



Current  
Studies in  
Linguistics

EVENTS IN THE  
SEMANTICS OF ENGLISH:  
A STUDY IN  
SUBATOMIC SEMANTICS

TERENCE PARSONS

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Events in the  
Semantics of English

Terence Parsons

A Study in  
Subatomic Semantics



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CIP

**To Anette and Rex and Brent**

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## Preface

The purpose of this book is to provide a coherent general theory about how events and states relate to language. Most of the ingredients of the general approach have already appeared in the literature, somewhere, in some form. For example, a treatment of German modifiers within a theory of underlying events was developed in detail in Bartsch 1976, expanding on Davidson 1967. The use of thematic roles has been much discussed in the linguistic literature; they are newly amalgamated here into an event framework as are the topics of causatives and inchoatives, where the treatment owes most to Dowty 1979. Indeed, so much of this book is parasitic on Dowty's book that it can almost be seen as an extended commentary on it. The fact that so many of the accounts contained herein are presented as possible improvements on Dowty's proposals should not obscure the common ground between them or the dependence of my accounts on his work. The use of an event framework to analyze bare infinitive perception sentences has been discussed and defended in Higginbotham 1983 and Vlach 1983. The discussions here of the English progressive, of the perfect, and of the use of underlying states to analyze state sentences are mostly mine, as is much of the detailed development of various topics throughout the book. The uniqueness of the book is that it pulls together a wealth of material bearing on the Panini-Ramsey-Davidson hypothesis that English sentences of the simplest sort contain some underlying reference to (quantification over) events or states.

The discussion in this book requires a familiarity with the notation of ordinary predicate logic; otherwise it should be accessible to any philosopher or linguist. Many of the topics discussed are relatively independent. A reader should be able to skip to almost any chapter after reading the first three, though an awareness of the complexities

in chapters 4–7 may be helpful in assessing proposals throughout the book. (A useful beginning would be chapters 1 and 2, followed by 3.1–2, 4.1–3, 5.1–3, 6.1–3, 7.1–2.) An analytical table of contents is included to make the survey easier.

This book does not attempt to cover the main issues in the philosophical literature on events. My presentation does not presuppose any of this material, though many will see the justification of my proposals as partly dependent on how they fit with major views in the field. Fortunately, Bennett 1988 appeared while this book was in preparation; it provides a critical presentation of, and commentary on, the mainstream philosophical theories. It can be used to span the gap between this book and much of the philosophical literature.

The topics in this book are related in various ways to a vast literature in both philosophy and linguistics. I apologize to both readers and authors for the enormous quantity of relevant material that is not discussed or even mentioned. Any attempt at an even-handed survey of relevant material would have doubled the size of a book that continually threatened to grow beyond bounds. The goal of this book is neither completeness nor complete accuracy; it is to get some interesting proposals into the public arena for others to criticize, develop, and build on.

I am indebted to many people for help in the production of this book. My principle debts are to Emmon Bach, David Dowty, and Barbara Partee. I received valuable assistance throughout this project from Neil Elliott and Paul Graves. In addition I want to express appreciation for valuable criticism to Carol Gabriel, Edmund Gettier, Roger Higgins, Michael Jubien, Brian Skyrms, Peter Woodruff, and to many graduate students at the Universities of California (Irvine) and Massachusetts (Amherst). I also wish to express thanks to the National Science Foundation for support for this research under grant BNS 8519320, and to the University of California at Irvine for additional research support. Last, I could not have carried out the mechanics of manuscript production without the patience and cheery support of Jean Symonds and Carol Giangola.

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**Contents**

Analytical Table of Contents	ix
Preface	xvii
<b>PART I</b>	
<b>The Basic Account</b>	<b>1</b>
<b>Chapter 1</b>	
<b>Introduction</b>	<b>3</b>
<b>Chapter 2</b>	
<b>The Evidence in Favor of Underlying Events</b>	<b>13</b>
<b>Chapter 3</b>	
<b>Event Ontology and Logical Form</b>	<b>20</b>
<b>Chapter 4</b>	
<b>Modifiers</b>	<b>40</b>
<b>Chapter 5</b>	
<b>Thematic Roles</b>	<b>68</b>
<b>Chapter 6</b>	
<b>Causatives and Inchoatives</b>	<b>105</b>
<b>Chapter 7</b>	
<b>Explicit Discourse about Events</b>	<b>127</b>

**PART II****Reflections and Refinements 143**

---

**Chapter 8****Metaphysical Issues 145**

---

**Chapter 9****The Progressive in English: Events,  
States, and Processes 167**

---

**Chapter 10****States 186**

---

**Chapter 11****Tenses and "Temporal"  
Adverbials 207**

---

**Chapter 12****The Semantics of the Perfect and the  
Progressive in Modern and Old  
English 229**

---

**Chapter 13****Eventlish—A Fragment of  
English 257**

---

**Afterword 281****Notes 282****Bibliography 320****Index 329**



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# Analytical Table of Contents

## PART I

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### The Basic Account 1

#### Chapter 1

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##### Introduction 3

The area of investigation of this book is “subatomic semantics,” the study of those “formulas of English” that are treated as atomic formulas in most logical investigations of English. The main hypothesis to be investigated is that simple sentences of English contain subatomic quantification over events. Examples are given of linguistic phenomena to which this hypothesis is relevant. The methodology employed in this study is discussed, along with the notion of logical form.

#### Chapter 2

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##### The Evidence in Favor of Underlying Events 13

The theory under investigation attributes to ordinary sentences of English (such as ‘Brutus stabbed Caesar’) logical forms that quantify over events. This chapter reviews some of the data of language that make such a theory plausible, setting the stage for a more detailed in-

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##### 1.1

---

##### Background 3

##### 1.2

---

##### Subatomic Semantics 8

##### 1.3

---

##### Methodology 9

##### 1.4

---

##### Logical Form 11

---

##### 2.1

---

##### The First Kind of Evidence: The Logic of Modifiers 13

---

##### 2.2

---

##### A Second Kind of Evidence: The Logic of Perceptual Idioms 15

---

##### 2.3

---

##### Implicit and Explicit Talk about Events 17

vestigation in later chapters. The evidence includes the logic of modifiers, the semantics of perceptual statements, the relations between implicit and explicit reference to events, and quantification over events. The chapter concludes by noting the robustness of the major hypothesis: its usefulness in tying together a wide variety of apparently diverse phenomena.

**Chapter 3**

**Event Ontology and Logical Form      20**

The tradition in the literature that distinguishes events, states, and processes is discussed and the distinction between events and states is singled out as important (postponing processes until chapter 9). Various ontological assumptions about events and states are articulated: they have participants, they are particular (as opposed to generic), and they culminate or hold. These notions are used in attributing logical forms to sentences of English. The English tense system is discussed, as well as the differences among states, facts, and propositions.

**Chapter 4**

**Modifiers      40**

This chapter begins by classifying modifiers in order to isolate “verb modifiers,” which are to be construed as predicates of underlying events. The next two sections discuss various issues connected with verb modifiers: attributives, scope, conjunctions of modifiers, and the treatment of group NPs. Section 4 discusses various alternative ac-

2.4	
Explicit Quantification over Events	18

2.5	
Robustness	19

3.1	
Events, States, and Processes	20

3.2	
Ontological Assumptions and Logical Forms	21

3.3	
Tenses and Times	27

3.4	
More Details about Tenses	28

3.5	
States, Propositions, and Facts	31

3.6	
Tests for Distinctions among the Categories	34

4.1	
Classification of Modifiers	40

4.2	
Attributives	42

4.3	
Group Readings, Scope, and Conjunctions	45

4.4	
Alternatives to the Underlying Event Account	50

counts of the semantics of these modifiers; most of these accounts are either incomplete or incorrect. The chapter concludes with a discussion of modifiers other than verb modifiers.

**Chapter 5**  
**Thematic Roles 68**

The theory of thematic roles in linguistics holds that the subject and the direct and indirect object positions of NPs in sentences are surface clues to underlying relations between those NPs and the verb. Within the theory of underlying events, thematic roles are seen as relations between events and their participants, with certain participants seen as Agents of events, others seen as Patients (“Themes”), and so on. Section 4 extends the account to some phenomena concerning motion and location modifiers, such as the relation between ‘onto’ and ‘on’, and the possibility of multiple thematic roles. Objections to the theory are discussed. The theory is then extended to an account of the passive. Sections 7 and 8 discuss the significance of the use of thematic relations, as well as alternative accounts that are agnostic about thematic roles.

**Chapter 6**  
**Causatives and Inchoatives 105**

Causatives are certain verbs that are paraphrasable in terms of ‘cause’, such as ‘break the window’ = ‘cause the window to break’. Inchoatives are verbs that are paraphrasable in terms of ‘become’ plus an adjective, such as ‘melt’ = ‘be-

**4.5**  
**Distinguishing Kinds of Modifiers 62**

**5.1**  
**Thematic Roles in Grammatical Theory 68**

**5.2**  
**Thematic Roles with Underlying Events 72**

**5.3**  
**The Basic Account 73**

**5.4**  
**Enhancements 77**

**5.5**  
**Objections to the Use of Thematic Roles 83**

**5.6**  
**Passive Sentences 91**

**5.7**  
**The Utility of Thematic Relations 93**

**5.8**  
**Cross-Verbal Thematic Roles 99**

**6.1**  
**Introduction 105**

**6.2**  
**Causatives in the Generative Semantics Tradition 107**

**6.3**  
**An Analysis of Causatives in Terms of Events 109**

come molten'. This chapter analyzes causatives and inchoatives within the framework of the theory of underlying events and states. Sections 2-4 develop an analysis of causatives, building on early ideas from Generative Semantics. Section 5 discusses and rejects the possibility of a simpler account in terms of thematic roles. An analysis of inchoatives is given, and then the two accounts are combined in an account of causative-inchoatives. Section 8 discusses various complexities of how modifiers relate to causative-inchoatives, including discussion of locutions such as 'hammer the metal flat', 'open the door partway', 'load hay on the wagon'. The last section discusses alternative versions of the account.

**Chapter 7**

**Explicit Discourse about Events 127**

English has a wide variety of locutions that are used to refer to and to quantify over events: terms such as 'Mary's singing', 'the destruction of the city', 'the accident that occurred last night', and so on. This chapter links these locutions with simple sentences of English. The first two sections develop an account of NPs that contain explicit reference to events, such as 'the stabbing of Caesar'; the remaining sections discuss sentences in which we use these locutions to say things about events. The last section discusses modifiers of verbs that apply to events.

**PART II**

**Reflections and Refinements 143**

6.4	Objections to the Analysis of Causatives	112
6.5	An Incorrect Analysis Based on Optional Thematic Relations	117
6.6	Inchoatives	118
6.7	Causative-Inchoatives	120
6.8	Modifiers of Events and Modifiers of States	120
6.9	An Alternative Version of the Theory	124
7.1	Basic Principles	127
7.2	Nominal and Verbal Gerundives	132
7.3	Intransitive Event Verbs: 'Occur', 'Happen', 'Take Place'	135
7.4	Event Causatives	138
7.5	Event Perceptions	140
7.6	Transitive Event Verbs	140

**Chapter 8****Metaphysical Issues 145**

This chapter begins by reviewing what the theory tells us about events and states. Section 2 articulates various notions of reductionistic accounts of events and states and explains why such accounts are not given in this book. Sections 3 and 4 summarize issues in the philosophical literature about *fine-grained* versus *coarse-grained* accounts of event identity. (Fine-grained accounts distinguish actions finely, with extreme versions holding that “the singing” and “the loud singing” are different actions. Coarse-grained accounts would identify “my handwaving” and “my signaling” when I signal by waving my hand.) The theory developed here falls midway between these extremes. The last two sections discuss and criticize attempts to defend coarse-grained accounts by modifying the underlying event account.

**Chapter 9****The Progressive in English: Events, States, and Processes 167**

The first goal of this chapter is to formulate an adequate account of the semantics of the progressive aspect in English: the semantics of ‘Agatha is making a cake’, as opposed to ‘Agatha makes a cake’. Some proposals in the literature are reviewed; all have difficulty with the so-called “imperfective paradox”, that ‘Mary is building a house’ might be true even if she is interrupted in her building, so that ‘Mary has built a house’ is never true. Section 2 contains an account of the progressive in terms of underlying events,

**8.1****The Nature of Events and States 145****8.2****Reductionistic Accounts of Events and States 148****8.3****Event Identity: Fine-Grained and Coarse-Grained Accounts 153****8.4****Arguments from the Philosophical Literature 159****8.5****Defenses of the Coarse-Grained Version Involving Postulation of Underlying Basic Actions 161****8.6****Defenses of the Coarse-Grained Version Involving Postulation of Universal Causative Analyses 163****9.1****History of the Problem: The “Imperfective Paradox” 167****9.2****An Analysis of the Progressive Using Events 170****9.3****Absent Processes and Unfinished Objects 172****9.4****Interval Semantics: Bennett’s Refined Analysis 179****9.5****Processes and the Progressive 182**

an account that is immune to the imperfective paradox. Sections 3 and 4 consider some objections to the analysis as well as other proposals by Dowty, Åqvist, and Michael Bennett. The second goal of the chapter, taken up in the last section, is to refine the notion of a process so as to account for the infamous “category switch” problem: how it is that modification of a verb like ‘run’ by an adverbial like ‘to the store’ can turn a Process phrase (‘run’) into an Event phrase (‘run to the store’).

**Chapter 10**

<b>States</b>	186
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This chapter explores the idea that state sentences involve quantification over underlying states. The theory defended is that state verbs, adjectives, and locatives are all predicates of states but that nouns are not. The chapter concludes with an examination of puzzling sentences like ‘The series converges rapidly’ and ‘The road from A to B goes uphill’.

10.1	
Introduction	186
10.2	
State Verbs	188
10.3	
Adjectives	190
10.4	
Locatives	194
10.5	
Explicit Reference to and Quantification over States	198
10.6	
Do Nouns have Underlying States?	200
10.7	
Participants of States	202
10.8	
States in Arithmetic	203
11.1	
Overview of Tenses and “Temporal” Adverbials	207
11.2	
Frame Adverbials	211

**Chapter 11**

<b>Tenses and “Temporal” Adverbials</b>	207
---	-----

This chapter is concerned with various sorts of temporal adverbials and

how they interact with underlying events. Certain of these (Frame adverbials) set up a “frame of discussion”; they are discussed only briefly. The role of tenses is to constrain certain times at which events and states occur. Some adverbials constrain the same times that the tenses constrain. Certain other temporal modifiers constrain the events themselves. Frequency adverbials quantify various things in the sentence, sometimes constraining times and sometimes constraining events.

**Chapter 12**

**The Semantics of the Perfect and the Progressive in Modern and Old English    229**

The perfect (as in ‘Mary has eaten’) is seen as adding a component to the sentence in addition to the tense. Accounts of the progressive and perfect are given in terms of states associated with events (or with states). Verbs, as usual, pick out events; the progressive is true if the “In-Progress” state associated with the event holds, and the perfect is true if the “Resultant” state associated with the event holds. These correlations explain the equivalence of the present perfect and the simple past when temporal adverbials are absent (e.g., ‘Agatha ate’ versus ‘Agatha has eaten’). There follows a discussion of a popular view according to which the modern forms of the perfect and progressive evolved from certain adjectival uses of participles in Old English. This view is formalized, and the relation between the old and new forms according to the popular view is clarified, and

11.3	
Tenses	212
11.4	
Constraints on Times	215
11.5	
Temporal Modifiers of Events	221
11.6	
Frequency Adverbials and Subordinate Clauses	224
11.7	
Interactions	227
12.1	
The Perfect in Modern English: Data	229
12.2	
The Semantical Framework of Underlying Events and States	231
12.3	
The Progressive and Perfect in Modern English	233
12.4	
Participles as Adjectives	236
12.5	
The Progressive and the Perfect in Old English	239
12.6	
Unsolved Problems	246
12.7	
Skeptical Reflections on Participles	250
12.8	
Temporal Adverbials	253

some further problems are discussed. The last section discusses how the perfect interacts with temporal adverbials and provides a slight repair to the theory of the progressive.

### **Chapter 13**

#### **Eventlish—A Fragment of English    257**

This chapter gives many of the details needed to formalize the theory. A series of templates is provided to permit the generation of atomic formulas of English, exploiting information about particular pieces of vocabulary contained in a Lexicon.

#### **13.1**

Introduction    257

#### **13.2**

The Templates    259

#### **13.3**

The Lexicon    263

#### **13.4**

Miscellaneous Matters    270

#### **13.5**

Simple Passives    272

#### **13.6**

Perception Sentences    273

#### **13.7**

Inchoatives    275

#### **13.8**

Resultative Tags    276

#### **13.9**

Causatives    277

#### **13.10**

Higher-Order Constructions with Causative Verbs    278

#### **13.11**

Higher-Order Verbs    279

#### **13.12**

Copular Sentences    279



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## **Events in the Semantics of English**