by the matrix verb *begin*. As Perlmutter shows, *begin* displays some of the behaviors typical of raising predicates.

(27) It began to rain.
(28) Headway began to be made toward a solution.

In (27), the subject is meteorological *it*, which (as shown previously) is possible with Raising but not Control, and in (28), *headway* is sanctioned in the idiomatic expression *make headway*, but not as a possible agent of *begin*. On the basis of evidence such as this, Perlmutter argued for two thematically distinct verbs *begin*, one a raising verb and the other a control verb.³

Two other English verbs which show the characteristics of both raising and control predicates are *promise* and *threaten*. In each case, the distinction depends on whether the subject of the verb is an agent. When the subject is non-agentive, the verb takes a single argument, which may be propositional as in (29a) or nominal as in (29b).

(29) a. Rain threatened to fall.
    b. Rain threatened.

When the subject is agentive, the verb takes two arguments, an agent and a theme, which is generally propositional, (30a). (30b) is a control construction.

(30) a. Sandra threatened that she would leave.
    b. Sandra threatened to leave.

These raising/control distinctions are illustrated in (31) and (32).
Laying the Empirical Groundwork

(31)  
a. The boy promises to be a gifted musician.
b. The boy promised to pick up a quart of milk on the way home.

(32)  
a. Several downtown businesses threaten to go bankrupt.
b. Several downtown businesses have threatened to take the city to court over the new parking regulations.

In (31b), the boy has clearly made a verbal commitment to perform a task, a volitional act. Thus, here *promise* assigns the role of agent and the structure is Control. In contrast, (31a) describes someone’s assessment of whether or not the boy will become a gifted musician; the boy is not making a verbal commitment and is not a participant in the event of promising. In (32), *threaten* shows the same contrast. In (32b), a conscious threat has been made by the representatives of these businesses, while (32a) simply describes a likely scenario which imputes no volition to the businesses or their representatives. As with *begin*, the volitional uses of *promise* and *threaten* are control constructions and the non-volitional uses are raising constructions.

As (33) and (34) illustrate, both verbs can take pleonastic subjects when they are licensed by the embedded predicates, indicating their status as possible raising predicates.

(33)  
a. There promises to be trouble at the concert.
b. It promises to be a beautiful day.

(34)  
a. There threatens to be a revolution in San Marino.
b. It threatens to be a hard winter.

Finally, Postal (1974:ch. 11) discusses other cases in English in which the distinction between Raising and Control is blurred. There are cases that would be analyzed as Raising-to-Object/Object Control, with predicates such as *allow*, *find*, *permit*, and others. On the one hand, these predicates behave as raising predicates exhibiting the property of allowing pleonastic elements (35a, b) and idiom chunks (35c).

(35)  
a. I allowed *there* to be a unicorn in the garden.
b. The president will not permit *it* to seem that he is hiding something from the public.
c. Hoover allowed *tabs* to be kept on Jane Fonda.

On the other hand, these predicates display the control-type behavior of not preserving meaning when the complement is passive.

(36)  
a. Barnett permitted the doctor to examine Tilman.
b. Barnett permitted Tilman to be examined by the doctor.

Clearly, in (36a) Barnett has given the doctor permission to do the examination, while in (36b), Barnett has given Tilman permission to undergo the examination. See Dowty (1985) for an examination of the semantics of these predicates.
The lists of verbs

Thus far, our illustrations of Raising and Control have involved very few predicates. There are, however, extensive numbers of both raising and control predicates in English. Here we provide lists compiled from other sources.

Intransitive raising predicates (Postal 1974:292)

a. Adjectives
about certain likely sure
apt going set unlikely
bound liable supposed

b. Verbs
appear fail promise stop
become get prove strike
begin grow quit tend
cease happen resume threaten
chance impress seem turn
come keep (on) stand turn out
commence need start were
continue persist start out wind up
end up proceed stay

c. Auxiliaries
(Modals) may should should (Non-modals)
can might will be
could must would have
ought shall used

Transitive raising predicates (Postal 1974:305, 308)

acknowledge determine intuit rule
admit discern judge specify
affirm disclose know state
allege discover note stipulate
assume feel posit suppose
believe figure presume surmise
certify gather proclaim take
concede grant reckon think
declare guarantee recognize understand
decree guess remember verify
deduce hold report

demonstrate imagine reveal

Subject control predicates

a. Adjectives
careful eager reluctant
b. **Verbs**

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Conjugations</th>
</tr>
</thead>
<tbody>
<tr>
<td>attempt</td>
<td>endeavor</td>
</tr>
<tr>
<td>condescend</td>
<td>fail</td>
</tr>
<tr>
<td>continue</td>
<td>forget</td>
</tr>
<tr>
<td>dare</td>
<td>help</td>
</tr>
<tr>
<td>desire</td>
<td>manage</td>
</tr>
</tbody>
</table>

**Object control predicates**

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Conjugations</th>
</tr>
</thead>
<tbody>
<tr>
<td>allow</td>
<td>force</td>
</tr>
<tr>
<td>cause</td>
<td>let</td>
</tr>
<tr>
<td>coax</td>
<td>order</td>
</tr>
</tbody>
</table>

Ruwet (1991)

In his consideration of raising and control structures in French, Ruwet (1991) points to the apparent difficulty in determining precise syntactic diagnostics for distinguishing the two classes that are applicable in all cases. He takes as his starting point the generally accepted notion that *sembler* ‘seem’ is a raising predicate and *prétendre* ‘claim’ is a control verb. The particular syntactic test for Raising in French that he examines is *en*-cliticization on the embedded verb.

A restricted set of verbs (perhaps a subset of unaccusative verbs) allows the subjects to optionally take the partitive clitic *en* as complement.

(37) a. La préface de ce livre est trop longue.
‘The preface of this book is too long.’

b. La préface (en) est trop longue.
‘The preface (of it) is too long.’

In (37b) the subject *la préface* optionally takes the clitic *en* as a pronominal complement, substituting for the PP complement *de ce livre* found in (37a).

French raising verbs such as *sembler* ‘seem’ can be distinguished from control verbs such as *prétendre* ‘claim’ by means of the *en* clitic. As (38b) shows, *en* can cliticize to the embedded verb in a raising construction, although it is associated with the subject of the matrix clause.

(38) a. L’auteur de ce livre semble être génial.
‘The author of this book seems to be brilliant.’

b. L’auteur semble *en* être génial.
‘The author of it seems to be brilliant.’

On the contrary, *en* cannot cliticize to the embedded verb in a control construction, as in (39b).

(39) a. L’auteur de ce livre prétend être génial.
‘The author of this book claims to be brilliant.’

b. *L’auteur prétend *en* être génial.
(The author of it claims to be brilliant.)
(39b) is ungrammatical precisely because of the presence of *en*. Thus, *en-*cliticization is taken to be a syntactic diagnostic for Raising in French.

Ruwet further shows that *promettre* ‘promise’ and *menacer* ‘threaten’ are ambiguous between Raising and Control in the same way as for English. For example, (40) can mean either that the young boy gives a verbal promise that he will become a great musician or that his chances of becoming a great musician are promising.

(40) Ce jeune garçon promet de devenir un grand musicien.
    ‘The young boy promises to become a great musician.’

Likewise, (41) can mean either that the terrorists verbally threaten to break everything or that there is a good chance that they will do so.

(41) Les terroristes menacent de tout casser.
    ‘The terrorists threaten to break everything.’

Thus, it seems that *promettre* and *menacer* are clear examples of verbs that take either raising or control structures.

However, Ruwet demonstrates that the *en*-cliticization facts seem to cast doubt on the status of these verbs. If *en*-cliticization is a marker of Raising, and if these two verbs both possess a raising and a control variant, then one would expect that *en*-cliticization would provide a means for clearly distinguishing the raising senses of (40) and (41) from the control interpretations. However, with this class of “ambivalent” verbs, Ruwet finds that *en*-cliticization on the embedded verb is only possible when the subject is non-human. Compare (42b) and (43b) with (38b) above.

(42) a. La préface menace de ne jamais *en* être publiée.
    ‘The preface of it threatens to never be published.’
    b. ??L’auteur menace de ne jamais *en* devenir célèbre.
    (The author of it threatens to never become famous.)

(43) a. Les conditions promettent d’*en* être satisfaisantes.
    ‘The conditions of it promise to be satisfactory.’ (e.g., treaty)
    (The representatives of it promise to be upright.)

Thus, with the class of verbs that includes *promettre* ‘promise’ and *menacer* ‘threaten’, the distinction between raising and control structures is fuzzy. While raising predicates are supposed to exert no influence on the selection of their subjects, this does not seem to be the case with this class of verbs. Ruwet goes on to demonstrate that not only are there “ambivalent” raising and control verbs that disallow *en*-cliticization with a human subject, but also that there are certain “pure” control verbs such as *prétendre* ‘claim’ and *exiger* ‘demand’ which allow *en*-cliticization on the embedded verb provided the matrix subject is non-human.
La liste ne prétend pas être exhaustive. ‘The list of them does not claim to be exhaustive.’

Ruwet successfully demonstrates the fact that identifying Raising and Control is not always a black and white issue. Regrettably, it is not always the case that syntactic diagnostics are available as reliable tests for Raising and/or Control.

A third class

As outlined above, there is a large class of raising predicates and a large class of control predicates. And for the most part, the membership of the two classes is mutually exclusive, notable exceptions to this being *begin*, *promise*, and *threaten*. There is a third class of verbs, exemplified by *want* and *prefer*, which at first blush also appear to belong to both classes.

Notice first that when *want* and *prefer* are followed by an infinitival complement, the infinitive can have an overt accusative subject, or not, as seen in (45) and (46).

(45) a. She wanted them to be nice.
    b. She wanted to be nice.

(46) a. Barnett would prefer the doctor to examine Tilman.
    b. Barnett would prefer to examine Tilman.

Example (45a) seems to have more in common with the Raising (-to-Object) sentence in (47a) than with the Object Control sentence in (47b). At the same time, (45b) has more in common with the Subject Control sentence in (48b) than with the Raising (-to-Subject) sentence in (48a).

(47) a. She believed them to be nice.
    b. She persuaded them to be nice.

(48) a. She seemed to be nice.
    b. She tried to be nice.

These superficial observations are supported by some of the diagnostics developed earlier in this chapter. According to these diagnostics, (45a) and (46a) appear to be cases of Raising, as they pattern like *believe*: for example, the postverbal NP can be existential *there* (49) and idioms can have their idiomatic interpretation (50).

(49) a. I want there to be fried squid at the reception.
    b. Fillmore would prefer there to be a unicorn in the garden.

(50) a. I want the fur to fly at next week’s meeting.
    b. Tina would prefer the cat to be out of the bag.
As (45b) and (46b) show, however, verbs of the \textit{want}-class also appear to occur in control constructions. The sentences seem to be examples of intransitive control constructions such as were seen with verbs like \textit{try}. Note that like \textit{try}, in (45b) \textit{she} appears to be assigned two thematic roles, one as subject of \textit{want} and one as subject of \textit{be nice}. Likewise, in (46b) \textit{Barnett} is assigned a thematic role by \textit{prefer} as well as by \textit{examine}. Further, pleonastic subjects are excluded (51) and idioms lose any idiomatic interpretation (52) (or are just completely ungrammatical (52a)).

(51)  
   a. *There wants to be fried squid at the reception.
   b. *There would prefer to be a unicorn in the garden.

(52)  
   a. *The fur wants to fly.
   b. The cat would prefer to be out of the bag.

What distinguishes verbs of the \textit{want}-class from others examined thus far is their ability to occur with the complementizer \textit{for}, as illustrated in (53).

(53)  
   a. Terry wants very much for Ashley to arrive on time.
   b. The administration would prefer for all professional staff to agree to a furlough.

This is possible neither with “pure” raising predicates (54) nor with “pure” control predicates (55).

(54)  
   a. *Barnett believes (very much) for the doctor to have examined Tilman.
   b. *Terry proved (very convincingly) for Ashley to be an idiot.

(55)  
   a. *Barnett persuaded (very strongly) for the doctor to examine Tilman.
   b. *Tina forced (very strongly) for the author to rewrite the introduction.

Verbs that may also belong to this class include \textit{hate}, \textit{intend}, \textit{like}, \textit{mean}, and others.

Notes

1 As Postal (p.c.) points out, the synonymy of the embedded actives and passives under Raising holds only of specific/non-quantificational nominals. In (i) and (ii), which are parallel to (3) and (11), the relative scope of the quantified expressions affects interpretation and obviates the synonymy referenced by this diagnostic.

   (i) Barnett believed no doctor to have examined many students.

   (ii) Barnett believed many students to have been examined by no doctor.

(i) is true just in case there is no single doctor who has individually examined many students, while (ii) is true just in case there are many students who did not receive an examination by a doctor.
2 (23b) is somewhat degraded syntactically and (24b) is acceptable only to the degree that one believes that cats can be persuaded of anything. However, it remains clear that the cat can only denote an animal in these sentences.

3 Contra Perlmutter, Newmeyer (1969) argues that begin is only an intransitive verb.

4 Unaccusative verbs are a subset of intransitive verbs, and are in complementary distribution with unergative (intransitive) verbs. Where transitive verbs are characterized by having a subject and an object, intransitive verbs fail to have one of these. A verb that has (underlyingly) a subject but no object is termed unergative, and a verb that has an object (underlyingly) but no subject is termed unaccusative. The “unaccusative hypothesis” was most fully developed by David Perlmutter and Paul Postal in the mid-1970s, in the context of their Relational Grammar theory. The terminology was struck by Geoffrey Pullum. For a detailed and entertaining tale about the origin of this notion, see Pullum (1991).